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PRESIDENT'S ADDRESS.*

By T. T. S. HARRISON, M.D., SELKIRK, ONT.

My first duty, as well my pleasure, is to thank you for the honour you have done me in placing me in this position, an honour as unexpected as it was unsought. In fact, I might well have great misgivings as to my ability to fill it, for I need not tell you the mantle of my many able predecessors has not fallen on my shoulders, and I should not have accepted it had I not felt that I could rely upon your assistance and indulgence.

The subject of my address has been one of grave consideration. I might have taken the history of medicine or surgery, but it is trite, and has been worn threadbare. The history of the developments and improvements during the last one, two or three decades in this age of books and journals, is the property of the whole profession, especially of those who take enough interest in its progress to attend this meeting. It was with a good deal of diffidence that I took as my theme my personal experience and observations in medicine, extending over upwards of half a century.

Over fifty-seven years ago, with my father, the late Dr. Harrison, I settled near the shore of Lake Erie. The country at that time was an unbroken forest, with merely a thin and scat-

* Read before the meeting of the Canadian Medical Association at St. John, N.-B., August, 1894.

tering fringe of settlements on or near the lake. The soil was heavy clay, and the surface very gently undulating. The water supply mainly derived from the rainfall. The watercourses were more or less obstructed by the debris of the forest, so that the swamps held their moisture all summer, or until dried by slow evaporation or percolation. At this time miasmatic diseases were so prevalent that very few passed a summer without an attack of ague, and bilious remittent fever was common, and sometimes fatal, especially among the unacclimated. It was no uncommon thing to find, during the hot weather of summer, cases of ague or remittent in every house in a settlement, and frequently every member of a family would be attacked at once. Unacclimated persons who were healthy and vigorous sometimes passed the first summer without being attacked, but the fact that they developed it early the next year showed that the poison, though dormant, was still present, and had preserved its virulence through the long period of winter, ready to show itself on the first occasion of the lowering of the powers of life. When the system became saturated with the miasmatic poison the patient was generally attacked every summer, as soon as the weather became warm, and it stuck to him either continuously or with intervals of apparent convalescence until the approach of cold weather. This would go on for perhaps from three to five years, when the susceptibility to the disease seemed to be worn out, but it left the patient with a constitution so shattered that it took years to recuperate, and left him an easy prey to the first serious attack of disease.

The miasmatic poison was so omnipresent that it complicated almost every other disease. I remember my father saying that he had scarcely seen an uncomplicated case of pneumonia, and the man who ignored its presence had little success in treatment. Quinia would check as it certainly, and I think in much smaller quantities than we now require. From ten to twelve grains in two grain doses rarely if ever failed to stop the ague for at least seven to fourteen days.

At the same time there was a peculiar and very fatal disease among cattle. It had the local name of murrain. The animal

was seen to be ailing ; the eyes became sunken, the extremities cold. In a short time a bloody diarrhoea and hæmaturia ensued, and the animal died in from twelve to twenty-four hours. A case of recovery was almost unknown. This disease was so prevalent that scarcely a herd escaped, and a farmer frequently lost from one-fourth to one-half his stock of horned cattle. Horses and sheep were not affected. In the next township to the west of us the soil was porous sand, well watered with springs and spring streams, and here, though ague was not uncommon, this disease of cattle was unknown.

Contrary to an opinion frequently advanced, the presence of malaria was not accompanied with the absence of typhoid, which, I think, was as prevalent as it is now.

When my father settled here, there was not a doctor nearer than a day's ride, and the medicine was entirely domestic. Charms and incantations were largely depended upon in cases of ague and hæmorrhage ; but in cases where remedies were used they were pushed with a vigour that would take the breath of the modern patient. Whiskey was the universal remedy, and had the advantage of being indicated in all diseases, in all their stages, and in all conditions of the patient. It was a *sine qua non* in midwifery. I remember when a boy riding with two old settlers through the woods, and while passing a loghouse, many miles from the nearest neighbour, a woman rushing out and hailing one of the men with "Have you any whiskey?" He slowly and hesitatingly acknowledged that we had a bottle, "just enough to take us through the woods." "You will have to give it to us," says the old woman. "Here's a woman sick, and no whiskey. Did you ever hear of such a thing?" My friend took a parting drink, and then, with a "longing, lingering look" at the departing spirit, handed the remainder to the midwife.

A disciple of Thompson had carried his peculiar ideas into the settlement, and the beautiful simplicity of the doctrine "Heat is life, and cold is death," that you had only to throw off the "cold phlegm" with lobelia, and keep up the heat with red pepper, to cure your patient, had gained many followers ; and I know of at least two deaths caused by the lobelia.

Bleeding was resorted to on the slightest provocation, and there was scarcely a neighbourhood that did not boast of a man who could open a vein with a dexterity that would shame the majority of the graduates of to-day ; and the enormous bowls of the various infusions and decoctions that were poured down the patient would go far to convince the observer that, as in the case of New York's historian, they intended to drive out the enemy by inundating the seat of war. Some of their medicines were nauseous enough to have been derived from the pharmacopœia of the Dark Ages, the Chinese or the homœopathists. An infusion of the excrement of the sheep was commonly prescribed for the measles, and that of the cat—no bad substitute for assafoetida—was considered “ the sovereign'st thing on earth for fits.”

My father was the first in the neighbourhood to treat diseases *secundum artem* ; but in those days the principles of medicine as taught by Sydenham and Cullen had not become obsolete, and he never hesitated to use contra-stimulants or the lancet in inflammation, in what was called inflammatory fever, or sthenic cases of disease with hyperaction, where he considered that the patient's constitution would endure the treatment.

It was in this school that I learned the first rudiments of medicine, and in the first years of my practice I used the lancet with more or less freedom. And though the doctrine of John Hughes Bennett and his followers has largely affected my practice, I am by no means convinced that the disuse of the lancet has been an unmitigated blessing. As there were brave men before Agamenon, so there were skilful and *successful* physicians before we were thought of, or a bacterium discovered. It was certainly a dangerous mode of treatment for the mere routinist, who bled, blistered and salivated each patient, as a matter of course ; but was a powerful weapon for good in the hands of the careful, observing physician, who understood the course and effect of disease, and carefully and intelligently studied and watched those of his remedies. And while our modern treatment saves patients who would have died under the old regime, I am convinced that the vigorous treatment of

our fathers saved many who would have been allowed to die under the expectant treatment so fashionable a few years ago.

Diphtheria reached us before railways had opened up the country, and I repeatedly saw it on isolated farms, surrounded by woods, and where it could not possibly have been carried from without, and where the land had been so recently redeemed from the forest that it could not have been derived from some previous but forgotten case. This has seemed to me to prove that the origin of the Klebs Loeffler bacillus requires further investigation. We also had cases of cerebro-spinal meningitis ; and I was much interested in a paper read by Dr. (now Sir James) Grant at the first meeting which I attended of this association, in (I think) the year '69. It was on Cerebro-spinal Meningitis, or, as he termed it " Purpuric Fever," as it appeared in the Ottawa Valley. It had appeared with us at the same time ; and, changing the locality and the names, his paper would have fairly described my cases and their results.

The country became rapidly and thoroughly cleared and drained ; and it so completely rid us of the cause of miasmatic disease that I have scarcely seen a case of ague in twenty or twenty-five years, nor a case of old-fashioned remittent, in my own practice of some forty years, and it is so long since we have had a case of murrain among our cattle that it has ceased to be a tradition. We have occasional cases of typhoid ; but, though for years there was no attempt to isolate the patient, it is very seldom we have had a second case in a neighborhood. We have a German settlement near us, where it is considered to be the duty of everyone within reach to visit the sick, which they do without the slightest precaution, yet I never saw it communicated. In the township adjoining, where the soil is very porous, the opposite obtains. There an isolated or single case is the exception. Time and time again I have seen a case of typhoid fever followed by one, two or three others, in the same house or in the immediate vicinity. The only difference between the localities is in the soil and the water. Their water is spring, and from either springs, wells or streams is bright, sparkling and good tasted ; while ours is far from being clear,

and is contaminated with clay, lime, magnesia and sulphur. But while our soil is heavy and impervious, theirs is as porous as a sponge ; and I feel sure, allows the poison from the patient and his dejecta to find its way into the wells. These facts seem to me to go far to show that, if we disinfect or take care of the dejecta from our patients, there is little danger of spreading the disease.

For a long time in my earlier years I had no medical friend within easy reach, so that I had frequently to operate without assistance ; and I have more than once amputated the leg or thigh with only the aid that a resolute neighbour could give, and I have been so used to perform all the operations required in obstetrics without medical assistance that I never think of asking for a consultation. But this state of affairs has its disadvantages. While it has a tendency to make a practitioner self-reliant and resourceful, and has bred in Canada a host of practical men perhaps second to none, it has a tendency to make a man opinionative and obstinate. In the language of Pasquier, he is apt "to think there is nothing left for him to learn ; he entertains oftentimes the most absolute confidence in himself, and the most profound disdain for all who do not share the ideas—the opinions he has already conceived unto himself." Or else he is apt to get into a rut, and to develop the mere routinist.

After my father's death, I particularly felt the necessity of meeting other medical men at least equal to myself, and with greater or more varied experience ; and, as soon as this Association came within reach of me, I attended and joined it. I think this was at its second or third meeting, and I have attended most of its meetings since. When the Ontario Medical Association was formed, I was one of the first to join, and have been an active member from that time, and I attribute any measure of success I may have achieved to these circumstances. I hold it to be the duty of every live medical man in Canada to support these Associations and to attend their meetings, and that the man who has an opportunity to attend, and does not, fails in his duty to his profession, to himself and to his patients. It is not

enough to belong to his local society, and it is not correct or fair to hold that the Provincial Association takes the place of, or is in any way the rival of the Canada Medical. The provincial societies should be its feeders, for, while the provincial associations are necessary to unite and promote the brotherhood of the profession in each province, it is the Canada Medical that is the common bond of the profession of the Dominion, that knows no provincial boundaries, and unites the medical men from the Atlantic to the Pacific. But here we find an anomaly which, it seems to me, is a disgrace to the profession. Any medical man of good standing in his own province is eligible for membership of this Association and can attend its meetings anywhere; but, if he wishes to practice, the moment he crosses the imaginary line which bounds his own province, he is met by a Shibboleth both vexatious and humiliating.

A man who, for a quarter of a century or upwards, has practised with credit and success, is, on entering another province, required to pass the examination of a student; the examiners perhaps men without a tithe of his experience or ability—men perhaps unborn when he entered the profession. Surely this state of affairs should not and need not exist. Its inconvenience and unfairness must be manifest to all, and it should be the duty of this Association to remove the anomaly. It has been several times brought to its notice. I remember hearing it discussed in, I think the year 1869, by the president, Doctor (now Sir Charles) Tupper, but so far we have done nothing. The different standards of matriculation and education, the varying width of the portals to the profession in the different provinces is, I think, the main obstacle. And one can easily see the unfairness of asking a province where the standard is high, the period of study required long, the examination rigid, and where the University degree gives a man no right to practice, to admit, on equal terms, men who have qualified in provinces where they are admitted on much easier terms, and where the University degree of M.D. is all that is required to obtain a license or to register. One can see that the result would be “a beggarly account of empty” benches in their

colleges, while their students would go in crowds to the universities in the provinces where they found a royal and easy road to practice.

The only way to accomplish this is to establish a common curriculum, a common standard, a common portal to the profession for all the provinces of the Dominion ; and when a man has once entered he should be entitled to register in any of them ; and as medical education, like the Roman Eagles, cannot be allowed to retrograde, the requirements to practice should be based upon those of the province where these are the highest, and where the examinations are the most rigid. This can work no injustice. Our standards are none of them too high. A few days ago Mr. J. Greig Smith, in the address on Surgery before the British Medical Association, says : " Are we to lower the standard of surgery so that our brains may not be strained, or are we to strain our brains that surgery may be raised ?" And he answers, " Let surgery rise, if brains fall ; let the weak, the lazy or the impatient fall out, but do not let us lower our standard because some men cry it is too high. It cannot be too high." I think this sentiment will be endorsed by this association, and I think no man competent to give an opinion, will say that in any of the provinces we have too high a standard.

We can only assimilate our varying standards by a joint action of all the provinces, and as this Association is the only body which contains, or should contain, representatives from them all, I think we must depend upon the Canada Medical to achieve this result. It has been for a long time held in abeyance, but the growth of our country, the increase in population and importance of many provinces and territories, which were not in existence when this subject was first brought up and discussed, and above all, the enormous and continuing increase in the numbers of medical men render its consummation more necessary than ever ; and although I am an old man, and in the course of nature not likely to practise much longer, and although it would not affect me personally, still as a member of a profession that has descended to me in a direct line through

surgeons, some of whom existed more than a century before I was born, and which I have transmitted to my eldest son, I am deeply interested in this question, and if I can feel that I have done anything to help throw down these barriers, and unite the profession of the whole Dominion, I shall consider my time well spent, and that I have not for so many years been a member of this association in vain.

August 22nd, 1894.

THE PRESENT STATUS OF ASTHENOPIA.*

By F. BULLER, M.D.,

Professor of Ophthalmology and Otology, McGill University, Ophthalmic Surgeon
to the Royal Victoria Hospital of Montreal.

The science of medicine and the art of surgery includes so wide a range of knowledge and experience, that no one man can never hope to grasp the whole subject, or to become an expert in more than a limited area of the sea of work in which he finds himself floundering so soon as the portals of our profession have opened for his admission. For this reason, specialism has become more and more of a necessity, and it is through specialism, tempered by a wider knowledge, that future progress must be made. It is, therefore, well that we can all meet together from time to time and compare notes, so to speak. It is helpful and encouraging to learn what is being done by workers in other parts of the same field. I myself, would feel that I had not done my duty if I did not occasionally have some contribution to offer my colleagues in medical conclave assembled. I know the subject I have chosen for to-day will interest some, perhaps more than a few of you, because asthenopia is of such frequent occurrence that every physician must, time and again, meet with it in some of its manifestations. The term asthenopia is, of course, generic, and includes quite a number of visual disturbances, all of which present the salient characteristic of inability to use the eyes in near work without discomfort. The asthenope is perpetually reminded that he possesses organs of vision, and many devote a considerable portion of their time to estimating the chances of avoiding what they conceive to be an impending blindness. These gloomy forebodings are often mightily strengthened by the comforting assurance of friends, and I may add, now and again

* Read before the Canadian Medical Association at St. John, N.B., on Aug. 23rd, 1894.

of medical advisers that the symptoms probably indicate some serious disease of the optic nerve. The symptoms complained of vary from slight pricking or burning sensations in the eyes themselves, to severe distress in or about the eyes, or to widely extended and sometimes violent perversions of sensations, such as frequent and intense headache, pains in the back of the neck, or spine, giddiness, nausea, and, in some instances, attacks of vomiting, when the use of the eyes is persisted in. There is in fact, so far as I am aware, no purely functional disease capable of causing a more genuine and persistent distress than is suffered in the severer forms of asthenopia. Taking this affection in its widest sense, I am under the impression that more than half the entire time and attention of ophthalmic surgeons is devoted to discovering the causes of asthenopia and finding means for the relief of this class of patients. If I may be permitted to express another general impression, it is to the effect that asthenopia is more prevalent on the North American continent than elsewhere ; I am aware, however, that general impressions are often wanting in scientific accuracy, and on closer study may prove to be erroneous. This impression is derived from two sources : First, from personal observation both in Europe and America ; and second, from the fact that the American literature of this subject during the last twenty years shows more minute attention has been given to this department of ophthalmic surgery in America than it has received in any other country. Twenty years ago, if one may judge by the textbooks of ophthalmology of that period, only two forms of asthenopia were recognized by ophthalmologists. First, accommodative asthenopia as met with in hyperopia and astigmatism. Second, muscular asthenopia such as occurs when there is insufficiency of convergence notably in certain cases of hyperopia. A very brief discussion of these two forms seems to have satisfied the writers of ophthalmic treatises in those days, that they had done ample justice to the subject. I could name many European authors of much

later date who seem to have advanced no further in this direction. I do not think any one can practice ophthalmology very long without discovering that there are many persons who present no appreciable error of refraction and no fault in convergence, but are, nevertheless tormented by difficulty in using the eyes in near work, and by other functional disturbances associated with the act of vision, and there are others in whom, when an error of refraction has been ever so carefully corrected, there will be little or no relief from the asthenopic symptoms. These circumstances have necessarily led to a closer study of the subject with the result that we are now able to recognize quite a number of conditions, other than those already named, which give rise to asthenopic manifestations. The errors of refraction are, of course, the most frequent sources of asthenopia. Hyperopia chiefly on account of the demand that this condition makes on the mechanism of accommodation, astigmatism the same, with the additional disturbing element of an impossibility of perfectly correcting the defective retinal images which nature abhors not less than she does a vacuum. Myopia may give rise to asthenopia also, but not so often as to the former conditions. The asthenopia of myopia is due either to disassociation of the functions of accommodation and convergence, or to the increased difficulty of adequate convergence when the antero-posterior diameter of the eye-ball is considerably increased, as it always is in the higher grades of axial myopia. It is not my purpose to discuss the subject of errors of refraction and their correction; suffice to say that asthenopia associated with any considerable error of refraction, and sometimes even with comparatively trivial errors will generally disappear when the existing error is suitably corrected. If not, some fault in the equilibrium of the extra-ocula muscles will commonly be discovered when carefully sought for. In some instances the refracted error has of itself induced a false state of equilibrium or rather a defective equilibrium, a perverted muscular habit,

so to speak, which must be overcome before the optical correction can be worn with comfort, and perseverance in the use of the glasses selected for several days or weeks may be necessary before complete relief is obtained. There is, however, no reason why a pair of eyes presenting considerable error of refraction, or any error of refraction, small or great, should not also have some muscular fault quite independently of the refractive error. This circumstance has evidently been overlooked by those who claim that faults of equilibrium always disappear with correction of the associated refractive error. I have observed many cases in which the most exact correction worn for months and years has utterly failed in this respect. That there are muscular faults capable of inducing asthenopia in emetropic eyes is a matter of every day experience, and it goes without saying that such cases are beyond the scope of either spherical or cylindrical glasses. From this fact we are justified in assuming that muscular faults are only susceptible of relief by correction of refractive errors or defects in accommodation in so far as they happen to be directly dependent on optical defects or on some departure from the normal in the mechanism of accommodation.

It is somewhat remarkable that, although for nearly half a century, no one has seemed to doubt the existence of asthenopia from the defective power of convergence, or as is commonly and loosely stated, insufficiency of the internal recti, yet, it is only within the past few years that attention has been directed to faulty action on the part of the other five pairs of extra-ocular muscles, and this, notwithstanding the fact, so long and so well understood, that an impairment in the functions of any one of the twelve extra-ocular muscles necessarily unbalances all the others. Now, it has been found that insufficiency of divergence is a much more common defect than that of convergence, and, when present, no less capable of inducing visual disturbance than is the latter. Faults in the vertical movements of the eyes are also by no means infrequent and may occasion extreme

distress and a form of asthenopia, associated sometimes with widely extended reflex phenomena. Owing to the limited power of rotating the eye-balls possessed by the superior and inferior recti, comparatively trivial faults in these muscles are liable to create much disturbance. Just as in the case of refractive errors, there is no constant or direct relation between the degree of error and the inconvenience it may induce. So much depends on the stability of nerve power, occupation, state of health, and the general surrounding of the individual, that each case must be dealt with according to circumstances and quite independently of hard and fast rules. Sometimes all that may be necessary will be change of occupation, or such treatment as will invigorate or restore the general health. In other cases, the use of prismatic glasses, suitably adapted, will suffice; but in a certain number of muscular faults permanent relief can only be obtained by surgical interference of a kind that will establish more or less completely an equilibrium of the ocular muscles. This may be extremely simple and easy of achievement, or it may be a most difficult and tedious undertaking. Under no circumstances should an operation on the extra ocular tendons be undertaken unless the indications for its performance are clear and definite, and even then the result will largely depend on the skill and judgment of the operator. There are a few cases of asthenopia which seem to originate in undue weakness of the ciliary muscle, cases in which, apart from hyperopia or the ordinary presbyopia, the near point of accommodation is removed beyond its proper limits, others in which near vision may be perfect for a short time, but cannot be maintained owing to weakness of ciliary muscle. In these the local use of eserine or pilocarpine will be of service, so also will general roborant treatment. Now and then among elderly people we meet with asthenopia, apparently caused by loss of transparency in the refractive media, such as incipient cataract. In these it is probable that imperfect retinal images create a reflex disturbance.

Reflex asthenopia of a different kind is by no means uncommon. We meet with it often in connection with nasal catarrh, and nasal deformities causing pressure of opposed mucous surfaces, surfaces which, under normal conditions, are never habitually in contact with each other. Two such conditions are to be especially noted. First, an hypertrophic or polypoid condition of the mucous membrane covering the anterior extremity of the middle turbinated. Second, a spine projecting from the septum and coming in contact with the inferior turbinated. Both of these conditions may require surgical interference for their relief.

Another cause of reflex asthenopia is found in the teeth. Carious teeth, with ulcerated roots, especially in the upper jaw, are to be looked for and set to rights or removed. Sometimes disease of the roots of the teeth will, for a time at least, elude discovery and make the diagnosis perplexing. So too, disease of the antrum, and perhaps of the other facial sinuses should be excluded in making a diagnosis. By far the most frequent, troublesome and persistent reflex asthenopia is met with in young or middle aged women who have for a considerable time suffered from uterine troubles, some of these recover from their asthenopia when cured of the uterine disorder. I have already alluded to this class of cases at some length in a paper read before this Association at a former meeting, and will therefore refer you to that paper for what I might say in this connection. There remains for consideration a considerable class of asthenopes, whom we cannot place in any of the groups of cases I have mentioned. Some of these are associated with that ill-defined condition known as neurasthenia, but why some neurasthenics, without discoverable ocular defect, should be able to use their eyes with comfort, and others only with difficulty amounting, perhaps, to total disability for near vision, is one of the problems we have yet to solve. There are, moreover, some persistent cases of asthenopia of unknown origin, which present none of the general symptoms supposed to be characteristic of neurasthenia: For these we

can only hope to find a more definite place for their classification after further careful study.

I do not think we are justified in assuming that there is such a condition as asthenopia of centric origin until we can define the centric lesions, upon which it is supposed to depend, or which are known to give rise to asthenopic symptoms. There may be cases traceable to known forms of dyspepsia, but I have never, to my knowledge, met with such, and I am not aware that dyspepsia is associated with asthenopia so often as to justify the assumed relation of cause and effect between them. It is likely that time will unravel the difficulties of diagnosis which surround the remaining obscure cases of asthenopia, but for my own part I prefer an attitude of agnosticism towards all that I cannot understand, rather than the easy way of concealing want of knowledge under the guise of unmeaning phraseology.

A YEAR'S EXPERIENCE IN APPENDICITIS.

By JAMES BELL, M.D.,

Surgeon to the Royal Victoria Hospital; Consulting Surgeon Montreal General Hospital; Professor of Clinical Surgery McGill University.

Appendicitis may safely be said to be the most important acute disease which the medical practitioner of to-day is called upon to treat. It is so because: (1.) It affects all communities, all classes and both sexes during the active period of life—from childhood to the period of declining vigour. (2.) If not treated surgically it is probably responsible, directly and indirectly, for a greater aggregate mortality than any other acute disease. It is certainly so if we except those which occur in epidemic and endemic form. (3.) If recognized early and treated surgically the mortality should be almost nil. I am fully aware that in making these statements I am challenging criticism, and unfortunately they can neither be confirmed nor refuted by statistics, for the reason that we have no system of vital statistics in this country. But if statistics were at hand they could not be relied upon, for it is within the knowledge of every practitioner, of ten years standing or upwards, that most cases of appendicitis have been, until very recently, reported as "Peritonitis," "Inflammation of the bowels," "Pelvic cellulitis," "Obstruction of the bowels," etc. It is also now the experience of those who make post mortem examinations, that the vast majority of all cases of fatal acute peritonitis may be traced to appendicitis. In fact, if we except those cases due to traumatism, perforation of typhoid and gastric ulcers and some puerperal conditions, acute peritonitis is hardly ever due to any other cause.

I have been greatly puzzled in deciding as to the best form in which to present this subject to-day. It is obviously impossible to discuss the whole subject in the time which

* Read before the Canadian Medical Association, St. John, N.B., Aug. 22nd, 1864.

can be allotted to a single paper at this meeting, and besides the subject has been so thoroughly and exhaustively treated by Fowler, Morris, Richardson and many others during the past year, that I could have no excuse for making the attempt. I have, therefore, decided to base my observations upon the cases which I have myself treated during the past year. To be exact, the period covered is eleven months—from the middle of September, 1893, to the middle of August, 1894, during which I have personally treated 48 cases of appendicitis. Of these 40 were operated upon and eight were not. All of these cases recovered except three (3). I have also been consulted by a considerable number of patients who suffered from periodical attacks, and whom I have seen in the intervals only, and I have seen a large number of cases in consultation with colleagues, but I have not included these cases in the above report as they did not fall into my hands for treatment.

Of the 40 cases operated upon, 5 may be called subacute, although in two of them there was perforation and abscess (well delimited by adhesions). In two others the appendix was greatly thickened and firmly bound down by adhesions, and in the fifth a very unusual condition existed.

In this case (32) John D., aged 44, had suffered for twenty-one years, with recurring attacks, three or four times every year. The first attack, which lasted several weeks, was looked upon as an attack of typhoid fever, with relapse. The subsequent attacks lasted on an average ten days each. The last attack, for which he came into my hands for treatment, had lasted eight weeks, and early in this attack he noticed, for the first time, a hard, dense mass, as large as a small hen's egg, in the right iliac region. This was only slightly tender, but muscular movements gave him pain, so that he was unable to work. The following unique condition was found at operation. The mass, which was firmly adherent to the abdominal wall, was dissected off with a portion of the parietal peritoneum. The distal portion of the appendix, about an inch in length, was traced up to the mass, which could easily be made out to

contain a large concretion. The mass was opened and a stone as large as a walnut removed. The cavity was formed by adhesion of the free surfaces of the cæcum and ilium, and had obliterated the base of the appendix and communicated with both the colon and the ilium by large openings. The remains of the appendix were removed and the cavity closed by reuniting the peritoneal surfaces of the ileum and cæcum by Lembert-sutures. The patient made an uninterrupted and uneventful recovery.

Thirty-five were distinctly acute cases and of these there was perforation and abscess formation in 27. In four of these cases the appendix was found free in the abscess cavity, completely sloughed off; and in one no trace of the appendix could be found. In three cases the appendix was completely gangrenous, and in five cases the appendix was neither perforated nor gangrenous, but tense and distended with fluid, which, when the appendix was opened, was found to consist of a grumous blood-stained matter. The walls of the appendix were thickened. The mucous membrane, beyond a strictured condition, which existed in all these cases at or near the base, was ulcerated and ecchymotic. In two of these cases, at least, there was also lymphangitis, the lymphatic glands in the neighboring mesentery being swollen and hard. The cardinal symptoms—pain, tenderness, vomiting and disturbance of pulse and temperature were most marked in these cases.

There are, therefore, pathologically four distinct types represented in the above cases.

(*1st var.*) *The gangrenous appendix* usually containing a large faecal concretion,—generally a first attack with severe onset and rapid progress—the so-called fulminant appendicitis, the symptoms being generally severe pain, marked local tenderness, with rigid abdominal muscles, vomiting from the outset and obstipation, pulse gradually increasing in rapidity, but with little or no elevation of temperature. Within a few hours or a couple of days the poisonous contents escape into the general peritoneal cavity by transudation through the necrotic tissues of the appendix

and without necessary perforation. If not relieved by operation before general poisoning of the peritoneum has occurred, coffee ground vomiting, mental hyperacuteness and increasing rapidity and weakness of pulse, indicate the hopelessness of the case, and death occurs usually within a day or two; or perhaps a little longer.

Cases 2, 4 and 5 of this series are of this kind. They were all operated upon early and all recovered.

Case 2. Lizzie P., 23, hospital servant, first attack, operated upon 18 hours after first symptoms. Appendix found lying superficially in abdomen; only slight adhesion of adjacent omentum. A large concretion (the size of a very large English cherry) was found near the base of the appendix beyond which it was completely gangrenous. It was removed through healthy tissue without fouling the peritoneum, and the patient made a rapid recovery. Two weeks after operation phlebitis occurred in the left leg, and three weeks later in the right leg. This was completely recovered from after some weeks in bed.

(2nd var.) *Cases generally recurrent*, in which ulceration within the appendix perforates its walls and escape of its contents takes place more or less rapidly into the peritoneal cavity,—the result being either a localized abscess collection or a general purulent peritonitis, depending upon the mode and form of perforation, and the resistance offered by nature in delimiting the invading poison—phagocytosis. This is the condition most frequently met with in the operating room and on the post-mortem table, and is generally only an advanced stage of the next variety. The symptoms and prognosis vary with the local conditions.

Cases 29, 26, 25, 6 and 40 of this series illustrate some of the various conditions produced in this form and may be taken as types.

Case 29. Jas. C., æt. 19, fourth attack; fourth day of illness. Appendix thin and long, curved acutely upon itself and perforated upon its concave surface. Localized abscess, in which was found a small concretion which had escaped through perforation. Uninterrupted recovery.

Case 26. Meredith H., *æt.* 30, third attack, fourth day of illness. Symptoms of perforation seven hours before operation. Appendix semi-gangrenous and perforated. Concretion found free in pelvis. No delimitation. Peritoneal cavity filled with pus which was removed by sponges (sterilized guage pads) and suction through a glass drainage tube carried down to the bottom of the pelvis. (The patient was so placed that the pus gravitated to the bottom of the pelvis and was removed by repeated suction with the syringe.) Persistence of distension and coffee ground vomiting (twice) during first twenty-four hours after operation, and then uninterrupted recovery.

Case 25. John G., *æt.* 50. Brawny indurated condition in right iliac region, extending down into Scarpa's space and over crest of ileum. Fourteenth week of illness and history of previous attacks. The diagnosis of sarcoma of ileum had been made, but it was clearly a case of pus burrowing in the abdominal wall. At the operation, the cæcum was found, and what was thought to be the remains of the appendix, in the pus cavity. Patient did well for a couple of weeks and the wound healed with the exception of a sinus in which a large drainage tube extended through from the loin. On the removal of the tube this also healed, but chills, perspirations and high runs of fever followed, which, with other symptoms, indicated, in my opinion, abscess in or about the liver. The patient would not submit to any further operative treatment, and left for his home in the State of New York two months after operation and nothing has been heard of him since.

Case 6. Geo. C., *æt.* 44, third attack (within a year.) Three weeks illness. Great distension, obstipation and vomiting for past three or four days. Appendix semi-gangrenous with large perforation. A series of large abscesses filling loin and pelvis. Pus very fetid. Patient lived four days, during which vomiting ceased and the bowels moved, but fetor persisted in the discharges and a gangrenous condition developed along the track of the drainage tube.

Case 40. Peter C., æt. 33. Several (8-10) attacks of what was called "colitis" in past four years. Fifth day of illness, symptoms indicating perforation four days before operation, immediately after which vomiting, distension, obstipation and high fever developed. On the second day after perforation the vomiting was stercoraceous. These symptoms persisted with the exception that the vomiting was faecal only during one day, and the temperature fell to the normal or below it. Appendix found attached to inner third of Poupart's ligament and perforated on its under surface, where the tissues were in a semi-gangrenous condition, with a medium sized concretion on the proximal side. A large, very foul smelling abscess was walled off by omentum to the right half of the pelvis. There was much lymph on intestines and engorgement of blood vessels. This patient is progressing rapidly toward recovery in spite of a most unfavourable prognosis. Cases 9 and 12 illustrate a condition in which the appendix sloughs off and a large abscess forms and the patient goes on for months without operation.

In point of duration they might be called chronic, but the symptoms are always active and danger always imminent.

(3rd var.) A form of appendicitis in which the disease is for a long time confined within the organ, producing periodical attacks which are exceptionally severe but in which there is no peritonitis, or at most an inflammatory condition of the peritoneum covering the organ. Cases 3, 11, 27 and 28 illustrate this form. These cases often come to operation in this condition from the severity of the symptoms or sooner or later perforation occurs.

Case 22. W. G. C., æt 16. Third attack. Pain, tenderness and vomiting very severe. Temperature, $99\frac{1}{2}$; pulse 100. Appendix long, tense and strictured near base, no adhesion externally and no concretion in appendix. Reddish, grumous fluid and ulcerated ecchymotic mucous membrane. Uneventful recovery.

Case 28. Albert M., 26; second attack; sixth day of ill-

ness. This patient was sent to me for operation in December, 1893, having suffered from a very severe attack—his first attack. When I saw him, however, all his symptoms had subsided and he got rapidly well. His second attack began on the first of May, 1894, and he was operated upon six days later, when the attack was subsiding. The appendix might be described in the same words as the last, with this exception,—just near its base perforation had proceeded so far that the peritoneal coat alone remained and bulged out to the size of a cherry, with grumous purulent matter. There can be no doubt but that it must sooner or later have given way at this point, probably before long.

(4th var.) Cases in which the appendix becomes bound down, generally behind the cæcum in a dense mass of fibrous tissue. A very chronic sclerosing process seems to occur, and these cases may remain for years in a quiescent condition and perforation then occur.

Case 7 illustrates this form. Mrs. A. P., aet. 32; second attack, two weeks duration. Some pain from mass felt in right iliac region tender on pressure. At operation the appendix was found very faintly bound down by adhesions which were old and firm and separated with difficulty. The appendix itself was not perforated, but its walls were greatly thickened.

There are three other cases, which for special reasons I think worthy of mention here. I have given details of one of the fatal cases—the first in order, chronologically. The second was Mrs. C., aet. about 30; first attack. This patient had been under treatment for some years for uterine trouble and had complained at times of a good deal of pain, and it is possible that previous attacks may have been overlooked. The last attack was only diagnosed on the operating table. She was seized with pain on a Saturday night after returning from a picnic. This persisted with moderate severity till Tuesday night, when she became collapsed after an exacerbation of the pain. Next day she rallied, but faecal vomiting, abdominal distention and obstipation set in and persisted. I was sent for to operate for intestinal obstruc-

tion. I operated with the conviction that the case was hopeless, and she died about eight hours afterwards.

Case 34. Edith P., aet. 11. No clear history of previous attacks, but some reason to think that this was not the first attack. Seventh day of illness. Symptoms of perforation nearly four full days before operation. Abdominal distention, obstipation, vomiting; temperature 104° to 105° , pulse 160. Condition looked upon as very unfavourable. Appendix found perforated on distal side of concretion. Small concretion found free in abdominal cavity; no delimitation. Pus removed by gauze pads and syringe, as in case 26 (already quoted). Vomiting ceased; calomel, followed by salines produced free purging with relief of distention, and she lived for nine days. During all this time she was in a toxæmic condition, as shown by rapid pulse, sub-normal temperature, great restlessness and hyperacuteness of mind and special senses. The local changes, too, were unique. The discharges never lost their offensive odour, and it was the cultures from this case which gave off at a certain period of cultivation the identical fetid odor of the fluid removed from the abdomen at the operation. The most peculiar feature, however, was that the edges of the abdominal wound sloughed all around to the extent of a quarter to half an inch, including all the tissues, and leaving the cæcum exposed. This can only have been due to the local action of the pus, the parts being of necessity bathed in it during operation.

Case 35. Alexander A., aet. 6; first attack, third day of illness. This case is of interest only from the fact that it was a typical perforating appendicitis, due to an ordinary pin, the head of which had ulcerated through near the tip of the appendix, while the point had perforated the opposite side a little higher up and was imbedded in a mass of swollen omentum. This is the first case which I have seen of appendicitis due to a foreign body, unless in some cases a foreign body may have been the nucleus of the faecal concretion.

Of the eight cases which were not operated upon there

is little to be said. Two were of that somewhat rare and ill-defined, but, I think, easily recognizable variety in which sudden onset, with the usual symptoms, pain, tenderness and vomiting, is speedily followed by a copious diarrhoea and relief of symptoms; tenderness only persisting for a day or two. These cases are probably cæcitis rather than appendicitis, or if the disease is in the appendix it discharges its inflammatory products into the bowel. One (Case 28) subsequently came to operation, and the other five, although typical cases of appendicitis, were so mild that operation was not considered necessary.

Complications.—In all these cases the only complications following operation were (1) phlebitis of the lower extremity in two cases (2 and 22), both beginning on the left side and, in one case only, extending subsequently to the right side; (2) empyema in case 5, also on the left side. The chest was opened and a drainage tube inserted in the usual way, and a perfect recovery resulted. The pus removed from the chest five weeks after the operation for appendicitis had the same odour as the pus from the abdominal cavity. No hernias have, of course, developed so far.

Technique.—But little need be said of the technique employed in the operation. The incision was made outside the sheath of the rectus muscle, in the line of the fibres of the external oblique, higher or lower, according to the apparent site of the appendix, and of sufficient length to enable the operator to complete the operation with the greatest ease. In about one third of the cases reported the appendix was removed beyond a silk ligature tied around the entire organ and the stump cauterized. In the balance a cuff of the serous coat was dissected back and sutured over the end of the inner tube previously ligated and cauterized. In these cases the ligature applied was generally fine catgut, but sometimes silk, and a series of Lembert sutures has also generally been applied to invert the stump of the appendix. I have also recently in a number of cases sutured the peritoneum separately, but I am going to discontinue this practice, as it seems to me to lead to pus in-

fection of the abdominal wound. A drainage tube, generally glass, but sometimes rubber, has been used in nearly every case (for two to three days in the perforation cases), and followed by a tent of iodoform gauze for a couple of days subsequently. In two or three cases I used iodoform gauze packing at the time of the operation, but was not satisfied with the result.

In 16 of these cases only were bacteriological examinations made. The result was negative in 2. Pure colon bacilli were found in 11, and pus cocci as well as colon bacilli in 2. In case 34, in which characteristic fetor developed during the growth of the cultures, two forms of colon bacilli were found.

I have discontinued flushing of the abdomen in these cases. It is difficult, if not impossible, to remove through a small lateral incision all the water introduced without greatly prolonging the operation, and I cannot help thinking that the mere act of flushing often disseminates the poison instead of removing it. On the other hand, if the patient is so placed that free fluid will gravitate toward the pelvis the pus can all be evacuated with less disturbance of the viscera by means of sponges or suction through a large glass drainage tube.

It will naturally be expected that I should draw some conclusions from such a series of cases, especially as this series is but a culminating point, so to speak, and represents the sum total of the knowledge acquired in all my previous experiences. The lessons which I have learnt and which I desire to emphasize may be expressed in three words—diagnosis, palliation and operation.

Diagnosis is usually easy, and when the symptoms point that way the probabilities are all in favour of appendicitis. Nevertheless, I must acknowledge having erred twice during the past year. One case was an acute empyema of the gall bladder, with a stone impacted in the neck of the cystic duct, the other a case of twisting of the pedicle and strangulation of a small right-sided ovarian tumour. I had my doubts in both cases (which increased when I had the

patient anaesthetized) as to the diagnosis, but I was quite certain that if I was not dealing with appendicitis I was dealing with some acute condition which could only be relieved by operation.

As for the treatment of appendicitis, this disease should be considered a surgical one from the very outset. There is no medical treatment for appendicitis. It is a local condition which cannot be reached by drugs and whose progress cannot be materially modified, much less stayed, by local applications. It is in every case a choice between an operation for radical cure, or palliative treatment, which means practically leaving the patient to his fate. Not that I would say that every case should be operated upon. The series of cases which forms the basis of these remarks shows that such has not been my practice. At the same time I am convinced that if I had operated upon every case I have seen in the last five years, as early as a diagnosis could reasonably have been made, I would have saved many lives.

Common sense teaches us that a patient with an inflamed part or organ should give that part or organ rest. We know that opium and hot applications relieve pain; a purgative at the outset of an attack may be useful, but here proper medical treatment ends—in palliation. Carried beyond this, so-called medical treatment may be, and I am sure often is, mischievous. Active purgation by repeated doses of calomel or salines can do no further good after evacuating the bowels, and by increasing peristalsis may precipitate perforation and disseminate the poison which has escaped through the opening thus produced.

I would say, therefore, in every case of considerable severity, remember the danger of perforation and operate. When perforation occurs you will have no choice, and in most recurrent cases perforation will occur sooner or later. When in doubt operate, and even in the later stages when it seems almost hopeless do not be deterred from operating. Remember that the virulence of the pus varies very much, and that some apparently hopeless cases may be saved. Cases 26 and 40 illustrate this fact.

Lastly, in expressing these opinions I would not have it understood that I have arrived at final conclusions, for I believe that there is still much to be learnt about appendicitis and its treatment.

THE FOLLOWING IS A TABULATED STATEMENT OF THE CASES OPERATED UPON :

No.	Name.	Age.	Number of attacks.	Duration of attack.	Condition of Appendix.	Result.
1	Perey M.	25	Second	Two months.	Perforated; localized abscess.	Recovery.
2	Lizzie P.	23	First.	18 hours.	Completely gangrenous.	"
3	Jane D.	23	First	2 days.	Strictured, distended, lymphangitis.	"
4	Mrs. H.	24	Doubtful	2 days.	Gangrenous (completely)	"
5	Dan. P. McC.	34	First	2 days.	Perforated and gangrenous (completely)	"
6	Geo. C.	44	Third	Two weeks.	Perforated; large pus collection.	Died.
7	Mrs. P.	32	First	4 weeks.	Bound down in adhesions; fibroid.	Recovery.
8	Jessie T.	18	First	1 week.	Perforated	"
9	Alex. D.	31	First	6 months	Perforated; sloughed off.	"
10	Susie H.	13	Second	2 days.	Perforated; abscess	"
11	John G.	19	Second	2½ days.	Perforated; abscess.	"
12	Manson C.	20	First	About 1 week.	Perforated; sloughed off, not found.	"
13	Walter M.	20	Second	6 days.	Perforated; small abscess	"
14	Henry W.	56	Many attacks.	2 days.	Perforated; abscess.	"
15	Mrs. H.	36		5 days.	Perforated; abscess	"
16	John H.	38	Several attacks.	3 days.	Perforated; abscess	"
17	Fred. S.	36	Several attacks.	About 8 days.	Perforated; abscess.	"
18	Edward K.	27		About 1 week.	Perforation; abscess	"
19	Richard C.	11	First	5 days.	Perforation; abscess	"
20	Napoleon D.	38	Second	About 1 week	Perforation; abscess	"
21	Mrs. C.	28	First	One week.	Perforation; general suppurative peritonitis.	"
22	William C.	19	First	Five days.	Perforation; abscess	Died.
23	Henry McG.	28	Sixth.	*Six days	(Strictured and distended, mucous membrane ulcerated	Recovery.
24	William K.	14	First	Five days.	Perforation; sloughed off.	"
25	John G.	50	Several attacks.	14 weeks	{ Perforation; sloughed off; abscess burrowing in abdominal cavity.	{ Hepatic abscess subsequently.
26	Meredith H.	30	Third	4 days.	Perforated; general suppurative peritonitis	Recovery.

27	Wm. G. C.	16	Third	1 day	(Strictured and distended, lymphangitis, ulcerated mucous membrane	Recovery.
28	Albert M.	26	Second	6 days	Almost perforated	"
29	James C.	19	Fourth	4 days	Perforation and abscess	"
30	Celina C.	22	First	4 days	Perforation; abscess	"
31	Mary S.	23	Third	3 days	Perforated; lymphangitis	"
32	John D.	44	+About 80	7 weeks	Obliteration of base; large concretion	"
33	Patrick H.	27	First	8 days	Perforation; abscess	"
34	Edith P.	11	First?	7 days	Perforation; general suppurative peritonitis	Died (9th day).
35	Alex. A.	6	First	3 days	Transfixed by pin; abscess	Recovery.
36	Alex. M.	17	Third	3 days	Perforation; abscess	"
37	Frank J.	23	Second	4 days	Perforation; abscess	"
38	Harry F.	30	Eighth	8 days	Perforation; abscess	"
39	Stewart M.	45	Many attacks	29 days	Perforation; abscess	"
40	Peter C.	33	Tenth	5 days	Perforation; abscess	"

* Subacute. + 3 or 4 every year for 21 years.

ADHESIONS OF THE SOFT PALATE AND THEIR TREATMENT.*

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Under this name it is intended to refer to some cases in practice which may prove of interest to a few of the profession in general as well as to laryngologists in particular.

Case I.—A female, age 45, a widow, applied in the fall of '92 for relief from a totally obstructed nose, a muffled voice and frequent attacks of hoarseness; these symptoms having grown more pronounced during the past five years. History of acquired syphilis ten years before. Examination showed naso-pharynx completely shut off from oropharynx by a tense veil of cicatricial tissue, passing directly from the hard palate to the posterior pharyngeal wall, there being no evidences of uvula or posterior pillars anywhere.

The treatment here consisted in relieving the great tension first, by severing the most prominent bands of the adhesion, while the tongue was pressed forcibly down. When these wounds had healed, under the frequent use of a tongue-depressor to keep the cut surfaces apart, the centre of the occlusion was cut through, first passing a hard rubber Eustachian catheter behind by way of the nose to serve as a guide. This opening was enlarged by removing parts of the cicatrix and dilating with large bougies several times a week during a period of three months. The patient left the city at that time and was not seen till last spring (1894), when the opening still remained, though no dilating had been persisted in.

Case II.—Female, aged 32, married five years; one healthy three-year-old child; no other pregnancies; no history of acquired syphilis.

* Read before the Canadian Medical Association at St. John, N.B., Aug. 23, 1894

This patient was left in my charge by Dr. George W. Major before he went abroad last March. She had applied for treatment some months before, suffering chiefly from inability to breathe through the nose and loss of smell, loss of hearing on right side, loss of voice for almost six months of each year, and a deep ulceration behind the right auricle. Under constitutional treatment for syphilis the hearing improved and the ulceration healed. Local treatment on the adhesions of the palate—which are about to be mentioned—had just been commenced when an acute attack of laryngitis supervened.

In this condition she was first seen by me, and on examining the throat from the front, the uvula hung against the posterior wall of the pharynx, and the posterior pillars were absent. There were no signs of adhesions until by the use of the rhinoscope and by digital examination it was found that about half an inch up, the posterior surface of the soft palate was completely adherent to the posterior pharyngeal wall.

This condition must have come on at the age of 14 years, for since that time the nose had not been used for breathing. At 12 years the patient began to suffer from an ulcerated throat, and for two years it never healed altogether. During these two years she had diphtheria and scarlet fever, and since that time she has been a victim to quinsy every winter—has had bronchitis and hoarseness and loss of voice for months at a time.

The treatment here begun by Dr. Major was constitutional until the parts were in a sufficiently healthy state for local treatment, which was directed towards freeing the uvula, at that time totally bound down. Later on, parts of the cicatricial tissue were removed *en masse*, so opening up a space behind the soft palate. In this condition the patient came under my charge, and as soon as the laryngitis had subsided attention was directed towards perforating the partition still existing between the mouth and nose. This proved more difficult than in Case I, owing to

the adhesion being high up out of sight and near the Eustachian tubes. The catheter through the nose, combined with digital examination, showed the thinnest part of the adhesions, then with the left forefinger as a guide, a curved knife, adapted from Pean's uterine knife, was passed up and an opening made. The knife was worked laterally and in a slightly forward direction to avoid the Eustachian tubes until the forefinger could pass into the naso-pharynx. This was only with difficulty, as the adhesions seemed to span the vault to the extent of one inch, showing how overgrown the tissues covering the posterior wall must have been. After a day or two a Meyer's ring knife was curved and passed behind the palate and the posterior wall scraped as for ordinary adenoid growths. At the sittings the pain was reduced by the local use of cocaine. During the intervals of treatment the patient used the forefinger and Griffin's specially devised dilator to keep the surfaces apart. A solution of boric acid was used by means of a post-nasal syringe. Since the first opening was made through the adhesions the patient has improved steadily in health, the resonance of the voice, hearing and sense of smell have returned.

This deformity is constantly being alluded to in works upon the throat. Sir William Turner, of Edinburgh, in 1860 reported finding a case of complete adhesion of the soft palate in the dead subject, and referred to similar cases reported by Rudtrotter in 1805 and Otto in 1813. Later, Mauriac and Verneuil each reported cases in 1876.

Cohen reports a case, and E. Harrison Griffin in 1888 reports another on which he operated successfully, the opening having persisted when seen five years after.

The object of bringing this subject before you, however, is not to show what cases have been reported, nor especially to add any new ones to the already long list (although Case No. 2, that caused by congenital syphilis in the adult, is sufficiently uncommon to deserve notice), but it is desired to show how an attempt to remove such

complete obstructions may relieve many serious symptoms, though the removal may be only partially successful.

The cases operated upon improved as soon as the obstruction was removed. The voice, hearing and sense of smell returned, and the attacks of laryngitis have so far been averted.

Treatment.—Interference in these cases has been variously commented upon in the literature on the subject.

Dr. Rothenburg, in 1879 (*Wein Medizin Presse*, No. 33), advocated removal of masses of the cicatricial tissue (as was practiced in Case No. 2).

Dr. Solis Cohen, in 1879, in his work upon "Diseases of the Throat and Nasal Passages," uses the knife or the incandescent cautery, the cut edges always being cauterized thoroughly to prevent re-adhesion. Bits of lint and tents are also advised in some cases for a like purpose; or he uses tubes introduced into the nostrils and pharynx, and sometimes passes ligatures through the edges of the sound parts of the palate and draws these forward by making them fast to the ears. An opening on each side where the palate is healthy has sometimes been suggested as a better means of avoiding re-adhesion.

Dr. E. Harrison Griffin reports success from the use of his specially devised curved knife, to be systematically followed by dilating the parts with his pharyngeal dilator (shown here). The physician is to do this at first, and the patient should have a dilator to use regularly at home.

Morrell Mackenzie, in 1880 (*Diseases of the Pharynx, Larynx and Trachea*), mentioned dilating with bougies, or actual divulsion, besides galvano-cautery.

Dr. Charles E. Sajous, writing in 1892 for *Hare's Practical Therapeutics*, merely states that interference is necessary when the adhesions are complete.

Dr. J. N. Mackenzie, in 1893, writes in Morrow's work on Syphilology upon the subject, giving most of the methods as above, and shows that many cases are very discouraging in the results obtained.

Dr. Delavan's suggestion of cauterizing the freshly cut edges with mono-chloroacetic acid is worthy of mention. Delavan hearing through Dr. Andrew H. Smith that this acid caused an eschar to form which remained fixed until perfect cicatrization had occurred beneath, tried it with satisfactory results in a case reported in 1883. (*Transactions of American Laryngological Association*, 1883, page 185.)

Dr E. Fletcher Ingals in *Burnett's System of Diseases of Ear, Nose and Throat*, 1893, speaks favorably of many of the above procedures.

In conclusion, the causes which have been found to produce this condition may be briefly referred to.

Deep ulceration of the opposing surfaces of soft palate and pharyngeal wall are generally held to be necessary, but Schech maintains that even superficial erosion of one surface only may lead to the same result.

Syphilis, either acquired or congenital is of course the great cause, and Schech points out the ease with which the occlusion occurs when the palate is once perforated.

Adenoid growths, so common in congenital syphilis, were undoubtedly active in Case II.

Dr. Cohen mentions scrofula, lupus, malignant sore throat of diphtheria and phagedena.

Traumatism and local action of caustics, amongst other causes, have produced the condition. Galvano-cautery, when used excessively upon the throat, was the cause of adhesions of the posterior pillars of the pharyngeal wall in one case which came before my notice recently.

Reviews and Notices of Books.

Diseases of the Nose and Throat. By F. DE HAVILAND HALL, M.D., F.R.C.P.. London. With 2 coloured plates and 59 illustration. London: H. K. Lewis, 136 Gower street, W. C. 1894.

It is with pleasure that we note the appearance of a text-book, albeit small, on the diseases of the nose and throat, by this talented British specialist, Dr. de Haviland Hall.

It is a thorough work, and it is rather difficult to particularize on any spacial portion.

The treatment certainly lacks that vigorous and heroic stamp which characterizes American laryngologists, and which is indeed not a thing to be greatly regretted.

Another feature is the absence of a detailed description of the anatomy of the parts, which is rather to be recommended, as before tackling a special subject the student is supposed to be *au fait* in the anatomy and physiology of the region.

On the other hand, the morbid anatomy and pathology is thoroughly worked out, especially from the bacteriological standpoint.

The author most markedly discountenances the over-use of the cautery in nasal troubles, there being the risk of erysipelas, otitis media, ocular troubles, etc.

The book is profusely illustrated, clearly printed and altogether well gotten up.

As a text-book for physicians and students it is strongly to be recommended.

Politzer's Text Book of the Diseases of the Ear and Adjacent Organs. for Students and Practitioners. Translated by OSCAR DODD, M.D.; edited by SIR WILLIAM DALBY, M.B., Cantab. With 330 original illustrations 739 pages. Philadelphia: Lea Brothers & Co., Sansom street. London: Balliere, Tindall & Cox. 1894.

We have before us the third edition of this monumental and classic work on the ear. The subject has been more exhaustively treated than in the previous editions.

It is exceedingly difficult to criticize a work of this kind, while at the same time the praise of it seems to be a task of supererogation. As in the former editions, the first fifty pages or so are devoted to a minute description of the anatomy of the ear and its adjacent cavities, much stress being laid on the attic formation.

In the pathological portion of the work full attention is given to the part played by bacteria in the various aural diseases, especially those secondary to scarlatina.

The description of the various forms of mastoid diseases is exhaustive and clear, and the description of the various operations on the mastoid and the posterior wall of the meatus is well done and valuable to the surgeon and specialist.

Politzer adheres to the use of the chisels and mallet in these operations in preference to the drill.

The work has been very fully and carefully annotated by the English editor, Sir William Dalby, which adds greatly to its value. Dr. Oscar Dodd, of Chicago, has translated the book carefully and deserves great credit for his laborious part of the work.

The illustrations are numerous and well executed, and taken all in all the volume well maintains its position as one of the first authorities on the subject of ear diseases in the world.

Saunders Question--Compend No. 14. Part I.—Essentials of Refraction and the Diseases of the Eye; by EDWARD JACKSON, A.M., M.D., Professor of Diseases of the Eye in the Philadelphia Polyclinic, etc. **Part II.—**Essentials of Diseases of the Nose and Throat; by E. B. GLEASON, S.B., M.D. Second edition, revised; 124 illustrations. Philadelphia: W. B. Saunders, 925 Walnut street. 1894.

As a rule we are not in favor of these small compends, the skimpiness of the work generally interfering with its thoroughness.

However, this book certainly forms an exception, and Dr. Jackson has in his portion made the most of his space.

The work is really of the nature of a small text-book, the subject matter being treated of in the manner of questions being put and answered.

It is really wonderful to observe the way in which the

author has managed to bring out the salient points of the subjects he touches on.

There are a few misprints, pointing to haste in going over the proof sheets. It is freely illustrated and well printed and will be of use to the tyro in ophthalmology.

The second part of the volume deals with diseases of the nose and throat and is written by Dr. Gleason. It strikes one immediately as not being so carefully written as the section on eye diseases. A certain crudeness in etymology is apparent, possibly arising from an American attempt at effect; *e. g.*, laryngology, we are told, is the art of seeing (?) and knowing what you see in the larynx.

The illustrations, which are numerous, are nearly all borrowed.

A Text-Book of the Diseases of the Ear. By Dr. JOSEF GRUBER, Professor of Otology in the University of Vienna, etc. Translated from the second German edition and edited, with additions, by Edward Law, M.D., C.M., Edin., M.R.C.S. Eng., and Coleman Jewell, M.B., Lond., M.R.C.S. Eng. With 165 illustrations, 70 coloured figures on 2 lithographic plates. Second English edition. London: H. K. Lewis, 136 Gower street, W. C. 1893.

It is but a few months since we reviewed the first edition of this masterly work of Professor Gruber's and this edition being exhausted inside of two years, we are again called on to review this, the second edition.

This favorable reception of the book is a high honour for Dr. Gruber and recognition of his talents.

The present edition is considerably more voluminous than the first, and this is mainly due to the interpolation of numerous useful and valuable notes by the English editors; at the same time the original translation of Dr. Gruber's treatise is unaltered.

Our old friend Dr. Howden, of Durham University, has attended to the revision of the anatomical portion of the work and his interpolated notes are elaborate and clear.

Dr. Coleman Jewell has written an entire section on the intracranial complications of ear diseases, their cause, course and treatment. Of this we can not speak too highly, it adds greatly to the value of the work.

Of the master's own portion of the book it is really superfluous to speak, especially after our comparatively recent review. His utterances are *ex cathedra*, and especially valuable as being the result of years of experience.

As a text-book this treatise is not to be surpassed, and we are deeply indebted to Dr. Law and Mr. Jewell for their translation of it.

Post-Nasal Growths. By CHARLES A. PARKER, Assistant Surgeon to the Hospital for Diseases of the Throat, Golden square, London. W. K. Lewis, 136 Gower street, W. C.; 1894; pages, 98; size, 8vo.; price, 4s. 6d.

The writer's object in this short work is to bring before the profession in general the results of investigations into the method of breathing in cases of nasal obstruction. This, he claims, is nasal during sleep in every case where the nose is not totally obstructed.

Chapter II, therefore—which is given up entirely to demonstrate this statement—forms the foundation of the work, and is reprinted from the St. Bartholomew's Hospital Reports, Vol. XXIX.

To make the work more useful to students three other chapters are added, which complete the present knowledge of post-nasal growths, and state, in a very fair light, the indications for their removal. The work is not put forward as exhaustive, and yet very few points are wanting to make it so.

The careful study of 50 cases of post-nasal growths is undertaken on the suggestion of Dr. Grenville Macdonald, who had already written in the second edition of his "Diseases of the Nose," 1894, that "the instinct of nose breathing appears to assert itself in spite of sometimes great difficulties, and especially during sleep."

The observations above referred to are thorough, and the conclusions drawn therefrom are justly argued out, the writer keeping his text well in view, at the risk of repetition. The style is clear and impresses the importance of the subject in hand.

Chapter I, in giving "a general sketch of post-nasal growths," brings out many important details. If illustrations were to be added, one representing the typical facies would

greatly simplify the description of this peculiar formation. Very important advice is given regarding the proper after-treatment of infants, and of children the subjects of congenital syphilis, in order to avoid disappointing results from operations. Such points as the influence of the teething age in producing these growths, and the possibility of a dry oropharynx co-existing with the overgrowth further up, are worthy of notice, as well as is the benefit to be derived from operation while the middle ear affections are still present. . . .

In chapters III and IV many old ideas are set aside and more rational ones put forward. Standard books are frequently quoted, especially those of MacDonald and Bosworth. No mention is made of the surprising rapidity with which these growths may disappear or reappear in certain persons, so causing very contradictory diagnoses to be made at different examinations. The manner in which infants of a few weeks old are prevented from nursing in extreme cases might also be added to the list of symptoms. The work is very complete, however, and should easily attain its purpose of converting those in the profession who would leave these growths entirely to time. . . .

A System of Genito-Urinary Diseases, Syphilology and Dermatology. By various authors. Edited by PRINCE A. MORROW, A.M., M.D., Clinical Professor of Genito-urinary Diseases, formerly Lecturer on Dermatology, in the University of the City of New York; Surgeon to Charity Hospital, etc. With illustrations; in three volumes. Volume III, Dermatology pp. 976. New York: D. Appleton & Co. 1894.

The editor and his collaborators have, with this volume, finished their labours on the "system." The work has been carefully planned and effectively carried out in all its parts, and the present volume is no exception in point of excellence. A systematic work on diseases of the skin is not at all easy to arrange, owing to the conflicting views held by the workers in this department regarding the pathology of the different maladies.

The classification is Crocker's modification of Hebras, with certain changes. The class of hyperæmias has been done

away with and the whole included under inflammations, which is an advantage, as in many cases it is impossible to draw the line between one and the other and the former is merely the first stage of the latter. The strict pathological basis of classification has at times to give way to clinical convenience, as, for instance, inflammations of the glands of the skin are not classed under the heading of inflammations, but under diseases of the appendages of the skin. The exanthemata are included in the work, and very wisely so, for the eruption is the most characteristic symptom and in many cases the one which first attracts attention. The erythemas are very fully taken up, no less than thirteen varieties being described. And so through the whole work, every disease is described most carefully and in the most complete manner.

There are no less than twenty-seven contributors to this volume, comprising the best known men on the Continent, those who have devoted their time and energies to the study of these diseases and also to imparting the knowledge so gained to others. This makes the book more useful, because it is written by practical men used to teaching and with a knowledge of the requirements of the seeker after information.

The illustrations, both coloured plates and woodcuts, are well executed and well chosen, and are very useful in elucidating the text, for it is notoriously difficult to describe a skin disease and equally difficult to gain a clear comprehension of the disease from the description. The whole work, and especially this last volume, is worthy of all praise and will prove a useful and popular book which every progressive physician will wish to have in his library, both for reference and study.

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De L'Agrandissement Momentane du Bassin. Par ADOLPHE PINARD. Paris.

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Traumatic Periostitis. By B. M. RICKETTS, M.D., Cincinnati, Ohio, Chief Surgeon C. P. and V. Rd.

Dr. Unna's Plaster-Mulls. By HORATIO R. BIGELOW, M.D. From the *Medical News*, September 23, 1893.

La Femme et la Bicyclette. Par le Dr. JUST CHAMPIONNIERE, Paris. Extrait de la *Revue du Touring-Club*.

Circumcision. The Last Fifty of a Series of Two Hundred Circumcisions. By B. MERRILL RICKETTS, M.D., Cincinnati.

Increasing the Length of Bones. By L. OLLIER, Hotel Dieu, Lyons, France. Translated by B. Merrill Ricketts, Ph.B., M.D., Cincinnati, Ohio.

Stomatitis Neurotica Chronica. By A. JACOBI, M.D., New York. Reprinted from the *Transactions of the Association of American Physicians*, 1894.

Report of a Case of Carcinoma of Ileum; Intestinal Obstruction Relieved by Anastomosis with a Murphy Button. By B. MERRILL RICKETTS, M.D., of Cincinnati.

Obliteration of Congenital Pigmentations. By B. MERRILL RICKETTS, Ph.B., M.D. Cincinnati, Ohio. Reprinted from the *Journal of the American Medical Association*, January 20, 1894.

Pregnancy After Ventral Fixation of the Uterus. A Report of Four Cases. By GEORGE E. EDEBOHLS, A.M., M.D. Reprinted from the *Transactions of the New York Obstetrical Society*.

On the Use of the Common Ragwort in the Treatment of Disorders of Menstruation. By WILLIAM MURRELL, M.D., F.R.C.P. London. Reprinted from the *Medical Press and Circular*, April 25, 1894.

Diagnostic Palpation of the Appendix Vermiformis. Cases of Appendicitis. By GEORGE M. EDEBOHLS, A.M., M.D. Reprinted from the *American Journal of the Medical Sciences*, May, 1894; the *Post-Graduate*, April, 1894; and the *New York Journal of Gynecology and Obstetrics*, February, 1894.

Literary Note.

—The well known house of the F. A. Davis Co., of Philadelphia, will issue, in September, a work which will be most favourably received by the medical profession. It is entitled *Obstetric Surgery*, and is written by Drs. Egbert H. Grandin and George W. Jarman, gentlemen who, from their long connection with the largest and most widely known maternity hospital in the United States (the New York Maternity Hospital), are peculiarly fitted to expound the subject from the modern progressive stand-point of election.

A companion volume, dealing in the same terse, practical manner with pregnancy, normal labour, and the physiological and pathological puerperium, is in active preparation by the same authors.

Canadian Medical Literature.

[The editors will be glad to receive any reprints, monographs, etc., by Canadian writers, on medical or allied subjects (including Canadian work published in other countries) for notice in this department of the JOURNAL.]

PERIODICALS—AUGUST, 1894.

CANADIAN PRACTITIONER.

- (1.) Headache—Daniel Clark, p. 560.
- (2.) Fracture-Dislocations of the spinal vertebrae—A. B. Walford, p. 567.
- Influenza, its general features—L. M. Sweetman, p. 578.

CANADA LANCET.

- Atrophic Rhinitis—Price Brown, p. 353.
Gastricstasis—Charles G. Stockton, p. 360.

DOMINION MEDICAL MONTHLY.

- Papilloma of the Ovaries—J. F. W. Ross, p. 33.
Tubage in septal deformity—Price Brown, p. 38.
(3.) Psychic healing—Geo. W. Ayleswood, p. 43.
Removal of inter-articular cartilage from the knee joint—R. Harbottle, p. 46.

CANADA MEDICAL RECORD.

- (4.) Pocket boroughs in hospitals—(Editorial), p. 261.

L'UNION MEDICALE DU CANADA.

- (5.) Rein flottant et néphropexie—O. F. Mercier, p. 303.

MARITIME MEDICAL NEWS.

Address before the Nova Scotia Medical Society—C. J. Fox, p. 345.

- (6.) Problems of infantile feeding—G. C. Jones, p. 350.

(1.) The author first comments on the great frequency of this trouble, saying that nine out of ten patients suffer from it, more or less. He calls attention to the fact that the pain is not at all commensurate with the lesion in the brain, for many serious disease of the brain exist where there is little or no pain, and very severe pain occurs without any gross lesion, as in the *clavus hystericus*. This is accounted for by the fact that the brain proper is insensitive, and again many of the lesions occur in the insane who, having a lower vitality than the sane, are less sensitive. The indications for treatment are to relieve the immediate

suffering and to remove the cause. A note of warning is sounded regarding the use of narcotics.

The conclusions of the author are as follows :

1. To direct attention to the importance of studying the reflexes in our diagnosis.

2. In trusting more to general hygienic measures to promote health than to local or general medication.

3. To study *ab extra* causes which are more general and potent than we suppose. We are often deceived because of the local distress appearing so prominent.

4. Not to delude ourselves into the idea that a benumbing treatment is curative, but, on the contrary, it often handicaps the heroic efforts of nature to again reach healthy conditions.

5. To check the growth of the ever-increasing army of narco-maniacs by professional reticence in the use of drugs. Headache and its many anodynes are fruitful sources through which this baneful habit is acquired.

6. The classifications and remedies are legion, but the treatment must be applied to *genera* rather than to the *species*, as common causes lying in deranged cell life do produce multifarious manifestations.

(2.) This is a plea for early surgical interference in these cases where paralysis exists. If the paralysis comes on immediately after the accident, it is certain that either compression or laceration of the cord exists, or both. The pressure may be from bone, fluid effusion or a foreign body. Careful extension and counter extension is recommended, but not much is expected from that. An exploratory incision is to be made over the affected *vertebræ*, and the operator must be guided by circumstances. Two cases are narrated in which this was done, one five days and the other two years after the accident. The first case lived nine hours with some relief to the symptoms ; the other case has been slowly improving since, until at present he can move the toes of both feet. The pertinent query is made regarding both cases, Should this operation have been done earlier ?

(3.) This is a short paper on hypnotism, by a general practitioner. "There can be no doubt entertained by anyone who investigates these things honestly, that there are things seen, heard and done—described under one or other of these names (mesmerism, hypnotism, etc.)—which cannot be explained upon a physical basis, as we at present understand physics." The writer gives several instances of the power of mind over matter, as the creepy sensation produced by a pencil scratching on a slate, being reproduced by the mind by seeing a pencil held in the same way. "In my cases I asked the patient to look steadily at the bright end of a metallic thermometer case, and then talked to them in a quiet, monotonous tone of voice."

Several cases are reported in which very good results were obtained in headache, sleeplessness and similar complaints.

The conclusions are, that every general practitioner should study this as a valuable addition to his methods, also that unprofessional persons should not be allowed to use it, but physicians only.

(4.) This is a rather *ex parte* attack upon the Montreal General and Royal Victoria Hospitals, because, with a limited number of private wards, the corporation does not allow the treatment of private cases by others than the members of the medical staff.

The statement is made that the family physician is not allowed to attend cases unless he is on the staff, and this statement is not the truth, the whole truth and nothing else but the truth, for we have personal knowledge of cases where the family physician has attended cases although not a member of the staff.

We are sure that there is no deep laid plot on the part of the medical board to steal patients, but that the paucity of private wards is at the bottom of the whole trouble, the managing committee keeping only a few private wards for the convenience of the medical staff, their policy being to give as much space as possible to the poor and needy, the

private wards, in their opinion, merely paying expenses and not being a material source of revenue to the hospital.

(5.) After speaking of the diversity of the symptoms and the difficulty of diagnosis, the writer goes on to speak of the treatment, and divides the cases into two classes, the simple and complicated. In the first class, rest in bed with the application of a well fitting belt and pad are sufficient to afford relief. In the severer cases surgical interference is necessary.

A case report is given of a patient suffering from this malady where the writer operated successfully. An incision was made in the lumbar region parallel to the spine. The kidney was denuded of its fatty capsule, two sutures of heavy silk, sterilized in absolute alcohol, were passed through the substance of the organ, and a small piece of the capsule proper dissected up so that firm adhesions might form between the organ and the surrounding parts. The upper suture was fastened to the twelfth rib, and the other to the muscles and fascia at the lower part of the wound. After cleaning and drying the parts, the incision was closed with catgut sutures. Pain was relieved by the operation and the patient made a good recovery, going about as usual in less than a month.

(6.) If the wet nurse is not available, as she rarely is on this side of the Atlantic, the writer strongly recommends the mixture introduced by T. M. Retch, of Boston, which is as follows: Milk $\bar{3}$ ii, cream $\bar{3}$ iii, water $\bar{5}$ x, milk sugar $\bar{5}$ vi, gr. xlv., place in steamer for thirty minutes, add lime water $\bar{3}$ i, place on ice until needed. Most of the patent foods contain too much starch and too little fat, sugar and albuminoids. Besides many of them are acid instead of being faintly alkaline. He thinks that pasteurising is preferable to boiling, that is, the milk should not be heated beyond 176°F ., as further heating interferes with its nutritive qualities.

Society Proceedings.

THE CANADIAN MEDICAL ASSOCIATION.

Reported by DR. J. N. E. BROWN.

The twenty-seventh annual meeting of the Canadian Medical Association was held in St. John, N.B., August 22nd and 23rd.

Dr. Harrison, of Selkirk, presided, and Dr. F. M. G. Starr, of Toronto, made an able secretary.

The Maritime provinces were well represented, while Montreal and Toronto sent a number of their best men.

Dr. Duncan Bulkley, of New York, represented the American Medical Association, and Dr. Jonah, of Eastport, Maine, the Maine Medical Association.

The wives of the medical men of St. John gave a reception to the visitors, which surpassed anything yet provided in the social way at the meetings of the Association. The ball was a most brilliant affair. The hospitality of the Maritime men was unbounded. It was unfortunate that more of the western men were not present. Better railway rates should have been given by the railways. The I.C.R., however, did its duty in this respect. Many of the visitors took advantage of the cheap excursions to the various places of interest in the Maritime provinces. All were delighted with the scenery. It afforded a splendid holiday for the visiting men.

The following programme was followed :

A Year's Experience in Appendicitis—James Bell, Montreal.

A Case of Tuberculosis of the Arm of 14 Years Standing Cured by Inoculation with Erysipelas—W. S. Muir, Truro, N.S.

The Treatment of Diseases of the Ovaries and Fallopian Tubes—A. Laphorn Smith, Montreal.

The Use and abuse of the Various Cautery Agents in the Treatment of Nasal Affections—E. A. Kirkpatrick, Halifax.

The Present Status of Asthenopia—F. Buller, Montreal.

Eye-Strain Headache—J. H. Morrison, St. John.

Note on Epilepsy—W. H. Hattie, Halifax.

Some Functional Derangements of the Liver—J. E. Graham, Toronto.

The Prevention of Tuberculosis—P. R. Inches, St. John.

The Prevention of Tuberculosis—J. F. MacDonald, Hopewell, N.S.

Interscapulo-Thoracic Amputation ; Removal of Large Enchondroma of the Pelvis—F. J. Shepherd, Montreal.

A Demonstration of the Murphy Button for Intestinal Anastomosis ; Exhibition of a Galvano-Cautery for Using the Street Lighting Electric Current—A. Laphorn Smith, Montreal.

Adhesions of the Soft Palate and their Treatment—H. D. Hamilton, Montreal.

A Medico-Legal Romance—J. T. Steeves, St. John.

Some practical points in the recognition and treatment of Diseases of the Skin—L. Duncan Bulkley, New York.

Brain Operations (with exhibition of patients)—W. H. Hingston, Montreal.

Hysteropexy—K. N. Fenwick, Kingston, Ont.

Dr. Bell's paper was one of the best of the Association and provoked a hearty discussion. (See page 177.)

Dr. HINGSTON, of Montreal, said the results of Dr. Bell were remarkable, and spoke strongly in favour of surgical interference, but he had often waited in such cases when he had been called as a consultant, and he had only once to regret doing this. He thought young medical men should not enter the abdomen in such cases. There was a difference between their skill and that of Dr. Bell ; a difference between cases in the country at home and cases in an hospital ; and also a marked difference in the cases. Only the severer ones that required operation were sent to the hospital.

Sir JAMES GRANT spoke of two cases where he was tempted to operate, but as he found one of the patients was gouty and the other rheumatic, he refrained from surgical interference. They both recovered. It required a great deal of observation and judgment to deal with this disease.

Dr. F. J. SHEPHERD, of Montreal, pointed out that the sur-

geons always got the worst cases. As a result, it was difficult, from a comparison of statistics, to determine just what was the proportion of cases which should be operated upon, and how many should be treated medically. His plan was to operate after the acute attack had subsided, as a rule. Regarding the causation of the tenderness over McBurney's point, he believed it was due to the inflamed condition of the mesenteric glands, not to the appendix. The appendix was not always under McBurney's point, it was sometimes in the pelvis, or the left side, up under the liver, or in other parts of the abdomen.

Dr. F. STRANGE, of Toronto, thought that it should be treated as any other abscess formation—the pus to be evacuated as soon as it was found to be present. He usually operated after the acute stage was over. He had not regretted the policy of non-interference during the acute stage.

Dr. J. H. CAMERON said he followed Treves in such cases—to wait until the pus formed, then open and drain. He had had good results from following this plan.

Replying, Dr. BELL said that it was conceded by all that no man could say definitely just when to operate in all cases. Out of forty cases in which he operated, there was perforation in thirty-two; in three the appendix was gangrenous; in two it was bound down by adhesions; in three the symptoms pointed to very grave inflammation, yet no abscess was found and the gut was not perforated. He used to follow the expectant plan, and his losses were much greater than now, under the new plan. The most extreme mortality after these operations was only about two per cent. If the patients were left alone, perforation and collapse might occur at any moment. He believed the method advocated by Treves was not according to the principles of true surgery.

Dr. W. S. MUIR, of Truro, read an interesting report of a case of local tuberculosis of the fore-arm of fourteen years standing, in a female, aged thirty-nine. The bacillus was found in the discharges from the sinuses. The patient was anæsthetized, the sinuses scraped, and iodoform dressing applied; but little improvement followed until after five weeks, when,

quite accidentally, the micrococcus erysipelatosus invaded the wound. The attack of erysipelas was very severe and nearly cost the patient her life. Shortly after her recovery from the erysipelatous attack, complete healing of the tubercular affection took place. Photographs were shown of the healed arm.

Dr. E. A. KIRKPATRICK, of Halifax, in his paper on Cauterization in nasal affections, dwelt on the importance of extreme carefulness in the application of caustics to the nasal mucous membrane. In two many instances it was overdone, especially in reducing hypertrophic rhinitis. He had seen cases where the membrane was destroyed, and in some cases where serious mastoid affection had followed. He recommended chromic acid applications to the anterior nares and the galvano-cautery to the posterior.

Dr. A. LAPHORN SMITH'S paper on the Treatment of Diseases of the Ovaries was an elaborate description of his methods of dealing with these troubles.

Dr. BULLER'S paper on Asthenopia was of special interest, particularly to the eye specialists present. (See page 170.)

Dr. MORRISON, of St. John, read a paper on Eye-strain Headaches. Tenotomy, he said, relieved some of the reflex troubles for a time, but did not get at the root of the matter. The real trouble was due to imperfect curvature (and it might be very small) of the cornea. This condition, added to the extra work of the delicate muscles of accommodation when much near work was to be done with the eyes, overtaxed the ciliary muscle, and it either gave out or produced those reflex headaches, which were so distressing. The pain was usually situated in the neighbourhood of the temples, but sometimes extended to the occiput and down the back; numbness sometimes occurred in other parts of the body; digestive disturbances were also, at times a marked symptom. A proper correction of the myopia, hypermetropia and astigmatism, and the administration of tonics removed the insufficiency. The Doctor reported some of the interesting cases he had had where the treatment had been misdirected, because the eye had not been considered

in the examination. The muscle would recover just as a sprained or shattered limb would if treated properly. The use of proper glasses was a crutch for the strained ciliary muscle.

Dr. HATTIE, of Halifax, presented an interesting paper on Epilepsy. He set forth a theory as to its causation. He referred to the various changes which are generally believed to take place in the brain after a nerve storm. But the microscopic condition of the brain tissue following a fit, was like what the appearance was before one. His theory was that it was due to the presence of some toxic irritant, possibly the result of defective metabolism, or of imperfect elimination of tissue debris. Anæmia was usually present in these cases, and was significant. He had tried intestinal disinfectants in conjunction with pot. bromide, and found a marked diminution in the number of convulsions. His results were arrived at from the observation of this treatment in a large number of cases.

The Nomination Committee brought in the following report: President, Dr. Bayard, of St. John; Grand Secretary, F. N. G. Starr, of Toronto; Treasurer, H. B. Small, of Ottawa. Provincial officers: Ontario, Vice-President, Dr. Shaw, of Hamilton; Secretary, Dr. Fenwick, of Kingston; Quebec, Drs. Armstrong and Campbell, of Montreal; New Brunswick, Drs. McLaren and McNally; Nova Scotia, Drs. McKeen and Hattie; Manitoba, Drs. Blanchard and Nelson; North-West Territory, Drs. Haultain and Macdonald; Prince Edward Island, Dr. Maclaren and McNeil; British Columbia, Drs. Edwards and Richardson.

Dr. BAYARD delivered the address in Medicine, taking for his subject the influence of the mind on the body. The paper outlined the anatomy and physiology of the nervous system, specially referring to the nerve route of pain. Instances were given where emotions of various sorts caused contraction or dilatation of the terminal arteries with hyperæmia and secretion in glands, or anæmia and checked secretion. The various nervous diseases were referred to, their causation discussed, and their prevention recommended, through a reformation in our educational and social systems.

As an outcome of one of the points referred to in the address at the suggestion of Dr. Hingston, Dr. Bayard moved, seconded by Dr. Hingston, that the system of education generally pursued in the Dominion of Canada draws too largely upon the brain tissue of children and materially injures the mental and bodily health. Drs. Cameron, of Toronto, and Powell, of Ottawa, thought the terms of the resolution were too sweeping—that there was no specific statement as to what department of the school system was at fault, nor to what portion of the Dominion it more especially applied. Our young people, Dr. Cameron thought, were not suffering (the older people neither) from too much education. The educational system had been the subject of the best thought of our best men, and he considered the motion too condemnatory. A resolution was then passed that the matter be referred to a committee, consisting of Drs. Powell, Hingston, Graham and Bayard.

The committee appointed to report on the President's address reported on the matter of inter-provincial registration. It was adopted.

Dr. DANIEL moved, seconded by Dr. POWELL, that a committee be appointed in which each of the provinces should be represented, to draw up a form of Medical Act, which, after being adopted by this Association, should be presented to each Provincial Legislature, to be by them passed into law; and that the committee that brought in the report be asked to name such committee.

Dr. BULLER moved, seconded by Dr. LAPTHORN SMITH, that a committee be appointed, with power to add to their number, to consider the best means of obtaining a uniform standard of medical education for the Dominion of Canada, and the said committee report at the next meeting of the Association. This was carried.

The discussion over the above question was long and animated and taken part in by several of the men from the different provinces represented at the Association.

Dr. J. E. GRAHAM read a paper on Some Functional Derangements of the Liver. He pointed out the various functions

of the liver, dwelling more particularly on the action of the hepatic cells in warding off poisons of various sorts from entering the general circulation. When these cells became inactive by reason of the overpowering action of the poison the condition of hepatic inadequacy was brought about. The condition resulting from this was thought by some to be due to "renal inadequacy." Urea was manufactured in the liver by these hepatic cells. They were also the storers of glycogen, and when these functions were impaired various clinical phenomena were observable. The clinical symptoms might be included under the general term biliousness. As to treatment, it was necessary to preserve the integrity of these hepatic cells. The diet should be restricted and regulated. Milk was highly valuable on account of its easy assimilation and diuretic action. Light gymnastics to increase the circulation were very helpful, particularly in women. Massage over the abdomen was useful. Free purgation was a very important point. For this last calomel was an old stand-by; enomymus and podophyllum were also valuable. General massage, bathing and the use of mineral waters were useful where the lessened amount of urea indicated incomplete metabolism.

Dr. P. R. INCHES' (St. John, N.B.) paper on Tuberculosis was well received. He advocated the necessity of increased activity on the part of the profession, the public and the government in dealing with this dangerous disease. The patients themselves needed much instruction in regard to the destruction of the sputa, so as to lessen the danger of infecting others in the house. Even in well kept consumptive hospitals there was a little danger. He dealt with the difficulties connected with notification and registration and isolation. He had found it very difficult, even among his wealthy patients, to secure isolation and fresh air; and, of course, it was infinitely more difficult to secure such among the poorer classes. Special sanatoria, he maintained, should be provided, and in every instance where the patient was not properly looked after at home, he should be sent to such places. Until such a time (for there are very few as yet), those cases should be reported where preventive

measures were not carried out thoroughly at home, as recommended by the patient's physician.

"The Prevention of Consumption" was the subject of a paper by J. F. MACDONALD, Nova Scotia. He advocated the bringing the matter of the contagiousness of this disease before the people by means of the secular press, by the establishment of philanthropic societies for the discussion of the matter and the adoption of practical measures for the treatment of the cases. He advised the system of registration; a careful system of disinfection; government inspection of infected places; the establishment of sanatoria, and the enactment of laws to prevent the infected from spreading the infection.

The subject of the President's address was "My experience and observation in the practice of medicine extending over half a century." The address dealt with the various diseases and their treatment common to an early settlement in the woods; of the various domestic remedies employed; of the difficulties and hardships of the practitioner; of the disappearance of the miasmatic diseases and murrain since the draining and clearing up of the country; and of the occurrence of certain of the specific germ diseases where it was difficult to see where the germs could come from, unless *de novo*, which he considered doubtful. The latter part of the paper was a discussion of the matter of inter-provincial registration, which he considered was one of the matters of reform it was in the power of this Association to bring about.

The President was accorded a hearty vote of thanks for his address, and a committee was appointed to consider the matter of reciprocity discussed in his address.

The following gentlemen were elected as the Nominating Committee: Drs. Hingston and Shepherd, of Montreal; I. H. Cameron and O'Reilly, of Toronto; Christie, Maclaren, Tobin, Dienstadt, Macleod and Johnson, of the Maritime Provinces.

Dr. F. J. SHEPHERD, of Montreal, gave an interesting report of a case of Interscapulo-Thoracic Amputation, the first, as far he knew, done in Canada. He described the technique of the operation. It was done for the removal of a chondro-sarcoma, involving the shoulder joint. The case was a complete success.

Dr. STEEVES, of St. John, reported having seen a case where a boy had had the whole of the upper limb torn from the body with recovery.

Dr. LAPTHORN SMITH's demonstration of the Murphy Button, and his exhibition of Galvano-Cautery for using the street electric current, proved a very interesting feature of the programme. Dr. Smith showed how, at a very small cost, the electric current could be adapted for use in a surgeon's office. His enthusiasm over Murphy's button was not derived from his own experience with it, but from sheer admiration for the inventive genius of Dr. Murphy.

Dr. L. DUNCAN BULKLEY, of New York, gave a paper on the Treatment of Skin Diseases. More success would come to the general practitioner in the treatment of the skin if more attention was paid to each individual case. He advised careful enquiry into every detail of the patient's system and habits. The history of the eruption; careful enquiry as to former eruptions; family tendencies as to presence of asthma, rheumatism, etc.; all should be made a note of. If medical men knew eczema, acne and syphilis well, they would be able to treat the great majority of their cases satisfactorily. As to eczema, too much was often done—it was over treated often. More and more he had grown to know that much depended on constitutional treatment in all these skin affections. The correction of some fault in diet or habit in life was sufficient to effect relief. The doctor pointed out some of the principal points in the management of acne, syphilis, psoriasis and urticaria.

Dr. H. D. Hamilton, of Montreal, Dr. J. T. Steeves, of St. John, and Dr. K. N. Fenwick followed with interesting papers.

The usual votes of thanks were passed, and the Association adjourned to meet next year in Kingston.

THE MONTREAL MEDICO-CHIRURGICAL SOCIETY.

Stated Meeting, June 29th, 1894.

JAMES BELL, M.D., PRESIDENT, IN THE CHAIR.

Dr. BELL presented the following specimens :

(1) A large concretion which he had recently removed from the bowel in a case of appendicitis. The patient was 47 years of age and had a bad history of recurrent attacks at intervals of three or four months for the last 21 years. The last attack occurred eight weeks before coming under observation, and it was then for the first time that he noticed any mass in the abdominal wall. This mass was in the situation of the appendix and about the size of a hen's egg, it was very hard and very clearly adherent to the abdominal wall, was quite tender to the touch, and on walking he suffered a dragging pain. Operation was advised and accepted by the patient and was carried out in the usual way. The incision was made to the inner side of the mass, which was then carefully dissected away from the abdominal wall to which it was attached by very firm adhesions. The free surfaces of the cæcum and the lower end of the ileum were found to be adherent and in the adhesions were enclosed in a hard mass and the base of the appendix. The free end of the appendix projected about an inch and a half. On separating the ileum and the cæcum it was found that the greater part of the dilated proximal end of the appendix had been absorbed (or destroyed by ulceration or gangrene), and that the concretion communicated with the lumen of the bowel on each side. The appendix and the concretion were removed and the two portions of bowel re-united by suture. The concretion, which was about the size of a horse-chestnut, had been submitted to Dr. Ruttan for chemical examination. The patient made an uninterrupted recovery. The case, Dr. Bell thought, was of interest as illustrating one of the unusual and complicated conditions one may meet with on operating for appendicitis.

(2) *Sarcoma of the Upper Third of the Tibia.*—The speci-

men had been removed that day from a girl 23 years old, with a tubercular history. The tumour was first noticed two and a half years ago, but emaciation had only become marked during the past eight months. The amputation was performed in the middle third of the thigh.

Chloroform Accident.—Dr. BELL next gave the history of a chloroform accident which occurred recently in his hospital practice, and which came very near adding one more victim to the fatalities of chloroform anæsthesia. On Thursday of last week a boy eight years old, suffering from caries of the lower dorsal vertebræ with psoas abscess, was prepared for operation. He had been in the hospital one month prior to this, during which time he appeared in good health, there was no fever, and with the exception of this spinal condition his organs were all sound. (Dr. Bell then read the report of the anæsthetist.)

Commenting on the report, the speaker remarked that it was impossible to say whether the pulse or respiration were the first to cease, as almost at the same moment that Dr. Shaw discovered the stoppage of the pulse, Dr. Davidson observed the respirations to cease with a long-drawn sigh. Inversion, artificial respiration, cold to the face, with hot cloths over the cardiac region were all resorted to, and it seemed minutes to the observers before any return of respiration or cardiac movements manifested themselves. He thought that this case demonstrated the fact that the heart does stop suddenly in chloroform poisoning, in some cases, at least, and that death is not always due to respiratory failure brought on by the administration of an excess of the drug. Had respiratory failure been the initial event here the heart, as in all cases of death from suspended respiration, such as drowning, hanging, choking, etc., would have gone on beating for some minutes, instead of stopping instantaneously as here. The converse, however, is not true; that is, respiration does not continue after an arrest of the heart's action; and considering these facts, it seems clear that in this case the effect of the chloroform was exercised on the heart primarily and solely, the stoppage of respiration being secondary to it. Moreover, the quantity of chloroform administered was too insignificant to

be capable of affecting the respiratory centres, as in less than half a minute before the accident the boy cried out "take it off my face," and only a few drops were given afterwards. An interesting feature in the case is that it contradicts the contention of the Hyderabad commission that the heart never stops first, but that death from chloroform is always the result of respiratory failure from not giving the drug properly.

Dr. SHEPHERD thought there must be two classes of cases in chloroform poisoning. He had a case last winter where he was operating for lupus of the face, in which chloroform was used, and in which the respirations stopped while the heart went on beating.

Dr. GORDON CAMPBELL believed that the preponderance of clinical evidence is in favor of the heart stopping first. He then wished to know if the boy was much alarmed. Dr. Bell replied in the negative, saying that he was exceptionally free from fear.

Dr. WESLEY MILLS said that most of the upholders of chloroform as an anæsthetic were simply blinded by their prejudices, and were incapable of seeing or believing any facts, no matter how well substantiated, detrimental to the reputation of this drug. He instanced the fact that Surgeon Major Laurie had quoted the report of the chloroform commission as being entirely in favor of his own belief, while, in fact, it contradicted it. And such is the attitude of a majority of the defenders of chloroform who belong to what is known as the "Syme school," and to any experience establishing untoward effects their reply is simply "You do not give it properly, if you had done so the accident would not have happened."

Dr. GORDON CAMPBELL agreed with Dr. Mills in his strictures on the men of the "Syme school." He said they were accustomed to state that ether was only used by second-rate surgeons, and that it only effected incomplete anæsthesia.

The late Dr. Fenwick.—The following resolution was moved by Dr. SHEPHERD and seconded by Dr. MILLS :

Resolved—That this Society has learned with the most profound sorrow and regret of the death of Dr. George Edgeworth

Fenwick, one of its foundation members and a past president. For many years a most active and valued member, beside taking a prominent part in the discussions, he contributed numerous important papers to the proceedings and exhibited numbers of very valuable pathological specimens.

He was widely and favorably known, both in Canada and abroad, as a most accomplished, original and daring surgeon, who helped to advance surgical science in various directions, but especially in the surgery of the joints.

In Canadian medical literature he always upheld the best interests of the profession by protesting against abuses and advocating reform.

His kindly, genial manner and goodness of heart endeared him to all his brethren and especially made him the friend of the young practitioner.

Resolved—That our deepest sympathy be conveyed to his sorrowing family in this their time of mourning.

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FACULTY OF MEDICINE OF MCGILL UNIVERSITY.

With the coming session a radical change is to be inaugurated. The length of the session is to be nine months instead of six as formerly. This gives thirty-six months as the actual duration of the medical course in future, against twenty-seven at present, for now one summer session is compulsory, as well as four winter sessions.

More time is thus given for lectures and practical courses of all sorts, and it is hoped that the student will be able to do more independent reading and thinking, and thus avoid the evil effects of cramming, which is inseparable from a short session.

Through the munificence of Mr. John H. R. Molson, a much needed addition to the building has been made. This connects the older buildings with the pathological building acquired last year, and contains a large lecture room and laboratories for the practical teaching of physiology, histology, pharmacology and sanitary science.

The old building has been greatly improved in many respects. The departments of anatomy and chemistry have been given more space, so that the crowding, so much complained of last session, will be done away with. Better facilities are also afforded for using the library by setting aside an adjoining apartment as a reading room for students.

The chairs of pathology and sanitary science are now endowed,

through the kindness of Sir Donald A. Smith, so that these most important branches are on a satisfactory basis.

The teaching staff has also been strengthened by the addition of several professors, assistant professors and demonstrators.

This hasty sketch will prove to our readers that McGill University is determined to maintain the position she has won, and that the prospects for her future were never brighter.

THE CANADIAN MEDICAL ASSOCIATION.

The meeting held at St. John passed off most successfully as will be seen by the report which we print elsewhere. The number of members in attendance was large, in fact but once in the history of the Association has it been surpassed, and that was three years ago when the meeting was held in Montreal.

The papers presented were numerous and the discussions on them animated, but the time was too short, for very little can be done in two days, especially in such a hospitable place as St. John, where the resident practitioners vied with one another in devising means to render the visit pleasant to their confreres.

The address of the president was an interesting account of his own experience, and was listened to with the attention that is always accorded to him.

The address in medicine brought up the important question whether the present system of education pursued in Canada is the best for our future citizens, both as to their present and future health and prosperity. This was referred to a committee for investigation and future report.

The subject of a central board for examination and registration was taken up and a report presented from the committee appointed at the last meeting. After some discussion a committee was struck to arrange some scheme as a basis for such a board, a scheme which will be agreeable to all the provinces concerned.

We congratulate the Association on the choice of the president for the coming year, Dr. Bayard, of St. John.

The next meeting will be at Kingston, Ont.

THE MONTREAL FLOWER MISSION.

This has been in existence since 1873, when fifteen young ladies met together and undertook to supply flowers to the Hospitals of the city, once a week. Subscriptions and donations of flowers were solicited from their friends, and so a beginning was made. Year after year this went on, and now, after twenty-one years, the mission may be said to have obtained its majority, and this year has been marked by a great extension of its work; the opening of the Royal Victoria Hospital has doubled the number of patients, to whom every Saturday afternoon a small bouquet of flowers is presented.

The flowers are sent in by friends in the city who have gardens, and many come from the suburbs, and even long distances in the country. The school children collect wild flowers and send them, their parents rob their gardens of bloom, all that a breath of the country may be given to the sufferers in the Hospitals, many of whom have no friends to remember them, or if they have, poverty prevents any outlay in such a *useless* thing as flowers. The great railway companies of the Grand Trunk and Canadian Pacific also lend their aid by allowing baskets to be placed in their stations on Saturday mornings for the reception of flowers brought in from the surrounding summer resorts.

There is great rivalry between the two stations as to which shall have the greatest quantity of flowers to send to the mission, and the baskets are watched by the gate keepers with an eagle eye to prevent any pilfering or illegal appropriation of the blossoms placed in the receptacle under their charge. As an instance of this rivalry, the following printed slip was distributed on the trains of the Canadian Pacific Railway every Friday evening: "Don't forget the flower mission (for the hospitals). Please bring or send what flowers you can on Saturday morning for the C.P.R. basket."

For many years the ladies met every Saturday morning in Mr. Barnjum's gymnasium to receive the flowers and arrange the bouquets, but since his death the place of meeting has been the rooms of the Natural History Society, kindly loaned for the

purpose. Here people bring their offerings, and the great baskets are brought by a cabman from the stations. Volunteer workers labour all the morning arranging and tying up bunches of flowers which are put into trays containing water until the afternoon, when others come and take them to the Montreal General and Royal Victoria Hospitals and distribute them. If there are any flowers left after supplying these institutions they are taken to the Montreal Maternity Hospital, the Ladies' Benevolent Institution and St. Margaret's Home for Incurables, but we fear these last frequently go without, "For when they get there the cupboard is bare." If the funds warrant it, at Christmas and Easter flowers are purchased and given to the hospital patients, but unless some kind friend comes to the rescue with a liberal subscription, the display is not very great, for the field is large and both the subscribers and workers are few.

The management of the mission is very simple; the only officer is a secretary-treasurer, Miss Samuel, 39 Cote St. Antoine Road, and once a year a meeting is called of the subscribers, when a report of the previous year's work is presented.

Great numbers of flowers are sent in, but there is no danger of having too many, for the wards are large and the patients many, and besides the hospitals, there are other institutions which are glad to have bouquets to brighten up their rooms. No doubt many would become contributors to this work which has been done so well and so quietly did they but know of it, and our readers might bear this in mind and mention it to their friends and patients, for it is to the stranger from the country that the mission most appeals. The ladies who carry it on are truly endeavouring to carry out the divine injunction, "I was sick and ye visited me."

INSANITARY GRAVEYARDS.

A circular, of which we publish a translation, has been issued by the Provincial Board of Health and sent to the clergy of this Province. It reveals a condition of things that, to say the least, is deplorable, and is certainly a menace to public health. Besides, the law, which is by no means exacting in its demands,

is broken in the most flagrant manner. It is a disgrace to modern civilization, as well as christianity, that bodies should be covered by so little earth that the very dogs can dig them up and quarrel over the bones. Again the description of the private vaults is not pleasant reading; the floor covered with the decomposed drippings from the coffins, the coffins themselves burst open by the pressure within, forms a ghastly picture worthy of the brush of a Wiertz.

But these are dangers which are apparent to more than one of our senses and can easily be avoided, but far different is it with the other grounds of complaint. The taking of bodies of persons who have died with contagious diseases into churches, interment in the churches and contamination of the water supply are more subtle dangers, for the microbe of disease is invisible and cannot be easily avoided. Churches are buildings which are frequented, of necessity, by many people, and clergymen incur a grave responsibility in allowing the continuance of these abuses which bring disease and death upon their parishioners. Ignorance is probably at the bottom of much of it, the dangers are not really understood, but then the question naturally arises, why are not lectures on hygiene and public health given in our theological schools? The clergy have great power in these matters; they have control of the graveyards, and that they lack teaching in this essential department is a thing that should not be allowed to go on.

The law on the subject is not as stringent as it might be and as we hope it will be made before long, but there is no excuse for not carrying out its provisions, which is the least that should be done.

BOARD OF HEALTH OF THE PROVINCE OF QUEBEC,

76 St. Gabriel Street, Montreal, 9th May, 1894.

REVEREND SIRS,—I am instructed by the Board of Health to draw your attention to a state of things most deplorable from a sanitary point of view, as well as, in some cases, contrary to decency.

The complaints that are received, only too frequently, on these matters are generally on the following points :

1st. Insufficient depth of the graves.

2nd. Insanitary interment of bodies in private vaults.

- 3rd. Bodies of persons who have died of contagious diseases being interred in public or private vaults.
- 4th. Situation of cemeteries in the centre of villages.
- 5th. Internment in the churches.
- 6th. Use of the vaults of churches as dead houses during winter.

1st. *Insufficient depth of the graves.*—Although the law requires that all coffins shall be covered by at least three feet of earth, it is ascertained beyond a doubt that frequently only 20 to 25 inches of earth are put over the coffin, and that, in a large number of cases, principally in the older parishes, where new coffins are placed on top of the old ones, the thickness of earth does not exceed 8, 6, or even sometimes 4 inches. This has been the case even in the burial of bodies dying from contagious diseases.

As a consequence of this state of things, when the coffins come to break up, the earth with which they are covered is not sufficient to entirely cover up the remains, so that the bodies, or the remnants, are exposed to view and decomposition is continued in the open air. It has been asserted that in some places the bones thus exposed have been carried away by dogs to some distance.

2nd. *Insanitary interments of bodies in private vaults.*—To have a private vault appears to have become synonymous with “compelling the public to be present at the decomposition of one’s relatives.” The coffins in private vaults are usually placed on trestles or on shelves, on the floor or on the ground. Decomposition in going on causes deleterious and mephitic gases to spread themselves freely in the vault where they become condensed, and moreover the coffins, the trestles, the floor and the earth becomes covered with the gross and infected liquids escaping from the coffins.

Although this mode of burial is the one which is the most dangerous from a sanitary point of view, it is the one, nevertheless, chosen generally in preference by the class of persons in easy circumstances, who pretend that they find consolation in from time to time visiting the spot where this unwholesome, not to say disgusting, spectacle is being enacted.

It is a mistake to think that the use of metallic coffins prevents these diseases, as these coffins soon give way under the pressure of the gases, and once they are burst open, they are of less value than even wooden ones.

3rd. *Bodies of persons who have died of contagious diseases being interred in public or private vaults.*—This custom, which is moreover contrary to law, causes, without desiring it and without knowing it, parties who may follow to the public or private vault the body of a person dying of a non-contagious disease, to find themselves brought in to immediate contact with bodies who have died of contagious diseases and to thus expose themselves to contract or to carry to their families the germs of a disease often fatal.

4th. *Situation of cemeteries in the centre of villages.*—To have the cemetery in the middle of the village is to have constantly, in the midst of a dense population, a source of infection, as the atmosphere, in the

vicinity of a cemetery, is always vitiated by the gas arising from the decomposition of the dead bodies. Moreover, these cemeteries are too frequently situated near the wells, the streams, or the springs whence water is drawn for household purposes.

In many places again cemeteries are seen surrounding the church where all the water of the springtime and the water in heavy rain-falls which filter through the earth of the cemetery, find easy entrance into the vaults under the church, lying, as they do, at a lower level than the ground above.

In many old parishes where they are anxious, by all possible means, to keep the cemetery close by the church, they use every means that their ingenuity can suggest, to enlarge it, either on the surface by the annexation of new land on the outskirts, or else in the height by the construction of a wall all around and filling up with earth carried in, and all these changes, wrought at considerable expense, in no way improve the sanitary condition of the cemetery, and do not decrease the dangers of its bad situation.

5th. *Interment in the churches.*—If cemeteries should be removed from the middle of the village, there is still stronger reason why they should not be placed underneath the churches.

Moreover that would be tolerating in churches what no one would think of enduring in their own dwelling house. Nevertheless, if one or two families did inter their deceased friends in the cellar of their own houses, it would be only one or two households that would suffer from it, whereas when the deceased of these two families are buried in the vaults of the church the whole of the parishioners suffer alike. These interments result in poisoning the air of the churches; as, especially in winter when all the openings are hermetically closed, and the body of the church is warmed, the air is therein renewed mainly from that of the vaults that the ventilation draws up into the upper portion of the edifice.

6th. *Use of the vaults of churches as dead-houses during winter.*—Happily this is of tolerably rare occurrence, but we are nevertheless in possession of facts of serious import. Only recently, we have been informed, that in the course of last winter over 50 dead bodies were allowed to accumulate in part of the vaults of a church close to Montreal.

In order to gain a better understanding of the gravity, as well as the inconsistency of such a custom, suffice it to say, that if, in the parish in question, instead of using the church for that purpose, the families had each kept the dead bodies of their friends in the cellars of their own residences and only transported them to the cemetery in the spring, that would have been a vast improvement. Those families alone, and not the whole parish, would have been the sufferers. These remarks apply with equal force, and for the same reasons to the vaults under the vestry and to those of the steeples of the church.

In bringing before your notice the foregoing facts, the Board trusts that you will kindly give it your co-operation in order to apply the remedy, and in the furtherance of this object, it would respectfully

suggest calling your churchwardens to deliberate on these matters over which you will yourself preside :

1st. That in not insisting upon the coffins being covered with three feet of earth, the vestry is committing an infraction of the law relating to interments :

2nd. (a.) That until this insanitary law which "permits a body enclosed in a hermetically sealed metallic coffin to be laid on trestles" is repealed and replaced by a provision which exacts that every dead body, placed in a private vault, shall be buried or walled up, it is the duty of all vestries to superintend the vaults, and, at the slightest sign, indicating that a metallic coffin has burst open under the pressure of the gases, to order that the coffin, with its contents, shall be immediately placed in another hermetically sealed, unless the family consents to have the broken coffin suitably interred or walled up ;

(b.) That, according to law, metallic coffins alone can be placed upon trestles or upon shelves ;

3rd. That the interment law forbids to place, either in private or public vaults, the bodies of those persons who have died of contagious diseases, and orders that all such bodies should be immediately interred.

4th. (a.) That the site of a cemetery should be beyond the limits of the village, and moreover inclining in a direction opposite to the site of the dwellings below the village if this is situated on the edge of a river or stream of water, so that the water for household purposes should not be contaminated by underground filterings. The land chosen for this purpose should be, as far as possible, elevated, dry and very porous ; in other words, it ought to drain easily, and to permit free circulation of air, which is an essential condition to promote the rapid decomposition of dead bodies.

(b.) That no enlargement of a cemetery situated in the centre of a village should, under any circumstances, be ever contemplated, as the dangers that these cemeteries offer are in a direct ratio to the number of bodies buried in them.

5th. That in future interments in churches should never be tolerated, as it should not be permitted to the vestries, under any pretence whatever, to render unhealthy a building that no one can exempt himself from frequenting.

6th. That the interment law requires that every dead body deposited in a church shall be either interred four feet below the ground or built in with masonry.

Trusting that you will yield to the wishes of this Board and will lend it the co-operation which it asks at your hands in the interest of the health of your parishioners.

I have the honour to be,

Your very respectful servant,

(Signed,) ELZÉAR PELLETIER,

Secretary.

P.S.—The three modes of burial in private vaults, hereinafter prescribed, are the ONLY ONES that the Board of Health can recommend :

1st. To deposit the coffin in a grave and to cover it with four feet of earth.

2nd. To confine the coffin in solid masonry of at least twelve inches of thickness, if the work is of stone ; or of at least eighteen inches if the work is in brick, the stone or brick being thoroughly cemented.

3rd. To surround the coffin, on all sides, with a coat of cement four inches thick.

To this end, a niche is built in such a way that the interior measures on its length, breadth and height, eight inches more than the coffin which it is to hold. The walls of the niche should be in burnt brick, well cemented, and be four inches in thickness. The ground work of the niches of the lower row is to be in cemented brick, as above, or in mortar. The coffin is deposited in a niche of this construction, upon four blocks of stone, each four inches in height, so as to leave a free space of four inches on all sides ; there only then remains to fill up the niche with cement to the height of the partition wall.

Public Health.

From the report of the Section of Public Medicine of the British Medical Association in the *British Medical Journal* we take the following :

Dr. Arnold Evans (Bradford, Yorkshire), in a paper, gave it as his opinion that the infection of small-pox could be conveyed through the air, and based this opinion on his observations at the small-pox hospital at Bradford during the late epidemic. The number of cases occurring in the immediate vicinity of the hospital was greater than could be accounted for by accidental carrying of infection from it or of contagion from previous cases. Again, the greatest number of cases occurred in the direction of the prevailing winds.

A temporary small-pox hospital which had been erected was burnt, and although none of the spectators were allowed within fifty yards of the fire, a number of them developed the disease a short time afterwards.

Dr. Evans sums up by saying : " Taking all things into consideration, it seems to me that the most likely manner to account for the extensive prevalence of small-pox over the special area is that the poison was conveyed aërially direct from the wards of the hospital."

He also gives tables showing the respective prevalence of small-pox within certain distances from the hospital.

In the discussion which followed, Dr. Slade King (Ilfracombe) mentioned an instance which bore out Dr. Evans' theory. At Crediton small-pox broke out and the patients were isolated in tents erected for the purpose in a field. Some boys seeing the tents supposed that the soldiers had gone into camp, as was customary, and they ran down to see the sights. They did not go near the tents, but played for some time in a field at a little distance. The wind was blowing from the tents towards them. Twenty-five cases occurred among these boys during the next fortnight.

Mr. Walsh, M.B. (London), gave the results of some experiments conducted by Dr. Waldo (Southwark) and himself to decide whether baking sterilizes a loaf or not. Their experiments dealt only with non-pathogenic organisms, but the main conclusion arrived at was that the baking does not of a necessity kill the organisms. They found that the temperature in the centre of a quartern loaf varied from 163.4° to 186° F. and in a half quartern from 186.8° to 203° F. As the heat within the loaf increases until the maximum is reached, it follows that the germs are only exposed for a short time to the maximum heat.

The experiments are to be continued, and the speaker said that he suspected that many sporadic outbreaks of disease, such as diarrhoea, could be traced to bread improperly made—made from mouldy, sour flour, or made in insanitary bake-houses.

THE INTERPRETATION OF WATER ANALYSES.

J. C. Thresh, D.Sc., M.B. (M. O. H. Essex County Council), in speaking of the "Interpretation of Water Analyses," said :

Of the numerous substances found in potable waters, it is now generally admitted that only those of organic origin are a serious source of danger, and that by far the greatest risk is incurred in using water liable to contain certain living organisms, which, when introduced into the system, are capable of producing specific disease. Of the presence or absence of such organisms, chemical analysis can give us no information. The presence of organic matter may be chemically demonstrated, but, inasmuch as its nature, whether poisonous or innocuous, is beyond the power of the analyst to reveal, it is obvious that a mere chemical analysis may often be worthless or even misleading. This point cannot be too strongly emphasized, since the popular impression that the chemist, by performing a few mysterious experiments with a water in his laboratory, can pronounce at once whether it is pure or impure, safe or dangerous, is shared alike by the ignorant and the learned, and must be dispelled. This opinion has been, and continues to be, fostered

by analysts, who rarely hesitate to pass judgment upon a water from the determination of the chlorides, nitrates, phosphates and ammonia, of the organic carbon and nitrogen, of the oxygen consumed, and of the ammonia derivable from the organic constituents. All these factors are of more or less importance as an index of the degree of pollution, recent or remote, but their real value can in very few cases be assessed without some previous knowledge of the source of the water. The inorganic constituents can easily be determined, and whether, either in quality or quantity, they are objectionable, the chemist may safely express an opinion. They are, therefore, chiefly of interest to us in so far as their presence tends to throw light upon the source of the organic matter, which in greater or lesser quantity is always present. Only under certain circumstances has the determination of chlorides any significance, and pure water from some sources may contain a larger amount of chlorides than the same water when contaminated. The importance of an estimation of nitrates was for a long time undervalued. At the present time the tendency is to greatly exaggerate it. The amount of nitrates which would condemn a water from one source may be absolutely without significance in a water from another. At certain schools it is taught that the presence of nitrites is conclusive evidence of the dangerous character of a water, yet these compounds may be derived from the most innocent sources, as by the reduction of nitrates by metals, cement, new brickwork, etc. Erroneous conclusions may also be drawn from the determination of phosphates, free oxygen, ammonia and albuminoid ammonia. In the table of analyses (exhibited but not reproduced) the erroneous conclusions which may be deduced from a too great dependence upon analytical data are fully exemplified. The table is compiled from reports of the medical inspectors of the Local Government Board, from the results of analyses made by well-known chemists, and from my own report books. In nearly every instance chemical analyses failed to find such evidence of pollution as would justify the analyst in condemning the water, yet these very waters were proved to have caused more or less serious outbreaks of disease. Although a mere

chemical examination cannot guarantee that a water is pure and can be used without risk, yet it can very frequently reveal to us impurity and danger. Chemical analysis, therefore, has its use; it is only when it is made the sole arbiter between safety and risk that it is abused and is liable to lead to errors fraught with most disastrous consequences. Let the analysis be as carefully made and as complete as possible, but let the results always be interpreted in the light afforded by a searching examination of the source of the sample. Let all so-called standards be abandoned as absurd, and let the opinion as to whether a water is dangerous or safe be based upon a full consideration of other more important factors. With the discovery of the fact that such diseases as typhoid fever and cholera are due to the introduction into the system, not of dead organic matter, but of living organisms, faith in the chemical analysis of water began to be shaken. When, still more recently, the actual microbes causing these diseases had been identified, and processes had been devised for isolating them from the multitude of other organisms found in water, it seemed as though the examination of water for sanitary purposes had passed from the domain of the chemist into that of the bacteriologist. Further experience, however, is teaching us that the results of bacteriological examinations may be as misleading as those of chemical analyses. The cholera bacillus could not be demonstrated in the water poisoning the inhabitants of Hamburg and Altona; neither could the typhoid bacillus be found in the water supply which last year produced the epidemic in Worthing. Koch even falls back on a standard of quantity, which is as illogical as the older chemical standards. Both depend upon quantity when the real point at issue is the quality. In reputedly good waters it has been observed that the micro-organisms present, capable of liquefying gelatine by their growth, are few in number, whilst in sewage polluted water they abound. But this fact is of little value, since it only enables somewhat gross pollution to be detected, and most of these liquefying organisms are perfectly harmless. Bacteriology, like chemistry, may tell us something of impurity and hazard, but neither can be depended upon to

determine with certainty whether a water is actually injurious to health. The possibility of occasional pollution is a point too often overlooked, yet it is to such accidental pollution that outbreaks of disease are most frequently attributed, and of the liability to this the examination of samples of water, prior to the occurrence of the contamination, may tell us little or nothing. The danger of such pollution does not, unfortunately, vary with the amount of any constituent found in the water, and a source yielding a water of great chemical and bacterial purity may be more liable to occasional fouling than a source yielding water containing excessive quantities of chlorides and nitrates, unoxidized organic matter, or even living organisms. Bacteriological and microscopical examinations, as well as chemical analyses, must therefore always be associated with a thorough investigation of the source of the water to determine the possibility of contamination, continuous or intermittent, and a guardedly-expressed opinion given only after a full consideration of the bearing of the one upon the other. When a water is known to be fouled by sewage, or known to be liable to such pollution, any form of examination is superfluous, and as neither bacteriology nor chemistry can be depended upon to prove that a water is free from all dangerous pollution, such examinations are, in many cases, quite useless.

EXTRACTS FROM THE REVISED STATUTES OF THE PROVINCE
OF QUEBEC.

3459. Under a penalty of twenty dollars, upon every person in any way concerned or assisting, or taking part in, or being knowingly present at such interment, no deceased person shall be interred until after the expiration of twenty-four hours at least from the death of such person.

3461. In every interment in a church the coffin shall be covered by at least four feet of earth, or incased in masonry of at least eighteen inches in thickness, if in stone, or of at least twenty inches in thickness, if in brick; both brick and stone having been well covered with cement.

3462. In every interment in a church the use of disinfectants in the coffin is required.

3463. In all cases of death from small-pox, Asiatic cholera, typhus, typhoid fever, scarlet fever, diphtheria, glanders or measles, the use of disinfectants in the coffin is also required.

3464. The body of no person, who has died from any of the diseases mentioned in the preceding article, shall be conveyed from one parish to another, unless it be enclosed in a metallic coffin, hermetically sealed, and filled with disinfectants.

3465. The bodies of all persons who have died of any of the diseases specified in article 3463 shall be laid in separate graves and covered with at least four feet of earth, and shall not be deposited in a vault or buried in any church.

This article is amended 52 V., c. 36, sec. 1, by the following addition: 3465a. But whenever death was not caused by any of the diseases mentioned in article 3463, the coffin shall be covered by at least three feet of earth.

3466. No interment is allowed in private vaults, unless the coffin be deposited in a grave and covered with four feet of earth, or incased in masonry of at least eighteen inches in thickness if of stone, or at least twenty inches in thickness if in brick; both brick and stone being well covered with cement, whatever the disease may have been.

52 Vict., c. 32, sec. 2. Article 3466 of the Revised Statutes is replaced by the following: 3466. No interment is allowed in private vaults, unless, whatever may have been the disease which caused the death, the coffin be deposited in a grave and covered with four feet of earth, or incased in masonry of at least twelve inches in thickness if in stone, or of at least eighteen inches in thickness if in brick; both stone and brick being well covered with mortar.

The coffin may also be placed on shelves or trestles in vaults, provided that the body be placed in a metal coffin hermetically sealed.

3467. When typhus, Asiatic cholera, etc., are epidemic, it shall be lawful for the Provincial Board of Health to prohibit by proclamation, during a fixed period specified in the proclamation, the bodies of persons who have died from any such diseases from being brought into churches

While such prohibition is not in force, the bodies of persons who have died of such diseases shall be conveyed directly from the house to the place of interment.

2468. In the absence of such proclamation, the local or diocesan ecclesiastical authority may, at any time, forbid the bringing of corpses into the churches under the control of such ecclesiastical authority, when it deems that the bringing of such corpses into the churches may be prejudicial to the public health.

3472. In any new parish the site for the cemetery shall be chosen, as much as possible, beyond the probable limits of the town or village, on elevated land inclining in a direction opposite to the site of the dwellings, so that drinking water shall not be contaminated by its drainage.

The same rule shall also be applied in parishes already established where a removal of the cemetery is to be made.

3476. The superior or diocesan ecclesiastical authority may, whenever deemed desirable in the interests of decency or of the public health, prohibit interments in any cemetery or church under its control.

Medical Items.

SHORTHAND IN MEDICINE.—In order to promote the use of shorthand by medical students and practitioners, by enabling them to increase their knowledge at the same time of the art and of their profession, a small sheet of clinical teaching in lithographed phonetic shorthand has been issued by a London firm. The paper, which will be continued if found to fill a need, contains reports of clinical lectures by Dr. Gowers, and other prominent London clinicians.

—Prof. Peter, of Paris, who died lately, at the age of sixty-nine years, presented in his career an illustration of how ability and perseverance, even in spite of unusual difficulties, can acquire greatness. In his early days he was a type-setter. He was thirty-five years old when he obtained his medical degree, and it was not until he was well in his fifties that he became a professor. And yet he lived long enough to have a French paper say of him :—“ The hospitals have lost their greatest clinician.”

FAILURE TO DIAGNOSE SMALL-POX.—Apropos of the burning question of the spread of disease by vagrants, a somewhat curious case of mistaken diagnosis in a tramp is recorded in the columns of the *Western Morning News*, the person having tramped through several unions with the infection of small-pox. The patient thought he was suffering from an attack of itch ; and, more striking still, he seems to have been treated at one place for ulcer of the cornea, the supposed ulcer being a pock mark. Dr. Elliott, of Kingsbridge, has traced the movements of the man for thirteen days preceding his reception into the workhouse in that town, with the result that he is found to have passed through ten towns in that period.—*British Medical Journal*.

A CASE OF AMNESIA.—The guardians of the peace in Paris, the other evening, found a man asleep upon a bench in the “Quai des Tournelles.” They aroused him and told him to go home. “Go home,” said he, “it is strange, but I cannot remember where I live. He was taken to the station but could give no information about himself. On searching him, however, papers were found which showed that his name was Pierre Voulupt, and that he came from Besançon. Next morning, thanks to the list of lodging houses, it was found that he had arrived in Paris on the first of May, put up at a hotel in Maitre-Albert street and disappeared the next day, leaving eight hundred francs in the care of the proprietor. Pierre was then taken back to his lodgings.—*Lyon Médicale, July 8th, 1894.*

—In a little village, Schwanheim, near Frankfort a. Nl., occurred an epidemic of hysteria lately, causing considerable consternation and excitement among the citizens. Two young girls awoke one morning and found that their hair had been cut close to the scalp. They related that a person had come into their room during the night and that he had cut their hair. Several girls experienced the same thing, and finally a young woman, who was to be married the next day, lost her hair. Some of the citizens volunteered to watch over the houses of young women. These citizens received anonymous letters that their whiskers would be cut. On the door of one of the public buildings was found the following inscription :

Wir sind unser dreissig,
Bei Nacht sind wir fleissig,
Bei Tag schauen wir zum Fenster Ninaus,
Und lachen die Leut' aus ;
Jetst schneiden wir Zöpf ab,
Später schneiden wir Köpf ab.

It was later explained, of course, that the hair had been cut by the girls themselves.—*Ugeskrift F. Lgåer. No. 19, 1894.*

—According to the *Texas Medical Journal*, it is beginning to look as if the National Association of Railway Surgeons is to be a kind of kindergarten for the education of witnesses.

—An English physician recently entered an action against a patient for slander and gained the case, a reversal of the usual process.

—It is announced that Dr. John Williams, of London, who attended the Duchess of York in her recent confinement, has been made a baronet.

—A convalescent home for nurses has recently been founded in Glasgow. Dr. S. G. Moore bequeathed £55,000 to build and endow it.

—The North Carolina Board of Examiners have suggested a good scheme to prevent complaints about the fairness of the examination being made by unsuccessful candidates. They propose in such a case, to publish the questions together with the written answers of the complainant.

—To avoid the chilling of patients during long operations, an electrician has invented a mattress, called a thennogen, containing a mesh of fine wires, which become heated by the passage of an electric current. The amount of heat can be regulated by a special apparatus. By this means the ordinary methods of hot water bottles, hot blankets, &c., are done away with.

KENTUCKY SCHOOL OF MEDICINE.—At the meeting of the Association of American Medical Colleges, held in San Francisco on June 7th, 1894, the Kentucky School of Medicine, of Louisville, Ky., was dropped from membership in the association.—*Ex.* Dr. Wathen, the Dean of the Kentucky School of Medicine, denies, emphatically, that his school was ever a member of the Association of American Medical Colleges. It is a member of the Southern Association in good standing, and no school in this country is more strict in its requirements, nor possesses a higher standard of excellence. The Kentucky School of Medicine is one of the oldest and best known institutions in the South, and its requirements, both for matriculation and graduation, are higher than are those of either the Southern or American Associations. The Faculty has just completed a large hospital annex, and the clinical advantages the coming season will be equal to any, and superior to most, other colleges.—*Louisville Medical Monthly.*

—Mr. Albert Turner, who has been for nearly thirty years connected with the Fowler & Wells Company, is announced as the manager of a new Journal of Practical Hygiene to be called *Health* for which well known writers on the subject will contribute. The announcement for July number contains the names of Dr. Oswald, Dr. C. E. Page, Dr. Dodds, Julia Coleman, Hester M. Poole, Dr. W. R. Forest, Mrs. Le Favre, M. Poole, Miss E. Marguerite Lindley, Mrs. Hudders, Dr. Fuller, Helen Gilbert Ecob and others. To be issued as a quarterly at 15 cts. a number, or 50 cts. a year by the Health Publishing Co., 88 Reade Street, New York.

INOCULATION OF A RAT WITH CANCER FROM A MAN.—Mayet (*Lyon Médical*, Aug. 27, 1893,) reports a case in which he inoculated a rat with the juice of a cancer. The juice was diluted with glycerine and filtered through filter paper, and the rat was injected three times by means of a hypodermic syringe. The rat was shown eleven months after the injection and then had two tumors in the loins. Mr. Vialleton had pronounced them carcinoma.

In reply to a question, M. Mayet said that he considered cancer a disease which affected various types according to the seat of the proliferation, and he thought that, no matter what form of cancer was used for inoculation, the histological characters of the resulting tumour would depend on the tissue in which it developed. The case was presented at the Société de Science Médicale de Lyon.

THE FIRST LADY GRADUATES OF GLASGOW UNIVERSITY.—The results of the final examinations for degrees in medicine and surgery in Glasgow University were made known at the end of last week. The candidates numbered 135, of whom 69 passed in all subjects, and 30 in all but one. Of the 30, 21 were referred for three months in surgery. There were 8 withdrawals and 28 rejections. Of the candidates 4 were ladies, of whom 2 passed in all subjects, and 2 in all but surgery. The graduation took place on July 19th, among the graduands being the two ladies mentioned. These ladies have the unique distinction of being the first lady grad-

uates of this more than three centuries old University, and their names ought to be recorded. They are Miss Marion Gilchrist, of Bothwell, and Miss Alice L. L. Cumming, daughter of Dr. Cumming, of Blythwood Square. Both are students of Queen Margaret College, Glasgow, where each took a preliminary training in Arts before entering on her medical studies. Miss Gilchrist is an LL. A., of St. Andrew's, and has the additional honour of graduating with high commendation. Queen Margaret College has reason to be proud of her first University candidates.

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