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## EDITORS AND PROPRIETORS:

A. H. WRIGHT, B.A., M.B., M.R.C.S., England.

J. E. GRAHAM, M.D., L.R.C.P., London.

W. H. B. AIKINS, M.D., L.R.C.P., London.

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## Original Communications.

### AN ADDRESS ON ABDOMINAL SURGERY.

BY LAWSON TAIT, F.R.C.S., ENG. & EDIN.

Delivered before the Canada Medical Association, Montreal,  
August 26th, 1884.

*Mr. President and Gentlemen:*

Every gardener knows that a plant long grown on the same soil rises or sinks or somehow or other gets to a level from which it varies not so long as its conditions remain the same, and he knows as well that if he takes that plant to a new soil which suits it—if he grows it under new conditions—its growth, change, and development are practically endless. What we know of plants is, within limits, true of humanity; and if we require proof and illustration of this, where need we go but to this endless continent of yours.

I am not at present concerned with natural boundaries created by languages which come from Sweden and Poland, Denmark and Scotland, Russia and Ireland, which temporarily limit intercourse between different peoples who perhaps settled here. Still less do I trouble about a line on the map which marks a practical Republic on the south from a splendid Democracy on the north. I have only to do with the great fact of human history—I think the greatest fact—that from out of the troubles and distresses of our eastern countries, or out of countries oppressed by over-population, and still more by the effete policies of governments

of past centuries dislocated into modern life, from these there has come a great country and a great people, whose growth, change, and development promise to be practically endless.

Of my own country and my own people you will not expect me—you would not wish me—to say anything disparaging. We are an old and a respectable race, and, by virtue of your descent, you share that age, and you have brought over with you a full measure of the respectability. But in transit you have lost that questionable virtue of extreme conservatism which we retain in every conceivable phase of life. We used to have mail coaches protected against robbers by armed men, properly called guards, and we continue to call our railway servants guards without the slightest reason save that they seem to be in some fashion successors to the blunderbus-bearers of the eighteenth century. On the other hand, you very properly call the same officials conductors. We still build our railway carriages in compartments fitted to hold six people, confined boxes that are stuffy, inconvenient, wasteful of room, and dangerous, and we do this only because one hundred years ago we built our stage coaches on the same pattern, and we thought, and we continue to think, that by sticking three of these old coaches end to end we must of necessity construct the very best kind of vehicle for railway travelling. Untrammelled by tradition, you have continued to build carriages far more convenient and suitable in every way. You have even sent them over to England for our use some ten

years ago, but they had actually to be removed from our railways because the public would not use them.

I might gather further illustrations of this intensely conservative spirit which governs everything English. I might wander into the regions of politics and religion and hundreds of other sources, but I prefer to take one of which I can speak at length and in detail—one upon which I believe, if I read aright the compliment you pay me by asking me to appear here before you, I can speak with some authority.

In my youth the medical education of a British student was not considered complete unless he had made a tour of the schools of France and Germany, and, like others, I felt of myself as was said of Proteus :

“ ‘Twould be a great impeachment to his age  
In having known no travel in his youth.”

But I wish now that the time and money therein spent had been directed to the western instead of to the eastern continent. And I now predict that ere long it will be to the medical schools of America that our students will travel, as did the apprentices of old before they settled down to the serious exercise of their craft.

For many years past I have been visited by numbers of my professional brethren from this side the Atlantic, many of whom have settled down for days and weeks, and even months, to see my work. I have been overwhelmed by the kindest invitations to visit this continent, but till now I have never ventured across. This delay is an instance of British conservatism, for it is very little the fashion amongst us to take long holidays. I have not had a holiday for seven years, and only the most eminent doctors in England take an annual outing ; but on this side I find that none of you think much of a trip across the water, involving leaving your businesses for three or four months, and, from what I have heard, the struggle for existence is as keen as it is with us, perhaps keener.

My American visitors have, one and all, impressed me with the feature of mind which I fear in England we do not possess—the power

of judging any question solely upon its merits, and entirely apart from any prejudice, tradition, or personal bias. No matter how we may struggle against it, tradition rules all we do ; we cannot throw off its shackles, and I am bound to plead guilty to this weakness myself, perhaps as fully as any of my countrymen may be compelled to do. I may have broken free in some few places, but I know I am firmly bound in others ; and my hope is, that my visit to a freer country and a better climate may extend my mental vision.

To come to my intended illustration, let me briefly remind you of the early history of abdominal surgery. The first operation for the removal of an ovarian tumour was performed unwittingly, in 1701, in a Scotch village ; for Robert Houston began there a tapping, and finished by making a successful ovariectomy. It was not till 1809, eighty-six years after Houston's case was published, that his example was imitated, and even then it was not in Europe, but in the fresh soil of the backwoods of Kentucky that the young seedling obtained its first full growth, and from that time and from this country dates the history of abdominal surgery. But how slow the growth ! In 1863 I heard my master, the Professor of Surgery in the University of Edinburgh, settle all this vast field of human progress in these few words : “ Abdominal surgery is abominable surgery.” Syme, the greatest surgeon by far with whom I have ever come in contact, shared the views of his colleague in this matter, and I fear that in both the sentiments originated far less in the merits of the question than in their mutual dislike (almost the only sentiment they had in common) of John Lizars, who, having read Macdonald's manuscript when it was sent to John Bell, was immensely struck by the success of the heroic Kentuckian, and was desirous of following his brilliant example. Most unfortunately for humanity, the success of Lizars was of a very doubtful kind, and abdominal surgery had to wait for the advent of Dr. Charles Clay and Mr. Isaac Baker Brown. The story of the latter brilliant and unfortunate surgeon is now a twice-told tale, and I can only repeat what I have said at length elsewhere—that his disastrous downfall was a misfortune

for humanity, delaying as it did the progress of abdominal surgery for fully a quarter of a century. The whole question of this progress lay in the peculiarly narrow issue as to whether the pedicles of ovarian tumours should be dealt with inside the peritoneum or outside it. Here, again, the new country was first in the race; for between 1820 and 1830 the decision in favour of the intra-peritoneal treatment was given in America in such a way that the question ought never to have been reopened. The arbitrament of abdominal surgery between 1866 and 1876 was left in the hands of a man still living, and he carried through his practice a mortality so heavy as to be absolutely prohibitive of fresh enterprise. Mr. Baker Brown left off practice in 1866 with a mortality of ten per cent. with the cautery, whilst, after operating on a thousand cases, Mr. Spencer Wells had a mortality of twelve per cent. in the last hundred with the ligature, and over the whole thousand the mortality was exactly twenty-five per cent. With such results as these, the marvel is not that the conservative surgeons cried out twenty years ago that the craft was in danger, but that the removal of ovarian tumours ever became an accepted operation at all.

As I have said over and over again, as I shall never tire of saying, to Keith is due the whole credit of the modern development of abdominal surgery, and it has ever seemed to me specially hard that while wealth and a title has been the lot of the man who had done nothing but obstruct progress, yet to the author of our present proud position nothing has come save a good deal of misrepresentation and abuse.

In 1878 the doctrines and practice of Lister, after twelve years of preaching on the part of Mr. Lister, had penetrated to London and were taken up by Mr. Wells and his assistants. I had practised all the details in their ever-varying form, as recommended by Mr. Lister, from 1866 onwards, and gave them up one after another as I found they disappointed and hindered me. Finally I gave the spray and its adjuncts a long and complete trial—a trial far more careful in its details than anything I ever saw elsewhere, extending over three years. I have published in detail the disastrous results of this experiment, and at last gave up all these

unnecessary dangers, and, since January 7th, 1881, my practice has been entirely free from all these details. Since then my example has been followed by Dr. Keith, Dr. Bantock, and by my colleague, Dr. Savage, and the only surgeon now who uses the Listerian details for abdominal surgery is Mr. Knowsley Thornton. He still claims for Listerism the most of our present progress, in spite of the fact that Keith, Bantock, Savage, and myself have all far better results without Listerism than Mr. Thornton has with it. Mr. Thornton went so far recently, in a communication to Dr. ———, which that gentleman published, as to say that his (Mr. Thornton's) bad results in hysterectomy were due to the fact that in this operation the Listerian details could not be effectually applied. But the facts of the practices of Mr. Thornton and Dr. Bantock, the two surgeons to the Samaritan Hospital, settle this question when they are contrasted. Mr. Thornton uses the Listerian details for hysterectomy as well as he can, and in twelve cases he has had five deaths, while Dr. Bantock does not use the Listerian details at all, and in twenty-two cases he has had only two deaths. The explanation of the difference will be evident to every one who has seen both of these gentlemen operate. To see Dr. Bantock do a hysterectomy is a lesson in surgery, and one from which I learnt a great deal.

To see my own work, I have been honoured with the visits of a large number of surgeons of this continent, some of whom I see here now. I believe they, one and all, came with a belief that they would find I had some secret anti-septic agent, the use of which was the explanation of my success. If I have such an agent, it must be of universal existence in nature, for I have made some of my visitors take the water from the tap and put it into the basins for the sponges, and over the instruments and into the abdomen. I have made them drink it and have offered it to them for analysis, and, so far, I have not been detected in any magic exercise. My visitors always ask to what I attribute my success, and I answer that I cannot tell. They frequently suggest that it is climate. My answer is that our climate is the most variable and uncertain—the worst in the world. It is not fresh air, for the great majority of my

operations, and always the worst, are done right in the middle of a large manufacturing town.

If I may formulate my own answers, they would be briefly to this effect: I have given up my life to this work, and I engage in no other kind of practice; therefore I have a constant weekly experience of five or six of these operations, sometimes as many as eight or ten. I pay the most minute attention to every detail, and maintain an absolute rule of iron over my nurses and my patients. I will not, if I can avoid it, operate in a private house, for there I have no control over either nurse or patient, still less over foolish friends. I can best illustrate the extent to which I carry discipline by telling an incident which occurred recently of a kind of which I have had a few, but not many, experiences. For my private hospital I have a rule that when a patient is admitted she must go to bed immediately. A lady with an ovarian tumour arrived, after a journey of some hundreds of miles, and was asked by the nurse, told off for her, to go to bed. She said she would not do so until she had seen me. The nurse assured her that I would not come near her till she was in bed. The patient remained obstinate and I sent a message to her that she must either go to bed or go home again, and she elected to do the latter, with much satisfaction to myself. She doubtless thought, and you may think, the rule in question is an absurd one, but the absurdity is only on the surface. It is a test of the patient's obedience and confidence in me, and I know very well that with a patient who begins by disputing my orders and doubting the wisdom of my directions, I never could get on, and therefore it is better for both that we should have an early parting. My nurses I always train myself—in fact, I will not have one who has had previous experience, for I know very well that such a woman will inevitably, to save herself trouble, do something in a way she has done elsewhere, and probably for some purpose altogether foreign to my intention, and will therefore become to me a source of danger and annoyance.

Finally, I gave great personal attention to cleanliness in every detail of my work. I trust no nurses or servants without overlooking, and

am constantly and at unexpected times turning up carpets, taking down shelves, and rooting out cupboards. In this way, and by a process of weeding, I have obtained a large staff of good servants, and have formed a large establishment in which every available precaution is secured. I can give no other reasons than these for my success, and probably they will commend themselves to you.

There are some causes intrinsic to the work itself from which the success has sprung to a large extent, and of which a few words may here be said with advantage. The first, of course, is the discontinuance of the clamp, of which I have said a great deal elsewhere. Whatever Sir Spencer Wells may say to the contrary, neither with nor without Listerism would anybody go back to the clamp. But the curious thing is that, from our recent experiences in hysterectomy, it would appear that it is not so much the clamp that has been to blame as Mr. Spencer Wells' method of using it. Hysterectomy must always be a more serious operation than an ovariectomy. But Dr. Bantock has now obtained better results in removing the uterus with the clamp than Mr. Spencer Wells ever got in removing simple ovarian tumours, and we must bear in mind that Mr. Wells always insisted that he used the clamp for his simplest cases with long and easy pedicles.

Puzzling over this mysterious and startling contrast, I went to see Dr. Bantock operate, and amongst other things I found he had given up using perchloride of iron for the purpose of tanning the stump. I asked him why he had done so, and he told me he was quite sure that the use of the perchloride of iron had added greatly to the mortality of the clamp, because with a thick pedicle secured by a clamp it is impossible to accurately close the abdominal wound and prevent draining into the cavity. I did not at once accept Dr. Bantock's explanation, but I determined to use the perchloride no more. Like everybody else, I was prejudiced in favour of the statement made by Mr. Spencer Wells, that a putrifying stump would poison the wound; and therefore I could not make up my mind to allow it to remain without some kind of interference. Years ago, in blaming the clamp for our high mortality, I

had pointed out the likelihood of this incomplete closure as being one of the causes, if not the chief cause, of death; but I certainly did not suspect the perchloride of iron as being the fatal agent. A few days after my interview with Dr. Bantock I had to perform a hysterectomy, and I dressed the stump with crystals of thymol. The patient died of peritonitis on the fourth day, and that the thymol had trickled into her peritoneum we had proof enough. Since then I have done a hysterectomy without dressing the stump at all, and the patient has done perfectly well. It will be curious, and no less instructive, if we find Dr. Bantock to be right, and that the use of perchloride of iron, the only contribution Sir Spencer Wells has ever made to abdominal surgery, should turn out to be the cause of his tremendous mortality. In any case, it is a remarkable example of how absurdly we are all governed by *a priori* statements absolutely void of any argument in support of them, and having been made by some one with an authoritative name and position, are accepted without doubt. If Dr. Bantock's brilliant results are obtained by others in the same way, then we have been going on destroying women with perchloride of iron merely because Mr. Spencer Wells said we should use it.

As the whole aspect of abdominal surgery is, at the present moment, controversial—as the progress and practice of this part of our art form the chief objects of my life, you need not be surprised if I have made this address somewhat of a polemic. The greatness of the opportunity—the fact that an address given to you will be read where mere utterances of mine would be passed by—obliged me to take advantage of the opportunity you have given me, and to carry on the discussion. The course of this particular line of work has, as you are all aware, taken a sudden bound of activity within the last few years, and the reason is a very simple one. The immense success of the removal of ovarian tumours such as threatened to destroy life with absolute certainty, which followed the efforts of Baker Brown and Keith, led some of us, myself especially, to venture into regions where life was not necessarily, or, at least, not apparently threatened, but where suffering was

persistent and unendurable, and where the sufferers had been proved by protracted trial to be outside the powers of ordinary remedial measures. In a recent paper by Sir Spencer Wells, published in the *Medical Times and Gazette*, the argument is completely dislocated and put in an altogether — fashion, and therefore I must here give a little attention to the views of that writer. He tells us that ovariectomy had, at one time, a mortality of 70 or 80 per cent., but I know not whence he gets his information. Doubtless it would be possible to find occasional examples of surgeons with a limited experience having such a heavy death-rate, but such an isolated case would not yield a fair statement of the facts. I read a few months ago in an *American Medical Journal* that in Italy there had been 100 cases operated upon with 63 deaths, and the newspaper recorded the fact that 34 surgeons were engaged in the sanguinary work. But when the work of men who can be called ovariectomists is examined, no such results are seen. Charles Clay was the first man who did ovariectomy in England, and his maximum of mortality in his first series of cases was 40 per cent., and it speedily fell to 25 per cent., and this is pretty much what has been recorded by Sir Spencer Wells of his own practice.

In the paper of which I am speaking, Sir Spencer goes on to say that “afterwards, when the strictest hygienic precautions were supplemented by antiseptics, and improvements in operative details were generally adopted, success became so great that ovariectomy not only took its stand as by far the most successful of any capital operation in surgery, but the risk attending it in a favourable case could truly be calculated as little, if at all greater, than that attending any case of natural child-birth, and, as a necessary consequence, early operations can be advised with less hesitation.” The statements in this quotation are wrong from beginning to end. In the first place, the mortality of ovariectomy in the hands of Keith and myself still remains at or about three per cent., and we have shown the least mortality yet available. The mortality of natural labour, on the other hand, is certainly not .25 per cent. The statement that a diminished mortality has led to early operations ought to be exactly

reversed, for it is the early removal of tumours and the discontinuance of tapping which have largely contributed to our present splendid results. Sir Spencer Wells' teaching inculcated the practice of tapping and its repetition until the patient was within measurable distance of the grave, but his successors have reversed all this with infinite advantage to their patients, and we now look upon tapping as a sort of surgical crime. This material alteration in practice led us, step by step, in the direction I have indicated, and we began to discuss the greater advantage to which I have just alluded. Every specialist is familiar with the large class of miserable women who wander about from hospital to hospital, or from consulting-room to consulting-room, seeking relief from their ailments unavailingly.

Let me take the first class to which Sir Spencer Wells alludes in his recent paper on cases of uterine tumour. There can be no doubt but that there are hundreds of uterine tumours that give no trouble at all, but these are not the cases that come to us. If a woman has no pelvic trouble, she does not present herself to the gynecologist, and if she has a uterine tumour which gives rise to no symptoms, that tumour, of course, remains undiscovered. But when she suffers from distress occasioned by pressure on viscera, from severe hemorrhage, or increasing size, she comes to us and asks for advice. Suppose we find her suffering from a uterine myoma, what are we to do? The answer to this question is like the answer to every other of a similar kind. If the tumour is small, the woman comparatively near her climacteric, and the hemorrhage such as can be moderated by a rest in bed and the use of ergot, then she can be advised to let the tumour alone; but if the woman be not near her climacteric, and the hemorrhage does not yield to treatment, especially after a fair trial of treatment, the tumour is found to be actually going on, then surgical treatment is demanded.

Of course, each practitioner of medicine does, and always must, carry on his work in his own way, and there can be no doubt that within certain limits the measure of his success stamps the rightness or the wrongness of his methods. James Syme used to teach us that there were

three methods of conducting our professional business, but that there was only one way to real success. He said there were three interests involved. The first in order is that of the patient; second, that of the professional colleague; and third, that of the practitioner himself. Syme insisted that the several interests should be rigidly kept in the order in which he placed them, or things would be sure to go wrong. I have never heard sounder advice. I have never lost sight of it, and so far as within me lay I have striven to follow it. In the proposal of a new proceeding two dangers clearly occur. The first is that of the enthusiastic upholder of the novelty; he may be disposed to run too fast on the new line. The second is that of the obstructive who, merely a believer in the times that are past, can see no possibility of their improvement. For the first danger the remedy is a wholesome scepticism, leading into just and careful criticism; the remedy for the second is more difficult, for it involves the patient endurance of much misrepresentation, and a protracted combat upon the points of criticism which have no weight in themselves, and have an importance gained only by persistent reiteration. In the line of practice of which I am about to speak, the point most persistently urged against our new line of practice is that unnecessary operations are performed. Now, this is an argument which it is extremely difficult to argue upon, because those who speak on the two sides of the question start from altogether different standpoints. Those of a past generation, like Sir Spencer Wells, apparently regard it as justifiable to perform operations in this department of surgery only when life is pronouncedly in danger; we, on the contrary, of the younger school, believe we are justified in extending our practice for the relief of suffering, and we regard this as a higher function than that of the mere saving of life. To end the discussion on this point, I would point out that our critics endeavour to apply an arbitrary rule for the repression of abdominal surgery which has never yet been applied in any department of the art. Let me ask, if we find a man suffering slightly with the early symptoms of a small calculus, do we not at once proceed to relieve

him by removing it from his bladder? In fact, in the domain of what is called general surgery, has it not become the established practice to perform operations which are accompanied by very considerable risk of life merely for the rectification of deformities, such as bowed-legs and knock-knees, which have not the remotest risk of life attached to them, and which involve no kind of suffering. The ultimate court of appeal comes then to be the patient's own decision, and I do not find that persons prefer to go on suffering pain and the disabling effects of profuse loss of blood rather than submit to a surgical operation, the details and effects and ascertained risks of which are completely and candidly placed before them.

In the treatment of uterine myoma two alternatives occur, and these are both the subject of very hot discussion on my own side of the Atlantic; they are the removal of the uterine appendages, and the removal of the uterine tumour itself by the so-called supra-vaginal hysterectomy.

No one in Europe, at least only one so far as I know of any importance, doubts that removal of the uterine appendages arrests menstruation completely in the great majority of cases, arrests the growth of uterine myoma generally, and in many instances causes it to entirely disappear. Mr. Knowsley Thornton, Dr. Savage, Professor Hegar, myself and others, have reported numerous cases in detail. I have published a long series in the *American Journal of Medical Science*, but Sir Spencer Wells dismisses us all in the brief sentence: "Vague, unsupported assertions have little influence upon the opinion of a thoughtful or a sceptical profession." Sir Spencer Wells must pass his retirement in some other occupation than in perusing the modern literature of his speciality, and therefore his criticism need hardly engage our attention.

The great majority of cases of uterine myoma, which come to us for surgical treatment, can be quite satisfactorily dealt with, and it is an operation having a small and steadily diminishing mortality. Since 1878 I have performed it many times with few deaths, but am unable to give the exact figures just now. The arguments used against it are, first, that of its mortality,

but this mortality is the inevitable result of early work, and is therefore not a permanent objection. It was an objection urged twenty-five years ago against ovariectomy, but it no longer holds good against that operation. The second objection is that myoma itself is not a fatal disease, but this argument is not in harmony with my own experience. Even if it were a just one, however, it is admirably met by the plea entered at Ryde by Dr. ———, of ———, in the discussion of my paper on the subject, to the effect that it is to the rights and relief of the majority that we must have regard, and that the function of our profession does not end with the saving of life, but is chiefly that of relieving suffering.

Two other objections have been urged generally against the removal of uterine appendages—that it sterilizes and destroys the patient's sexual appetites. Of course, a woman is completely sterilized by a uterine myoma ninety-nine times out of a hundred, so that the process of complete destruction of fertility is a matter of little moment. The other objection has been shown to be perfectly groundless, but even if it were not so, it could hardly be urged on the ground of morality that a woman should go on suffering because she ought not to suffer any diminution of that animal propensity which it is the chief object of the higher life of all religious culture to subject, and the subjection of which forms for all creatures the greatest difficulty in existence.

There are cases of myoma demanding surgical treatment upon which removal of the uterine appendages seems to exercise no satisfactory influence. Mr. Knowsley Thornton has made a very valuable suggestion—one which certainly deserves very careful consideration—that all cases of myoma requiring interference are first to be subjected to the removal of the uterine appendages, and then to subsequent operation if it should be necessary. The only objection to this I can offer at present is an incomplete one. I have pretty well satisfied myself that there is one form of myoma on which removal of the appendages exercises no control. The variety I have named the soft oedematous myoma. But it is not easy to recognize this form of tumour until after it has been removed. Again, there



are a few cases, very few I have found them to be, in which the appendages cannot be removed, and we must proceed to hysterectomy. Finally, the removal of uterine tumours has had such brilliant results in Bantock's hands that I am in hopes that a new era for hysterectomy is being opened out.

Another class of cases wandering about after relief are those upon whom I have operated in large numbers, and have found chronic and incurable disease of the appendages in the form of chronic inflammation of the ovary, chronic inflammation and occlusion of the tubes, these latter being occluded and distended by serum, pus, or blood. When I first published my work on this subject there was, of course, a large amount of incredulity expressed about it, and this incredulity was not much lessened by the exhibition of a large number of specimens at various societies, and their permanent exhibition in the museums of the colleges of surgeons. Many, particularly amongst my metropolitan brethren, loudly asserted that there were no such diseases, and Mr. Spencer Wells stated at the International Medical Congress in London that if such cases did occur they must all go to Birmingham. But Dr. Kingston Fowler has shown not only that they exist in London, but that they are far more fatal than I had any idea of, and that they have been and are overlooked and misunderstood in the metropolis just as they were overlooked and misunderstood in my own practice previous to 1878. Concerning this incredulity, please distinctly understand that I don't blame anyone for it. It is a necessary part of all human progress. I do not even blame my metropolitan brethren, as they seem to think I do, for not discovering these cases and properly treating them. That is the fault of the mechanical school of gynecology established by Simpson, and which still exercises a far too great influence over this department of our art. During the last twenty years displacements have had a great run, just as before that time everything was put down to ulceration, and no man considered himself properly armed for the treatment of disease unless he carried a speculum and a caustic stick about with him in his gig. The mechanical school revels in the sound and pessary, both useful

enough instruments in their proper places, but, when misused, capable of endless mischief, for many of the so-called displacements are now known to be constituted by chronically inflamed and adherent tubes and ovaries which can be relieved by removal only.

You will ask me, at starting, to tell you how this disease may be recognised, and I have to answer that their diagnosis cannot now, and probably never will, be a matter of certainty. They begin generally in some acute attack of pelvic inflammation, from which the patient dates all her troubles; and when you get such a distinct history you ought at once to be on your guard. This illness may have arisen, for instance, in a closely-confined and confessed attack of gonorrhoea; or it may be an attack of pelvic perimetritis, occurring after a miscarriage or a labour; or it may have arisen in one of the exanthematic fevers or a simple cold. In some of the cases, however, you get no clear starting-point in the history, and then the diagnosis is generally more difficult. The symptoms are usually precise enough, yet unfortunately none of them are peculiar to the condition of which we are speaking. Pain is, of course, a leading feature; indeed, it is rarely without pain as a chief incentive that patients consult us at all. This pain is complained of as being constantly present, greatly aggravated by walking, and becoming intense for some hours or days before the period, and lasting throughout its continuance. Menstruation is usually too frequent and too profuse. In the great majority of the cases the uterus is somewhat fixed, and a tender mass can be felt on one or other side of it, perhaps on both sides and behind it. When the tubes and ovaries are down behind the uterus and adherent there—and this is by far the most common condition—the diagnosis to a beginner is very difficult. Nothing looks more certain and easy than the diagnosis of subinvolution and retroflexion, and without further consideration a pessary is introduced, with no other result than that of aggravating the patient's sufferings—in fact, I may say that at this point her troubles will begin to be serious, and she will wander about to collect various kinds of instruments from various practitioners, until she ends either a

helpless and hopeless invalid or dies from an attack of acute peritonitis.

In some of my most marked and most successful cases there have been no physical signs whatever, and I have felt myself reluctantly justified in interfering only by manifest reality of the patient's sufferings.

Here let me just say a word about the much discussed question of subjective symptoms. Everybody has heard the celebrated story told of Liston—that a hysterical girl persuaded him to remove a healthy limb for supposed disease of the knee joint. But is there any other story of the kind known? If there is I have not come across it. We certainly do meet with women who will tell the most extraordinary and incredible stories about their sufferings; but the stories are so inconsequent and contradictory that there is no difficulty in discounting them. Besides, they have no support from the presence of corresponding physical signs. A woman whose story is real has a sequent narrative, and she will submit to treatment; while the woman who is a humbug flies off in a — the moment the suggestion is made that she should submit to an operation in which she risks her life. I have never yet known a woman submit to an abdominal section in whom I did not find abundant justification for its performance, even in cases where I had been extremely doubtful about its real necessity before I undertook it. I have known many patients to whom I have made the proposal as a test of their reality, and who have, much to my satisfaction, speedily taken themselves off to some other practitioner.

Of the details in these operations in these cases I have no time to speak. Indeed, I could deal with them satisfactorily only in a series of lectures. Suffice it to say that the operations are extremely difficult, for the structures are always very adherent, and the operator has nothing to guide him save the erudition of his touch. Concerning the cases of occluded and distended tubes, some of my critics have suggested, without any experience, that something short of abdominal section might suffice for their successful treatment, such as tapping the tubes from the vagina. But a trial of this proceeding long ago satisfied me of its impracticability

and its uselessness, and my growing experience confirms me in the conclusion that we have no alternative.

I am often asked concerning the subsequent history of these cases, and I am able to say I have published the details that the great majority of them are relieved at once and completely by the operation. There remains a tenderness of the stumps in some of them for some months. In four very bad cases fœcal fistulæ formed, but in two the sinuses have healed and the patients are perfectly well. In the third case the fistula opens still at occasional intervals; and in the fourth case, by far the worst I have ever had, the patient being literally at death's door when the operation was performed, the fistula still remains, some twelve months after the operation, but even here her health has so greatly improved that I am hopeful of its permanent closure in time.

I have occupied your time already at too great length, and yet have left myself no time whatever to speak of a great variety of topics within the limits of the subject of my address of which I fain would have spoken—subjects entirely novel, and full of the deepest interest alike to the practical surgeon and to him who takes but an interest of a literary kind in the progress of our art. In fact, it is a matter of regret to me that I cannot address such an audience as this in a series of lectures rather than in an address which must necessarily be brief. It is one of the great defects of a position such as I hold—a defect inherent to a special line of practice—that it practically shuts out its follower from any chance of being a teacher. Besides this, I feel strongly as acting to my own prejudice, and I am certain it is a misfortune that those who, like myself, are very largely engaged in work strictly limited to a department, can never communicate as successfully the results of their experiences as can those who are engaged in teaching. I regret, therefore, that I must pass over without mention the important field of new work which has been opened up within the last few years in the surgical treatment of the liver, spleen, kidney, and intestines. I cannot even stop to speak of many other less striking, but no less important subjects, such as the treatment of

pelvic abscesses by abdominal section and drainage, though all these are of less importance, in so far that they excite but little hostility; and what I have to say further to you I propose to limit to a brief discussion of a proposal made by Dr. Rowland Batty for the production, artificially, of the menopause for the purpose of indirectly benefiting patients from conditions more or less neurotic, the symptoms of which are apparently influenced by the recurrence of menstruation. It must be perfectly clear to the most casual observer that this is a field of an extremely ill-defined character—one which, at first sight, offers very intangible prospects of success, and in which the indications even of success must be very vague and indefinite. There can be no doubt that a large number of women suffer in such a way as to make it perfectly clear that if they were relieved from recurrent menstruation they would be improved materially, but there can be as little doubt that the application of this idea—in itself a brilliant one—requires the utmost care. I have no sympathy with stupid obstructionists who, because they scent danger in the air, would absolutely prohibit its application; but I have sufficient regard for the expression of every kind of professional opinion to recognize the necessity for the full exercise of caution. When the proposal was first made, I recognized this so fully that I selected for whatever experiments I should make in this direction a disease concerning the reality of which there could be no doubt whatever: I mean epilepsy. It is a perfectly easy thing to recognise by two facts alone any case of genuine epilepsy from mere hysterical imitation. It was, I think, Dr. John Hughes Bennett who clearly established the facts that none but the true epileptics ever seriously hurt themselves during the attacks, and that after the fits are over the epileptic is always somnolent. It is certainly the case that in a large number of cases of epilepsy in women the incidence of the disease is concurrent with menstruation. It is also true that every epileptic woman, certainly whose case I have investigated, is worse during the menstrual week than at any other time. In some cases the epilepsy is absolutely limited to those days of the month during which the menstrual

flow is in existence. It was, therefore, a perfectly easy thing to select a number of cases in which the experiment of Batty's operation seemed capable of justification. For the purpose of trying the experiment I selected six cases, and to these I have absolutely limited its application, though from the number of cases who have been sent to me for the specific purpose of having the operation performed, I suppose I might have been able by this time to have placed several series of attempts on record. The reason of my careful restriction has been that I did not care to prejudice the results of my other work by complicating it with what seemed to me a doubtful kind of proceeding, but all my care has been to some extent fruitless, for I have been persistently charged by a certain class of writers with having performed a large number of useless and unnecessary operations in removing normal ovaries from women suffering from nervous disorders. Indeed, so late as July 5th last, Sir Spencer Wells wrote the following sentences which, though they may have been intended for some one else, I cannot but suspect were levelled at me. They are as follows: "Just now something more than a word of caution against rash, dangerous, and unnecessary operations is called for. We are startled by the reports of the removal of normal ovaries of young women suffering from nervous disorders, which may be exaggerated as imaginary; and it is to be feared that our professional honour is at stake, and that abdominal surgery in its latest developments is open to the denunciation hurled against the earlier ovariologists, and that with more reason than in 1850. Lawrence's question must be repeated, whether such operations can be encouraged and continued without danger to the character of the profession, and West's assertion that the fundamental principle of medical morality is outraged, cannot now be satisfactorily refuted."

Though I am fairly familiar with the literature of abdominal surgery during the last ten years, I am absolutely ignorant of anything which can possibly justify such ridiculous exaggeration. I have publicly challenged Sir Spencer Wells to indicate the proceedings to which he alludes, and to produce the evidence upon which

he bases his charges; but up to the moment of my leaving England he had not taken up the gauntlet. It is a somewhat remarkable fact that, in another journal of the same month, the same writer actually pleaded in favour of the removal of tubercular lungs, that such an operation would be justifiable if it saved one patient in twenty of those operated on, and it seems to me absolutely impossible to reconcile such a recommendation with the denunciation I have just read. So far as my own work in Batty's operation is concerned, in not a single one of the six patients operated upon were the uterine appendages normal. Two of them were carefully investigated by independent observers, one of whom was the well-known and accomplished pathologist Mr. Alban Doran, by whom the patients were fully described, and they were figured in the *British Medical Journal*.

The results of these operations were, in the first place, that all the patients made easy and uninterrupted recoveries; the operations were performed after the most careful consultation, and with the full cognizance on the part of the patients and their friends of the results which were certain, and the entirely speculative nature of those it was hoped would be obtained. As I have already published the cases in detail, with the exception of the last, which was only performed a few weeks ago, I need not here repeat them, save in general terms, and that is to the effect that in two cases the results are such as to completely justify the proceeding. In both of these the disease before the operation was so intense that it was threatening life, but now it is almost entirely subdued, and the health of the patients has been enormously improved. In one case, the disease was arrested for a year and a half, and though it is now returning the patient has been transformed from a wretchedly, feeble and broken-down girl into a healthy and robust woman, although affected by epilepsy almost as badly as before. In two others, the disease has been greatly modified, and the health of the patients has been immensely benefited.

From this brief record it is quite a matter open for discussion as to whether the continuance of the proceeding can be recommended, and I am bound to say that I have not myself

a very strong opinion in the affirmative; but I think, if I had a daughter with feeble health, the result of pronounced menstrual epilepsy, I think I would advise her to have the operation performed. From what I have seen of it myself, I think there can hardly be any risk about it, and if performed with the precautions indicated, I do not think it can be brought under the sweeping category of Sir Spencer Wells as being either rash, dangerous or unnecessary. There is another argument, and I think one that may be said to have some moral force, in that it will assist in the prevention of the distinctly pronounced hereditary tendency of the disease, and we should at least hesitate before we entirely condemn it. Certainly a great deal more can be said for it than for the proposal of pneumotomy for phthisis, on the assumption that the removal of a lung would only save one patient out of twenty. Removal of the uterine appendages for epilepsy would probably not kill more than one per cent., and I am certain it would materially relieve fifty per cent.; it would improve the health of the great majority of patients, and I don't think it would make any of them worse than they were before the operation. I am hopeful, therefore, that the verdict of professional opinion will not be adverse to a fair and reasonable trial of Dr. Batty's proposal, and I trust that the freedom from the prejudice and the shackles of tradition which we find on this side of the Atlantic will secure for it a fair field.

And now, in conclusion, let me thank you most sincerely, and not only you, but many other professional bodies and large numbers of professional friends, for the kindly, I may say overwhelming, reception I have met with at your hands. For many months before I left home, there arrived hardly a mail which did not bring me invitations to partake of public or private hospitality, and these kind expressions of regard brought forth feelings of deep regret that my stay here could not be prolonged for as many months as it is limited in days. There is one thing in this reception I recognize above all others, and it is, that you are treating me not on account of any merits of my own, but as the representative of a large body of men in my own land to whom you have owed much in the

past, and with whom you are in the present united in a common bond of brotherhood and community of sacred purpose. I predict that in the future this union and unity will be more and more complete.

That it ever should be endangered would be a disaster for humanity. As the blunder of a century ago, which severed from the old country her most prosperous children, kept the whole progress of the world in abeyance for nearly two generations, so any future instance would be more disastrous still. God grant that we may never see it!

#### DISCUSSION ON MR. LAWSON TAIT'S ADDRESS.

Dr. Grant, of Ottawa, said he considered it a high honour for this Association to receive a visit from so distinguished a member of the British Profession as Mr. Lawson Tait. He had listened to his admirable address with the deepest interest, and had very much pleasure in moving that a very hearty and cordial vote of thanks be presented by the members present.

Dr. Brodie, of Detroit, said it gave him very great pleasure, as a member of the American Association, to join with his Canadian brethren in extending a cordial welcome to this distinguished surgeon. He heartily concurred in Dr. Grant's remarks, and would gladly second the motion.

Dr. McMillan, of Hull, England, expressed the pleasure he felt in meeting the members of the Canada Medical Association. He doubted the advisability of removing the ovaries when no objective signs were present. He thought that Sir Spencer Wells' remarks on this subject were addressed more especially to young men, whose experience might be less than their enthusiasm, and not to men of large experience. Under the circumstances such words of caution were likely to have a salutary effect.

Dr. Trenholme, of Montreal, said he had performed the operation of removal of the ovaries twelve years ago, in a case where there was severe menorrhagia and metrorrhagia, with marked benefit to the patient. In recent years he had performed the operation frequently, and the results were, as a rule, satisfactory.

Dr. Hingston, of Montreal, contrasted Mr. Tait's eulogy of Canada with Dr. Knox's abuse

of it, and agreed with the former. He congratulated Mr. Tait on his and Dr. Keith's disuse of Listerism in abdominal surgery, and thought the splendid results they had obtained were largely due to it. He thought with the speaker that the ligature should take the place of the clamp in securing the pedicle, and that the use of the perchloride of iron was a mistake. So far he was entirely with Mr. Tait, but there were some things on which he differed. He took exception to the criticism on Sir Spencer Wells, and thought that public opinion, which had pronounced unmistakably in Wells' favour, was not a bad criterion. He thought it highly dangerous to take Mr. Tait's rule for their guide as to the necessity of an operation, namely, that serious cases submit to operations and the hysterical do not. His (Dr. H.'s) experience was somewhat to the contrary; that the hysterical carried out their acting to the end, at least in America. He gave several instances of that in illustration—one especially, out of many, where he had been implored to remove the appendages in a young person—and when, on declining, the patient afterwards married, and all the symptoms had disappeared. He thought that when the objective signs were clear, no hesitation should be experienced in operating; but when the signs were altogether subjective, operations would be performed by Mr. Tait's enthusiastic disciples that were unwarrantable. This question had a moral bearing which did not crop up in some other operations. An unnecessary operation of this nature was a crime against society, and it interfered with the interests of the state. He thought sterility unnecessarily induced in this way was an unmixed evil; and subjective signs alone were misleading and not to be trusted. He did not agree with Mr. Tait that the operating surgeon could under those circumstances place the responsibility on the shoulders of the general practitioner who had advised the operation in the first instance. Responsibility properly rests in this, as in all other surgical operations, on the one called in the last instance not only to do the mechanical work, but also to counsel and advise as to its necessity. He gathered from the fact that only a few (6) out of several hundred cases of epilepsy had been selected for

operation, that Mr. Tait had not pronounced strongly in favour of the operation in these cases, and here he agreed with Mr. Tait.

Dr. Brush, of Utica, N. Y., said—He rose, with some diffidence, to make a remark or two upon the very excellent address of Mr. Tait. The subject of abdominal surgery, although falling outside of the special line in which his practice has been directed for some years—lunacy—was one in which he had always felt a deep interest. Under the tuition of Prof. Miner, of Buffalo, N. Y., his beloved preceptor, he saw some of his earlier operations which gave to the world the process of ovariectomy by enucleation, and it had been his pleasure to watch the impetus which that valuable and unique suggestion gave to abdominal surgery.

He regretted that the eloquent speaker did not refer to the removal of the uterine appendages in certain cases of insanity, to hasten the menopause—but would, however, carry with him from this meeting a large amount of encouragement in the consideration of an operation which has for a long time been the subject of his thoughtful study. Prof. Wm. Goodell, of Philadelphia, has already reported a few cases, in the *American Journal of Insanity*, in which he had successfully performed Battey's operation for the relief of insanity in patients in whom there was marked increased mental disturbance associated with the menstrual flow. With these cases in view, and bearing in mind Mr. Tait's six cases in which he operated for the relief of epilepsy, and the statement which he has made, that a mortality of not more than one in five hundred need be feared in making the operation for the removal of the uterine appendages for the relief of nervous symptoms, he would go home with increased faith in the propriety—nay, even the necessity—of the operation, in certain cases.

Dr. Heywood Smith said he quite agreed with what Mr. Lawson Tait had said as to the greater difficulty in the operation for removal of the uterine appendages as compared with ovariectomy. In coming to a conclusion as to the advisability of the operation, we ought always to bear in mind the difference between the rich and poor. A rich lady could afford to suffer—i.e., she could afford to lie up and keep quiet

and obtain medical relief, but a poor woman has to get her living, to exert herself, and could not, therefore, get that relief that was obtainable by her richer sister; in her case, therefore, the necessity for an operation was more demanded than in the case of the richer.

As to the effect of the operation on fibroid tumours, his opinion was that it was of more use in cases of soft tumours than in those of a more dense structure. We had seen cases where, after the removal of both ovaries, profuse hæmorrhage continued so as to endanger the patient's life. But in the case of severe dysmenorrhœa, the result of chronic ovaritis and subsequent morbid changes in the ovary, we are convinced that the removal of the ovaries held out the best prospect of cure.

With regard to what Mr. Tait had said as to the carbolic spray, he must say that, in his opinion, cases could be operated upon with less risk with it than without. He also occasionally used eucalyptus. He was the first to use it in ovariectomy in London. It had the advantage over the carbolic spray in that there was no noise nor wet fog. In reckoning the advantages to different operations of the spray or the reverse, we must be careful to estimate the growing experience of each operator, and not hastily set aside Listerism under the idea that it is useless or worse, when increased success may most probably be due to the increased experience in operating. As an instance of what antiseptic measures could do, he would mention that at the chief Lying-in-Hospital in London (N. British), of which he had been Senior Physician for more than twelve years, the mortality during the past three years, during which they had used carbolic spray in all the wards, and otherwise carried out strict antiseptic measures, had been reduced to .062 per cent. He would also state, in answer to the remarks of another speaker, that, as a matter of fact, the removal of the ovaries did not interfere with the sexual appetite, nor did it make women scraggy; on the contrary, many became plump after the operation.

Dr. Gardner, of Montreal, said he had been in the habit of removing submucous myomata which caused dysmenorrhœa, menorrhagia and metrorrhagia with Thomas' serrated spoon, and

would like to ask Mr. Tait if he considered the removal of the appendages more safe or more effectual in such cases.

Dr. Protheroe Smith, of London, Eng., referred to the fact that bleeding was very common in his younger days, and said he thought that the discontinuance of bleeding, by favouring congestion of internal organs, had made ovarian disease much more common in recent years.

Dr. Fulton, of Toronto, asked Mr. Tait if there were not cases in which tapping for the purposes of exploration was admissible? And if in some cases where there was extreme distension of the abdominal walls, it was not safer to withdraw only a portion of the fluid at first to reduce the distressing symptoms?

Mr. Lawson Tait, in reply, said that as Sir Spencer Wells had never been reticent in knocking other people over the knuckles, he must not expect to escape from similar treatment. Doubtless Sir Spencer would continue the discussion after his own fashion. Mr. Tait had only to say that any criticism he had ever made of Sir Spencer Wells was with most friendly intentions, dictated by an intimate acquaintance extending over many years.

Dr. McMillan and Dr. Hingston had both somewhat misunderstood what he had said about operations performed in the absence of physical signs. Those cases were absolutely limited to three cases of epilepsy and about three others in which the operation was urged, and the whole responsibility of its performance was accepted by the medical attendant in charge of the case. Such an instance was published by Dr. Ertulby in the *Lancet* about three years ago. Dr. Ertulby pressed me to perform the operation, and undertook its whole responsibility. As we found double pyo-salpinx, the operation was entirely justified. The real protection alike of patient and surgeon is the introduction of the family physician, by whose concurrence the possibility of the performance of an unnecessary operation would be reduced to a minimum.

It must, however, be remembered that surgeons who practise this department of the profession are as fallible as other human beings, and that with them mistakes must surely occur.

They are to be judged, and their works also, by the same standards applied elsewhere, and not by others of an unjust and more exacting character.

In answer to Dr. Gardner, he would say that his own experience was wholly in favour of removal of the uterine appendages as a far more safe operation than enucliation. Not only so, but as Mr. Tait had published cases where fresh tumours had grown after enucliation and removal of the appendages was ultimately required, he thought that the latter operation was in every way preferable.

Like his friend, Dr. Protheroe Smith, Mr. Tait carried a lancet, but only as a surgical curiosity; he had never used it. There could be no doubt that ovarian disease was on the increase, but he could offer no explanation of the cause thereof. It certainly did not lie in the discontinuance of the practice of bleeding.

In reply to Dr. Fulton, Mr. Tait had to say that tapping never could help in a diagnosis as an exploratory incision could, and it was quite as risky. A small two-inch incision revealed in most cases the precise nature of the tumour, and allowed all fluid to be completely evacuated, if nothing more could be done.

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## DISLOCATION AND FRACTURE OF THE BODY OF THE FOURTH CERVICAL VERTEBRA—COMPRESSION OF THE CORD—DEATH IN TWENTY-FOUR DAYS AFTER THE ACCIDENT.

BY JAMES THORBURN, M.D.

Read at Ontario Medical Association, Hamilton, June, 1884.

### HISTORY OF THE CASE.

Mr. P., aged 45—a strong, athletic man—while bathing ran into some shallow water and, plunging forward, struck his head on the bottom. His friends observing that he did not rise to the surface as usual, but floated in the water with his face submerged, brought him to the shore and laid him on his back. He had lost all sensation and power of motion of the body. He exclaimed, "I am killed—my spine is broken."

The patient was removed from the scene of the accident to Toronto, where I first saw him.

He complained of great pain in the neck and right shoulder—he had lost all power of motion of the body and extremities, and all sensation, with the exception of slight sensation on the anterior part of the chest, as far down as the third rib, and down the inner side of the arm.

The patient was quite conscious and conversed freely—pulse 68 and tolerably full. Respiration labored and diaphragmatic. Pupils much contracted and marked intolerance to light. The least motion of the head caused great pain. No irregularity in the line of the cervical vertebræ was noticed. On precussing the spine considerable pain was elicited over the site of the fourth and fifth cervical vertebræ. He expressed a desire to have his head extended; this was done by gentle extension and counter extension; this measure afforded him some temporary relief.

On the third day after the accident the pulse fell to 48 per minute, and remained about that figure throughout his illness; the temperature continued somewhat above the normal. About this time he complained of distressing sensations in his extremities and body, such as a feeling as if his legs were being crushed together, or as if his extremities were flying about in the air—feelings of crushing weight on his chest, etc.

On the fourth day the urine became alkaline, and later on ammoniacal, and contained soapy mucous, and toward the end the urine contained pus.

On the fifth day he could move his head slightly without assistance.

Priapism was a troublesome symptom, and came on the first day and continued almost until his death.

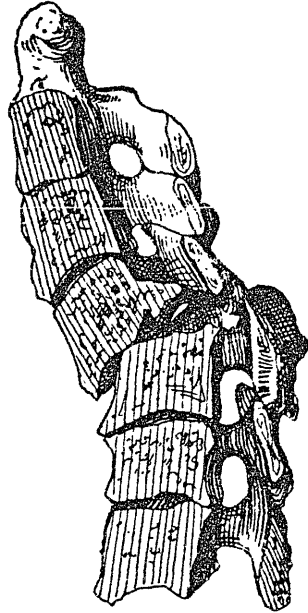
A source of great annoyance after the eighth day was intense itching of the nose, specially about the *alæ nasi*, and twitching of the facial muscles.

On the 17th day the nates showed a tendency to slough. The mind remained clear until the last, with but a slight interruption. He died on the twenty-fourth day after the injury.

*Post Mortem Examination Twenty Hours after death.*

It was discovered that an almost complete

bilateral dislocation had taken place between the fourth and fifth cervical vertebræ, with slight oblique fracture of the posterior part of the inferior surface of the body of the fourth cervical vertebra, the fourth cervical vertebra,



as is usual, being displaced forward, and carrying with it the portion of spine above it. The fifth cervical vertebra, and with it the spine below, being displaced backwards, compressed the cord between it and the posterior spinal arches; no doubt, the cord was crushed at the time of the accident, the superior articular processes of the fifth cervical vertebra being completely dislocated from and forced behind the inferior articular processes of the fourth vertebra. The intervertebral substance between the bodies of the fourth and fifth vertebra was torn through.

The membranes of the cord were but slightly injected; the medullary substance of the cord was completely disorganized. There was no extravasation of blood or effusion between the spinal membranes.

In the treatment of such cases there is quite a diversity of opinion among writers on the subject. In this case the patient was given mild fluid diet, the urine drawn off twice daily. Enemata of soap-suds and turpentine were administered and anodynes given throughout the



case when the symptoms indicated the necessity therefor.

There is some difference of opinion amongst authorities as to the propriety of and the extent to which we should have recourse to operative procedures to relieve fractures or dislocations of the vertebrae.

In the case of fracture of the posterior arches of the spinal canal, when the fragments have been driven in upon the cord, the operation for raising the fragments was first proposed by Heister and performed by Louis and Cline, but without success. Dr. Gordon, of Dublin, had a successful case. The operation has been performed thirty or forty times, principally in America. Erichsen thinks we should not discard the operation. He says, when referring to the fractured fragments being driven in upon the cord, "We are justified in removing this source of certain misery and impending death by the only means in our power, viz.: operative procedure. Sir B. Brodie, Alexander, Shaw, Malgaine, Bryant, and others disapprove of the operation of raising the depressed fragments.

Bryant says: "When the cord is much injured by the accident, the mischief has already been done, and no removal of the displaced bone can undo it or neutralize its evil."

Le Gros Clark says: "Indeed, my opinion is, that the operation has been advocated on the erroneous hypothesis that the spinal cord can be compressed without serious disintegration of its texture."

In the case of dislocation of the vertebrae when the dislocation has been unilateral, that is, the articular process on one side only being dislocated from its fellow, quite a number of instances of successful reduction might be given.

Dr. Ayres, of Brooklyn, reports the successful reduction of a bilateral dislocation of the fifth cervical vertebra; from the symptoms present the dislocation does not appear to have been complete, as the function of the spinal cord below the injury was not completely destroyed, while the dislocation was still present, showing that the cord was not very much compressed.

Dr. Hardwich, of Epsom, also had a successful case.

Mr. Tuson, of Middlesex Hospital, reports two successful cases of reduction of dislocated

vertebrae—one between the last cervical and first dorsal, the other in the cervical region; he does not particularly specify where.

In those cases where reduction has been accomplished with benefit to the patient there was no evidence to show that the cord had been seriously injured, as recovery was very rapid after the dislocation was reduced, which would not have been the case if the cord had been severely injured by compression. We know, moreover, that some cases recover without any surgical interference.

In the case presented to you there was positive evidence of most serious injury to the spinal cord at the time of the accident, as all the symptoms indicated, and which subsequently was verified by *post mortem* examination.

You will have noted that this patient lived twenty-four days after the injury; this is much longer than the average length of life after so severe an injury as the one described, occurring in this portion of the spine; the average time at which death occurs is at the end of three to six days from the time of receiving the injury.

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## LATER ANTISEPTICS IN PRIVATE SURGICAL PRACTICE.

BY N. A. POWELL, M.D., EDGAR, ONT.

Read before the Ontario Med. Association, Hamilton, June, 1884.

In discussing the treatment of wounds, a subject confessedly the most important in the whole domain of surgery, we have no longer to ask, "Shall antiseptics be used?" That question has been answered, and in its place have arisen the queries "What antiseptics shall we use?" and "How shall we use them so as to obtain for our patients the greatest safety and benefit, and for ourselves the least trouble and expense?" The principles which underlie their scientific use, and with which for all future time the honored name of Sir Joseph Lister will be associated, briefly stated, are:—1st. That in the air, in fluids, and in the dust around us there exist particulate living bodies which may gain access to any wounds not subcutaneous. 2nd. That entering a wound they are the active agents in setting up putrefactive fermentation in its discharges. 3rd. That if they are abso-

lutely excluded or are rendered innocuous, fermentative changes, with their frequently disastrous consequences, will not ensue. These principles the surgical world has, either in words, or in actions that speak louder than words, accepted as proven. Founded upon them we had till recently only that system worked out by the father of all antiseptic surgery, and known by the name of Listerism. It aims to prevent the entrance of germs into wounds, and to keep these wounds strictly aseptic. Volkman modified this by washing the germs from the wound while it was exposed, and then protecting it from them by a dressing similar to Lister's. Billroth disregards the entrance of germs into wounds, or their presence in discharges, but depends on destroying their power for evil by the presence of an antiseptic powder. While carbolic acid remained the only or the chief antiseptic, no modification of Listerism was advanced suited to the requirements of private practice. The original method of Lister, befogged with spray and enshrouded in the folds of a mysterious gauze, the proportion of antiseptic, in which might be anywhere from 5% to  $\frac{1}{2}$  of 1%, poisoning the patient or keeping his wound sodden and in an unfavorable state for rapid healing, irritating the wound till its discharges soaked through the thickest dressings, intricate, troublesome and expensive, had but one thing to commend it to the general practitioner. That one thing was the success attending its full and careful use. My practical experience with it began in 1873, in the treatment of a compound fracture. Ever since then I have followed, sometimes perhaps afar off, the practice of the Lister school. By doing so I have reached some results that by ordinary methods, I could not have hoped for. Of these I shall mention here only one series: Five penetrating wounds of the knee-joint, chiefly axe-cuts, recovering perfectly and promptly. It is but just to say that ice supplemented the action of the antiseptics in each of these cases. In the treatment of less grave wounds, I have like others been seeking constantly for simpler, safer and less costly methods. The spray I long since abandoned for the douche, and the unstable carbolized gauze for that prepared at the time of use with Von Brun's solution. But it is only

since the later antiseptics appeared and their value was demonstrated that I have felt the slightest danger of becoming a contented routinist.

Named in the order of their importance these are: The bichloride of mercury, iodoform, boracic and salicylic acids. Within the last four years they have been employed by numberless careful observers, and conclusions as to their safety and relative value have been reached. The most exact and extensive of these observations have been made in Germany. Based upon the methods of their use in that country, as described in recent literature, or as followed or modified in the New York, Roosevelt, Mount Sinai, and German hospitals of New York city, where I have lately had opportunity of studying them, I wish to describe a method of wound treatment particularly adapted to the needs of private surgical practice. At the same time I do not wish to go on record as advising that any one method of treatment be used for all classes of wounds. The shoemaker who works on a single last is not the one who fits his customers most exactly.

The aseptic condition, close approximation, drainage, the elastic pressure of dry and absorbent dressings, rest and protection, *these* are what we should aim to secure, and through them by the method now to be described, we may expect most wounds to heal without suppuration and under a *single* dressing. Under an essentially similar method, Esmarch and Neuber of Kiel, found it necessary to change the dressings more than once in but 11 out of 212 cases of extensive wounds. Made, closed and protected in this way, one may leave, as I frequently have left, wounds to await a convenient hour for further attention at any time within ten days. Pain, fever, or the appearance of discharges are to be reported by the friends of the patient at once, and are the indications for the renewal of the dressings.

It will be convenient to suppose that a tumour of moderate size, situated on the fore-arm, is to be removed at a country farm-house. The arm of the etherized patient is brought through an opening in a rubber sheet, and the upper part of this opening is drawn closely and secured by a safety-pin, or is laced or contracted by a purse-

string of elastic tubing. The folds of the sheet are then so disposed as to convey fluids into anything convenient, placed on the floor to receive them. Next comes the thorough cleansing and disinfecting of the part to be operated on, and of the hands of the operator and his assistant. Soap, hot water, and a nail brush first, and then a solution of the bichloride of mercury, 1 : 1000 should be freely used.

At the New York hospital, in the service of Dr. Weir (to whom personally and to whose writings I am much indebted), the field of operation is also bathed with turpentine and alcohol, 1 to 7. The standard antiseptic solution may be prepared easily and with sufficient exactness when and where wanted by dissolving an 8 grain sublimate powder in each pint of water. I am in the habit of carrying these powders in a hard rubber pocket match safe. The recent discovery by Sir Joseph Lister that sublimate is soluble in  $1\frac{1}{2}$  times its weight of glycerine, may furnish a still more convenient mode of preparing our solutions. Such a glycerole would doubtless diffuse in water more rapidly and uniformly than a powder could dissolve. The 1 : 1000 solution is to be mixed with an equal measure of hot water, for use in cleansing sponges and douching the wound. A tank, a fountain-syringe, or Esmarch's inverted and bottomless bottle, arranged as I show you, may be used, but most convenient and portable of all is the syphon douche now presented. This consists of a sinker weighing 3 oz., attached to one end of a tube of thick rubber 4 or 5 feet long, on which has been slipped a clip to close the tube when desired. These replace the short afferent tube and light sinker of any good syringe made after the Davidson pattern. Any pitcher will do for a reservoir, and the thick tube coming over its edge will form a curve instead of an angle, which would occlude it partly or completely. A fine nose tip of hard rubber is convenient during operation, but a tapered tube must replace it to inject the drainage tube and the deeper parts of the wound. Constant irrigation, though not required, is harmless. Since the mercuric salt acts injuriously on instruments, rusting and dulling them, and losing its strength in doing so, we have yet to use for their disinfecting a saturated 1 : 20 aqueous solution of

carbolic acid. In this strength carbolic acid benumbs the fingers dipped frequently into it; hence it is well, when one is his own assistant, to place a towel wet with bichloride solution, when the instruments in use can be for the moment laid down, instead of being returned to and fished out from the carbolic lotion as wanted. The cutting instruments can be conveniently at hand on a plate or platter, while a bowl makes a bath for the forceps. Of these last, since the securing of every bleeding point is so important when the effort is to gain entire primary union, I make mention of the exceptional value of Sir Spencer Wells and Pean's pressure forceps, and of the torsion forceps of Fricke. Good models of these are shown, since bad ones are common. The plan of going down for a bleeding vessel, and lifting into view successively deeper and deeper portions of tissue with a pair of dissecting forceps held in each hand, is worth referring to in this connection. Sponges should be kept and carried in a sublimate solution. Dr. Weir showed me a rubber ice-cap, with large hard-rubber screw top, which made a very convenient receptacle for them. Not less than three basins of warm 1 : 2000 solution should be provided for the cleansing of the sponges. Passing through these in rotation, they reach the operator clean and dry. This point I should hardly have mentioned if I had not seen sponges so often thrown into and taken from the same basin during an entire operation. Many surgeons, who would not think of using dirty water for their own faces, apply it without stint to their patient's wounds. The tumour removed, every bleeding point is to be secured by torsion or the catgut ligature so as to leave a dry wound. At present, in New York, catgut which after preparation, has been kept in oil of juniper or in absolute alcohol, is used almost entirely. It ties and keeps its knot better than that preserved in carbolic oil. In ligating arteries, I use now only the two larger sizes, as the smaller ones are not strong enough to stand being tied, as Robert Liston said ligatures always should be, "devilish tight." For sutures, however, and in particular for the "sunken sutures" of the Germans—those by which we close together muscle to muscle in the deeper parts, tying the knot far below the skin and obliterating the wound, they are excellent.

The lines of drainage should be next arranged, and in them placed one or more absorbable tubes. I show you those of Neuber, imported from Germany, and those of MacEwan, made by my assistant, from the femora and tibiae of chickens. Since the one form has with me succeeded as well as the other, and since the natural tubes can be bought in the flesh for about the same price as the drilled and turned ox-bone in oil, my decalcified tubes in future will, I think, be after-dinner considerations. If the wound is to be dressed again within a week, either rubber tubes, horse-hair, or Chiene's chromic-acid catgut may be used. The two last I have not found to drain pus well, though they are excellent for the early serous discharges. For closing the wound, catgut should be preferred. Horse-hair answers for adjusting the edges of the skin, and silver wire secured by lead buttons may be needed to sustain tension. If silk be used at all, it should have been prepared by boiling for an hour in a 5% carbolic lotion, and should have been kept in one of the same strength. The line of union is to be dusted with iodoform, and then covered with several handkerchiefs of 10% iodoform gauze, or  $\frac{1}{4}$  of 1% sublimate gauze, over which a roller of the latter material is to be applied. The dressing is completed by the adjustment of bags or pads filled with some one of the absorbents presently to be spoken of, by a second roller, and a splint to secure perfect rest to the part. Cheese cloth, boiled in a soda solution to remove fatty matters, and then washed in water to get rid of the alkali, answers for the preparation of the handkerchiefs, the bandages, and the pad covers. Iodoform gauze is made with this very simply, by Billroth's plan of rubbing the crystals into the meshes of the cloth. From 10 to 20% will be retained. Another method is to saturate the cheese cloth in iodoform 50 parts, ether 250 parts, alcohol 750 parts, and allow the fluids to evaporate. This gives a 10% gauze. Iodoform is always a dessicating dressing, hence it is important to bring the ends of the drainage tubes through the layers in contact with the wound. Neglect of this in one case where I had drained a compound fracture extending into the elbow joint, caused the end of the drain to be sealed in the antiseptic scab, the serous discharge to be retained, and the temperature to rise to

103° F. All went well again when the mistake was corrected. The great value of iodoform lies in its permanence. It constantly evolves an antiseptic influence, as penetrating and as persistent as its own odor. Being non-irritant, a moderate quantity between the lips of a cut will not prevent union by the first intention. Neuber warns us that not more than 45 grains should be applied at any one time to a raw surface. When first introduced, large wounds, as after hip excisions, were filled with it, and deaths followed. Now we have the authority of Lister, Macormac, Longman, Billoth, Sands, and many others, for considering it to be the best-known antiseptic for direct application to wounded surfaces.

The bichloride gauze is made by simply saturating the cheese cloth with bichloride of mercury, 20 parts, water 4,480 parts, glycerine 500 parts, and allowing it to dry as far as the glycerine will admit. Its active agent, besides being the most powerful antiseptic of which we have any knowledge, is always at hand, is safe, permanent, pleasant to handle, and is only irritating to the extent of producing an occasional slight dermatitis.

We come now, and finally, to the absorbents which may be used to soak up and keep harmless all fluids which our internal drainage has brought to the surface. Of these I show you hygroscopic cotton and the same containing 15% of boracic acid. They will each take up, as I have found by experiment, 16 times their own weight of water; wood-wool, 14 times; german peat, 12 times; and jute, 8 times. Dr. Weir is now testing the ordinary moss of our woods as an absorbent. After drying it in an oven to kill the insects it may contain, he finds it soft, elastic, and able to soak up about four times its weight of water. The *New York Medical Record* of last week contains a letter from Dr. Lydstone, of Chicago, advocating the use of punk or spunk, a substance used by dentists to dry out cavities in teeth. I show you a piece, part of which, when tested, was found to absorb 11 times its weight of water. I have not been able to obtain wood-wool from the paper makers here. That shown and also the peat came from Germany. Both are exceedingly cheap, costing only six or eight cents per pound in original

packages. Specimens of each are shown as they come to us, others impregnated with equal parts of corrosive sublimate and glycerine in 200 parts of water, and still others, sewed in bags of sublimate gauze ready for use. The wood-wool is made from pine of non-resinous character, is soft, cottony in texture, elastic, and clean to work with. I prefer it to any thing excepting the cottons, which cost many times as much, or peat which costs about the same. Wood-wool collapses when thrown into or saturated with water. On this account the roller first applied should not cover any dressings containing it, or the pressure may not be maintained and the result may be compromised. It has, as was recently pointed out by Lister, in the discussion at Woolwich on antiseptic field surgery, the same composition as cotton rags, which may replace it if used in sufficient mass. Dr. F. Lange, who is perhaps the best exponent of German antiseptic surgery in this country, is partial to borated cotton arranged in thick sheets and covered with sublimate gauze. I show you a "compound borated dressing" prepared as he directs.

The story of the introduction of turf, mould or peat, may be new to some here present. About four years ago a man applied to Dr. Neuber, assistant to Esmarch, in Kiel, relating that ten days before he had, while working on the moor, sustained a severe injury to the forearm. To this had been at once applied a thick coating of mould and a rude splint. On examination the wound was found free from supuration and either united or granulating well, though there had been compound fracture of both radius and ulna, rupture of the wrist joint and extensive laceration of the soft parts. Neuber followed up this broad hint as to the value of peat, and its use has been attended by rapid and satisfactory healing of the parts it protected. A special advantage of peat is its power to absorb the gaseous products of decomposition, such as ammonia. Used as a litter for horses the same beds have, according to Dr. Ernest Hart, been in use for two or three months. It absorbs best when slightly dampened, is soft, as you see, and very elastic.

In conclusion, I do not propose to enter into any recital of cases or statement of results. The method advised is one of the antiseptic

methods, and results obtained by it belong to that system, the beneficent influence of which can be as little questioned as can be the good to mankind that followed the discovery of the hæmostatic use of the ligature, or the anæsthetic use of sulphuric ether. The materials required can all be carried in a small satchel, and all be purchased with what would be only a fair fee for their first use.

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### Selections.

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#### OLD AND NEW VIEWS IN MEDICAL SCIENCE.

This was the subject chosen by Dr. Smith, of Belfast, who delivered the opening address in the Section of Medicine. He makes the following remarks on heart disease and our present knowledge of therapeutics :

During the last quarter of a century our general ideas have materially changed in regard to disease. Many affections which were then looked upon as of the gravest character have now come to be regarded with much less apprehension. It is not so very many years since heart disease was considered a most dangerous, if not inevitably fatal affection. The revelation of a cardiac murmur by the stethoscope was like a sentence of death to the patient, and the facilities which this instrument afforded for detecting these lesions, at a time when their importance was greatly exaggerated, must have revealed to many that they were suffering from a disease, of the existence of which they might otherwise have lived and died in happy ignorance. It may indeed be inferred that the anxiety such knowledge gave rise to must often have been more fatal to the patient than the disease itself ; for we have now learned that confirmed valvular disease is far less fatal than was supposed, and that the frequency of sudden death from this lesion has been unduly overrated. In the examination of hospital and other patients, we frequently discover a valvular lesion, which has never given any indications of presence, and which years after will be found unchanged. It is, in fact, a matter of common observation, that persons affected with such lesions will reach the usual term of human life, unconscious of their ailment. In life-assurance cases, no

doubt, healthy lives are annually declined, as it may be assumed that a cardiac murmur would be looked upon as a disqualification. But even acute cases of heart disease, now that we no longer contend against them with the weapons we formerly used, are found to be far less fatal than was at one time supposed. It is not only in reference to cardiac disease that our opinions have changed; a more matured experience and a more judicious system of treatment have enabled us to entertain a more favourable opinion of rheumatic fever, of pulmonary consumption, and other diseases.

Our knowledge of therapeutics has not advanced in equal proportion with other branches of medical science. It is the department in which we know least. The modes of action of many medicines are a labyrinth to which we have no clue. To investigate their actions and to obtain a knowledge of their influence on disease are matters of great difficulty. The action of many is imperfectly known, and it may differ much in individuals. It is very difficult to estimate correctly what influence a medicine has really had in producing the changes which have occurred after its administration, for we know that many diseases will get well if left to themselves. Repeated trials and careful observation can alone determine this.

Perhaps there is no point on which members of our profession so frequently deceive themselves as on that of the effect of new medicines, and it must be admitted that many of the communications which appear in our journals upon this subject will not bear the test of experience. Such statements should be received with great hesitation, except when they come from those who, by careful physiological experiment, are entitled to speak on the subject. Another hindrance to progress is this—that when a medicine has been ascertained to have a decided effect in a particular class of affections, there is a tendency to urge its employment and vaunt its usefulness in diseases over which it has no influence whatever; of this tendency the bromide of potassium is a good instance, that excellent but ill-used drug having been recommended in nearly half the ills which flesh is heir to.

New suggestions of treatment, and the wonderful effects of new medicines, put forth without substantial test, excite only distrust and disappointment in those who act on them, and add to the number of those who are already sceptical about the use of any medicine.

A disbelief in the efficacy of all drugs is, however, as unreasonable as an unlimited faith in their powers. We possess several which have been proved to have a definite action on which we can rely, and their number is being slowly added to. The discovery of salicylic acid has changed the whole treatment of rheumatism, and is a strong incentive to further therapeutic investigation.

After all, the practice of medicine is ultimately the practical application of therapeutic agents, and it is in the careful study of these that some of the greatest victories are to be gained by the coming race. But our progress must necessarily be slow, and we must take care lest the structures we build on our way prove only to be sand-castles.—*British Medical Journal.*

#### DR. FLINT, JUN., ON DIABETES.

At the last meeting of the American Medical Association, a paper was read by Dr. Flint, jun., on Diabetes. Since this subject has been under discussion of late in Great Britain, some points in the paper may be of interest to the reader.

As a test for sugar in urine, Dr. Flint recommends Fehling's test solution, especially that manufactured by Squibb. For the quantitative analysis, he prefers that described by Roberts, viz., by fermentation.

The specific gravity of urine bears no definite and constant relation to the proportion of sugar. It may be of high specific gravity owing to the presence of excess of urea, and may at the same time contain little sugar.

“What constitutes Diabetes Mellitus? A patient with abnormal thirst, dryness of mouth, suffering from fatigue following slight muscular exertion, progressively losing strength and weight, and passing an abnormal quantity of urine of high specific gravity, containing sugar, has the disease known as diabetes mellitus.”

He considers that its pathology is still absent, but speaks hopefully of the success of the treatment, quoting the words of Cantini, of Naples: "Diabetes has become to-day a disease easily and certainly curable, provided that the treatment be not begun too late." The greatest stress is placed upon the diet used. He does not believe in any of the breads hitherto recommended. A form of diet is given at the end of the paper. Among the remedies mentioned is one by Cantini:

R Pure lactic acid . . . ʒiiss—ʒv  
 Aromatic water . . . ʒv — ʒi  
 Water . . . . . oii

To be taken in small quantities frequently through the day.

Dr. Flint highly recommends Clemens' bromide of arsenic. Dose, three drops after meals three times a day, gradually increased to five. It may be continued for weeks or months without injurious effects.

The following is Dr. Flint's diet-table:—

**BREAKFAST.**—Oysters stewed, without milk or flour; clams stewed, without milk or flour. Beefsteak, beefsteak with fried onions, broiled chicken, mutton or lamb chops; kidneys, broiled, stewed, or deviled; tripe, pig's feet, game, ham, bacon, deviled turkey or chicken, sausage, corned-beef hash without potato, minced beef, turkey, chicken, or game, with poached eggs.

All kinds of fish, fish-roe, fish-balls, without potato.

Eggs cooked in any way except with flour or sugar, scrambled eggs with chipped smoked beef, pickled salt cod-fish with eggs; omelets, plain or with ham, with smoked beef, kidneys, asparagus points, fine herbs, parsley, truffles, or mushrooms.

Radishes, cucumbers, water-cresses, butter, pot-cheese.

Tea or coffee, with a little cream and no sugar. (Glycerine may be used instead of sugar if desired).

Light red wine for those who are in the habit of taking wine at breakfast.

**LUNCH OR TEA.**—Oysters or clams cooked in any way except with flour and milk, chicken,

lobster, or any kind of salad except potato, fish of all kinds, chops, steaks, ham, tongue, eggs, crabs, or any kind of meat, head-cheese.

Red wine, dry sherry, or Bass' ale.

**DINNER.**—Raw oysters, raw clams.

**Soups.**—*Consommé* of beef, of veal, of chicken, or of turtle, *consommé* with asparagus-points, *consommé* with okra, ox-tail, turtle, terrapin, oyster or clam, without flour or milk; chowder, without milk or potatoes; mock turtle, mullagatawny, tomato, gumbo *filet*.

**Fish, etc.**—All kinds of fish, lobsters, oysters, clams, terrapin, shrimps, crawfish, hard-shell crabs, soft-shell crabs. (No sauces containing flour or milk).

**Relishes.**—Pickles, radishes, celery, sardines, anchovies, olives.

**Meats.**—All kinds of meat cooked in any way except with flour, all kinds of poultry without dressings containing bread or flour, calf's head, kidneys, sweet-breads, lamb-fries, ham, tongue, all kinds of game, veal, fowl, sweet-breads, etc., with currie, but not thickened with flour. (*No liver.*)

**Vegetables.**—Truffles, lettuce, romaine, chicory, endive, cucumbers, spinach, sorrel, beet-tops, cauliflower, cabbage, Brussels-sprouts, dandelions, tomatoes, radishes, oyster-plant, celery, onions, string-beans, water-cresses, asparagus, *artichauts*, Jerusalem artichokes, parsley, mushrooms, all kinds of herbs.

**Substitutes for Sweets.**—Peaches preserved in brandy without sugar, wine-jelly without sugar, *gelée au kirsch* without sugar, *omelette au rhum* without sugar, *omelette à la vanille* without sugar, *gelée au rhum* without sugar, *gelée au café* without sugar.

**Miscellaneous.**—Butter, cheese of all kinds, eggs cooked in all ways except with flour or sugar, sauces without sugar, milk, or flour.

Almonds, hazel-nuts, walnuts, cocoa-nuts.

Tea or coffee with a little cream and without sugar. (Glycerine may be used instead of sugar if desired.)

Moderately palatable ice-creams and wine-jellies may be made, sweetened with pure glycerine; but although these may be quite satisfactory for a time, they soon become distasteful.

ALTERATIONS IN THE SPINAL CORD IN POISONING BY ARSENIC, LEAD, AND MERCURY.—Dr. Podow concludes from his experiments that in acute poisoning by arsenic, lead, and mercury, there are found in the spinal cord alterations which closely resemble those due to an acute central myelitis. When the poisoning is relatively slow, these lesions are not limited to the gray substance, but include also the white matter, and resemble a diffuse myelitis. The peripheral nervous system in these acute cases remains unaffected.—*Jour. de Méd. de Paris.*

CERIUM OXALATE IN PHTHISIS.—The *Medical Bulletin* states that oxalate of cerium has been used quite successfully as a palliative to the cough in phthisis. It has the very great advantage of not disturbing the digestion or bowels. To preserve the appetite of a consumptive is quite as necessary as to relieve his cough. Thirty grains of the oxalate is given at bedtime, and repeated before morning, if advisable. Ten grains may be given every few hours during the day, if necessary. A little chloral hydrate or spirits of chloroform combined with the remedy often greatly assist the action.—*Drug News.*

#### NUMBNESS OF UPPER EXTREMITIES.

In a paper read before the College of Physicians of Philadelphia, Dr. Wharton Sinkler calls attention to a form of numbness, especially of the upper extremities, occurring usually in women at about the change of life, though he has found the same condition occasionally in men.

The numbness generally begins in one or both hands and gradually extends up the arms. It is almost always worst in the morning before the patient rises. It is described as a "tingling," or as a sensation "like pins and needles," or as if the limb "were asleep."

There is generally a transient weakness, but no paralysis, often pain and sometimes a sensation as if the numb part were swollen.

Dr. Sinkler thinks that there is probably a hyperæmia of the nerve trunk or part of the cord, and he notes the fact that the recumbent position at night seems to increase the numb-

ness as a confirmation of this view, as the supine position favors an increase of blood in the cord and nerves of the extremities.

As to treatment, he has derived the most satisfaction from the administration of ergot. Massage and galvanism have been valuable adjuvants, and bromide of potassium was helpful in some cases. He found the use of strychnia for a time after the disappearance of the numbness to be of great advantage.—*St. Louis Courier of Medicine.*

#### ANTIPYRIN: THE NEWEST ANTI-PYRETIC.

The search for a substitute for quinine, although not successful in the main object thus far, has been fruitful in the discovery of new remedies. Amongst these may be mentioned, resorcin, quinoline, pyrocatechin, hydroquinone, and kairin. All of these are synthetical products. The last mentioned of this group, kairin, has proved remarkably effective as an antipyretic. All of them have been successful in varying degrees as antiseptic and antipyretic remedies, but they do not reach the peculiar eminence hitherto attained by quinine only. But this partial success has greatly stimulated the productive activity of chemists engaged in these researches, and their efforts have been rewarded by the discovery of antipyrin. This very appropriate designation is applied to an artificial alkaloid produced synthetically by Dr. L. Knorr, of Erlangen, by the action of acetic ether on aniline. It is also obtained by oxidation from quinoline or chinoline, one of the antiseptics mentioned above. It has been patented by Dr. Knorr, for whom it is manufactured by Messrs. Meister, Lucius, and Brünning, industrial chemists.

Antipyrin occurs in the form of a white crystalline powder, having a slight aromatic odour, and a somewhat bitter taste, which may be effectively disguised by solution in some medicated water or in wine. It is readily soluble in water, in the proportion of one to three. The dose for an adult as an antipyretic is from 15 to 30 grains, given at intervals of an hour, until 75 or 90 grains have been taken.

Rank embodies in some formulated conclu-



sions the results of his observations. He finds that antipyrin is an antipyretic of the first importance in all the acute febrile affections; that by subcutaneous injection the effects are produced more decidedly and more promptly than by the stomachal administration, and that a less quantity of the remedy suffices, thirty grains being equal in power to twice that quantity given by the mouth; that a concentrated solution, 15 grains in 8 minims of water, can be employed by the hypodermatic method, without any local injury or accident, and that about twice the quantity of antipyrin produces the effects of a given quantity of quinine, for which it appears to be an efficient substitute.

Kairin and quinine are the agents with which antipyrin is to be compared. Guttmann, who makes some observations on the comparative antipyretic action of these three remedies, concludes that antipyrin is superior to kairin, but that in corresponding quantity quinine is more effective than antipyrin. Thus far we have had no observations on the use of the new remedy in malarial fevers, which will be the *experimentum crucis*, as regards its curative powers. There can be no advantage in the administration of antipyrin, as respects price, at the present time. A large demand will, of course, lessen the expense of production, but as a monopoly will exist in the person of the holder of the patent, the price can be artificially maintained.—*Medical News*.

#### DEPURATIVE DROPS (SIGMUND).

Tincture of Iodine . . . . . ℥i.  
Tincture of Nux Vomica . . . . ℥xv.  
Fowler's Solution . . . . . ℥xv.

Five drops at bedtime in sweetened water, for patients with syphilis complicated with scurvy, and in lupus where the syphilitic diathesis is suspected. Every third day the dose may be increased until 10 drops is attained, which must not be exceeded.—*L'Union Méd.*

POLYURIA IN CONVALESCENCE FROM TYPHOID FEVER.—Spitz (*Deut. Med. Woch.*) had his attention directed to this symptom by a convalescent from a very severe typhoid fever, who urinated six or eight litres a day. In extending

his researches he was astonished to find that the polyuria was almost constant in convalescents, particularly after severe attacks. It appears to be of good prognostic signification.—*L'Union Méd.*

PURPURA CONSECUTIVE TO CHLOROFORM INHALATIONS.—M. Morse Lavallée publishes three cases of patients attacked with purpuric spots immediately after the administration of chloroform. The spots occupied the anterior region of the thorax, were three or four centimetres in diameter, and appeared two or three minutes after the administration of the drug. They were probably the result of a reflex vascular spasm, and should be classed with the emotional reflex purpuras described by Vidal and Fournier.—*L'Union Méd.*

#### REPORT OF CASE OF STRICTURE OF RECTUM, TREATED BY DIVISION AND DILATATION.

In March, 1883, my brother and myself were consulted by T. H., for some trouble of the bowel, which, upon examination, was found to be an annular stricture of the rectum, located about an inch and a half from the verge of the anus, and so narrowing the passage as to scarcely admit the passage of a No. 6 bougie. The patient's cachexia indicated grave constitutional disturbance, which, with the induration of tissues surrounding the stricture, suggested even the probability of malignant disease.

The history of the case was quite obscure; though pretty clearly excluding a syphilitic origin. Patient had had dysentery, and for some time, as he supposed, had been suffering from, and was treated for piles.

The urgency of the symptoms decided us upon an operation by division of the constricting band. Placing the patient upon the table and under ether, the sphincter was forcibly dilated and the stricture divided with the knife. Passing the finger through the divided stricture a second one was found about an inch beyond the first, but not involving the entire circumference of the gut. The hemorrhage was slight, and operation otherwise attended by no unfavorable

results. The mucous membrane above the stricture was found thickened and indurated, and seemed to involve quite an extensive area. The gut was packed with absorbent cotton filled with iodoform, and this practice, or iodoform in capsule, was continued in the after treatment, which consisted in dilatation with rectal bougies resorted to at gradually increasing intervals. Occasional applications of nitrate of silver were made.

The immediate effect of the operation was to give relief to all the urgent symptoms, the patient having the first comfortable evacuation he had experienced in many months.

Treatment was continued through several months, the patient rapidly gaining in flesh and strength, finally returning to his home and work in a neighboring county. I met him some weeks since, and failed to recognize him in the appearance of perfect health presented.

He tells me he has had no return of the trouble and is in the best of health.—L. T. HALL, M.D., in *St. Louis Courier of Medicine*.

#### WHAT CAUSED HUNTER TO LIGATE AN ARTERY FOR ANEURISM.

The *College and Clinical Record* notes that none of the books tell how John Hunter was led to originate the operation of ligation for popliteal aneurism. Prof. Chapman gives the facts as follows, and in parenthesis some strong words about the anti-vivisectionists: "Hunter, finding the 'velvet horns' of a deer to be abnormally warm, tied the carotid artery; in a few days he was astonished to find the horns were as warm as ever. He at first supposed that he had tied the wrong vessel, and cut down on his ligation only to find that he had not made a mistake in identification, and that the carotid was still occluded; further investigation showed that a collateral circulation had been established—a thing practically unthought of before. Deductions from this experiment were what led him to believe that the femoral artery could be tied without exsanguinating the limb, and he caused the experiment to be performed on a live dog, with success. After these experiments he performed the operation on a coachman, in 1787, in St. George's Hospital, on the

walls of which still hang the deer horns, which, in John Hunter's hands, were the means of incalculable good to mankind."—*Medical and Surgical Reporter*.

EXTIRPATION OF THE KIDNEY.—At the meeting of the Medico-Chirurgical Society of Glasgow, on March 7, 1884, Dr. Macewen showed a patient from whom the right kidney had been extirpated. The patient was admitted into the wards in an emaciated, semi-delirious condition, with high temperature and weak pulse. The history available at the time was of the most meagre description, and to the effect that he had been troubled with a urinary affection for about a year previously. His urine was loaded with pus. On examination, microscopically, a few tube-casts containing pus-corpuscles were seen, along with numerous crystals of phosphate of lime. There were dulness and swelling in the right renal region, which was painful on deep pressure. The diagnosis was renal calculi with abscess of the kidney.

Within the first twenty-four hours of his admission into the hospital, it was evident that he was sinking, and that something would require to be done at once for his relief. It was thought that the renal calculus might be removed while the abscess could be opened and drained. The renal calculi were removed; one from the pelvis of the kidney of irregular form, one of its projections situated in the ureter; the other from the substance of the gland. The kidney was found to be riddled with abscesses, and as it was apparent that it could no longer perform its secretory functions, it was removed. The patient recovered from the operation with remarkable rapidity.

Dr. Gairdner said that the course of events in these cases was something like this. Along the ordinary channel pus was discharged for a considerable period for a greater or less period, this going on interminably. If the patient does not succumb, then there came a time when the kidney was structurally and functionally destroyed. If an opening were now made externally, pus was discharged in this way, and this might go on indefinitely. The next step was that of waxy degeneration, or Bright's disease. It was perfectly clear that, if they were satisfied

that the kidney was permanently disabled, they might save the patient's life by having recourse to the operation for its removal.—*Glasgow Medical Journal*, July, 1884.—*Medical News*.

### LITHOTOMY—LATERAL vs. HIGH OPERATION.

Sir Henry Thompson, in his lectures before the College of Surgeons, speaks of two operations in lithotomy as follows :

There is unquestionable a growing expression of dissatisfaction among surgeons, especially abroad, with the lateral operation for stones of unusually large size. I have for some time fully shared in that feeling. No incisions can be made in the region which belongs to that operation through which a calculus of three ounces or more can be extracted. Laceration, either avowedly made by instruments or but half concealed under the name of gradual distension, invariably takes place, and that affecting very important structures, often to a large extent. Hence it is that the suprapubic operation has always invited consideration when the stone is exceptionally large; but the conditions sometimes met with, especially in corpulent subjects, have often presented peculiar difficulties and dangers, which indicated that, if Scylla has been avoided above, Charybdis appears to be equally dangerous below. A modification of the operation, however, has recently taken place—if not originated, at least first executed, by Professor Petersen, of Kiel, and described by him in 1880, which gives a new and improved position to the high operation. The improvement suggested consists in ensuring, to a degree not before attained, the raising of the bladder above the pubic symphysis, and the steadying it in that position during the operation. These objects are thus attained. The patient, lying on his back, and under the influence of an anæsthetic, the bladder is first distended with a weak solution of boracic acid, in quantity from ten to twelve ounces if possible, which must depend on the condition of the organ. The penis is then firmly tied; nothing is better than an india-rubber tube for the purpose. Then a pear-shaped bag of india-rubber, tolerably stout, so as to retain that form,

and capable of holding at least sixteen ounces of fluid, is folded longitudinally and introduced into the rectum. By the tube which forms its apex, and is supplied with a stopcock, water is forced in so as fully to distend the bag *in situ*. The outline of the bladder will now be traced above the pubic symphysis. The usual vertical incision is made, and dissection carried down to the bladder, with the usual precautions with which we are familiar. The ease and the certainty, however, which are ensured by the firm position of the bladder on this system render it much superior to the old one.

I have operated by the high operation twice only, and that before the introduction of the new method. Since that time I have met with no case which I have not been able to deal with satisfactorily by lithotripsy at a single sitting, of which several examples are placed before you—the calculi weighing from one to nearly three ounces. The next case which offers for which the knife is required, I shall almost certainly submit to the high operation, with Petersen's modification. And the only reason why I have not yet performed it is, that I have easily and successfully employed lithotripsy in cases precisely similar to those for which the French surgeons are at present adopting Petersen's procedure.—*British Medical Journal*.

### GONORRHOEA EASILY CURED.

Dr. Dellenbaugh, in a communication to the *College Clinical Record*, says :

The injection I have used in cases of acute and sub-acute gonorrhœa for more than a year with the most gratifying results, especially to the patients, who have recovered in from two to seven days, is the following :

R	Rescorcin,	ʒ j,
	Acid boracic,	gr. xx.
	Zinci acetatis,	gr. ʒ ½,
	Aqua destillat,	ʒ iv. M.

Of this solution two teaspoonfuls are injected three times daily. The germicides, resorcine and boracic acid, are so slightly astringent, that it requires the additional zinc salt to restore capillary tonicity. This injection is quite or nearly painless.

In the treatment of the later stages of sub-acute and chronic gonorrhœa, without stricture or granuloma as a complicating factor, I have had the happiest results follow the use of the following injection :

R Hydrarg. chlor. corrosivi, gr.  $\frac{1}{2}$ -ss,  
Zinci chloridi, gr. ss-j,  
Aqua distillat,  $\bar{3}$  viij. M.

Sig.—A tablespoonful to be injected, well down into the urethra, three times daily.

For SPRAINS, Professor Brinton teaches that the limb is to be put into a vessel of very hot water immediately, boiling water being added as it can be borne, and kept immersed for twenty minutes or until the pain ceases. Then put on a pretty tight bandage and order rest. Sometimes the joint can be used in twelve hours. If the trouble is more chronic, apply a silicate of sodium dressing, and let the patient walk with a cane, if the ankle be the joint affected.—*College and Clinical Record.*

#### IODOFORM PENCILS.

Gelatine .....  $\bar{3}$ iv.  
Glycerine .....  $\bar{3}$ ij.  
Iodoform .....  $\bar{3}$ vii.  
Distilled water .....  $\bar{3}$ ii.

Dissolve the gelatine over a water bath in the mixture of water and glycerine. Evaporate until the mixture weighs  $\bar{3}$ ii.  $\bar{3}$ i.; then add the pulverized iodoform; shake until the mixture is homogeneous; then pour it into silver moulds, moderately warm; then cool the moulds in ice water, to render the solidification more rapid and to prevent the precipitation of the iodoform. Dry the cylinders in a drying chamber until they lose one-third their weight. They contain 50% iodoform, and their suppleness allows their entering fistulous tracts.—*L'Union Méd.*

For NEURALGIC DYSMENORRHŒA, Professor Parvin recommends :

R. Tinct. opii, .....  
Tinct. valerianæ.....  
Spirit ætheris comp.....  
Tinct. castorei, āā ..... f  $\bar{3}$ ij. M.

S. A teaspoonful every hour.—*Col. and Clin. Record.*

## THE Canadian Practitioner.

(FORMERLY JOURNAL OF MEDICAL SCIENCE.)

To CORRESPONDENTS.—We shall be glad to receive from our friends everywhere, current medical news of general interest. Secretaries of County or Territorial Medical Associations will oblige by forwarding reports of the proceedings of their Associations.

To SUBSCRIBERS.—Those in arrears are requested to send dues to Dr. W. H. B. Aikins, 40 Queen St. East.

We regret to learn that, from some cause unknown to us, copies of the Journal have lately gone astray. Any of our subscribers who have not received it regularly, may obtain the missing numbers on application to Dr. Aikins, by post-card or otherwise.

TORONTO, SEPTEMBER, 1884.

#### REPAIR OF WOUNDS AND FRACTURES IN AGED PERSONS.

According to general acceptance it has been an orthodox rule of surgery that repair of wounds and fractures takes place more slowly in the old than in the young; and yet it is a matter of common observation, both in the hospital and private practice, that many such wounds heal with wonderful and unexpected rapidity. We have been accustomed to regard such cases as exceptions rather than the rule, but it is a question whether we have been right in so doing.

Professor Humphry, of Cambridge, in a paper which appeared in the *British Medical Journal*, states his belief that wounds heal even more quickly in old persons than they do at earlier periods of life as a general thing. There are, however, two exceptions to this rule: 1. The person may sink probably from shock; 2. The wound may slough or ulcerate. Mr. Humphry believes that the same general rule applies to fractures; the chief apparent exception being fracture of the neck of the femur, which so commonly remains ununited. He thinks this, however, arises from other causes than those peculiar to old age, viz., separation of broken surfaces, the small amount of uniting matter thrown out, and the presence of synovial fluid. He admits that it occasionally happens that a complete failure at union in the fractures takes place. In these cases it is found that no uniting matter is

thrown out, and at the same time an actual loss of bone tissue takes place, leaving the broken extremities light, porous, and worm-eaten.

Many instances of unusually rapid repair of ordinary wounds and fractures are given in patients from 67 to 93 years of age. Probably most of us can call to mind similar instances, and it is quite possible that close observation may teach us that the old rule is incorrect; and that, as a matter of fact, repair of wounds (whether of bones or soft parts), when it does take place without complication, goes on at least as rapidly in the old as in the young.

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#### DRAINAGE OF CEREBRAL ABSCESS.

It is a fact, perhaps not sufficiently appreciated, that a cerebral abscess should be treated by the ordinary methods of treating a collection of pus, wherever found. According to the *Medical News*, only three cases have been recorded where drainage of cerebral abscesses has been employed. It is certainly a very encouraging fact that all three cases resulted in recovery. The most serious obstacle to the procedure is the difficulty in locating the abscess, even when there is a strong probability of its existence. The *News* suggests in such cases multiple explorations with an aspirating needle four inches long, having a rounded instead of a cutting point, thus avoiding the dangers of wounding a bloodvessel. In the three reports referred to, the lesion resulted from gun-shot wounds. In one case the drainage tube was inserted along the track made by the bullet; in the second, the ball was removed by a counter opening, and the tube then passed completely through; in the third, the abscess was opened, and the tube left in the track made by the forceps to evacuate it.

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#### BRITISH MEDICAL ASSOCIATION NOTES.

In the discussion on Albuminuria, several members spoke of the importance of testing the urine for albumen in all cases of chronic disease.

The most remarkable specimen in the Museum was a large quantity of chyle drawn

from the peritoneal cavity of a patient in whom there was an obstruction of the thoracic duct, followed by dilatation of the lower part and rupture into the peritoneal cavity. The resemblance in appearance between chyle and milk is very striking.

The discussion upon Tuberculosis evinced the fact that the pathologists and clinical men in Great Britain are strong believers in the opinions of Koch in the etiology of tuberculosis.

The drug manufacturers and instrument-makers were in full force, and their wares made a very interesting museum.

The next meeting of the Association will be held in Cardiff, and the President-elect is Dr. Edwards, of Cardiff.

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#### MEETING OF THE BRITISH MEDICAL ASSOCIATION.

The British Medical Association is, without doubt, the most useful and successful Medical Society in existence. In Canada and the United States we endeavour to follow its general plan of procedure, but our success is far behind that attained in Great Britain. Many reasons exist which will probably keep the Association in its present enviable position for at least many years, if not for all time. Its membership is large, over ten thousand; its organization is very thorough and complete; the geographical condition is such that the members in England, Ireland and Scotland can all attend the meetings by travelling comparatively short distances; great care is taken in the selection of men to fill leading positions, and, as a consequence, the addresses delivered and the papers read are able, practical, and useful.

We are glad to be able to give in this issue very interesting reports of the recent meeting at Belfast, written by Drs. McFarlane and Graham, of Toronto. It will be seen that this, the fifty-second annual meeting, was eminently successful in every respect.

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THE New Brunswick Medical Society have decided to publish a journal to be entitled, "The Medical and Surgical Journal." It will appear quarterly. Dr. Allison will occupy the editorial chair.

## THE MEETING OF THE CANADA MEDICAL ASSOCIATION.

The meeting held in Montreal, August 25th, 26th, and 27th, was a grand success in all respects. There were present about 120, not including the visitors from Great Britain and the United States. The papers were as a rule above the average, and the discussions arising from time to time were generally exceedingly interesting and instructive.

The most important event of the meeting was the delivery of an Address on Abdominal Surgery by the distinguished surgeon of Birmingham, England, Mr. Lawson Tait. In appearing before the Association he was accorded a rousing and most enthusiastic reception. His able address was received with marked attention, and at its conclusion there was a perfect storm of applause.

There was so much material at the disposal of the Association that two Sections—Surgery and Medicine—were instituted as in former years; and although the work was carried on very faithfully, there being a prolonged night session in each, they were not able to complete the work of the session. Dr. Thorburn, of Toronto, acted as Chairman of the Medical Section; and Dr. Roddick, of Montreal, presided over the Surgical Section.

The general meeting was opened at ten a. m., on Monday morning, and closed on Wednesday, Aug. 27th, at one o'clock.

### THE VISITORS.

A number of the members of the British Science Association attended regularly the various sittings, and evidently took great interest in the discussions. Not only did they show this interest by their respectful attention to the remarks of others, but they made themselves at home at once, took part in many discussions in the most friendly way, and, generally speaking, acted in a manner that was very highly appreciated by the regular members. Among those who entered most freely into these discussions were Dr. McMillan, of Hull, England; Drs. Protheroe and Heywood Smith, of London; Dr. Struthers, of Aberdeen; Dr. George Harley, of London; and many others. Many of them spoke in the most flattering terms of the meet-

ing, and said it compared very favourably with those held in the old country. Among the visitors from the United States were Dr. Brush, of Utica, N. Y.; Drs. Brodie and McGraw, of Detroit; and Dr. Elsberg, from New York. These gentlemen received a cordial welcome from their many friends, and took a lively interest in the proceedings from beginning to end.

### MR. LAWSON TAIT.

Mr. Tait was the lion of the meeting, and of course all were anxious to see him. He is short and broad, with a large and well-shaped head. He looks like an Englishman, and is unusually affable and agreeable. He has a fine presence, a good voice, a pleasant style of delivery, the air of a man who knows what he is talking about; and while speaking looks as if he feared not to face the whole phalanx of London surgeons who dislike so much *that fellow Tait*, from Radical Birmingham.

### THE RECEPTION OF STRANGERS.

The unbounded hospitality exhibited by the Profession of Montreal was a matter of universal comment. As the Montrealers have a reputation for such conduct, the general feeling of surprise was not marked; but on this occasion, we must say, they even surpassed themselves. We can pay them no higher compliment.

The banquet given at the Windsor Hotel, on Tuesday evening, there being about two hundred present, was in all respects simply magnificent, and the interest of the Canadian guests was greatly increased by the presence of such a number from Great Britain. Dr. Hingston, who presided, conducted "the feast of reason" with the great ability and rare grace for which he has been so long distinguished. Mr. Tait certainly paid him a neat compliment in saying that he reminded him of England's silver-tongued Paget. The speeches as a rule were very good, as after-dinner speeches go. It was of course understood that there was to be nothing heavy. The remarks of Dr. Struthers, Professor of Anatomy in Aberdeen; Dr. MacAllister, Editor of the *Practitioner*; Dr. George Harley, well known as the author of the work on diseases of the liver; Dr. Smith, and others,

were exceedingly cordial and friendly in tone, and were received with the highest marks of appreciation.

#### TIME AND PLACE OF NEXT MEETING.

Winnipeg was chosen as the next place of meeting, and it was decided to authorize the President, General Secretary, and the Committee of Arrangements to name the date. It was thought by those best acquainted with the North-West Territory that it would be better to meet earlier than the usual time, which is the 1st Wednesday in September, because we would be likely to see the country to better advantage before the harvest was reaped *i.e.*, about the middle of August.

The decision in favour of Winnipeg was not formed without very careful consideration. It will be remembered that a very cordial invitation came from the Winnipeg Medical Society for the Association to go to that city in 1884, but as it was thought very desirable to come in contact with the British Association for the advancement of science, Montreal was chosen with a partial understanding that Winnipeg would be selected for 1885. During the recent meeting the Chatham members, who as usual were well represented, invited the Society to go to their thriving town in 1885, and a large proportion were in favour of accepting this invitation. When it was ascertained that a goodly number from Ontario and Quebec, as well as the Lower Provinces, were anxious to go to Winnipeg, the members from Chatham generously gave way, and the former city was proposed and carried without opposition. It is expected that there will be unusually low rates for travelling, and it is hoped that a large number from the East will travel to the far West and make the meeting as successful as possible.

#### OFFICERS ELECTED.

With singular unanimity Dr. Osler was elected President for 1885. It is feared that before *many years* he will leave Canada, and the Association was anxious, under the circumstances, to honour one who for years has been one of its most able and faithful members. It is not intended that he shall simply hold a seat in the Upper House or be placed on the reserve

force after 1885, but, on the contrary, it is hoped that wherever his lot may be cast for many years to come, he will continue to be one of our most active members. Dr. Stewart, of Montreal, was elected General Secretary, and Dr. Sheard, of Toronto, Treasurer. The following were elected Vice-Presidents and Local Secretaries:

Vice-President for—Ontario, Dr. Bray, of Chatham; Quebec, Dr. Geo. Ross, of Montreal; New Brunswick, Dr. Allison, of St. John; Nova Scotia, Dr. Fraser, of Windsor; Manitoba, Dr. Whiteford, of Winnipeg.

Local Secretary for—Ontario, Dr. Burt, of Paris; Quebec, Dr. Bell, of Montreal; New Brunswick, Dr. Walker, of St. John; Nova Scotia, Dr. Almon, jun., of Halifax; Manitoba, Dr. Mewburn, of Winnipeg.

THE porous plaster is said by a Milwaukee druggist to be useful "to retain the back in its proper place, and let the pain crawl out through the holes."

### Meetings of Medical Societies.

A FULL report of the proceedings of the Canada Medical Association will be found in the October number.

THE remarks of Dr. A. M. Rosebrugh at the meeting of the Ontario Medical Association were inadvertently omitted from the report of that meeting. They will appear in our next issue.

### THE BRITISH MEDICAL ASSOCIATION.

(Reported by Dr. J. E. Graham, Toronto.)

The fifty-second annual meeting of the British Medical Association commenced in Belfast, on July 29th, and continued for the three following days. The meetings were held in the Queen's College Buildings. The afternoon of Tuesday was devoted to the general business of the Association. In the evening Dr. Cuming, Professor of Medicine in Queen's College and President of the Association, delivered the

annual address. After some words of welcome to the members present, he went on to speak of the sanitary condition of Belfast.

He commended the action of the authorities in their recent efforts to make the city healthy and clean, but complained of the system by which the sewers emptied their contents into the river, thus polluting it. He did not think the ebb and flow of the tide sufficient to carry off the filth.

He then spoke of the importance of micro-organisms in the causation of many diseases, and ascribed the honour of their discovery and further elucidation to the foreign schools.

The lecturer thought that in the intense and almost universal study of morbid anatomy in the profession, symptomatology and treatment had been neglected. He went so far as to say that in some cases he believed symptoms produced morbid changes, instead of morbid changes producing symptoms. He thought that greater attention should be paid to the influence of climate, of race, and family on diseased conditions. He gave as examples the immunity of the negro race from yellow fever; the tendency in the Teutonic races to hernia and varicose veins; and the liability of the Celtic races to nervous diseases. He was of opinion that this could be studied to greater advantage in private than in hospital practice, as in the former patients are longer under observation than in the latter.

The lecturer then spoke of the relations between tubercle and scrofula, and thought that the distinction between the two conditions was more sharply drawn by clinical than by pathological investigation.

The remainder of Tuesday evening was taken up by general business.

On Wednesday morning the address on Medicine was delivered by Dr. Wm. M. Ord. Subject, "Neurotic Dystrophies." These he arranged under the following heads:—

(1) Dystrophy of muscle from joint irritation. Examples given by Charcot of atrophy of muscles caused by disease of a neighbouring joint.

(2) The converse, viz., dystrophy of joints the result, for instance, of fracture of bone.

(3) Dystrophies from centric changes, as

shown in disease of joints in *tabes dorsalis*.

(4) Dystrophy of joints from uterine irritation.

In the latter class he included a large number of cases of chronic rheumatic arthritis in women, accompanied by dysmenorrhœa, or chronic endometritis. He is inclined to think that the disease of the joints in these cases is not produced by the absorption of septic matter into the blood, but rather through the nervous system. He employs the same theory of eccentric irritation in explaining the phenomena of gonorrhœal rheumatism. He then took up neurotic dystrophy in secretion. Gave as a striking example the bad odour of the breath in one who has spent days and nights of anxiety in waiting on the sick. He concluded by explaining the phenomena of myxœdema in the same way. It is singular that in cases of myxœdema, the thyroid gland becomes atrophied. In Switzerland, on the other hand, in those cases where the gland has been entirely removed the symptoms of myxœdema have supervened.

The principal object of the address was to show that many diseased conditions previously thought to have been brought about through the blood, have their etiology in the nervous system.

During the afternoon meetings of the various Sections took place.

In the Medical Section a discussion was opened by an exhaustive address from Dr. Geo. Johnson.

The causes of albumen he put under two heads—(1) Abnormal condition of blood, (2) Obstruction to the return of blood from the kidney. He is of opinion that mental anxiety causes, in the first place, derangement of the stomach and liver, and thus acts secondarily in producing albuminuria.

Incurable disease of the kidney may exist without the presence of casts in the urine. On the other hand, the latter may be found in curable cases.

The thickening of the arterial walls in the kidney is the result of hypertrophy of the muscular coat. He entirely disagrees with Drs. Gull and Sutton in their views of hyaloid arterio capillary fibrosis. The hyaloid condition



is produced by the preparation of the specimens in glycerine. He thinks that Drs. Gull and Sutton have been quite deceived in their interpretation of the specimens.

In speaking of treatment, he laid great stress on an exclusively milk diet, and mentioned the case of a gentleman, previously a high liver, who enjoyed good health for five years on an exclusively milk diet.

In testing for albumen, he prefers a saturated solution of picric acid as the most convenient and certain.

Sir Andrew Clark, in a letter read by the Secretary, spoke of non-renal albuminuria, that is, the presence of albumen in urine, free from mucous or pus, and when the kidneys were healthy. He had found this condition in women during menstruation and in case of masturbation.

Dr. Johnson did not think there could be albumen in the urine in such cases without the presence of mucous, pus, or blood corpuscles.

The history of a most interesting case of obstruction of the thoracic duct was read by Dr. Whitla, and the specimen exhibited. There was an almost complete obstruction of the duct and distension of the part below the point of disease. An opening had taken place into the peritoneal cavity, and the chyle escaped into it. Twenty-two ounces were drawn off on each of two different occasions. The specimen of chyle is spoken off elsewhere.

On Thursday morning, at the general meeting, the address on Physiology was given by Prof. Redfern.

During the afternoon session Dr. Douglas Powell read a very exhaustive paper on Tuberculosis. The principal point made was, that there exists a pretubercular stage, in which inflammatory processes go on in the lung, which will end in tuberculosis if the bacillus is introduced from without, and only on that condition.

Dr. Gairdner, of Glasgow, held somewhat similar views. He expressed his strong belief in Koch's theories, and gave instances of miners' lungs which had come under his observation. Many cases, in whom large portions of the lung were destroyed, did not end in tuberculosis.

The reason, in his opinion, was that the bacilli were not introduced.

In the Pathological Section a very interesting paper was read by Mr. Paul.

On the pathology of rodent ulcer he demonstrated the truth of his assertions by many most beautifully-prepared sections made from over twenty different cases. He showed clearly that, instead of the disease always commencing in one particular element of the skin, such as sweat glands, hair follicles, or rete malpighii, it may begin and develop in any one of them in different cases. Among the specimens were some very beautiful sections of adenomatous growth commencing in the sweat glands.

He is a believer in the connection tissue origin of carcinoma.

In the Public Health Section Dr. Cameron, of Glasgow, read a paper on the prevention of the spread of Cholera. He was of opinion that we should not follow the theories of any one man or school in our efforts to prevent the spread of cholera, but that we should employ every means which have been found of service in the past. He concluded by asserting that England had the power to completely and forever stamp out cholera by attending to the sanitary condition of India, where the disease has always had its source.

On Friday morning an address on Obstetrics was given by Dr. Kidd, of Dublin, in which he demonstrated the specific character of puerperal fever, from the history of that disease in the Rotunda and other lying-in hospitals of Dublin.

At noon, short sectional meetings were held, and at 2 p.m. the last general meeting took place. General business of the Association occupied the attention of members.

On Saturday a number of excursions were made, the most important being one to the Giant's Causeway.

Nothing could exceed the kindness and cordiality of the profession and laity of Belfast. The city itself is lively, beautiful, and clean, and there appears a great amount of wealth and comfort in the homes of the people.

In Vienna, in 1882, there were 16,605 births in wedlock, and 12,657 illegitimate.

## PROCEEDINGS OF THE SURGICAL SECTION.

(Reported by Dr. L. McFarlane, Toronto.)

The Surgical Section of the British Medical Association was opened by a short address by the President (Sir Wm. McCormack), in which he discussed the operation for removal of the thyroid gland, and the subsequent effect of its removal in the production of myxœdema and cretinism. He was of the opinion that the conditions above mentioned were not a consequence of the operation, but depended on some constitutional taint quite independent of it. He quoted, in support of his theory, Wölfer and Bilroth, and instanced the fact that neither of these gentlemen had observed this condition following the operation. He also mentioned the experiments of Creda on dogs to show that the idea is not borne out by facts. He then took up the operation for the radical cure of hernia, pointing out the fact that it is not a cure but a mode of treatment which tends to strengthen a weak point in a weak abdominal wall. The address throughout was practical and carefully considered.

After the opening of the Section, a discussion on the treatment of Spinal Curvatures, introduced by Dr. Lewis Sayre, New York, who gave demonstrations in the morning on partial suspension and the application of the plaster jacket for Pott's disease, and partial self-suspension and the application of the plaster corset for lateral curvature. Messrs. Bernard Roth, O. B. Keetley, Edward Freer, and others took part in the discussion. There were no two opinions in reference to Sayre's plaster jacket being the best known mechanical contrivance for the treatment of Pott's disease, but exception was taken by Mr. B. Roth to the application of the plaster corset in lateral curvatures. He contended that the conditions existing in lateral curvature were dependent on distorted muscular action, and could be overcome by muscular movements and gymnastic exercises, and that the corset had an injurious effect by fixing the muscles of the body.

Dr. Sayre, in closing the discussion, said that in the early stage of the disease, no doubt, the

muscles were the prime factors in its production, but as the case became chronic the spine assumed a fixed curve, and in such cases it was necessary to apply the corset in order to keep the spine straight when that position was attained by self-suspension.

If the means employed are to be judged by the success in treatment, I am confident that Dr. Sayre's plaster corset must rank high in the estimation of every surgeon who has used it.

For the information of those of your readers who have not seen it applied, I will give a brief description. The shirt that is used is much longer than that used in applying the plaster jacket. It is put on inside out. The patient then suspends himself, or herself, by means of Sayre's suspension apparatus, seizing hold of the rope with both hands. The hand on the side of the curve is placed higher on the rope than the opposite one, thus raising the affected side to as near the normal position as possible. This being done, the surgeon applies the plaster bandage in the ordinary way, taking care not to make the corset too heavy; and, before the plaster hardens, it is cut down the front of the chest and removed from the body. When the plaster hardens, the tail of the shirt is turned up over the outer surface of the corset and stitched to the flannel at the upper part of it. The cut edges of the corset are bound with leather, and fitted with eyelets, so that it can be laced when put on. The corset can be taken off and put on at the will of the patient.

There was a very interesting and instructive paper read by Mr. G. H. Makins, of St. Thomas' Hospital, London, on the successful suture of the small intestine in a case of faecal fistula. The patient, a young man about twenty-one years old, had been operated upon for strangulated hernia; the operation did badly, and sloughed to such an extent as to produce a faecal fistula about two inches above poupart's ligament. Through this opening partially digested food passed, and consequently the patient became very much emaciated and weakened, and it was finally decided to suture the intestine, which was done successfully, the patient taking food by the mouth on the third day.

Mr. John Fagan, of Belfast, read a paper on Gastrostomy: its merits as a means of treating strictures of the œsophagus, and the best mode of performing the operation. This was followed by notes on a successful case of gastrostomy for stricture of the œsophagus, by Mr. C. Macnamara, of Westminster Hospital, London. The patient had been suffering from stricture of the œsophagus for three years, and when admitted to the hospital the smallest-sized bougie could not be introduced through the stricture. An opening was made about three inches in length parallel to the cartilages of the ribs, through which a small part of the stomach was drawn and secured in position by placing a hair-lip pin through it. The margins of the external wound were then sewn together close up to the portion of protruding stomach, when an opening was made through its coats and a gum elastic catheter introduced, through which the patient was fed. He made a good recovery; the hair-lip pin was removed in seven days, adhesion having taken place between the stomach and the abdominal wall.

Mr. C. B. Ball, of Dublin, read a paper on a new method for the radical cure of Hernia by torsion of the sac, reporting two successful cases.

Mr. R. Richardson, Rhayader, read a paper on the surgical treatment of Hydatid Cysts of the liver, in which he strongly advocated free incision and evacuation of the cyst, subsequently washing out with a weak solution of carbolic acid, 2 p.c.

Time will not permit my entering into all the papers read in this Section, of which there were in all some fifteen or eighteen. Suffice it to say that each had its merits, and tended to show the rapid progress made in surgical science. I cannot conclude this paper without mentioning the extreme kindness and princely hospitality of the members of our profession in Belfast as well as her citizens, special attention being shown to the members from the Dominion of Canada.

RECTAL ANÆSTHESIA.—It is hinted by the *Medical Bulletin* that the idea of producing anæsthesia by the rectum is not "fundamentally" correct.—*Philadelphia Med. Times.*

## HURON COUNTY MEDICAL ASSOCIATION.

The Huron County Medical Association held its quarterly stated meeting on Tuesday, July 8th, in Clinton—Dr. Williams, President, in the Chair.

Dr. Hyndman, Exeter, presented a case of frequently recurring hæmoptysis in a man, age about 38, who had a history of severe bronchitis, about eight months since, from which his medical attendant scarcely expected him to recover, and thought it would likely terminate in acute phthisis. His general appearance was that of fairly good health. Physical examination by the different members revealed very little. A dull spot two inches below the clavicle, and about same size, yielded an exaggerated rhonchus. This, added to a wavy respiration in different localities, led to the conclusion that there was very probably tubercular deposit.

Dr. Elliott presented an interesting case of recovery from necrosis of the acromion process which was entirely removed, the bony deposit taking place early. There is partial motion of the joint which time will probably increase.

Dr. Campbell reported a case of Potts' curvature of the spine, in a lady aged 59 years, which entirely recovered after the application of seven plaster of paris jackets, covering a space of about two years. He also reported a case of extensive effusion into the pleur of right side, followed by empyæma after six pints of serum had been aspirated. Fourteen days after the aspiration, eight pints of fetid pus were removed by free incision, and the cavity washed out with carbolic lotion, two to four times a day, on the syphon principle. The patient is still under treatment.

Dr. Worthington presented a case of rodent ulcer, situated at the outer angle of the left eye, of about eighteen months standing. The general conclusion as to treatment was that scraping with the spoon and cauterization would be best. He also presented a case of congenital defect of the medulla spinalis and probably of the left frontal lobe of the brain. The patient is six years of age, but cannot walk. There appears to be a want of co-ordination. When he makes the attempt he is

very much bent forward and holds out both arms and accomplishes two or three steps. He can say only a few words, but understands all that is said to him. When an infant he had no control whatever over the motions of his head, it always remaining where it was placed. Each year brings a little improvement, and it seems probable that in time he may be able to take care of himself. Papers are to be read and discussed at the next meeting in October.

A. WORTHINGTON, M.D., Secretary.

### Correspondence.

#### WINNIPEG LETTER.

(FROM A SPECIAL CORRESPONDENT.)

Manitoba has been making the same rapid strides in medical matters as in all other departments. With the rapid influx of people came an equally rapid increase of doctors, until we can boast of the largest proportion of medical men to the total population of any province in the Dominion. Indeed, at present, the field is too well occupied, especially in our cities and towns. Without doubt, however, there are many points in rural districts where a doctor's presence would be hailed with pleasure, and where he could make a present living and be reasonably sure of a future reward commensurate with the arduous nature of his early work.

In our city the profession have been displaying that energy which characterizes all western people. The laity having generously supplied a well-constructed and completely equipped hospital, the members of the profession decided to start a medical school in connection therewith. The Faculty was arranged last summer, and work was commenced in October, with a class of fourteen students, probably the largest first class of any Canadian school. This year they are putting up a suitable brick building in which to carry on their work, and they intend to purchase the necessary outfit. They have every confidence in the success of their enterprise, and are entering freely and heartily into the various burdens necessitated by such a scheme.

The standard of work placed before the

student is high, and it is the wish of the professors to excel the older provinces in the status of their graduates. It is to be hoped that, before the first class is ready to be laureated, the Ontario Council will see fit to break down its Chinese-wall of exclusiveness in regard to the non-acceptance of the licenses of other Provincial Boards. If it does not, the spirit of retaliation, now rife among a few here, will spread and lead to the exclusion of Ontario doctors from this field. There should be either a Dominion Board of Examiners, or an amicable agreement between the present Councils, so that a license from one shall be valid in all the provinces. All are working in the interests of higher education, and a united feeling would strengthen the hands of each.

In sanitary improvements, Winnipeg is also making great progress. House garbage and refuse are removed by a thoroughly-organized system of scavengers, under the control of the City Council. Drains of the latest approved designs are being made throughout the city, several hundred thousand dollars having been appropriated for that purpose. We are not without reminders that these are necessary advances. Filth diseases have for the past few years shown too great a fondness for lingering among our people. Diphtheria occurs in sporadic cases, fighting for a place of existence; typhoid fever claimed far too many victims last winter; while erysipelas is too frequently seen on the case-book of the physician. With the recent improvements completed, Winnipeg will be the healthiest, as it is now the most enterprising, city in Canada. H. H. C.

ROTUNDA HOSPITAL, DUBLIN.—In the year ending Nov. 1883, Dr. Macan being Master, 1,090 women were delivered, with 6 deaths, being 1 in 181.6. In private practice the average mortality is 1 in 120.

"FATHER," answered a fair penitent to the confessor, who asked her name, "my name is not a sin!" The joke has been revived. Auspitz asked a syphilitic client his name. "Doctor," replied he, taking his hat, "Doctor is my name a symptom?"

### Personal.

Dr. J. S. Draper, of Tilsonburg, was married to Miss Wright, of Toronto, July 30th.

Dr. J. F. Bell, Toronto, has received the L.R.C.P. of London.

Dr. H. Wilberforce Aikins, B.A., has been admitted a member of the Royal College of Surgeons, England.

Dr. J. S. Gray has removed from Winnipeg to Mount Forest.

Drs. J. E. Graham and McFarlane sailed from Liverpool on the 21st of August.

Dr. W. E. Macklin (T. S. M., '80), who has practised successfully at Poplar Hill for the past four years and endeared himself to very many there, was recently presented with a gold watch and chain on the eve of his departure for Japan, where he has accepted a position as medical officer, working in conjunction with a band of missionaries there. Dr. M. purposes taking a post-graduate course at New York, and also spending some time at the hospitals of Great Britain and probably Vienna, prior to proceeding to Japan.

It is expected that Dr. Osler, of Montreal, will be elected to the Chair of Clinical Medicine in the University of Pennsylvania, which for the last eleven years has been held by Professor Pepper. If he accept this position he will shortly remove to Philadelphia. We regret exceedingly the prospect of losing Dr. Osler, as far as Canada is concerned, but in any case, we unite with his many friends in wishing him the highest success wherever he may be in future years. We have also to congratulate our distinguished friend on the fact that he has been invited to deliver the Gulstonian Lectures next spring before the Royal College of Physicians, London.

Dr. Heywood Smith, who took a prominent part in the discussions at the Montreal meeting, is the most prominent surgeon in the Hospital for Diseases of Women, Soho Square, London.

Dr. Bray, of Chatham, will be a candidate for re-election for the Western and St. Clair Division in the Ontario Medical Council. We are pleased to learn that he is not likely to have any opposition.

Dr. Burns, of Toronto, will be a candidate for re-election in the Midland and York Division; and, as he has proved a faithful and worthy representative, we hope there will be no opposition.

Mr. Lawson Tait, Drs. Protheroe Smith, Heywood Smith, and many other medical members of the British Science Association, will be in Toronto the first week of September.

### Miscellaneous.

THE latest count found 3,353 patients in the hospitals of Vienna

THE average duration of life in Russia is put down at 26 years.

It has been decided by the Criminal Courts of Berlin, that when labour begins the fetus becomes legally a human being.

THE death of Professor V. Jäger, of the Vienna University, is announced. The following are named among the candidates for the position thus rendered vacant—Bettelheim, Englisch, Oser, Ultzmann, Urbantschitsch.

INSANITY OF MENSTRUATION.—Dr. Régis (*Journal de Médecine de Bordeaux*), says that the mental state of females is, as a rule, more or less affected during menstruation. Bertheer was of opinion that psychoses of menstrual origin were in many cases closely allied to the transitory insanities; they as a rule were short attacks of mania or melancholia. When, however, the affection was due to interference with the proper performance of menstruation, then the affection lasted longer. As a rule acute mania is the most common type presented, but an acute hallucinatory psychosis is far from infrequent. Nymphomania, kleptomania, homicidal impulses, incendiary impulses, dipsomania and suicidal impulses are often the chief psychical symptoms of the insanity of menstruation properly so called. In the great majority of cases, the appearance of the menstrual flow is an evidence and consequence of intellectual improvement. In a few cases it is the cause.—*Alienist and Neurologist*.