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KINGSTON MEDICAL QUARTERLY.

VOL. II. OCTOBER, 1897. NO. I.

THE ANNUAL MEETING OF THE COUNCIL OF THE COLLEGE OF PHYSICIANS AND SURGEONS OF THE PROVINCE OF ONTARIO.

WE have just received a copy of the proceedings of the meeting of the Medical Council held in Toronto last July, and we deem it not inappropriate for us to call the attention of our brethren to some matters which came before that representative body.

Throughout the discussions, as reported, there is manifested a desire for economy in the management of the affairs of the College. This is right and proper within certain limits. But it must always be remembered that what may appear to be economy is sometimes the very opposite. Any immediate saving in expenditure which impairs the efficiency of an organization is not economy; it is really extravagance. The most pernicious form of false economy is that which seeks to cut down expenses by reducing the salaries of one's officers. A good officer is worth a good salary. An officer who has a good salary is in the very nature of things liable to do his utmost to deserve his salary and to earn the appreciation and approval of those who have the power to employ him and to fix his salary. Such being our belief we feel that the Council acted wisely, and that the profession generally will approve their action in maintaining the salary of Dr. Pyne at $1,800. In Dr. Pyne we feel that the Council has an ideal Registrar, and we are confident that the profession throughout the Province are of the same opinion, and that the

salary attached to his office is none too great for the responsibility which it imposes upon him, and for the vast amount of clerical work he has to perform. Our experience of Dr. Pyne goes back to our students' days, and we remember him then as a kind, genial and courteous gentleman who at all times, either by letter or by personal interview, manifested a desire to treat all students in a gentlemanly and fair manner, and to do all in his power to meet their requests in so far as it was possible for him to do so within the regulations of the Council. As with students so with practitioners, Dr. Pyne's aim at all times apparently is to maintain the Council's regulations, while at the same time no one has cause to complain of want of attention or a lack of courtesy. Such an officer is invaluable to the Council, and therefore we say the Council acted wisely in maintaining his salary at the old figure.

Another question which came up under this same plea of economy was the printing of the proceedings of the Council. By some members it was thought that an epitomized account of proceedings would meet all requirements, and that this would be published for much less than a verbatim report. The greatest saving that would be effected according to the figures given in the report of the discussion would be about $200. Now it appears to us that for the sake of this small sum it is not wise to depart from the present practice of giving a verbatim report. Those of the profession who take an interest in the affairs of the Council (and we believe the vast majority of the members of the College do) we are persuaded would prefer to have a full report rather than a mere synopsis of the proceedings of the Council. A report which merely states that a certain resolution was moved by Dr. This and seconded by Dr. That, and carried or lost, as the case may have been, is very dry and uninteresting reading. Personally we would prefer to know what arguments were adduced both for and against the resolution, and so we are confident would the other members of the College. Besides, it must be remembered that a majority of the members are territorial representatives elected from and by the practitioners in their respective districts. These members are, therefore, responsible to their constituents, not only for the actions of the Council as a whole, but more

especially for the stand which they take upon the various questions which are brought before the Council for discussion. The constituents of these representatives have a right to know what position their representatives have taken on all matters dealt with by the Council, and how else can they obtain this information so well as from a verbatim report of the proceedings? By all means let us have such a report, even if it does cost a couple of hundred dollars annually more than an epitomized account.

Economy was again made to do duty as a reason for centralizing the Council's examinations in Toronto. This is an old question, having been brought before the Council at previous meetings. To the credit of the members be it said, this was again voted down. As is well known, before the formation of the Council, certain bodies had the right of granting medical degrees which practically carried with them the license to practise. These bodies believing that the formation of the Council would be in the interests of the profession, and also of the public, made the organization of the Council possible by agreeing to relinquish the right and title to the powers vested in them on certain conditions. One of these conditions was that the examinations of the Council should be held in Toronto *and* Kingston. From the discussion which took place at the meeting of the Council last July one would naturally infer that the condition requiring the examination to be held in Kingston as well as in Toronto was made and that the right was still maintained wholly and solely in the interests of Queen's University, which happens to be located in Kingston. We do not view the matter so. We freely admit that not holding examinations in Kingston would be a gross breach of faith by the Council with Queen's University. We further believe that such a breach of faith would be more injurious to the Council than it would be to Queen's, for the natural effect of such an act would be to rouse a feeling of hostility to the Council among the graduates, alumni and friends of Queen's (and their name is legion) and we are confident that the Council cannot afford and does not desire to antagonize any section of the people. But we believe that this is the least important reason for maintaining the examination as at present. Kingston is educationally the centre of Eastern Ontario as Toronto is of Western Ontario,

We feel that those candidates who reside in the Eastern section of the Province have a right to claim that they be put to no unnecessary financial burden in order to obtain that license. Should the Council decide to hold their examinations at Toronto only such would be the case. The advantage and fairness of the policy of holding examinations at various centres is now recognized by the education department. It is not now necessary for a candidate to go to Toronto to matriculate into the Provincial University. All sections of the Province contribute to the maintenance of that department, and are equally entitled to the privilege of writing upon this examination in their own section, of course within reasonable limits. Such a policy has been found to be in the interests of higher literary education. Such a policy has worked well in the past in medical education. Such a policy is in fulfilment of a compact entered into at the time of the organization of the Council. Without such a compact the Council would not have been formed. A departure from the practice hitherto followed would be a gross breach of faith. The gain to the Council would be a matter of two or three hundred dollars a year. It is almost inconceivable that anyone would propose that to save such a sum the Council should deliberately brand itself as a violator of a sacred compact. By all means let the Council be economical, but let us not have economy at the expense of honour.

Speaking of economy in the management of the affairs of the Council, one cannot but feel that if the members of the Council would exhibit a little more knowledge of the ordinary rules of procedure in public bodies quite a saving could be effected. In the report of the proceedings we find it stated that the Council costs the College $300 every day it sits, and that the cost of reporting the proceedings amounts, according to figures given in the report, $2.22 per page. Now if anyone will take the trouble to carefully figure up the space occupied by the Council in discussing points of order, he will find a considerable portion of the report is thus made up. Figuring this space at $2.22 per page, and taking into account the time so occupied, and remembering that a meeting of the Council costs $300 a day, or $60 an hour, one readily perceives that these discussions on points of order are an expensive luxury. Would it not be well for mem-

bers of the Council who apparently are so anxious for economy to consider whether economy could not be effected without imposing burdens upon students, and without breaking faith with any of the bodies who were original parties to the agreement whereby the formation of the Council was rendered possible.

THE CODE OF MEDICAL ETHICS.

I.

HOW many physicians possess a copy of a code of Medical Ethics? How many have read any code or have any definite idea of what the code contains? The writer believes it to be exceptional to find a physician with any knowledge of medical ethics. If he does know anything of the subject it is due not to the faculty which trains him for his profession, nor to the Provincial Council which robs him of his money, examines and re-examines him, then gives him a $2.00-per-annum permission to practise, keeps a detective to see that he behaves himself, but does not protect him against quacks and unqualified M.D's. What the Doctor knows about medical ethics he has thought out for himself, having for his text, "Whatsoever ye would that men should do unto you, even so do unto them," or he has after diligent search found a copy of the code and instructed himself therein.

Ethical questions deal with the most delicate relations of life; they have to do with the hidden springs of action which prompt to any given course; they involve the instincts and impulses as well as the reason and judgment of the individual. Anything that can be said upon the nobility of the profession of medicine would be trite. It claims for itself, and the willing tribute of others accords to it, the pre-eminence among the call-

ings that men give themselves to, for devotion to humanity, for high courage in face of danger, for self-sacrifice for the relief of others, for public spirit, liberality of views, and general culture which the duties, the studies and the influences of the profession tend to develop, and which its members as a class display. A physician does not consider himself a member of a guild or corporation, the rules of which he must comply with in order to retain his membership therein, and enjoy its benefits. Medicine is a liberal profession, the rules of which are the unwritten laws of humanity. In spite, however, of this *lex non scripta* there is great need for a written code, as is testified by the numerous applications which continually appear in the columns of medical journals for ethical information on points in dispute. These inquiries are much more numerous in the English periodicals than in American, a fact which I consider due to greater confidence in the editorial management on the other side of the water. A code of ethics when adopted by the profession represents the views of the majority, and is, therefore, binding on all. It will contribute to the purity and dignity of the profession, by indicating the proper course to those whose moral perceptions may be defective, proving a safeguard against the bias of personal interests and being indispensable for reference when differences of opinion exist. The rules of conduct adapted to medicine constitute medical ethics. Medical etiquette, on the other hand, has to do with the forms to be observed in professional intercourse. The latter are conventional, and while they have not the same force as ethical rules, they yet claim observance. The profession is frequently held up to ridicule for observing its rules of etiquette, but these rules are a protection against embarrassment, misapprehension and dissension which are more injurious to the patient than to the physician.

With the indulgence of the editor of the MEDICAL QUARTERLY it is proposed to discuss, in a series of short articles, the code of ethics and etiquette, and this is done in the belief that the subject is of interest to the profession.

A comparison of all the codes of ethics in existence shows that all are based on that prepared by Dr. Thomas Percival, an English physician, and published in 1807. The phrases of the

original writer have been preserved to a considerable extent. Percival's code of ethics was prepared for his son engaged in the study of medicine, and, as he writes in the dedication, it was composed "with the tenderest impulse of paternal love, and not a single moral rule was framed without a secret view to his designation, and an anxious wish that it might influence his future conduct." Here is another quotation from the dedication:

"The relation in which a physician stands to his patient, to his brethren, and to the public, are complicated and multifarious, involving much knowledge of human nature and extensive moral duties. The study of professional ethics, therefore, cannot fail to invigorate and enlarge your understanding. While the observance of the duties which they enjoin will soften your manners, expand your affections and form you to that probity and dignity of conduct which are essential to the character of a gentleman."

The code is arranged in three chapters as follows:

1. The duties of physicians to their patients and the obligations of patients to their physicians.

2. The duties of physicians to each other and to the profession at large.

3. The duties of the profession to the public, and the obligations of the public to the profession.

In the articles to appear in future numbers of the QUARTERLY this arrangement will be followed, one article being devoted to each chapter.

When contrasted with other pursuits the practice of medicine is peculiar. The doctor does not deal with facts and laws of the same exactness as those in other branches of science, for the problems of disease contain many elements which cannot be estimated with absolute certainty, and the results are not to be summed up with mathematical precision. It is impossible for the physician himself to judge correctly of the results in all his cases; and, for those not engaged in the study of disease, it is out of the question to do so. Hence the doctor is often blamed unjustly, and perhaps quite as often receives praise not strictly his due. People cannot form a true judgment of the work of the physician by the recovery or death of his patient. The choice of a doctor is often determined by other considerations than those

which pertain to scientific knowledge or skill, and, as a rule, the relation between physician and patient becomes not purely professional, but involves friendship and even affection. Nor is it to be wondered at that the doctor is extremely sensitive respecting his professional relations and rival practitioners, for in no other calling are extrinsic means available for competition to the same extent, and the opportunities so great for ungenerous and unscrupulous advantages.

Apart entirely from the treatment of cases there are many responsibilities involved in the practice of medicine. The doctor knows the private character of his patients; their weaknesses, faults, vices and secrets cannot be concealed even if not confessed. There are duties connected with the expression of opinions, concerning the termination and nature of diseases, to the patient and friends. There are also obligations as to giving advice and aid in overcoming bad habits; the charitable gift of professional services to individuals and institutions; giving testimony in courts of law; communicating the nature of diseases to others than those immediately concerned; exposing irregular practitioners, patent medicines and all forms of quackery. Finally, there are responsibilities relating to the honor and purity of the profession, the promotion of medical knowledge, the protection of public health and the prevention of disease. These matters are of the very highest importance to physician and public alike.

J. C. CONNELL.

CARCINOMA.*

IN this short paper, opening the discussion on Carcinoma, I cannot enter fully into the various questions which naturally arise in considering such a subject. I will, then, confine myself to a short consideration of the nature and theories of origin of cancer, with a few remarks on the relative malignancy of its several varieties. Carcinoma is our common malignant tumor and is classed as an epithelial neoplasm. It is true that the active and essential elements in Carcinoma are the epithelial cells, but we should not forget that in cancer we have also proliferative activity of the connective tissue cells, by which we have formed much of the interalveolar stroma. In other words not only have we a vast atypical increase of epithelium, but we have also a newly formed (in most instances) connective tissue stroma; the amount and character of this stroma is of great importance in defining the rapidity of growth and the malignancy of the tumor.

What is the essential nature of Carcinoma? I think we can answer the question by saying that we have in it a functionless cell proliferation essentially of the epithelial cells, tending to reproduce atypically the epithelial structure of the part; such proliferation not being dependent upon physiological stimulus from other cells of the body, and ceasing only with the failure of nutrition.

What is the cause of this functionless cell proliferation? To its exact causation we cannot yet point. There are, however certain factors bearing directly upon its etiology, and further, there are numerous theories of origin which have more or less of fact for basis. I will consider a few of the most important of these, beginning with the theory first put forward by Virchow. This theory is that irritation (Virchow) or causes producing proliferative (chronic) inflammation cause the epithelial cells to multiply, to break their bounds and invade the tissues via the lymph spaces and tracts. (This theory would include the para-

*Paper read at October, 1897, meeting of the Kingston Medical and Surgical Society.

sitic theory to be spoken of later, but that will receive separate mention). We all know how active a part irritation does play in the causation of cancer. Take cancer of the lip, tongue and fauces; the vast majority of such are in smokers, or follow irritation from a sharp or decaying tooth, or like irritant. We see an irritated scar becoming epitheliomatous. Primary cancer of the gall bladder is usually preceded by gall stones in its cavity. Cancer of the breast often develops after an old mastitis, follows injury, or attacks a simple mammary tumor, and so on.

But how is it that in some cases Carcinoma follows such irritation or such proliferative inflammation while in the majority of cases it does not? Why is it that in the case of so many irritated chronic ulcers the epithelial proliferation remains sharply defined off, from the underlying connective tissue by a distinct basement membrane, while in other cases we have developed the the cancerous ulcer, with its loss of limitation of the epithelial elements and their invasion of the underlying parts? Cases, however, not infrequently arise where even the microscopist finds it difficult to decide whether the limits have been outstepped or whether the epithelial proliferation is still within bounds. Such is the so-called precancerous and initial cancer state; terms not capable of positive definition. Where then can we draw the line between this continent and incontinent cell growth? What is the factor at work which permits the bounds to be outstepped in the one case and sharply defines them in another? Is this factor a special growing and invasive power conferred on the epithelial cells, or is there a special vulnerability of the tissues rendering them open to such invasion? If this vulnerability of tissues exists, is it inherited or acquired? We can say for hereditary vulnerability as we can say for the cancerous process in general that such a tendency can hardly be hereditary, for an hereditary history can be obtained in but few cases. To the question of an acquired vulnerability, we can say little or nothing, as other factors then enter into consideration. For instance, cancer in females is certainly most common at or about the menopause, just when the nutritional activity of the generative organs ceases. It would almost appear that the energy hitherto directed to the generative organs, was now directed to neoplastic growth; or is

it that the tissues then are vulnerable so that any proliferative activity of epithelium would tend to become invasive owing to this predisposition? Waldeyer and Thiersch are the chief upholders of the view of a special vulnerability of the (connective) tissues, produced particularly by age or injury, so that any active epithelial growth tends to break into the tissues. But cancer occurs in comparative youth as in old age, and no weakening of the basement membrane can be positively demonstrated. Further, as opposing this we almost always, in fact always, note proliferative activity of the fixed tissues themselves. So that whether the tissues are or are not especially vulnerable, more is needed than this factor to explain epithelial invasion. We must have special growing and invasive powers on the part of the epithelial cells. As to the exact means by which this is conferred we cannot yet say, but it is certain that it is so conferred in many cases of long continued irritation or by causes tending to lead to a proliferative or productive inflammation.

Cohnheim's theory is the next theory of importance. He taught that tumors were generated from "rests" or "remnants" of the embryonic tissues enclosed and lying latent in the body tissues until excited into proliferative activity by some excitant, whether irritant or otherwise. He thought when once such cells had been excited to growth, that having the proliferative energy characteristic of the embryonic tissues, they would continue to proliferate indefinitely, passing rapidly out of bounds in the case of epithelial and young connective tissue elements. It is hardly necessary to go back to the embryo for types of cells of strong proliferative energy. Let me instance the lowermost layer of the rete malphigii in which growth continues throughout life; the lining cells of most mucous membranes and functionally active glands are also actively proliferative during life. It is from such cells that Carcinoma usually originates. Further anatomically practically nothing is known of these inclusion rests, and while this theory does explain the origin of such tumors as chondroma in the testis and parotid, true dermoids and some tumors in unusual situations, it cannot account for many.

Again, Carcinoma is not most common where developmental processes are complicated and where "rests" might reasonably

be expected to be most common. The lip and breast, both common seats have a very simple developmental process. I think then that we can dismiss Cohnheim's idea of Carcinoma springing from embryonic inclusions as not explaining in any way the origin of cancer.

Finally in the theories of causation we have the parasitic theory of origin. This parasitic theory has had and still holds a strong position, as being the actual causative agency in Carcinoma. There is, indeed, in many respects, a close resemblance between cancer and infective diseases, *e.g.*, their local commencement and invasion, their glandular metastasis and finally their generalized dissemination. But the tissue reaction against bacteria is always of a more or less inflammatory character, not as in cancer an atypical reproduction of the epithelial structures of the part. Cancer thus differs from all, or nearly all bacterial diseases in the changes being essentially in the epithelium. Several bacteria have been described in cancer, but none as yet have the slightest grounds for being considered causal.

Within this past few years attention has been [illegible]ed to the closer relationship which exists between protozoa. life forms and disease particularly of epithelial tissue. As instances of this I may point you to the lesions of the coccidium oviforme in the bile ducts of the rabbit, or to the animal parasite which causes molluscum contagiosum. Many observers have found what they consider to be animal parasites in the cancer cells, and some have even traced their life cycles. But the appearances which have been interpreted as protozoal life forms are capable of other, and to my mind, more accurate interpretation as being not life forms at all, but nuclear degenerations, cell invaginations or enclosed leucocytes. Further in the bodies of animal parasites we have certain chemical constituents, either chitin or celiulose. Neither of these have yet been detected in Carcinoma, though several careful chemical investigators have attempted to detect such. Though there are then some points in favor of the parasitic origin of cancer, it does not seem to be altogether plausible Certain it is that we would have to have a special parasite for each variety; for experiment has clearly proven that we cannot produce cancer of another form than that inoculated (or in reality

grafted) in an organ of different epithelium. Further, it is always essential even in such epithelial organs as the liver, that cells of the primary growth be carried to the liver ere secondary deposits can occur. We have in this proof positive that whatever the nature of the proliferative stimulus it is residual in the cell. The cell contains the essential elements for growth within itself, provided it be suitably nourished. What the exact nature of this residual stimulus is we do not yet know, further, than that it confers upon the cell active growing and invasive powers.

I have run rather rapidly over these theories of origin, either one of which would furnish material for a paper. I may shortly sum up what we know on the origin of cancer by saying that owing to the action of some excitant, of which causes producing irritation and proliferative inflammation are important factors, we have set up a functionless cell proliferation of the epithelial cells, which once excited ceases not till there is nutritional failure.

A few words now on the classification and malignancy of Carcinomas might not be out of place. Pathologically we divide them according to the character of their constituent epithelial cells, into squamous celled, columnar celled and sphæroidal celled Carcinomas. A better clinical classification would perhaps be to consider them as Carcinomas of the skin, of the mucous membranes and their glands, and of the glandular organs.

In the skin we necessarily have squamous celled Carcinoma in the form either of rodent ulcer or the much more common epithelioma.

In the mucous membranes the variety of cancer will depend upon the nature of the epithelium. Thus in mouth, throat and œsophagus we will have squamous celled Carcinoma or epithelioma; in stomach, intestines, gall ducts and within the os uteri, columnar celled cancer; while we will find sphæroidal celled cancer either as schirrus or encephaloid growing from the pyloric glands of stomach, Brunner's glands in the duodenum, or from mucous glands as in Antrum.

In glands other than simple tubular forms we will have sphæroidal celled cancer as in breast, stomach, testes, ovary, kidney, etc.

I have not considered colloid cancer, as it is simply a degen-

erative form of either the columnar or sphæroidal celled varieties.

As regards the malignancy of the varieties of cancer we can make an ascending scale as follows:

1. Rodent ulcer, which usually attacks the face, and always remains local, with no recurrence after free removal, and rarely causes death. If death occurs it is always from local causes.

2. Epithelioma of the skin. This form is at first local, but sooner or later gives rise to glandular infection in primary and secondary glands, but very rarely disseminates. Death is the termination if left alone, by exhaustion from ulceration or haemmorhage, or by bacterial infection.

3. Epithelioma of mucous membranes. This form is, as a rule, more rapidly fatal than the last. It involves the glands earlier and gives rise more frequently to visceral growths than when on the skin. Death is due to same causes as former.

4. Columnar celled carcinoma. In this we have fairly rapid local growth, with much tendency to a ring-like infiltration of the walls of the hollow viscera and a rapid local extension. The glands are involved later than in epithelioma, but there is a much greater tendency toward visceral dissemination. Death is most commonly due to local causes, but may be due to cachexia or general dissemination.

5. Scirrhus. In this form we have moderately rapid local growth with very early glandular involvement and a later marked tendency toward dissemination in the bones and viscera Death may be due to local causes, to cachexia, or to the visceral involment.

6. Encephaloid. Here we have very rapid local growth with very early glandular involvement and dissemination, with death due to exhaustion or visceral lesions.

The colloid form is always considerably less malignant than would be the variety in which it occurs, growing from same seat.

Now Carcinoma is in all cases first of local origin, and there is always a period before the surrounding structures are markedly invaded and before the lymphatics are involved. It is only rarely that extension occurs from primary focus via blood stream. Now as Carcinoma is of local origin and is essentially an atypical proliferation of epithelium, we have only two rational therapeutic

measures, either check cell growth or remove it completely. In so far as I know we have nothing to do the former, so that free and wide extirpation, undertaken early, must yet be our only hope of mastering this terrible affection.

I will leave to others the actual methods of surgical treatment, and trust this paper may provoke a discussion on points of etiology and on surgical treatment, and bring out our surgeons' statistics of results in lip, breast and uterine cases.

W. T. CONNELL.

THE BRITISH MEDICAL ASSOCIATION.

CANADA has been exceptionally fortunate this year in securing prizes in the great arena of fame and progress. The distinguished position secured by her at the Queen's Jubilee ackowledged her as the first among the Colonies, and the esteem in which her citizens are held was clearly demonstrated alike in the treatment accorded to the Premier and the members of the colonial military contingent.

During the month of September the annual meetings of two noted societies were held within her borders—the British Association for the Advancement of Science in Toronto, and the British Medical Association in Montreal—the effects of which cannot be other than advantageous to Canada's prosperity.

Much has been written upon the honor conferred upon Canada, and upon Montreal in particular, by the Association having chosen it as the place of meeting for this year's convention, and not unnaturally, for it is indeed an honor for a body of such celebrated men to have decided upon this country as a meeting place, when in the sixty-five years it has existed it has never met outside the British Isles.

The Association was founded in 1833, and so rapid was its growth, that, in a few years, it passed beyond the provincial stage and became a national affair, so that now, within the United Kingdom alone, the Association is divided into some forty branches, and has a total membership of over 17,000.

The principal objects which the Association keeps in view are of the highest order, such as the gathering of useful information gained in hospitals, at the bedside, and on the battlefield; the advancement of the service of law as applied to the practice of medicine, and the promotion of scientific work. Over fifteen thousand dollars are spent annually in such work, and most valuable reports have resulted, many of which have proved to be of inestimable life-saving utility. There has hardly been any matter of medical legislation, either for the benefit of the medical profession or for that of mankind at large, since Queen Victoria came to the throne, in which the Association has not been either the motor power or an important modifying factor. Early in its infancy the first legislation on vaccination was brought about by a petition presented to the House of Lords, and it has ever since been foremost in furthering those projects which tend to diminish disease and suffering, prolong life, and promote the welfare of mankind.

The business portion of the 65th annual meeting had already been held in Exeter Hall, London, England, after which adjournment took place to meet again in Montreal on August 31st. According to custom the inaugural service was held in Christ's Church Cathedral, and was certainly one of the most imposing church services ever held in Canada. It seemed eminently appropriate that a meeting of such singular importance should be opened in one of the most beautiful Anglican churches in the Dominion, and that it should be addressed by one of the most learned and eloquent prelates in the Canadian Church. None of those who had the privilege of attending will forget the eloquent words which fell from the lips of his Lordship the Bishop of Niagara.

In the afternoon the opening meeting took place in Windsor Hall, a splendid room capable of seating over 3,000 people. The hall was packed to the doors by a large and interested audience.

The members of the Association and their friends listened to words of warm welcome from the mayor of Montreal. In the progress of his address he dwelt upon the loyalty of Canadians, the great progress made by our educational institutions, and the magnificent equipment of our hospitals.

Lieut. Gov. Chapleau, representing the province of Quebec, gave assurances of a hearty welcome from every citizen of the province, and, in an eloquent peroration, dwelt upon the loyalty of the French Canadians to the British Empire.

The Governor General, in the name of the Dominion, welcomed the members of the Association, assuring them that Canadians, who were ever ready to welcome everybody except idlers to their country, truly could not fail to welcome with both hands, and with every possible feeling of cordiality, such a representative, distinguished and beneficial association.

Such a warm welcome could not fail to be appreciated, and was amply demonstrated by the hearty applause with which the remarks were received, and must have shown in no uncertain manner the warm-heartedness and loyalty of the Canadian subjects. After presentation of foreign delegates and branch representatives who hailed from lands representing the four quarters of the globe, the newly inducted president, Dr. Roddick, delivered an able address touching on the climatic conditions of Canada, her health resorts and her methods for medical education.

One of the central figures of the meeting, and round whom much interest centered, was Lord Lister, whose work on behalf of surgery has made his name known and lauded wherever the art is practised.

Another interesting figure was present in the person of professor Richet, representing the French government and the University of Paris. Fully two thousand people gathered within the walls of Laval University on Wednesday evening to be present at the brilliant reception offered him, and to listen to his address on "The Work of Pasteur and the Modern Conception of Medicine." Referring to antiseptic surgery he said: "There was a time when erysipelas, purulent infection and hospital gangrene decimated those upon whom operations had been performed, and when puerperal infection claimed a terrible number

of victims. It seemed nowadays as if the medical profession before 1868 were blindfolded, and that their blindness was almost criminal—a sad history doubtless, but happily now no more than historic memories. Left to their own resources practitioners of medicine, during long centuries, could do nothing against erysipelas, against purulent infection, or against puerperal infection, but basing itself upon science surgery has been able to triumph over these odious diseases and to relegate them to the past."

The proceedings in the section of medicine commenced with an interesting address by the president, Dr. Stephen MacKenzie, on "The influences that have determined the progress of medicine during the preceding two and a half centuries." During the course of his address the condition of medicine was contrasted with that which existed when Maisonneuve and his companions landed on what is now the Custom House Square in Montreal, in 1642. At that time anatomy, although it had been prosecuted for some centuries, formed no part in ordinary mental education; physiology, in the scientific sense, was unborn, and organic chemistry not yet created. The medical teachings of that day consisted mainly of the ancient doctrines of the four elements and their corresponding temperaments; of the separate functions of the vegetative, sentient and rational souls; of the agency of the natural, vital and animal spirits, that had continued to be taught with very little variation from the time of Galen.

The section of surgery was under the presidency of Christopher Heath who opened the proceedings with an address on "The teachings of surgery." In speaking of the advances of abdominal surgery he said that twelve years ago while engaged in editing a dictionary of practical surgery neither appendicitis nor the operation for the removal of the rectum was mentioned in it. In his student-days to witness Fergusson cut for stone was to witness an operation as near perfection as was conceivable, and the dexterity and rapidity with which the calculus was extracted were only marred by the frequency with which death from septic causes spoiled the skill of the surgeon. He was particularly severe on some classes of young surgeons whose stock in trade of professional knowledge was often of the slightest

amount, and whose feebleness in diagnosis caused them to make exploratory incisions "to clear up the case," and who were only too willing as "rising surgeons" to take the place of those who had risen.

In this section the much vexed question of when to operate in cases of appendicitis was reviewed from many standpoints, but probably not much additional light was thrown on the subject. There seemed still to remain the opposite extremes. There were the opinions, forcibly put, of those who teach that appendicitis is a surgical disease and that operation should be resorted to should the symptoms not clear up on the second or third day; and there were the opinions of others, equally forcibly put, that appendicitis is a medical disease and that ninety per cent. can be so treated successfully if properly managed.

The section of obstetrics and gynæcology was presided over by W. Japp Sinclair, of Manchester, who, on the day following the opening of the section, delivered an address on "The injuries of parturition, the old and the new." After a few complimentary remarks the doctor commenced his address by quoting two cases he had seen in consultation, one of which, a perfectly straight case, died from laceration of the anterior wall of the vagina. In this case so little did the accoucheur think of the use of the forceps that he did not consider it necessary to mention them, and the fact that they had been used was only elicited by accident. The second case had a dislocated uterus, a bilateral laceration of the cervix, and a rupture of the soft parts involving the perineum, sphincter ani, and a considerable portion of the recto-vaginal wall by the precipitate use of forceps after a labor of only six hours. In contrast to what he believed to be the too precipitate practice of to-day, he quoted from Mauriceau, who relates that he was called in March, 1669, to a primipara, aged 35, who had been in labor eight days and had been visited and abandoned by three or four surgeons, and that he delivered her by perforation and extraction with the crotchet. The patient lived for eleven days, dying apparently from puerperal infection. In conclusion Mauriceau says she might have escaped had she been delivered two or three days

earlier, that is, if she had been in labor only five or six days. The two extremes of practice contrasted the helplessness of the seventeenth century and our own resourcefulness at the end of the nineteenth century, yet it might be alleged, not without reason, that there is to be seen in the contrast only one more illustration of how "knowledge comes but wisdom lingers." The results of our modern practice, as given in the illustrations, did not make it so perfectly obvious that in obstetrics we are much wiser than our sires.

Dr. D. J. Leech, as president of the section of pharmacology, and therapeutics, selected as a subject for his opening address: "Past and present views as to the actions of medicines." In his review of the subject he confined himself to the period of Queen Victoria's reign. The progress of pharmacology was discussed step by step from the time when Pereira in 1836 first set forth his general views with regard to the action of medicines, views which for the most part are accepted now. The influence of recent discoveries in pharmacology, owing to the investigations of pathologists and physiologists, had been very great. The discoveries made concerning the curative influences of certain animal substances, such as thyroid gland, and concerning toxines and antitoxines, made a new departure in therapeutics.

On the close of this admirable address Dr. C. K. Clarke, of Kingston, opened the discussion on Insomnia, a subject of very great interest to every practising physician. He deprecated the persistent use of drugs, and in cases where sleeplessness arose from neurasthenia, favored the promotion of sleep by massage and frictions, with hot milk or a glass of beer as adjuncts. Dr. R. W. Wilcox was exceedingly interesting in his remarks on the treatment of insomnia by drugs. After relating his experience with the large number of drugs in use, he closed his paper with a comparison of paraldehyde, chloralamide, sulphonal, pellotine and trional as regards potency, rapidity, duration of action, habituation and safety. The discussion following indicated a consensus of opinion that hypnotics should only be used as a last resource. Chloral was deprecated by the majority and sulphonal also received some strictures.

The section of pathology and bacteriology was under the presidency of one well known on this side of the Atlantic, W.

Watson Cheyne. In his opening address on "The progress and results of pathological work," he pointed out that when he was first introduced to the subject it consisted almost entirely of morbid anatomy, and that the descriptions given were those of the naked eye appearances of the diseased parts, but as to how these changes were brought about hardly any reference was made. The most striking and important advance was the growth of the great science of bacteriology. Twenty-five years ago, as a science it was non-existent, and was not even alluded to in the course of pathology. After pointing out the difficulties arising in making advances in the study of these subjects, and reviewing step by step the progress made, he proceeded to point out the principal results obtained. The diagnosis of many parasitic diseases was now rendered certain and easy by searching for the causal origin. The greatest of all advances had been in the prophylaxis of disease, especially in the prevention of septic diseases after operations. By these discoveries the occurrence of sepsis in wounds was prevented, and numerous lives saved not only in this way, but also by the fact that Listerian treatment permitted the performance of many life-saving operations which could not otherwise be attempted.

Dr. W. T. Connell, Kingston, gave a demonstration with with lantern slides, illustrating the morphology and evolution of the flagella of tetanus bacilli. The slides were prepared from specimens made by Dr. Connell while working under Dr. A. A. Kanthack (now deputy professor of pathology at Cambridge University) at St. Bartholmew's hospital, London, and were embodied in a joint paper by them, and read before the Pathological Society of London, and which subsequently appeared in the June, 1897, number of the Journal of Pathology and Bacteriology.

The section of anatomy and physiology met together under the presidency of Augustus D. Waller, to listen to the discussion on anæsthetics opened by the president under the heading "The comparative action upon nerve of ether, chloroform and other anæsthetics." The main portion of his remarks was embodied in experimental data, and illustrations of observations made were exhibited by means of lantern slides. In summing up the results of his experiments he emphasized the point that chloroform acted

upon nerve seven times more powerfully than ether, the clinical inference being that chloroform was not a safe anæsthetic. In conclusion the speaker made two statements upon which discussion was expected to hinge, and which he called the chloroform dilemma. 1. Chloroform is, under all circumstances, a dangerous anæsthetic, and should therefore be employed only in exceptional cases when ether is inadmissible. It may not be used for the purposes of minor surgery. 2. Chloroform properly administered is a safe anæsthetic; deaths from chloroform are preventable and are due to faulty administration. After referring to these two statements he alluded to the medico-legal bearings of the two alternatives. The remarks of the president, as might be expected, elicited a warm discussion which was taken part in by Prof. Richet, of Paris, who was strongly of the opinion that deaths under chloroform were due to cardiac and not to respiratory failure, and that, therefore, the heart was the object to watch. Surgeon Colonel Lawrie (Hyderabad) argued that over-dosage was alone to be feared, and that such over-dosage commonly resulted from irregular and gasping respiration. Dr. Shore described the results of experiment by himself and Dr. Easkell which went to show that chloroform had a direct and primary depressing influence upon the heart.

In the section of ophthalmology, the well-known Edward Nettleship occupied the chair. The most interesting papers and discussions in this section were those on Mule's operation (insertion of a glass globe into the scleral cavity in place of enucleating the eyeball); on "Antisepsis in eye surgery," and on "Abnormalities in the function of extrinsic ocular muscles." The general tendency displayed by those who took part in the last named discussion was a desire for a more definite standard for the classification of those muscular abnormalities, more especially with regard to the methods to be employed for determining the mode of estimating the amount of muscular inefficiency.

The proceedings in the section of laryngology and otology opened in the presence of a number of distinguished American, Canadian and English specialists. Following the practice of recent years, a practice which, by the way, might be adopted in many more sections, no formal address was delivered. What

proved to be an interesting discussion on turbinotomy was opened by the president and taken part in by many of those present. The discussion showed that the general feeling on both sides of the Atlantic was that too much had been done of recent years in the direction of severe operations on the turbinate bodies, and that, except in rare cases, good results can be secured by a milder and less destructive method of treatment.

The address in the section of dermatology was on the rise and progress of that branch of medicine. There seemed to be in nearly all the opening addresses, a peculiar coincidence, whether designed or otherwise, which showed itself in a desire either to extol our ancestors in medicine in words almost of deification, or in sympathetic regret to refer to them in terms of which the opening remarks of Malcolm Morris serve as a fitting example: "The present is a time of jubilees and centenaries—occasions which we in common with toilers in other fields celebrate by reviewing the progress that has been made and giving thanks that we are not as our predecessors were one hundred and fifty years ago."

An excellent review, however, was given of the early writers, and of the birth of dermatology. The rise and progress of the English, French, German and American schools were brought under review, and it was shown that dermatology is truly international; the different schools which were formerly as separate states have now become fused into one scientific commonwealth.

The address in Public Medicine by Herman M. Biggs, was an admirable one, and one which contained a striking array of facts as to the possibilities of paternal sanitation. It is worthy of the attention not only of medical men and sanitarians but of all who are interested in sociology and in internal politics of great communities. Three main points were dwelt upon—diphtheria, tuberculosis and the medical inspection of schools. The greater part of the address was devoted to the study and description of sanitary procedures and methods adopted in the United States, and more particularly by the health department of the city of New York. The speaker exhibited by an indisputable array of figures what can be done, and what is likely to be done by an intelligent sanitary authority acting independently, and guided from month to month by what is believed to be for the

best interest of the inhabitants in view of the recent knowledge and the latest developments in scientific medicine.

The address in surgery by W. Mitchell Banks was interesting from an historical point and gave evidence of a large amount of research. The theme of his subject was "The surgeon of old in war." The address was a relief, in that it departed from the strict consideration of surgical disease, and offered instead a brief sketch of some of the most notable works done of old by a body of members of our profession who have never received their due reward, those namely who have devoted their lives to the succor of the sick and the wounded in war. An exceedingly interesting feature was the evidence adduced from inscriptions and from mortuary and votive tablets which have recently been brought to light that the Romans had regularly appointed physicians and surgeons in their armies, and that medical officers were attached to each of the ten cohorts which went to make up a legion, and that there was an additional one attached to the legion—a sort of surgeon-colonel as we should call him nowadays.

R. W. GARRETT.

DISEASES OF THE ACCESSORY CAVITIES OF THE NOSE.

WITHIN the last few years the diseases of the accessory cavities of the nose have assumed an importance commensurate with the recent great strides that have been made over the whole field of surgery. It is quite clear to those whose attention has been directed to this special subject, that hitherto a great many of these cases have escaped notice and that even now some are not detected and, therefore, not successfully treated. At least this is my personal experience, and it furnishes the reason for this article.

If one consults text-books on the nose and throat, published as recently as 1889, it will be found that either these diseases are not mentioned at all or are dismissed with a word. Those works published since the above date contain, however, a more or less satisfactory consideration of the subject.

The cavities in question are the maxillary sinuses or antra of Highmore, the frontal, ethmoidal, and sphenoidal sinuses.

EMPYÆMA OF THE ANTRUM.

This is undoubtedly the most common of these affections and, though described by John Hunter, it is only within the last ten years that it has been fully investigated. Even now it is not properly recognized by dental and medical practitioners.

Etiology.—There is difference of opinion that dental caries is the main cause; while those who see a great many cases of diseases of the nose maintain that it is the seat of origin. This discrepancy of opinion is no doubt due to the fact that the dentist is consulted when this condition is associated with toothache; the surgeon, when a swollen face is the troublesome symptom; and the nose specialist when the patient is suffering from a discharge from, or obstruction in the nose.

In my own experience the origin of the empyæma has seemed to be dental caries and the troublesome symptoms in the

nose probably secondary to the empyæma. There is no doubt, however, that occlusion or stenosis of the ostium maxillare may lead to empyæma of the antrum. Caries, polypi, or granulation tissue in the middle meatus, purulent ethmoiditis, or even suppurative inflammation in the middle meatus may produce the morbid change in the antrum. This is not by direct extension of an inflammation by continuity, but from closure of the ostium maxillare and consequent retention of secretion or from some pus finding its way through the ostium when drainage from the middle meatus is not free. In the cases I have seen there was either the history of dental disease, or a diseased tooth was present. The roots of several teeth, notably the secod bicuspid and first and second molars, are separated from the cavity of the antrum by a very thin layer of bone. Sometimes, indeed, the roots pass within the cavity, and are covered by a thin osseous film under the mucous membrane. It is also important to note that the size of the antrum varies considerably so that in exceptionally large cavities disease of the incisors, canines and posterior molars may be responsible for the empyæma. From these anatomical conditions it is easy to believe that there is a danger of extension of inflammation from around the teeth, or of septic matter or pus, flowing in.

Spencer Watson makes the statement that the general health is almost always at fault. I believe this, however, to be a purely local disease, dependent on local causes, though its long continuance may produce serious impairment of the health.

The pathology of the condition is simple enough. When pus is once present, and secreted in the antrum, it can never be completely removed except by artificial means. The ostium being high up on the inner wall, pus only flows out when it reaches that level, or when the head is in some particular position, but a residuum always remains on the floor and this becomes putrid or inspissated and increases the irritation till the whole lining of the cavity is involved.

Empyæma of the antrum appears under two clinical aspects.

1. Symptoms of tensions are present, due to stenosis of the ostium and retention of secretion.

2. The secretions drain freely into the nose producing a nasal blennorrhœa.

It is highly important to distinguish between these two conditions, as the development of the symptoms and the course of the disease are entirely different in the two cases. In the first, the patient complains of pain in the cheek and upper teeth on that side. There is also great tenderness over the superior maxillary. Sudden relief will follow a profuse discharge from the nose. If rupture does not take place then the osseous walls become distended, either towards the nose or the mouth, the cheek, or more rarely the orbit. In the second case, advice is sought for a chronic cold or for troublesome obstruction of the nostril on one side. There is a discharge of pus from one side of the nose, and a foul subjective smell and taste. Pain is not usual but if present is paroxysmal and resembles a simple neuralgia. The discharge is unilateral, except in those rare cases where both sides are affected; but it is also intermittent, being most marked on first getting up or when the head is in some particular position. In one case the discharge is free only when the head is forward and down between the knees, in another when lying upon the same side, while with another the reverse is the case. Sometimes the discharge is continuous and slight in amount. The pus is of a bright yellow color and may be fœtid. The bad odor is usually perceived only by the patient himself and is in marked contrast to the ozæna of atrophic rhinitis which is not noticed by the patient, but is very objectionable to his neighbors. A bad taste is also a common symptom and is due to some of the pus finding its way into the throat. In a few cases the patient complains only of the bad odor, without any discharge, but careful cross-examination will elicit the fact that at some previous time there has been a profuse discharge from one side of the nose. Here the abcess is latent. There remains a thick, fœtid, purulent secretion on the floor of the antrum, too thick to be discharged, but causing the foul odor. This will be found to explain some cases of parosmia in which the normal sense of smell is replaced by a constant subjective bad odor.

The general health is effected in all cases where there has been a continuous discharge for a number of years. Anæmia, ema-

ciation, constant nausea and loss of appetite are the usual conditions present. Sometimes there is a great depression of spirits, or even melancholia, and they shun the society of their friends fearing that the odor is perceptible and offensive.

Diagnosis.—In well marked cases there is no difficulty in diagnosis; but the typical case is not the rule. It is seldom that all the symptoms are present, and often a positive diagnosis can only be made by exclusion and careful study of the symptoms, the only absolute sign being gained by access to the cavity. The affection is liable to be mistaken for polyus, ozæna, foreign bodies, syphilis, caries, or disease of the frontal, ethmoidal or sphenoidal sinuses.

Upon examining the nose the tissues should be contracted by the application of a four per cent. solution of cocaine, when pus will be found in the middle meatus. The pus is of a bright yellow color and varies from a thick colloid to a thin watery consistency. If it be wiped away with a cotton pledget it is immediately reproduced and will be seen to make its appearance from beneath the middle turbinated body. The injection of a little peroxide of hydrogen through the ostium will detect the presence of pus by filling the meatus with the white foam, characteristic of the action of peroxide on pus. Though this is highly recommended as a means of diagnosis it is seldom practicable because the ostium cannot often be found, being ordinarily obstructed by an overhanging middle turbinated body. Moritz Schmidt has suggested the most positive method of determining the presence of pus, that is, the aspiration of the sinus through the lateral wall of the nose. A strong curved aspirating needle is to be passed through the inferior meatus, to pierce the wall of the antrum. If pus is present it can readly be withdrawn. My objection to this method is the pain, which is considerable in spite of 20% cocaine. Indeed I consider this use of the exploratory aspirating needle quite as formidable as the operation for proper drainage.

Another valuable aid to diagnosis is the method of transillumination, as suggested by Voltolini. This consists in the introduction into the mouth of a small electric lamp, the lips being firmly closed and the examination made in a dark room, or under a photographer's focusing cloth. This was first used by Volto-

lini to differentiate solid tumors from accumulations of fluid, but Henry Heryng pointed out that a pus cavity is practically opaque. Under conditions of health, when the light is turned on, it produces a rosy, red suffusion of the face, cheeks, lips and inferior eyelid. If pus is present the light is not transmitted and the cheek and lower eyelid remain dark. In cystic disease of the antrum the affected side is more brilliantly illuminated than the other. This method is, however, not always satisfactory, for, in the examination of a number of students, I have found some in whom there was no suffusion of the cheek or lower eyelid. This absence of trans-illumination in some is no doubt due to the anatomical peculiarities,—e.g., a small antrum and correspondingly thick walls. McBride uses a tube of dark metal with an eye piece, the other end being applied like a telescope to corresponding areas over the two antra, and estimates more exactly the amount of light transmitted. If the patient's eyes be shut when the light is in the mouth, a luminous impression is received through a healthy antrum but not when it contains pus. As to the differential diagnosis from the conditions mentioned, it is often easier to exclude them than to make an absolute positive diagnosis.

Polypus is readily determined by the nares. When polypi are accompanied by purulent secretion, pus may be found in the antrum at the same time.

Atrophic rhinitis or ozæna is known by the extremely fœtid breath which is appreciated by everyone except the patient to whom it is not perceptible.

Foreign bodies may cause an offensive discharge from one nostril, but they are to be detected by careful examination of the interior, with the assistance of a probe. Rhinoliths are to be classed with foreign bodies. When they are situated outside the field of vision and accompanied by a fœtid discharge a positive diagnosis is often difficult.

Simple caries with the exposure of small portions of bone does not produce any fœtor, unless the exit of pus is interfered with.

Syphilis in the nose produces an offensive odor and excessive discharge and is sometimes limited to one side. The sequestrum

can usually be found, by the help of a probe, attached to the vomer or turbinated bodies. There is ulceration also, in place of the healthy appearance present in simple empyæma.

Empyæma of the frontal sinus without closure of the fronto-nasal duct is so rare that it may be excluded.

In disease of the anterior ethmoid cells the pus appears above the middle turbinated body instead of below. It may, however, be associated with empyæma of the antrum.

Empyæma of the sphenoidal sinus or of the posterior ethmoidal cells is very rare; the pus is discharged into the post-nasal space.

Prognosis. These cases are seldom fatal. Rare instances have occurred, where extension has taken place through the neighboring sinuses into the cranial cavity, and death resulted from cerebral abscesses or meningitis. Septicæmia has been known to arise from empyæma of the antrum. Spontaneous resolution has been observed in one of my cases. Where the cause is in the nose the treatment is likely to be prolonged, as compared with those due to caries of the teeth. Sometimes pus continues to be formed in spite of perfect drainage, and the use of antiseptic solutions.

Treatment. The treatment of this disease has given rise to as much controversy and divergence of opinion as the ætiology. One may choose between the ostium and an artificial opening for treating and draining the cavity. If an artificial opening is decided upon there are three ways; through the nose, through the alveolus of a tooth, or through the canine fossa. It is almost unnecessary to discuss the choice between the natural and artificial opening. Michel advocates washing the cavity through the ostium, or opens it if closed; but these methods are quite impracticable. It is also recommended to remove the middle turbinated in order to reach the ostium easily, but this also is unjustifiable. As to whether the opening should be made through the nose, through an alveolus or through the canine fossa, there may well be difference of opinion. The first, through the nose, has been styled the German method, because first proposed by Mikuliez in 1887 and practiced chiefly by his fellow-countrymen. Mikuliez devised a special spear-shaped knife for the purpose,

but this has given place to the trocar and canula of Krause. The opening is made from the inferior meatus, underneath the natural opening, and it is usually large enough to remain open without a tube. This method I have not employed because I consider it impossible to properly explore the cavity from an opening. When the cavity is first opened it should be thoroughly explored with a suitable tube to detect any necrosis that may be present, or bony septa, which are frequently found thrown across the cavity, or the presence of a supernumerary tooth. This is out of the question with such an opening through the nose. Another objection is that the opening is not at the lowest portion of the antrum.

The second method, that of opening through from an alveolus, has long been known as Hunter's method. Usually one of the molars was removed and the thin layer of bone between the alveolus and the cavity above broken down with a drill, trochar, or director. This is the plan which is most frequently adopted If a root or diseased tooth is found it should be selected for removal and in my own experience I have sometimes found pus in the alveolus and have been able to pass a small probe at once into the antrum. The opening should be large enough to permit free drainage and the introduction of a tube. Objection is made to this plan because an opening in this position permits particles of food to enter the antrum. It is usual, however, to have a denture made with the drainage tube attached to it, the opening being closed by a plug, which is removed only when washing out the cavity. Excellent results follow this method, but I have found the same objection to it that I have expressed in regard to the German method. It does not permit complete exploration of the antrum. When the teeth are all present and apparently sound, those who advocate this plan to the exclusion of any other, select one of the molars; or if there is a vacant space where a tooth has been lost a gum lancet is used to get into the alveolus.

The third plan, opening through the canine fossa, is that which has given me the most satisfactory results, and which I always adopt if there is no root or tooth to be pulled. Mollinetti, in 1675, opened the antrum by making a crucial incision in the cheek and then perforating through the canine fossa; but such

an operation naturally found very few followers. The canine fossa is easily reached through the mouth, an incision being made along the gum above the alveolus. A periosteum elevator is used to separate the soft tissues from the bone, which is very thin and easily broken down by a drill or trochar. I prefer to make the opening here large enough to admit my little finger with which I explore the cavity and then use a curet if there is any indication for it. The opening is packed with a strip of sterile gauze which, after a few days, can be managed by the patient himself. Cases treated in this way have invariably done better than those with an opening from an alveolus.

Wherever the opening be made, the local treatment is very important, and on the care with which this is conducted depends the issue of the case. The cavity should be irrigated with a warm antiseptic solution once or twice a day according to the amount of secretion. I have found nothing better than an alkaline solution, to which carbolic acid is added. Bicarbonate of soda, about five grains to the ounce, and carbolic acid, from three to five minims to the ounce, and of such a solution twelve to sixteen ounces should be used for each irrigation. I ordinarily employ a fountain syringe; the tip is introduced into the drainage tube or into the artificial opening, so as to prevent the return of the fluid, which should pass out through the ostium and run freely from the nose, the patient's head being inclined slightly forward. If the secretion of pus does not diminish gradually other application may be made. The dry treatment of Friedlander may be tried. This consists of drying the cavity, after irrigation, by means of a current of air from Politzer's air-bag and then insufflating a powder such as iodoform or boracic acid or sterate of zinc with aristol. Some advise the use of astringent solutions, such as those of sulphate or chloride of zinc or nitrate of silver. It will be better, however, to curet the cavity again than to use solutions which are likely to produce very unpleasant reaction.

Other diseases of the antrum, such as mucoule, cysts, tumours, diphtheria and tuberculosis, belong to general surgery, and I propose to discuss next certain conditions of the frontal sinus.

J. C. CONNELL.

(To be continued.)

ANNUAL REPORT TO THE KINGSTON GENERAL HOSPITAL.

To the Board of Governors, Kingston General Hospital,

Gentlemen—I have the honor to submit herewith the annual report of the Hospital for the year ending September 30th. During the year there were admitted to the Hospital 1,328 patients, an increase of 330 over last year. Of this number 1,131 were discharged cured or improved, 74 not improved, 17 not treated and 40 died. Of the deaths 8 were admitted in a moribund condition, 7 died from phthisis and 11 from old age. The death rate for the year was 3 per cent., or if those dying within 36 hours be deducted, 2.4 per cent.

Aggregate number of days in the Hospital of all patients, 23,024; average stay of each patient, 18 days. The highest number were admitted during March—128; the lowest during October—73; average 110. There were 478 operations in the indoor surgical departments, an increase of 185 over last year. There were besides about 80 minor operations not included in the above, because no anæsthetic was neeessary. There were 1,002 patients treated at the outdoor department, an increase of 71 over last year. Extern patients were required to furnish their own bottles, &c. No charge was made for medicine or advice.

Of the 1328 patients, 1183 were Protestants, 143 Roman Catholics, and 2 Jews.

Nationalities: Canada, 1172; England, 67; Ireland, 52; Scotland, 24; United States, 10; other countries, 3.

Residence of patients: Kingston, 763; Frontenac, 265; other counties, 287; United States, 9; other countries, 4.

Three hundred and six paid their way, and 1022 were admitted free or paid only a small portion towards maintenance.

The expenses for the year were $14,715.72, and receipts, $14,552.49. Total cost per day per patient, 63c.

The most gratifying part of the year's work was the low mortality.

The number of patients increased 33 per cent., the mortality decreased over 50 per cent.

During the year the majority of the members of the visiting staff were asked to make special visits on account of the dangerous illness of some of their patients. In every instance that request was met with a ready response, and to this was due, in a large measure, the low mortality.

Respectfully submitted,

JAMES THIRD, *Med. Supt*

PRESIDENT'S ADDRESS—CANADIAN MEDICAL ASSOCIATION.

THE Canadian Medical Association held its annual meeting in Montreal on August 30th last. We have received a reprint of the inaugural address delivered on that occasion by the President, Dr. V. H. Moore, of Brockville, which we deem worthy of more than a passing notice. Of Dr. Moore's ability as a physician and surgeon we do not intend, nor do we need, to speak. His labours as a member of the Ontario Medical Council, and in the Canadian Medical Association, are too well known to require comment. It is not of the man we wish to speak, but of what he as President said at the opening meeting in Montreal.

As was most fitting, he extended to the visitors from Great Britain and the United States a most cordial welcome, and expressed the hope that their visit to Canada would be a pleasant one, and that all would go back to their homes feeling that we in this country had much to be proud of—our country, its extent—its wealth—its natural and artificial means of inter-communication—its educational systems and institutions—its provisions for the care and cure of the sick and afflicted, mentally and physically—its legislation and machinery for the prevention of infectious and contagious diseases—and last, but by no means least, its medical profession and the high standard of education required for this which we hold to be the noblest of the learned professions. Throughout this portion of Dr. Moore's address there breathed that spirit of patriotism which we know animates the vast majority of Canadians, and which goes so far to foster in our countrymen that feeling of self-respect and independence without which no nation can ever achieve greatness. Such addresses, whether delivered to a learned society or on the political platform, always do good.

In another portion of his address Dr. Moore spoke of the progress of the science of medicine and surgery. Here the Pre-

sident dealt with a matter which is not confined by geographical boundaries, but is world-wide. All credit was given to those who by their labours and their discoveries have done so much for the advancement of the healing art—Pasteur, Koch, Lister—and in medicine are justly entitled to be called citizens of the world. At the same time the President took occasion to point out that the medical men in this Dominion were keeping abreast of these advances, both in their educational institutions and in their practice.

Inter-provincial registration was also dealt with, and the strong hope was expressed that this much-to-be-desired consummation was not now far distant. We would be rejoiced to believe so. We have already in a previous number of the QUARTERLY given our opinion upon this most important question, and will not, therefore, repeat them here. Suffice it to say that a license to practise medicine throughout the Dominion is more likely, in our opinion, to be obtained by the formation of a Dominion licensing body than it is by the agreement of the various Provinces to accept the license of each other. Either would be acceptable.

In that portion of the President's address in which he speaks of our educational system, he says, speaking of Ontario, "There are few countries, if any, that can boast a better system of education." This statement is at least patriotic. As to its exact truth there may, we think, legitimately be a difference of opinion. Without going into particulars, we would say in a general way that the educational system, in our opinion, lays too much stress upon examinations—aims at too great uniformity—not giving due allowance for the varying aptitudes of those to be educated, and not taking into account the individuality of the teachers employed—placing upon the curricula of our schools—primary and secondary—too many subjects. With this portion of the address we will deal more fully in a succeeding number of the QUARTERLY.

Taken on the whole we feel that the President's address was worthy of the man and worthy of the great occasion. We congratulate Dr. Moore, and we congratulate the Association on having a man of Dr. Moore's ability and educational experience as its President.

BOOK REVIEWS.

MEDICAL AND SURGICAL GYNÆCOLOGY. By R. W. GARRETT, M.A., M.D., Professor of Gynæcology, Medical Faculty, Queen's University, Gynæcologist, General Hospital, Kingston, Ont,, with 112 illustrations. Pp. 420. R. Uglow & Co., Kingston. J. A. Carveth & Co., 413 Parliament St., Toronto, Ont. Price $2.50.

We note with much pleasure the appearance of the above work by Dr. Garrett. Works on gynæcology are now numbered by the score, yet there is always a place and demand for a concise work, systematically arranged and well indexed; and this the author has given us in the volume before us. This work, the author tells us in his Preface, is not designed to replace the larger text-books on the subject, but to act as a guide to the student in following the course of lectures, and as a ready book of reference to the general practitioner. We think it will fulfil these requirements more fully than any work of its character now in common use.

The work is divided into four sections. The first treats of the general principles of Gynæcology, and takes up in concise form the anatomy and development of the genitals, the general principles of gynæcological etiology, methods of examination, therapeutics, and the important subject of operative technique.

In the second section are taken up the functional disorders, particularly the disorders of menstruation, sterility and non-infective leucorrhœa. This section will be found to clearly set forth these disorders and the measures essential to their proper treatment. We note that the author retains and describes an obstructive dysmenorrhœa, separating it from the inflammatory or congestive form, thus differing from many English authorities, but agreeing in the main with the American authors.

The third section deals with the diseases of the special regions, taking them in their anatomical order from without, in. The medical treatment and the various operative procedures are clearly set forth and when possible illustrated. The pathology of the various affections described is recent and accurate, but we feel that in some instances the author would have improved his text had he based his

classification more upon a pathological than upon the anatomical basis adopted.

The fourth section treats of Diseases of the Female Breast. In it will be found a clear and concise account of the affections peculiar to this organ. Throughout, the volume is profusely illustrated, many of the cuts being from original photographs. We would especially commend the series of cuts illustrating the repair of the cervix and of the perineum.

The type and arrangement of the work are very good. Each important paragraph heading appears in bold type, the remainder appearing in clear cut lettering. The printing and illustrations were done at the British Whig office, Kingston, and reflect considerable credit upon that office. Very few typographical errors are found, and these may be readily corrected in later issues of the book.