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AFTER TWENTY-FIVE YEARS.

AD ADDRESS AT THE OPENING OF THE SESSION OF THE MEDICAL
FACULTY, MCGILL UNIVERSITY, SEPT. 21st, 1899.

BY

WILLIAM OSLER, M.D., F.R.S.,

Professor of Medicine, John Hopkins University, Baltimore, Md.

I.

From two points of view alone have we a wide and satisfactory view of life—one, ere the dew of youth has been brushed off, as we stand at the foot of the hill, eager for the journey, amid the glorious tints of the early morn ; the other, wider, perhaps less satisfactory, as we gaze from the summit, at the lengthening shadows cast by the setting sun. From no points in the ascent have we the same broad outlook, as the steep and broken pathway affords few halting places with an unobscured view. You remember in the ascent of the Mountain of Purgatory, Dante, after a stiff climb, reached a high terrace encircling the hill, and sitting down turned to the East, remarking to his good leader—"all men are delighted to look back." So on this occasion, from the terrace of a quarter of a century, I am delighted to look back, and to be able to tell you of the prospect.

Twenty-five years ago this Faculty, with some hardihood, selected a young and untried man to deliver the lectures on the Institutes of Medicine. With characteristic generosity the men who had claims on the position in virtue of service in the school, recognizing that the times were changing, stepped aside in favor of one who had had the advantage of post-graduate training in the subjects to be taught. An experiment on the part of the Faculty, enthusiasm, constitutional energy, and a fondness for the day's work on my part led to a certain measure of success. I have tried to live over again in memory those happy early

days, but by no possible effort can I recall much that I would fain remember. The dust of passing years has blurred the details, even in part the general outlines of the picture. The blessed faculty of forgetting is variously displayed in us. In some, as in our distinguished countryman, John Beattie Crozier, it is absent altogether, and he fills chapter after chapter with delightful reminiscences and descriptions of his experiences and mental states.* At corresponding periods—we are about the same age—my memory hovers like a shade about the magic circle which Ulysses drew in Hades, but finds no Tiresias to lift the veil with which oblivion has covered the past. Shadowy as are these recollections, which,

“be they what they may
Are yet the fountain light of all our day,
Are yet a master light of all our seeing,”

they are doubly precious from their association with men who welcomed me into the Faculty, now, alas ! a sadly reduced remnant. To them—to their influence, to their example, to the kindly encouragement I received at their hands—I can never be sufficiently grateful. Faithfulness in the day of small things may be said to have been the distinguishing feature of the work of the Faculty in those days. The lives of the senior members taught us youngsters the lesson of professional responsibility, and the whole tone of the place was stimulating and refreshing. It was an education in itself, particularly in the amenities of faculty and professional life, to come under the supervision of two such Deans as Dr. George Campbell and Dr. Palmer Howard. How delightful it would be to see the chairs which they adorned in the school endowed in their memories and called by their names !

One recollection is not at all shadowy—the contrast in my feelings to-day only serves to sharpen the outlines. My first appearance before the class filled me with a tremulous uneasiness and an overwhelming sense of embarrassment. I had never lectured, and the only paper I had read before a society was with all the possible vaso-motor accompaniment. With a nice consideration my colleagues did not add to my distress by their presence, and once inside the lecture room the friendly greeting of the boys calmed my fluttering heart, and, as so often happens, the ordeal was most severe in anticipation. One permanent impression of the session abides—the awful task of the preparation of about one hundred lectures. After the ten or twelve with which I started were exhausted I was on the treadmill for the remainder of the session. False pride forbade the reading of the excellent lectures of my predecessor, Dr. Drake, which, with his wonted goodness of heart, he had offered.

* *My Inner Life*, Longmans, 1898.

I reached January in an exhausted condition, but relief was at hand. One day the post brought a brand-new work on physiology by a well-known German professor, and it was remarkable with what rapidity my labors of the last half of the session were lightened. An extraordinary improvement in the lectures was noticed; the students benefitted, and I gained rapidly in the facility with which I could translate the German.

Long before the session was over I had learned to appreciate the value of the position entrusted to me, and sought the means to improve the methods of teaching. I had had the advantage of one of the first systematic courses on practical physiology given at University College, London, a good part of which consisted of lessons and demonstrations in histology. In the first session, with but a single microscope, I was only able to give the stock display of the circulation of the blood, ciliary action, etc., but a fortunate appointment as physician to the smallpox department of the General Hospital carried with it a salary which enabled me to order a dozen Hartnack microscopes and a few bits of simple apparatus. This is not the only benefit I received from the old smallpox wards, which I remember with gratitude, as from them I wrote my first clinical papers. During the next session I had a series of Saturday demonstrations, and gave a private course in practical histology. One grateful impression remains—the appreciation by the students of these optional and extra hours. For several years I had to work with very scanty accommodation, trespassing in the chemical laboratory in winter, and in summer using the old cloak room downstairs for the histology. In 1880 I felt very proud when the faculty converted one of the lecture rooms into a physiological laboratory and raised a fund to furnish and equip it. Meanwhile I had found time to take my bearings. From the chair of the Institutes of Medicine both physiology and pathology were taught. It has been a time-honoured custom to devote twenty lectures of the course to the latter, and as my colleagues at the Montreal General Hospital had placed the post-mortem room at my disposal I soon found that my chief interest was in the pathological part of the work. In truth, I lacked the proper technique for practical physiology. For me the apparatus never would go right, and I had not a *Diener* who could prepare even the simplest experiments. Alas! there was money expended (my own usually, I am happy to say, but sometimes my friends', as I was a shocking beggar!) in apparatus that I never could set up, but over which the freshmen firmly believed that I spent sleepless nights in elaborate researches. Still one could always get the blood to circulate, cilia to wave and the fibrin to digest. I do not think that any member of the ten successive classes to which I lectured understood the structure of a lymphatic gland, or of the spleen, or of the placental circulation. To those structures I have to-day

an ingrained hatred, and I am always delighted when a new article comes out to demonstrate the folly of all preceding views of their formation. Upon no subjects had I harder work to conceal my ignorance. I have learned since to be a better student, and to be ready to say to my fellow students "I do not know." Four years after my college appointment the Governors of the Montreal General Hospital elected me on the visiting staff. What better fortune could a young man desire! I left the same day for London with my dear friend, George Ross, and the happy days we had together working at clinical medicine did much to wean me from my first love. From that date I paid more and more attention to pathology and practical medicine, and added to my courses one in morbid anatomy, another in pathological histology, and a summer class in clinical medicine. I had become a pluralist of the most abandoned sort, and by the end of ten years it was difficult to say what I did profess, and I felt like the man to whom Plato, in Alcibiades II. applies the words of the poet:—

"Full many a thing he knew ;
But knew them all badly."

Weakened in this way, I could not resist when temptation came to pastures new in the fresh and narrower field of clinical medicine.

After ten years of hard work I left this city a rich man, not in this world's goods, for such I have the misfortune—or the good fortune—lightly to esteem, but rich in the goods which neither rust nor moth have been able to corrupt,—treasures of friendship and good fellowship, and those treasures of widened experience and a fuller knowledge of men and manners which contact with the bright minds in the profession necessarily entails. My heart, or a good bit of it at least, has stayed with these treasures. Many a day I have felt it turn towards this city to the dear friends I there left, my college companions, my teachers, my old chums, the men with whom I lived in closest intimacy, and in parting from whom I felt the chordæ tendinæ grow tense.

II.

Twenty-five years ago the staff of this school consisted of the historic septenary, with one demonstrator. To-day I find on the roll of the Faculty 52 teachers. Nothing emphasizes so sharply the character of the revolution which has gradually and silently replaced in great part for the theoretical, practical teaching, for the distant, cold lecture of the amphitheatre the elbow to elbow personal contact of the laboratory. The school, as an organization, the teacher and the student have been profoundly influenced by this change.

When I joined the faculty its finances were in a condition of delight-

ful simplicity, so simple indeed that a few years later they were intrusted to my care. The current expenses were met by the matriculation and graduation fees and the government grant, and each professor collected the fees and paid the expenses in his department. To-day the support of the laboratories absorbs a much larger sum than the entire income of the school in 1874. The greatly increased accommodation required for the practical teaching has made endowment a vital necessity. How nobly, by spontaneous gifts and in generous response to appeals, the citizens have aided the efforts of this faculty I need not remind you. Without it McGill could not have kept pace with the growing demands of modern methods. Upon one feature in the organization of a first-class school permit me to dwell for a moment or two. The specialization of to-day means a group of highly trained experts in the scientific branches, men whose entire energies are devoted to a single subject. To attain proficiency of this sort much time and money are required. More than this, these men are usually drawn from our very best students, with minds above the average. For a majority of them the life devoted to science is a sacrifice; not, of course, that it is so felt by them, since the very essence of success demands that in their work should lie their happiness. I wish that the situation could be duly appreciated by the profession at large, and by the trustees, governors and the members of the faculties throughout the country. Owing these men an enormous debt, since we reap where they have sown, and garner the fruits of their husbandry, what do we give them in return? Too often beggarly salaries and an exacting routine of teaching which saps all initiative. Both in the United States and Canada the professoriate as a class, the men who live by college teaching, is wretchedly underpaid. Only a few of the medical schools have reached a financial position which has warranted the establishment of thoroughly equipped laboratories, and fewer still pay salaries in any way commensurate with the services rendered. I am fully aware that with cobwebs in the purse not what a faculty would desire has only too often to be done, but I have not referred to the matter without full knowledge, as there are schools with large incomes in which there has been of late a tendency to cut down salaries and to fill vacancies too much on Wall Street principles. From Harvard comes a most encouraging announcement. By the will of the late Dr. Calvin Ellis the Medical School receives nearly half a million dollars, the income from which is to be used in raising the salaries of the scientific chairs to \$5000 per annum. And not for relief of the pocket alone would I plead. The men in charge of our Canadian laboratories are overworked in teaching. A well organized staff of assistants is very difficult to get, and still more difficult to get paid. The salary of the professor should be in many cases that of the first assistant. When the entire energy of a laboratory

is expended on instruction, research, a function of equal importance, necessarily suffers. Special endowments are needed to meet the incessant and urgent calls of the scientific staff. It is gratifying to know that certain of the bequests to this school have of late been of this kind, but I can safely say that no department is as yet fully endowed. Owing to faulty conditions of preliminary education the medical school has to meet certain illegitimate expenses. No one should be permitted to register as a medical student who had not a good preliminary training in chemistry. It is an anomaly that our schools should continue to teach general chemistry, to the great detriment of the subject of medical chemistry, which alone belongs in the curriculum. Botany occupies a similar position.

But *the* laboratories of this medical school are not those directly under its management. McGill College turned out good doctors when it had no scientific laboratories, when the Montreal General Hospital and the University Maternity were its only practical departments. Ample clinical material and good methods of instruction gave the school its reputation more than fifty years ago. Great as has been the growth of the scientific half of the school, the all-important practical half has more than kept pace. The princely endowment of the Royal Victoria Hospital by our large-hearted Canadian Peers has doubled the clinical facilities of this school, and by the stimulus of a healthy rivalry has put the Montreal General Hospital into a condition of splendid efficiency. Among the many changes which have occurred within the past twenty-five years, I would place these first in order of importance, since they assure the continued success of McGill as a school of practical medicine.

Equally with the school as an organization, the teacher has felt deeply the changed conditions in medical education, and many of us are much embarrassed to know what and how to teach. In a period of transition it is not easy to get *orientiert*. In some subjects fortunately there is but the single difficulty—what to teach. The phenomenal strides in every branch of scientific medicine have tended to overload it with detail. To winnow the wheat from the chaff and to prepare it in an easily digested shape for the tender stomachs of first and second year students taxes the resources of the most capable teacher. The devotion to a subject, and the enthusiasm and energy which enable a man to keep abreast with its progress, are the very qualities which often lead him into pedagogic excesses. To reach a right judgment in these matters is not easy, and after all it is in teaching as Izaak Walton says of angling, "Men are to be born so, I mean with inclinations to it." For many it is very hard to teach down to the level of beginners. I was told a good story illustrating this a few weeks ago. One of the most distinguished—no, the most distinguished of Scotch professors had gone off for a few weeks

during the term, leaving his first assistant, named Day, in charge of his work. As is not infrequently the case, the junior caught the ear of the class better than the master. On the blackboard just before the Professor returned one of the students wrote, "Work while it is Day, for the (k)night cometh when no man can work." The old time lecture room teacher is rapidly giving place to the demonstrator and the class instructor. Professors, like doctors, may be divided into four classes. It was a parson (Mr. Ward, Rector of Stratford-on-Avon shortly after Shakespeare's day) who gave the well-known libellous division of doctors :— "first, those that can talk but doe nothing; secondly, some that can doe but not talk; third, some that can both doe and talk; fourthly, some that can neither doe nor talk—and these get most monic." Of professors the first is the man who can think but who has neither tongue nor technique. Useless for the ordinary student, he may be however the leaven of a faculty and the chief glory of his university. A second variety is the phonographic professor, who can talk but who can neither think nor work. In the old régime he repeated year by year the same lecture. A third is the man who has technique but who can neither talk nor think; and a fourth is the rare professor who can do all three—think, talk and work. With these types fairly represented in a faculty, the diversities of gifts only serving to illustrate the wide spirit of the teacher, the Dean at least should feel happy.

But the problem of all others, which is perplexing the teacher to-day is not so much what to teach, but how to teach it, more especially how far and in what subjects the practical shall take the place of didactic teaching. All will agree that a large proportion of the work of a medical student should be in the laboratory and in the hospital. The dispute is over the old-fashioned lecture, which has been railed against in good set terms, and which many would like to see abolished altogether. It is impossible, I think, to make a fixed rule, and teachers should be allowed a wide discretion. With the large classes of many schools the abolition of the didactic lecture would require a total reconstruction of the curriculum and indeed of the faculty. Slowly but surely practical methods are everywhere taking the place of theoretical teaching, but there will, I think, always be room in a school for the didactic lecture. It is destined within the next ten years to be much curtailed, and we shall probably, as is usual, go to extremes, but there will always be men who can present a subject in a more lucid and attractive manner than it can be given in a book. Sir William Gairdner once remarked that the reason why the face and voice of the teacher had so much more power than a book is that one has a more living faith in him. Years ago Murchison (than whom Great Britain certainly never had a more successful teacher of medicine) limited the lecture in medicine to the consideration of rare

cases, and the prominent features of a group of cases, and to questions of prognosis which cannot be discussed at the bedside. For the past four years in the subject of medicine I have been making an experiment in teaching only by a weekly examination on a set topic, by practical work in the wards, in the out-patient room and the clinical laboratory, and by a weekly consideration in the amphitheatre of the acute diseases of the season. With a small class I have been satisfied with the results, but the plain would be difficult to carry out with a large body of students.

The student lives a happy life in comparison with that which fell to our lot thirty years ago. Envy, not sympathy, is my feeling towards him. Not only is the *ménu* more attractive, but it is more diversified and the viands are better prepared and presented. The present tendency to stuffing and cramming will be checked in part when you cease to mix the milk of general chemistry and botany with the proper dietary of the medical school. Undoubtedly the student tries to learn too much, and we teachers try to teach him too much—neither, perhaps, with great success. The existing evils result from neglect on the part of the teacher, student and examiner of the great fundamental principle laid down by Plato—that education is a life-long process, in which the student can only make a beginning during his college course. The system under which we work asks too much of the student in a limited time. To cover the vast field of medicine in four years is an impossible task. We can only instil principles, put the student in the right path, give him methods, teach him how to study, and early to discern between essentials and non-essentials. Perfect happiness for student and teacher will come with the abolition of examinations, which are stumbling blocks and rocks of offence in the pathway of the true student. And it is not so Utopian as may appear at first blush. Ask any demonstrator of anatomy ten days before the examinations, and he should be able to give you a list of the men fit to pass. Extend the personal intimate knowledge such as is possessed by a competent demonstrator of anatomy into all the other departments, and the degree could be safely conferred upon certificates of competency, which would really mean a more thorough knowledge of a man's fitness than can possibly be got by our present system of examination. I see no way of avoiding the necessary tests for the license to practice before the provincial or state boards, but these should be of practical fitness only, and not, as is now so often the case, of a man's knowledge of the entire circle of the medical sciences. It is satisfactory to know that close attention is being paid to the problem how to relieve the present congested state of the medical curriculum, and a number of interesting experiments are in operation. Of the special measures of relief which have been proposed the concentration of courses and a wide system of electives in the special branches are the most impor-

tant. A strong feeling prevails that we tie up the student too tightly in leading strings, and do not allow, particularly to good men, sufficient liberty. In our present system we make no distinction whatever between the poor, the mediocre and the good student. It is interesting to note that the question has been dealt with most fully and most warmly in the interests of the practical student by two of the leading scientific teachers in the United States, Dr. Henry P. Bowditch, of Harvard (Boston Medical and Surgical Journal, Dec. 29th, 1898), and my colleague at the Johns Hopkins, Dr. Mall (Philadelphia Medical Journal, April 1st, 1899). Their papers are to be carefully pondered by all teachers who feel that reform is necessary. I would commend them particularly to the younger men, in whose hands alone such radical changes can be carried out. A man who has been teaching for twenty-five years is rarely in a position to appreciate the necessity of a change, particularly if it touches his own special branch.

(Dr. Osler then referred briefly to the subject of Dominion Registration, and expressed the hope that the necessary legislation would be carried through at an early date. He hoped that it might prove a prelude to a more extensive measure of Imperial Registration which would enable registered graduates of Canadian universities to practice in any part of Her Majesty's possessions.)

III.

But what is most important in an introductory lecture remains to be spoken, for dead indeed would I be to the true spirit of this day, were I to deal only with the questions of the curriculum and say nothing to the young men who now begin the serious work of life. Personally, I have never had any sympathy with the oft repeated sentiment expressed originally by Abernethy, I believe, who, seeing a large class of medical students, exclaimed, "Good God, gentlemen! whatever will become of you?" The profession into which you enter to-day guarantees to each and every one of you a happy, contented, and useful life. I do not know of any other of which this can be said with greater assurance. Many of you have been influenced in your choice by the example and friendship of the doctor in your family, or of some country practitioner in whom you have recognized the highest type of manhood and whose unique position in the community has filled you with a laudable ambition. You will do well to make such an one your exemplar, and I would urge you to start with no higher ambition than to join the noble band of general practitioners. They form the very sinews of the profession—generous-hearted men, with well-balanced, cool heads, not scientific always, but learned in the wisdom not of the laboratories but of the sick room. This school can take a greater pride in her graduates scattered throughout

the length and breadth of the continent than in her present splendid equipment ; they explain in great part the secret of her strength.

I was much interested the other day in reading a letter of John Locke's to the Earl of Peterborough who had consulted him about the education of his son. Locke insisted that the main point in education is to get "a relish of knowledge." "This is putting life into a pupil." Get early this relish, this clear, keen joyance in work, with which languor disappears and all shadows of annoyance flee away. But do not get too deeply absorbed to the exclusion of all outside interests. Success in life depends as much upon the man as on the physician. Mix with your fellow students, mingle with their sports and their pleasures. You may think the latter rash advice, but now-a-days even the pleasures of a medical student have become respectable, and I have no doubt that the "footing supper," which in old Coté street days was a Bacchanalian orgie, has become a love feast in which the Principal and even the Dean might participate. You are to be members of a polite as well as of a liberal profession and the more you see of life outside the narrow circle of your work the better equipped will you be for the struggle. I often wish that the citizens in our large educational centres would take a little more interest in the social life of the students, many of whom catch but few glimpses of home life during their course.

As to your method of work, I have a single bit of advice, which I give with the earnest conviction of its paramount influence in any success which may have attended my efforts in life—*Take no thought for the morrow*. Live neither in the past nor in the future, but let each day's work absorb your entire energies, and satisfy your widest ambition. That was a singular but very wise answer which Cromwell gave to Bellevire—"No one rises so high as he who knows not whither he is going," and there is much truth in it. The student who is worrying about his future, anxious over the examinations, doubting his fitness for the profession, is certain not to do so well as the man who cares for nothing but the matter in hand, and who knows not whither he is going !

While medicine is to be your vocation, or calling, see to it that you have also an avocation—some intellectual pastime which may serve to keep you in touch with the world of art, of science, or of letters. Begin at once the cultivation of some interest other than the purely professional. The difficulty is in a selection and the choice will be different according to your tastes and training. No matter what it is—but have an outside hobby. For the hard working medical student it is perhaps easiest to keep up an interest in literature. Let each subject in your year's work have a corresponding outside author. When tired of anatomy refresh your mind with Oliver Wendell Holmes ; after a worrying subject in physiology, turn to the great idealists, to Shelley or Keats for

consolation; when chemistry distresses your soul, seek peace in the great pacifier, Shakespeare; and when the complications of pharmacology are unbearable, ten minutes with Montaigne will lighten the burden. To the writings of one old physician I can urge your closest attention. There have been, and, happily, there are still in our ranks notable illustrations of the intimate relations between medicine and literature, but in the group of literary physicians Sir Thomas Browne stands preëminent. The *Religio Medici*, one of the great English classics, should be in the hands—in the hearts too—of every medical student. As I am on the confessional to-day, I may tell you that no book has had so enduring an influence on my life. I was introduced to it by my first teacher, the Rev. W. A. Johnson, Warden and Founder of the Trinity College School, and I can recall the delight with which I first read its quaint and charming pages. It was one of the strong influences which turned my thoughts towards medicine as a profession, and my most treasured copy—the second book I ever bought—has been a constant companion for thirty-one years,—comes *viæ vitæque*.* Trite but true, is the comment of Seneca—“If you are fond of books you will escape the ennui of life, you will neither sigh for evening disgusted with the occupations of the day—nor will you live dissatisfied with yourself or unprofitable to others.”

And, finally, gentlemen, remember that you are here not to be made chemists or physiologists or anatomists but to learn how to recognize and treat disease, how to become practical physicians. Twenty years ago, during the summer session, I held my first class in clinical medicine at the Montreal General Hospital, and on the title page of a note book I had printed for the students I placed the following sentence, which you will find the alpha and omega of education in practical medicine.

“The knowledge which a man can use is the only real knowledge, the only knowledge which has life and growth in it and converts itself into practical power. The rest hangs like dust about the brain or dries like rain drops off the stones.”

* There are two excellent editions of the *Religio Medici* available, the one in the Golden Treasury Series, MacMillan & Co., edited by the late Dr. W. A. Greenhill, the other edited by Dr. D. Lloyd Roberts, of Manchester, Smith, Elder & Co., London.

A movement is on foot to erect a memorial to Sir Thomas Browne in his native city, Norwich, subscriptions towards which will be received by Sir Peter Eade, Norwich.

TUBERCULOSIS AND INSURANCE.*

BY

J. HUNTER, M.D., of Toronto.

Probably few questions are more perplexing to the medical director of an insurance company than the presence, to a limited extent, of tuberculosis in the family history of healthy applicants; and certainly nothing can seem more unfair to the latter, or be more exasperating to the physicians who make the examinations and recommend the risks, than their rejection.

Of course, there can be no two opinions about its being the first and most imperative duty of an insurance company to safeguard most scrupulously the claims of the policy-holders, and no one need be so ungenerous as to deny to the company the exercise of such business precautions as are necessary to secure fair dividends to the stockholders. However, the granting of these privileges imposes upon it the duty of rendering a full measure of justice to the interests of the applicants.

It may also be stated in this connection, that whilst it is the duty of the physician who makes the examinations to furnish the medical director with as honest and as full and accurate reports as possible in all cases with a tuberculous history, it is just as fully the duty of the latter to assure himself that these applicants receive the full benefit of the accredited knowledge and experience of to-day. For the assuming of any merely hypothetical principle alone regarding the influence of hereditary tendency in this disease, is not sufficient to justify him in giving a decision that may be unfair to the applicant, and that may reflect very unfavorably on the professional standing, if not also upon the uprightness, of the local examiner.

Enough has been said to indicate the purport of this paper, viz., to invite a discussion that may help, in some measure at least, to define more clearly, if I may be allowed to use the somewhat expressive phrase, "where we are at," in reference to the relationship between tuberculosis and insurance.

Assuming that it is the province of an insurance company to grant the ordinary life policy to any applicant who should naturally live out the period of expectancy, to what degree then does the presence of tuberculosis in the individual or family history justify his rejection?

* Read before the Annual Meeting of the Canadian Medical Association, Toronto August 30, 1899.

The limitations of our knowledge of this disease and of our experience with its mortality in life insurance, probably warrant the rejection of the following classes:—(1) The tuberculous subject; (2) The descendants—say under thirty years of age—of a tuberculous parent, especially the maternal one; and (3) All the second-class irrespective of age who have inherited or acquired any physical defects that predispose to disease.

Eliminating these classes, we have left those over thirty years of age who, apart from the incident that one parent had tuberculosis, are physically up to the standard of first-class risks, and the members of families with healthy parentage, but of whom from 15 to 20 per cent. become tuberculous after twenty years of age.

The question of admitting applicants from either of these classes under the terms of the ordinary life policy calls for some discussion of the etiology, propagation, prophylaxis and curability of tuberculosis.

In regard to etiology, the isolation of a specific micro-organism enables us to accurately define the disease as an infectious and contagious one due to the presence of the bacillus tuberculosis. In reference to propagation we have the specific and predisposing factors. The former is directly attributable to the entrance of the bacilli into, and their destructive effects upon, the tissues. The latter, or predisposing causes, may, for the sake of brevity, be considered under the following heads:—(1) environment; (2) physical conditions either hereditary or acquired that predispose to disease, and (3) hereditary tendencies.

Under environment may be included everything prejudicial to health, whether in climate, habits, food, sanitation, or vocation. We pass over abnormal physical conditions, since the two classes under consideration are presumed to be up to the normal standard of physical perfection, and proceed to discuss the problem of hereditary tendencies. It is true that the doctrine of the transmission of hereditary tendencies predisposing to tuberculosis has come down through the medical literature of all the centuries and has received the endorsement of the masters in every age. However, with this doctrine as with any other, neither the veneration due to its hoary age nor the influence of its associations oblige us to accept it, inasmuch as we know now how very imperfect was the knowledge on which it was founded and promulgated.

The direct transmission of the bacilli through parental channels has been shown by pathological research to be so rare, and by experimental efforts to be so difficult of accomplishment, that practically it may be set aside as being of no importance as a means of transmitting this disease. In military parlance it could be said that pathology

and experiment have dismantled the bulwarks of direct transmission and have obliged us to fall back and construct as best we can a hypothetical sand bank consisting of what is vaguely called hereditary soil, tubercular diathesis, vulnerability of tissue, etc. A glance at the reports from the recent celebrated Congress on Tuberculosis, held in Berlin, warns us that both pathological and experimental research are already causing sceptical hands to be laid on even the last tenet in our creed respecting the hereditary transmission of tuberculosis. Professor Loeffler is reported as saying that the father has no part in the transmission of the disease, and that there is neither proof of their being immunity from tuberculosis, nor of congenital or hereditary transmission of it.* Professor Hübner stated that tuberculosis was not congenital, and that infantile tuberculosis was in the great majority of cases due to an infection from parents. In 800 post-mortem examinations of infants under one year of age, tuberculosis was not found.

At a meeting of the medical directors of the leading British insurance companies held in February of this year, the speakers, whilst asserting more or less strongly their faith in the doctrine of hereditary tendency in tuberculosis, interspersed their discussions freely with such statements as the following:—"It has practically escaped notice that the strongest arguments used to support the theory of family tendency to tuberculosis tell with at least equal force that infection is the cause of the incidence and spread of tuberculosis. The close intimate circumstances of family life, the infection of the family home, and the total disregard of precautionary measures in the family life, because of ignorance, these facts, I venture to say, play a much larger part in the tragedy of family liability to tuberculosis than does hereditary tendency to that disease. But these facts have been altogether ignored in estimating the family tendency to tuberculosis in its bearing on life insurance." "Every gentleman in this room knows when a man is in a good state of health, when he is plump and sound and his pulse regular and all his internal organs are healthy, it matters little what his family history may have been." Dr. Marsh, Medical Director of the Mutual Life Assurance Co., of New York, says:—"In deciding upon the eligibility of an applicant for life insurance in whose case there is a suspicion of future danger from consumption, his personal condition is of first, and his family record of second, importance. Whenever he presents a robust physical appearance, with a weight at

* Sir Herbert Maxwell and Dr. Pye Smith, Commissioners from the Imperial Government, in their report to Parliament, state the following; (1) Tuberculosis is caused by the bacillus tuberculosis. (2) Tuberculosis as a condition directly transmitted, is extremely rare. (3) There is little or no risk of direct infection in pulmonary tuberculosis. Professor Friederberg calls it the workman's disease, as 50 per cent. of the mortality in their club is due to tuberculosis.

least equal to the standard or average as shown in our tables, he may be accepted notwithstanding any taint in the record of his family. In our experience such persons have a small liability to consumption, although not protected from it."

The same trend of opinion can be found in all the more recent works on the practice of medicine. The authors, although devoting some space to the problem of heredity, lay special emphasis on the infectious character of the disease.

Time will only permit a reference to one or two quotations from statistics. In the British Registrar-General's report covering the period from 1850-1880, and giving the annual average of deaths from tuberculosis in 1,000,000 people, we find a larger number of deaths from this disease during the last fifteen years of life—60 to 75—than in the first fifteen years. In other words, the grandfathers seem more susceptible to tuberculosis than their grandchildren. This, since pathology and statistics alike show that childhood possesses no immunity from tuberculosis, appears very remarkable if heredity be a strong factor in predisposing to this disease; i.e., to find in that part of the stream of life nearest the diseased fountain head less danger to the young voyager than there is in the portion left after it has been meandering on for three score years and he has turned his face, now pale and wan, towards the setting sun. Hereditary influences, owing to the innumerable changes that take place in the tissues during sixty years, must be very attenuated factors in these old people.

In an address delivered here in Toronto some few months ago, I think Dr. Bryce was reported as saying that about 80 per cent. of the deaths from tuberculosis in this city were amongst the labouring classes or those following special trades. Now, were heredity a potent factor should not the deaths be more uniformly distributed over the whole population?

I will not go any more fully into the statistics, for, doubtless, this phase of the subject will be exhaustively dealt with in the discussion that is to follow, but will proceed to notice briefly the problems of prophylaxis and curability. The infectious character of the disease is now fully established, and it naturally follows that prophylaxis consists both in avoiding sources of infection and the use of every available means of destroying the bacillus and its products. An article in the August number of the *Canadian Practitioner* shows that the act of coughing, speaking or laughing is sufficient to disseminate the germs pretty widely, hence the necessity for personal cleanliness, antiseptic sprays and inhalations, daily baths, well-ventilated rooms, wholesome food, healthy vocation, temperate habits, and outdoor life. There is another very important factor in prophylaxis which, I think, receives

altogether too little attention, viz., the control, at least to a far greater extent, of sexual indulgence. The frequency with which tuberculosis is found among those who resort to immoral practices, and the enormous increase in mortality during the most active period of sexual life in married people, are certainly sufficiently ominous to warrant us in advising these people to keep their sexual desires under the most rigid subjugation.

A line or two in reference to the curability of tuberculosis. The records of post-mortem examination show that the tuberculous process must have become quiescent in a large proportion of those who had been infected at some period during life. The statistics of cures now effected at the different sanatoria give a percentage all the way up to seventy. At a meeting recently held in Nottingham, Dr. Ransom gave a report of 1,541 cases, of which 71 per cent. were restored to work and in less than 7 per cent. did the disease advance. I think I can state that it is the personal experience of every physician in this room to have a fairly large percentage of his tuberculous cases restored to average good health. In the standing armies there has been a very gratifying decline in the mortality during recent years.

With more scientific knowledge regarding etiology, prophylaxis, and treatment, the more general co-operation of the public in preventing the spread of contagion, the easy access to and the home-like comforts of our numerous health resorts, the establishment of a sufficient number of properly constructed and well-managed sanatoria, with all these we can look forward most hopefully for a very great reduction in the mortality from tuberculosis.

In conclusion, although the purport and limitations of this paper have only permitted of the briefest possible reference to some of the phases of this very important question, yet enough has been said to show that the trend of medical opinion is now to attach so much importance to the infectious character of tuberculosis and so little to its hereditary tendencies, that a medical director would be fully justified in accepting applicants from either of these two classes under consideration as ordinary life risks.

I would like to add that I believe the time and need have fully come for the appointment of a medical commission, tribunal or court—whatever it may be called—to which a rejected applicant could appeal from the decision of a medical director.

THE TREATMENT OF ERYSIPELAS BY MARMORECK'S SERUM.*

BY

A. DE MARTIGNY, M.D., of Montreal.

The programme for the present meeting being overcrowded, I have condensed what I have to say into as few words as possible.

Leaving out of question the nature of the disease which at the present day everyone is willing to admit is due to an infection of the skin by some form of streptococcus, I will say a few words on the usual method of treatment adopted. This consists in the local application of antiseptic solutions of all kinds from boracic acid to corrosive sublimate, a favorite one being ichthyol in very concentrated solutions. As the local infection is generally accompanied by a rise of temperature, it is the rule to administer quinine and generally in combination with iron or arsenic as a tonic. This treatment is rational and really effective; in some severe cases, however, it has been insufficient, and often death has occurred even in cases of erysipelas of the face.

I claim that one or two hypodermic injections of Marmoreck's anti-streptococcus serum is a far more effective form of treatment and would give in erysipelas as good results as have already been obtained by the use of the Behring-Roux antitoxin in diphtheria. I have come to this conclusion after an experience of six cases of erysipelas of the face in which I have used it. It is not necessary to report them all, but one or two will be of interest and prove, I hope, that the antitoxin has a greater curative power than a combination of the best local and general treatment.

On May 19th, 1899, I was called to see a servant girl aged 19 years, of tall and strong physique, who had been suffering from erysipelas of the face since the 14th. I found her at 8 p.m. sitting up in an arm-chair with a temperature of 105°F. and a pulse of 148. Her face was dark and bleeding in some small spots. Treatment of local applications of a 30 per cent. solution of ichthyol and a tonic containing iron, glycerine and water had been used, but without beneficial result. I immediately injected 20 cc. of Marmoreck's antitoxin, put the patient to bed and ordered her to wash her face every half hour with a solution of corrosive sublimate 1-4000. The next morning at 9 a.m. the temperature was normal and the pulse 96. Recovery was uninter-

* Read before the Canadian Medical Association, Toronto, August 31, 1899.

rupted, and five days after the first injection the patient was at work and feeling as well as ever.

. Another case was that of a man who used to have two or three attacks of erysipelas every spring and fall and whom I injected twice last spring at an interval of fifteen days. Last fall he had no attack, nor has he had one this spring.

Of course, one must not as a rule draw positive conclusions from a few cases under the care of a single observer, and I do not ask you to immediately abandon the treatment to which you are accustomed and follow the method I propose. On the other hand, while there is insufficient time to discuss the subject thoroughly in all its bearing here, the report of these cases may lead to a trial of the antitoxin, and a year hence the amount of evidence at our disposal may be considerable.

With regard to the amount used, I consider it of great importance to use a most powerful antitoxin. The streptococci found in different cases of the disease may not be all of the same variety, some may be more resistant than others, and as we cannot determine the form present before giving the dose, we must use a dose powerful enough to serve for the most resistant. The Institute Pasteur of Paris has lately given us an extremely powerful antitoxin, and this is the one I have been using.

PLEURAL EMPYEMA IN CHILDREN.

BY

F. LEONARD VAUX, M.D., C.M., Trin.,

Associate Physician, St. Luke's Hospital, Ottawa.

Empyema of the pleural cavity is an affection clearly recognised since the dim and distant ages, the Hippocratic literature being quite liberal in its description of symptoms and quite correct in its indications for treatment, as well as in the method advised. But until the eighteenth century this condition, as existing in children, was practically overlooked and not until recent years has it been put on a scientific basis as regards etiology, diagnosis and treatment. But of late much attention has been paid to this very important branch of pediatric surgery, and upon the basis of a thorough knowledge of its pathology has come a careful and rational line of treatment. Bacteriology has aided us in this, though perhaps its influence here has not been as great as in other fields, but nevertheless, has established its constant relation to certain diseases. We are, therefore, now in a position to deal more intelligently than ever before with the etiology of this affection.

Etiology.—Three factors predominate:—(a) Pneumonia, whether primary or secondary to the exanthemata. (b) Septic processes in any part of the body. (c) Tuberculosis.

Pneumonia, or its sequenée pleuropneumonia, is by far the most common cause of empyema in children. This is clearly shown by reference to the statistics of Mount Sinai Hospital, New York, where in a series of 288 cases extending over some eight years, two-thirds had a direct history of pneumonia just previous to entering the hospital. This, then, is by far the most frequent cause, and it should be the duty of every physician attending cases of bronchopneumonia in children to watch for the formation of pleural effusion, using the aspirating needle as soon as there is the slightest warrant for so doing. The existent pneumonia or bronchopneumonia, however, in most cases has also had a known origin, this being in the great majority of instances one of the exanthemata, usually measles or scarlet fever.

Of septic infection, the most common forms which produce empyema are necrotic or suppurative foci in bones, adjoining collections of pus which either break into the pleural sac or set up an adjacent inflammation, ultimately involving the pleura, or pyæmia from any one of many causes. In the latter case collections of pus in the pleural cavity are to be treated in a similar manner to those in other parts of the body.

Tuberculosis is now generally recognised as a decided and very prevalent cause, yet, strange to say, unlike tuberculous processes in other portions of the body, its presence is most often determined by an absence of bacteriological proof. Levy has laid down a rule to the effect that when no bacilli can be detected either by simple examination or after culture, that then the cause may be put down as tuberculosis. This conclusion has not been accepted by all, although certainly there is strong evidence in its favour. Inoculation of guinea-pigs will often determine the point, but the length of time required to observe the result renders it of but little practical, clinical value. Occasionally, however, the bacillus tuberculosis itself will be found, though usually fibroserous rather than purulent exudates are its home. Thus, Koplik, whose splendid work in the children's ward of Mount Sinai Hospital has brought him deserved renown, found only one case in twelve, while Netter in thirteen cases examined microscopically discovered the bacillus in five. In cases in which the fluid is sterile there is certainly a temptation to hark back to the old term idiopathic, but this would be a distinctly retrograde step. For it must not be forgotten that peptones and toxins may have destroyed their producers, this theory having many strong advocates, and although it cannot be discussed here, the fact remains that some cause has rendered bacteriological research negative. Why, then, in the absence of microscopical proof, have we a moral right to assume tuberculosis to be such an important etiological agent? Because histologically and clinically the result of the bacillus tuberculosis at work is only too plainly to be seen. Clinically, it is manifested by an absence of fœtor in the pus, by accompanying glandular enlargement, perhaps by detection of tuberculous foci in the lungs, and always by a general "scrofulous" appearance of the child. Histologically, we note an abnormal regeneration of unhealthy bone tissue after excision, and unusually proliferative granulations with a marked tendency to pus secretion. If we find these conditions constant in cases in which the tubercule bacillus can be demonstrated microscopically, and again constant in cases where the pus is sterile, we are surely justified in drawing but one conclusion.

The *predisposing causes* may be summed up as follows:—Race, climate, and habitation. As regards race, it is a curious fact that babies of the Jewish emigrants form an extremely large proportion of all cases operated on in New York. It is quite true that in Mount Sinai Hospital (which is said to have the largest empyema service in the world) Jewish children are almost entirely in evidence, but the fact remains that other hospitals, which draw their clinical material from the same quarter but differing in nationality, do not show anything like the same number of cases in proportion.

Climate is undoubtedly an important factor, the percentage of cases

in seaboard cities being much larger than in inland cities. This is probably to be accounted for by the greater prevalence of bronchopneumonia owing to the moisture of the climate.

Unhealthy surroundings, poor drainage, damp floors and walls, all tend to produce bronchopneumonia with subsequent pus formation. In many instances, however, the latter condition is due to poor medical attendance, the preceding serous pleurisy being unrecognised. Sometimes it is the fault of the parents who do not bring their children to the hospital until high temperatures have developed. We are now recognising also that many of the so-called "chronic pneumonias" are but neglected empyemas.

Diagnosis.—The diagnosis of empyema must ultimately rest upon one test—the presence of pus in the aspirating syringe—and this alone is necessary, though from a clinical and scientific standpoint it is desirable that the condition be recognised by physical diagnosis before introducing the needle.

A word or two as to the *physical signs* commonly noticed may not be out of place here, and in this connection it must be remembered that childhood alters all laws and upsets all theories. The thorax of an infant may be likened to a drum, that of an adult to a barrel, and the physical signs will vary accordingly.

Inspection.—Respiration is naturally more rapid during infancy. This frequency, however, is in proportion to the pulse—a fact to be borne in mind when seeing the little sufferer for the first time. The picture which an advanced empyema presents is not easily forgotten and has been most graphically described in the following words:—"The chest heaving so rapidly that to count the respiration is difficult, yet one side seeming to lag behind its fellow. At intervals a dyspnoic attack and then a sharp irritating cough, all make up a scene not easily mistaken nor soon forgotten, and increasing in severity in inverse ratio to the age." But no matter how urgent the dyspnoea, one will look in vain for retraction of the abdomen just below the xyphoid cartilage. This is the distinguishing feature of dyspnoea due to a narrowing of the air passages, and is a purely mechanical phenomenon, nature endeavouring to fill the vacuum in the lungs by the chest wall. One point more may be noted. Osler mentions that not only will the intercostal space be obliterated, but the chest wall actually bulge; this I have repeatedly observed in many varied cases.

Palpation.—Owing to the absence of a thick layer of muscle, palpation will not give in an infant the same physical signs as in an adult, especially as there is present a cavity whose naturally thin walls are stretched to the utmost, thus bringing the purulent fluid very near to the hand. In addition, the muscular power of the adult lung prevents it from contracting to the extent that the infantile lung does. *Fremitus*,

therefore, which usually is greatly diminished or absent in conditions with effusion, may be quite noticeable in these cases, so much so as at times to be misleading, and particularly is this the case in certain instances in which fremitus is increased apparently on the sound side also.

Flatness on *percussion*, next to aspiration, is the most convincing proof of the presence of pus. All writers have emphasized the woody feeling imparted by a pus sac as against the dull, but somewhat more elastic sensation communicated to the fingers by fluid. And the very fact dwelt upon above, viz., the thinness of the chest wall, makes the elicitation of this flatness easier in children than in adults.

On *auscultation*, absolute loss of voice sound is not so constantly found as is generally supposed, for usually the child simply cries when the stethoscope is placed against the chest wall and this sound is heard all over the thorax nearly as loudly on one side as on the other. Vocal resonance is usually increased, especially in patches, and tubular breathing will often be obtained. One must not rely on the presence or absence of pectoriloquy as a diagnostic sign between serous and purulent collections unless the child has arrived at years of discretion.

Aspiration.—There are three indications for the use of this measure. (1) For the securing of temporary relief from dyspnoea. (2) To obtain pus prior to operation for bacteriological examination, with a view of determining what form of operation shall be employed. (3) To establish a diagnosis.

On the first, nothing need to said here. The second indication will be met by using an aseptic syringe. As a matter of routine, aspiration is performed in Mount Sinai Hospital once only, and that immediately before operation, the run of cases being so similar and the symptoms in the majority so well defined that percussion and inspection alone will indicate pus. In most cases, too, the history of pneumonia with subsequent aspiration by the outside medical attendant is given. In ordinary hospital work aspiration for diagnosis should be resorted to as soon as the clinical symptoms and physical signs show the absence of normal conditions. Let me emphasize the phrase "aspiration for diagnosis," because there is absolute need of a second aspiration just prior to the use of the knife. One case which has come under my notice shows this clearly.

A.B. was aspirated upon admission to hospital and about 5 cc. of pus withdrawn. The next day the little patient was prepared for operation and an incision made over the original site, but without further use of the needle. No pus was found when the pleural cavity was opened, the case being one of sacculated empyema exhausted by the first tapping.

The Indol Test.—I will not here discuss the well-established relation

between suppuration and the elimination of a greatly increased amount of indoxyl potassium sulphate, as I have already dealt with this subject at some length in a former article.* Suffice it to say that through close observations of this reaction two points in dispute among pathologists have been cleared up. First, that absorption of pus from the pleural cavity takes place to a notable degree, a fact which Solis-Cohen has denied; and secondly, that the indol reaction is increased in severity in direct proportion to the time the pus is retained; and we may here note the difference between a mammary abscess in which there is a pyogenic membrane preventing the absorption of pus and a pyothorax in which it is absent. To further illustrate this point let the amount of pus which is often found in abscesses of the breast be free in the peritoneal cavity, and the increased elimination of indol will be very quickly perceived; let it be in the pleural cavity, and the same intensity of reaction will appear only after a much longer time; let the breast be the seat of an abscess, and the reaction will not be noticeable. In brief, the absorption of pus and the production of a corresponding indicanuria depend upon the character of the enclosing surface and, if suitable for absorption, upon its extent.

Treatment.—The various methods open for use are:—(a) The expectant combined with medical treatment, which is merely mentioned to be condemned as a specimen of medievalism.

(b) Evacuation by trocar and canula,—undoubtedly the simplest and certainly one of the oldest of all methods, being practically the only one in vogue until Bowditch, of Boston, and Wynman, of Cambridge, Mass., introduced pneumatic aspiration. It was, however, at best but a makeshift, is never employed now, and may be relegated to the past with the key of Gagnon.

(c) Pneumatic aspiration. This treatment will be more often used to afford temporary relief than to effect a cure, unless occasionally in infants or in rare cases of sacculated empyemas. At times, however, when the effusion is only seropurulent it may prove sufficient without incision.

(d) Simple thoracotomy is a rapid method of operation and is very generally in vogue. A drainage tube is usually employed, but may in certain cases be dispensed with. The indications for this operation will be discussed in a subsequent paragraph.

(e) The operation of primary excision of a portion of one or even two ribs is coming more and more into general use. In Mount Sinai Hospital it is the routine one. This has been criticised unfavourably, but generally by those who are not acquainted with the conditions pre-

* Indol; its relation to prolonged suppuration and lardaceous change. The Journal of the American Medical Association, July 30, 1898.

sent. The fact remains that it, more than simple incision, is the operation *par excellence* for a service in which the cases are of long duration and where large clots of fibrin are generally present.

Choice of Operation.—This must and always will be a matter of preference, all rules to the contrary notwithstanding ; yet it is equally true that certain surroundings and conditions will materially mould an operator's methods of work. And for this reason no man can consistently advocate his own operation as the most appropriate in all cases, as the one invariably to be employed. Thus, the surgeon in charge of a pediatric clinic, who finds that primary exsection is an absolute necessity in the class of cases which come to his service, must bear in mind that this same necessity will not exist in private practice where a case can be watched from the very commencement and accurately diagnosed when as yet the fluid is only seropurulent. The following rules of procedure may be of some value as a guide :—

Exsect.—(1) In tubercular cases where secretion will probably go on for some time.

(2) In long standing cases where the pleura will be thickened.

(3) In some cases of streptococcus infection.

(4) As a routine procedure in any service or practice in which simple incision has been tried and found lacking owing to the nature of the cases.

The great advantage that primary exsection possesses is that it gives free and constant drainage, the great disadvantage is the osteomyelitis which generally follows, thus necessitating a second operation.

Make a simple pleural incision :—(1) In all cases in which it is absolutely necessary that shock, however slight, be avoided.

(2) Whenever time is the first consideration.

(3) In the empyema of healthy, well-nourished children where aspiration shows seropurulent fluid only.

The advantages of thoracotomy are these :—(a) Rapidity and simplicity. (b) No cancellous bone tissue is opened up. (c) Recovery is (probably) quicker. The disadvantage under which the operation labours is the almost necessary use of a drainage tube. If the tube be of soft material it is liable to be compressed between the unyielding ribs; if of a hard substance, it plays upon the periosteum, tending to strip it off and induce necrosis.

Retention following exsection.—As has been already said, this is the commonest and most annoying complication of the radical operation, and constitutes practically the only serious obstacle to its general adoption, as it demands further operative treatment. The following pathological process ensues in such cases.

The periosteum having been stripped back and cancellous tissue being

exposed in the cut ends of the bone, there is no hinderance to infection of the medulla, and a septic osteomyelitis is a result of the rush of fœtid streptococcic pus over the ribs. The Haversian canals are blocked, the long capillaries become compressed, and a necrosis ensues. In a tuberculous child, in addition to this, granulation tissue is formed, which finally breaks down and invades the surrounding structure. Temperatures follow, often a too rapid increase of regeneration of diseased bone takes place, the outlet is diminished, retention of pus with non-expansion of lung ensues, and the necessity for a second operation becomes apparent. These indications may present themselves within a fortnight or as late as two months. If the child has been operated on in a hospital, it will usually apply for re-admittance within two months unless its stay has been very protracted. Usually, the only clinical symptoms in these cases will be a discharging sinus with temperatures of 100° to 101° F.

By enlarging the incision and introducing the little finger into the wound, one may note the following. A rough, ragged, bony projection at either end of the rib, periosteum gone, and pus oozing from the cancellous tissue. The space between the two proximal ends of the rib is diminished, so that the little finger cannot without difficulty be passed between them, and in so doing plunges through fungous granulations which have been bridging over the chasm.

Technique of operation.—Rapidly of operation, especially when an exsection is being performed, is a *sine qua non* of successful work. A certain routine should therefore be established and as far as possible carried out at every operation.

After a rapid physical examination has shown that the indications for operation are so far still clear, the site of incision, preferably over the seventh rib, is thoroughly prepared. Aspiration is then performed, and if pus is still found, a rapid incision is made over the same site. Bleeding points are secured, the muscles incised, retractors inserted, and the periosteum carefully pushed back for about one inch on either side of the median line. A long slender periosteal elevator and Sayre's "oyster knife" are the best instruments. When the retraction of the periosteum is completed these elevators are placed under each end of the portion of rib to be excised, which being then raised up, allows the bone forceps to be applied. Sometimes, however, the pleura has become adherent and is torn by the mere act of raising the rib, thus allowing the pus to escape before exsection has been completed. This is a very annoying accident, the pus flowing in a great stream over the operator's hands and also obscuring the field. In any case the pleural incision must be quickly completed, for from the moment of exsection until the pleural cavity is well emptied and the child again in the dorsal position, is the critical stage of the operation, and if fatal dyspnoea occur it will be at this point.

Until the incision of the pleura, the child will be best operated on lying on the sound side, but just previous to the incision of the pleura it should be brought to the edge of the table with the exposed pleura clear of the side. A large handkerchief of sterilized gauze should be at hand to be thrust into the cavity as the first rush of pus occurs. This procedure serves a double purpose, it prevents a too rapid emptying of the pleural sac and the accompanying shock which this might induce, and, besides, protects the surgeon's face from an undesirable irrigation. Koplik states that no conjunctivitis in any way approaching the severity of a gonorrhœal infection will ensue should pus reach the eye, nevertheless, the bare possibility is far from pleasant. When the flow of pus ceases the surgeon's finger should be inserted in the cavity, (1) to judge of the condition of the lung, (2) to ascertain the space available for drainage, and (3) to clear out clots of fibrin. With reference to the latter, the need of such digital exploration may be inferred when one has found a solid clot of fibrin 4 by 6 inches occupying the pleural cavity.

Should a simple thoracotomy have been the operation selected, the technique will be similar, but in the vast majority of such cases a drainage tube has to be inserted. In both instances an ordinary dry sterilised dressing is to be applied and changed as often as necessary.

After treatment is practically limited to noting retention and remedying this condition when present. If the temperature remains high and the discharge becomes scanty, be prepared to do a resection; and also if the space between the cut ends of the bone is not broad enough to freely admit one's little finger. Pus will then well up to a greater or less degree and, indeed, will be found to have burrowed superficially under the integument. The lung is contracted and covered with a thick layer of fibrin while the costal pleura is indurated, grayish, and secreting. The extent to which necrosis has advanced is variable; for the resected rib may be involved for an inch only on either side, or its entire continuity from costal border to spine. Similarly, one, two, or even four ribs may be affected to a greater or less extent. The sinus itself is lined with exuberant granulations, and these are also heaped up at its free border. Occasionally no sinus is visible, the granulations are not exuberant, and the wound to all appearance is completely and healthily closed. But there are temperatures and, at times, dyspnoea, and a probe introduced for a few inches is followed by a flow of pus. In short, we have again the symptoms of an empyema owing to retention of pus continually secreted by an unhealthy pleura. It may occasionally be found that a temperature persists even when there is no sinus and no retention. In these cases it will be due to osteomyelitis and necrosis of the ribs.

Treatment of osteomyelitis with retention.—The obliteration of a suppurating pleural cavity is the surest and quickest way of preventing further purulent discharge, and this is accomplished through three agencies:

(1) Ascent of the diaphragm. (2) Expansion of the lung. (3) Collapse of the chest wall. If nature alone cannot produce the desired result we may assist by several operative measures.

(a) Removal of the granulations by repeated curettings, the use of the rongeur and stimulation with iodoform and ether. (b) If this is insufficient, an Estlander. (c) As a last resort, Shedé's operation. Lack of space will not allow me to discuss these operative measures.

Anæsthesia.—Chloroform is generally used owing to the susceptibility of the infantile mucous membrane to the irritation of ether. It can be administered to the youngest patients capable of braving operation. The youngest I have known of was a six-months old boy. The anæsthetic must be administered in minute quantities and it is well to have brandy ready in a medicine dropper in case respirations fail. The brandy is not to be swallowed, but merely acts as an irritant to the oral mucous membrane and hence as a reflex respiratory stimulant. As regards posture, the lateral is the one I prefer, the child being placed on the sound side during resection and then brought to the edge of the table with the exposed pleura downward when the incision is about to be made. At this point anæsthesia, which seldom need be brought to the point of surgical narcosis, is to be stopped.

Complications following operation.

(a) Iodoform poisoning—to avoid this wash out the gauze before using. If it develops in spite of this, use only plain sterilized gauze and stop the use of iodoform and ether as a stimulant to the granulations.

(b) Erysipelas—It usually develops from the wound coming in contact with the bed clothes from the bandage slipping, or by infection from the little patient pulling the dressings off.

(c) Pneumonia—The most common of all complications and due to the absorption of bacteria through the exposed cancellous tissue. Whether this is a fresh infection or merely the lighting up of an old one is often hard to determine.

Causes of death.—In Mount Sinai Hospital, bronchopneumonia was by far the most common, the little sufferer worn out by incessant coughing growing weaker and weaker and finally snuffing out like a candle. The London statistics show pericarditis and septicæmia to be the most frequent, but this has not been my experience.

CEREBROSPINAL MENINGITIS COMPLICATING MEASLES.*

BY

FRANK R. ENGLAND, M.D.,

Surgeon to the Western Hospital, Montreal.

The patient, Willie C., aged six years, who had always been strong and well, one of a family of twelve children, was attacked by a mild form of measles on May 15th. By May 18th the eruption was beginning to fade, the pulse and temperature had fallen to normal and he was feeling quite well except for a slight bronchitis and a membranous rhinitis. The next day, May 19th, at noon, I found the patient feeling somewhat dull and inclined to doze. I noticed that there was some obstruction to breathing through the nose due to a membranous exudation which blocked the left nostril, and a cleansing alkaline solution was ordered. The glands of the neck were not enlarged and the pulse and temperature remained normal. At 2.30 p.m., without the slightest warning, the child was seized with a severe convulsion. On my arrival within a few minutes I found him lying unconscious, the lips bluish, the face of a deathly, ashy grey color; a general clonic twitching, more especially of the arms and face, still persisted. The pupils were equally contracted and reacted to light; the pulse was weak and rapid; the temperature 100° F. The child was placed in a hot pack, with cold to the head, and a purgative administered.

During the afternoon there was continued moaning and great restlessness. In the evening, though the colour and pulse had improved, there was no return to consciousness but on the contrary a deepening stupor, and liquids were swallowed with some difficulty. As the bowels had not yet acted an enema was given which was very effectual. The patient rested quietly from 8.30 till midnight, when the nurse reported a second convulsion, slight in character, chiefly affecting the tongue, which was protruded in a jerky manner with much frothing at the mouth. Temperature had risen to 103° F., pulse rapid.

May 20th.—Patient was very restless after the convulsion. At 2 a.m. the temperature reached 105° F., the stupor had increased but the pupils still reacted to light and remained equally contracted. There was some rigidity of the muscles but the head was not drawn back to any extent; there was neither squint nor any other sign of paralysis. I saw the child again at 1 p.m. No urine had been voided since the previous forenoon. On passing a catheter only two and a-half ounces of urine were with-

* Read before the Montreal Medico-Chirurgical Society, June 26, 1899.

drawn. The specimen was high coloured, slightly acid, sp. gr. 1028 ; no albumen, no sugar, no casts. General condition continued unaltered. On the 21st, at 2 a.m., another severe convulsion occurred, and from this on the patient passed from one fit into another until death occurred at 4 a.m., thirty-eight hours after the first convulsion. The temperature reached 109° F. before death. There was no vomiting throughout and no cutaneous eruption. The suppression of urine is also worthy of note. Dr. Alex. Hutchison kindly saw the case with me during the night of the 19th and Dr. James Stewart on the following day. Two hours before death a culture was taken from the nose. My thanks are due to Dr. Rose, of the Royal Victoria Hospital, for the examination and the following report :—

“Smears show by staining with methylene blue an intracellular diplococcus. Cultures of glycerine agar after twenty-four hours give a rather scanty growth consisting of greyish white islands over the surface of the agar. Growth on broth showed a slight turbidity. No subcultures could be obtained after six days. Microscopically the cultures showed a pure culture of a diplococcus occurring occasionally in fours and sometimes singly. The organisms varied somewhat in size, often one of the pair being larger. They also differed considerably in their manner of taking the stain, some staining more deeply than others. They stain with methylene blue, gentian violet and all the ordinary stains.

Cultures from the noses of the other two children show the same organism together with the ordinary staphylococci, etc. The organism answers in every respect to the meningococcus of Weichselbaum.”

In regard to the diagnosis of the case the following rather unusual circumstances had to be taken into consideration.

Both scarlatina and measles had been in the house for several weeks. The patient himself had not had scarlatina unless in such a mild form as to escape detection. This was quite possible, however, as several of the children had been going about and even attending school until I was called to a more marked case and discovered them desquamating. Four of the children soon developed measles. Thus the possibility of the onset of scarlatina had to be considered, but the symptoms did not support such a diagnosis. Uræmia, which was strongly suggested by the clinical features, was also excluded as a result of the urinalysis. The lungs at no time showed any signs of consolidation. Thus the diagnosis of meningitis was arrived at. As there had recently been a number of cases of cerebro-spinal meningitis in the city, this case was in all likelihood of the epidemic type. I, for my part, felt satisfied that the meningitis was infective and that in all probability the infection was

carried to the meninges from the nose, the condition of which was most peculiar and uncommon.

I have since learned that Dr. Adami some two years ago drew attention to the fact that in a case of cerebro-spinal meningitis he had found the meningococcus in both the nose and the meninges, and he pointed out that the nose was in his opinion a common source of infection in such cases.

I regret that an autopsy could not have been obtained, but the report on the cultures taken from the nares is strongly confirmatory of the above view. It is further interesting to note that two of the other children who were ill with measles at the same time also developed a like condition of the nares, namely, a membranous rhinitis, which, in spite of treatment, lasted three weeks. The membrane was abundant, thick and firm, completely plugging the nose for days and, when detached, left a bleeding surface. In addition to the membrane there was a copious mucopurulent secretion. Cultures taken ten days after the onset showed the meningococcus and the staphylococcus. So far as I have been able to learn no cases of cerebro-spinal meningitis, complicating either scarlatina or measles, have been reported.

THYROID DUCT : ITS REMOVAL.*

BY

GEORGE E. ARMSTRONG, M.D.,

Associate Professor of Clinical Surgery, McGill University ; Surgeon to the Montreal General Hospital.

Persistence of any portion of the thyro-glossal duct seems to be very uncommon. There is not much literature upon the condition. The patient upon whom I operated was a boy six years of age. Nothing unusual had been noticed until about a year before I operated, when his mother found a small lump—the size of a pea—situated in the middle line of the front of the neck about 3 cm. below the hyoid bone. It gradually increased in size until it became as large as a filbert. Subsequently, the cutaneous covering became quite red and inflamed.

When I first examined the boy, this lump covered by red integument was quite conspicuous, and seemed to be irritated by the collar. The boy complained of its hurting him. Another striking peculiarity about the thing was that whenever the boy swallowed the lump was drawn upwards distinctly, and also inwards and backwards, the surrounding skin being thrown into a circular fold around the margin of this little red tumour. This had been noticed about a month, and was no doubt secondary to an adhesive inflammation between the cyst wall and the overlying skin. On palpation, a well-defined, hard cord could be felt extending from the tumour to the centre of the lower border of the hyoid bone. The tumour was soft and fluctuating.

What the nature and pathology of this most unusual condition was, I did not know. I ransacked a great many books without obtaining any light, and had about decided that I never should know what it was. I have since found it described by Bevan in Park's Surgery and in Morris' Anatomy. In the meantime, I made a small incision, and with a Volkmann's spoon scraped it out most thoroughly. The contents were not purulent, but of a thick gelatinous character and turbid, like colloid substance. Soon after this I came upon the very thing in one of the Goulstonian Lectures on the Pathology of the Thyroid Gland, delivered before the Royal College of Physicians of London by Professor G. R. Murray, and published in the *British Medical Journal*, March 11, 1899. In speaking of the development and structure of the thyroid gland, he says : "The gland is developed in the embryo in three different parts. A median diverticulum of the hypoblast which lines the pharynx of the embryo is formed between the ventral ends of the second visceral arches,

* Read before the Montreal Medico-Chirurgical Society, May 29th, 1899.

while a lateral diverticulum is developed on each side from the posterior wall of the fourth visceral cleft. In man, the median portion persists for a time as a hollow vesicle from which a small canal, the thyro-glossal duct, leads to an opening on the dorsal surface of the tongue. At a later stage the vesicle becomes solid and the duct disappears, while its external opening on the surface of the tongue persists as the foramen cæcum in the adult." A little further on in the same lecture occurs the following :—"His has found that in some cases the thyro-glossal duct already mentioned does not become obliterated, but that it persists in the adult as the lingual duct, which has been traced from the foramen cæcum as far down as the hyoid bone. In some cases the middle lobe of the gland is continued upwards as a narrow tube, the thyroid duct, as far as the hyoid bone. [The late Professor Kanthack who examined a hundred adults for these ducts, however, found neither a lingual nor a thyroid duct in any of the cases which he investigated, and in many there was not even a foramen cæcum]."

After reading this article, I hunted up my boy, and found that the cyst had refilled and the condition was the same as before operation. At the second operation, which took place on April 17, 1899, I opened the cyst, emptied it of its contents, and found that I could pass a fine probe along the duct up to the hyoid bone. With this as a guide, I dissected out the duct as well as the cyst wall. Primary union occurred and there is no sign of recurrence. The duct measured 3 cm. in length, and was about the size of a small lead pencil.

PERSISTENCE OF THE LOWER PORTION OF THE THYROGLOSSAL DUCT.*

BY

A. T. BAZIN, M.D.,

Assistant Demonstrator of Anatomy, McGill University.

The history of the case is that of an active, healthy boy, aged eleven years, who in the summer of '84 was seized by the throat, the head being forcibly thrown backwards. No especial pain was experienced at the time, but the next morning a globular swelling the size of a marble was seen in the median line of the neck one inch below the level of the cricoid cartilage. The mass was semisolid, situated close beneath the skin, but freely separable from it. It rapidly increased in size to that of a large almond and became ovoid in shape, the longer diameter being vertical.

An incision was made into it and the contents expressed. Thereafter the sinus continually discharged a thick viscid fluid until the fall of '86, when it was freely opened, scraped, and treated with irritant injections. In five or six months it was healed, leaving a scar extending from the cricoid cartilage downwards for one and a half inches, adherent to the structures beneath and moving with deglutition.

Nothing further was noticed until the fall of '97, when, concurrent with an attack of laryngo-pharyngitis, a small hard nodule appeared over the crico-thyroid space. This disappeared in a few days, but the following spring, '98, again accompanying an attack of tonsillitis, is reappeared and increased in size to that of a large filbert nut, not tender or painful, but interfering with the wearing of a collar.

An incision was made under cocaine anæsthesia and the nodule removed. It did not shell out but required dissection especially at its upper side. Bleeding was not excessive. Healing would not take place, and the small amount of discharge was very viscid. Exploration with a probe revealed the presence of a small sinus running directly upwards in the median line just beneath the skin and ending at the upper level of the thyroid cartilage. The skin was nicked at this point and a catgut drain inserted. After the injection of tincture of iodine, carbolic, etc., for some weeks, the viscid character of the discharge ceased and closure resulted with no subsequent evidence of refilling.

That this was a case of persistence of a portion of the thyro-glossal duct there can be no doubt. The sudden and rapid filling up after traumatism may be explained by the probable re-establishment of communication between the duct and one or more alveoli of the thyroid gland as secretion from the walls of the duct alone would hardly produce the amount of fluid present. Another interesting feature is that fourteen years later there is apparent connection between inflammatory conditions of the pharynx and the reappearance of activity in the duct.

* Read before the Montreal Medico-Chirurgical Society, May 29th, 1899.

HEMIPLEGIA COMPLICATING SCARLATINA.*

BY

A. T. BAZIN, M.D..

Assistant Demonstrator of Anatomy, McGill University.

The following notes are of a case which I saw but once in April, 1898, and it is through the courtesy of Dr. A. A. Lefavre, the attending physician, that I am enabled to place it on record.

Henry W., aged 21 months, became ill with scarlatina on March 23, 1898. On the seventh day of illness a nurse was engaged, and thereafter a detailed record of the condition was kept. From the notes and temperature it is seen that the case was a severe one, as on the first day of record (seventh of illness) the temperature was above 106° F., and ranged from 104° to 105° for the ensuing thirty hours, then running from 103° to 104° for the next seven days. The pulse averaged 150 and was irregular; respirations were from 36 to 50 per minute. Delirium and a semicomatose state were almost continually present.

The throat was covered with pseudo-membrane and there was profuse foetid discharge from the nose. Subsequently, the cervical glands were involved with œdema of the overlying skin. For this condition anti-streptococcal serum (20 cc.) was used, but with little effect. From April 3rd (11th day), the child seemed to suffer much pain in the head.

April 7th (15th day): Very restless; eyes moved from side to side; development of convergent strabismus and continuous vomiting.

April 8th: Vomiting. Towards evening the right arm became very limp, and was moved less freely than the left; right ear discharging.

April 9th: Totally unconscious, vomiting, right eye partially open. No strabismus; right arm and leg rest limp and quiet. Twitching of left side. (This twitching was described as being a subsultus.)

April 11th: Left ear discharged.

On April 12th (20th day) I saw the patient, and the condition was then as follows:—The child was lying on the back with his head drawn to the right side but rotated to the left. The eyes were closed and face passive. The right arm and leg were lying straight and flaccid, the left arm across the abdomen and the left leg flexed. Respiration was quiet and regular; pulse rapid and small; pupils equal and rather contracted, reacting to light.

When roused, the child began to whine, tossing his head from side to side and moving his left arm and leg irritably. The right arm and

* Read before the Montreal Medico-Chirurgical Society, June 26, 1899.

leg were passive and the face slightly drawn to the left. The right extremities presented some rigidity; reflexes were increased; tactile sensation was apparently unimpaired. The ears were discharging profusely; no tenderness about the mastoid regions. The lungs and heart presented nothing abnormal; the urine was abundant and reported free from albumin.

Thrombosis of the cortical branches of the left middle cerebral artery was diagnosed, for the following reasons:—

(1) The gradual and progressive onset of the paralysis, the arm being affected twenty-four hours earlier than was the leg.

(2) The very low blood pressure which had been present for a number of days.

(3) That thrombosis is the most frequent post-mortem condition found to be the cause of a hemiplegia occurring in the course of specific fevers in children.

The treatment adopted was entirely symptomatic, and from this date on there was progressive improvement in the general condition, although the nurse reported several alarming periods of collapse with thready pulse and cold extremities, which, however, were readily overcome by free stimulation and artificial heat.

On May 1st (thirty-ninth day of illness and 13th day since onset of paralysis), weak movements were noticed in the right arm and rapid improvement took place, the child standing alone on May 10th, although great wasting of the affected side had occurred.

I saw the patient in March, 1899, and he was bright and active, the nutrition of the one side being fully as good as that of the healthy side. The reflexes were equal and motor power was practically perfect, a very slight toe-drag alone remaining.

At the onset of the illness the baby was just beginning to talk, and it is interesting to note that on the recurrence of consciousness this accomplishment had not been interfered with.

Hemiplegia complicating scarlatina is not at all unknown, but reported cases are very few. Osler and Allbut, in their text-books, simply mention the occurrence of the condition without discussing it further. After a long search through the literature, I discovered in the *Monthly Cyclopædia of Medicine*,* an abstract of a paper by Alexieff which appeared in the *Journal de Médecine* (July 10, 1897), which I reproduce below:—

“The somewhat rare occurrence of various paralyses in the course of scarlet fever has been studied by Alexieff, who has been able to collect only seven or eight published cases together with two coming under his

* April, 1899, p. 141.

own observation. The first suffered from left hemiplegia about three weeks after the eruption, the face, tongue, upper and lower limbs being affected. In about twelve days a marked improvement set in, progressing to complete recovery. In the other case there was complete paralysis of the right half of the body; the paralysis was of a marked degree with loss of right nasolabial fold, complete loss of power in both upper and lower limbs on the right side, loss of knee jerk, and impaired sensation. There were no symptoms of endocarditis, but bronchopneumonia with a marked degree of albuminuria.

“On post-mortem, there was subacute parenchymatous nephritis, degeneration of cardiac muscle, thrombosis of the left middle cerebral artery, with almost complete softening of the lenticular nucleus and of the posterior portion of the internal capsule.”

RETROSPECT OF CURRENT LITERATURE.

Medicine.

UNDER THE CHARGE OF JAMES STEWART.

Apparent Idiopathic Cardiac Enlargement in Children.

DR. HAUSER. "Ueber scheinbare idiopathische Herzvergrößerung bei Kindern."—*Berliner Klin. Wochen. No. 27, 1899.*

This contribution to the study of cardiac examination shows the advantage of a careful observation of the relation of the heart to the diaphragm and when possible an inspection by means of the Röntgen rays. The writer believes that percussion of the true relative cardiac dulness in children is more difficult than in adults, thus opposing the views of most recent teachers. A correct diagnosis of the cardiac condition, whether hypertrophy, dilatation, or altered position, is important and often, if not always, in children it is impossible. By means of the Röntgen rays, Dr. Hauser claims that this difficulty can be surmounted, and the application made of this means by Professor Dr. Grunmach in cases of apparently idiopathic cardiac enlargement had shown that no cardiac enlargement existed, but that an unusually high position of the diaphragm in many cases was found to be the cause of the increased heart dulness. Such a position of the diaphragm, which changes the long axis of the heart, making it nearer the horizontal line, may be the result of stomach and bowel distention. It is possible also for increase of heart dulness to occur through an insufficiency of the functions of the lungs. In such cases the lungs are not fully expanded and hence the increased area of dulness.

Concerning the Infectious Character of and the Relation between Acute Articular Rheumatism and Chorea.

WESTPHAL: WASSERMANN AND MALKOFF. "Ueber den infectiösen Charakter und den Zusammenhang von acuten Gelenkrheumatismus und Chorea."—*Berlin. Klin. Wochen. No. 29, 1899.*

Privat Docent Westphal in Professor Jolly's clinic in Berlin describes,

among others briefly mentioned, a case of acute articular rheumatism in a patient nineteen years of age. During the second month after the onset of the arthritis, choreiform movements began in the left arm and in a few days involved the whole of the voluntary muscles of the body. The mental functions were manifestly altered. The cardiac action was very rapid—96 to 140—the heart sounds were clear, herpes labialis developed, a severe type of delirium supervened and the patient died.

An early autopsy was performed and an early endocarditis of the mitral endothelium with parenchymatous nephritis was discovered. There was no pus formation. A careful and exact bacteriological examination of the heart's blood, the pericardial effusion, a portion of the mitral valve, the spleen, and the brain, was made by Professor Wassermann, whose report, curtailed, is here given. He succeeded in obtaining from the blood, the brain, and the mitral valve a micro-organism which, on being introduced into the blood stream of animals, induced in them high fever and arthritis of a very grave type. On opening the joints so involved, all the structures were found inflamed and in the exudate, sometimes clear and sometimes turbid, were found micro-organisms corresponding to those injected and capable of inducing similar changes in the joints of other animals into which they were in a few instances subsequently injected. In some experimental cases the swelling would subside in one joint and begin actively in another quite removed from the first.

The organism found in this case is a streptococcus belonging to that class of bacteria which for some time has been regarded as having a causal relation to acute articular rheumatism. It grows in culture media richly alkaline and best in agar made of bouillon of pigs' flesh and 2 per cent. of peptone Chapoteaut.

Aneurism of the Aorta.

H. A. HARE, M.D., and C. A. HOLDEN, M.D. "Some Facts in regard to Aneurism of the Aorta."—*Amer. Jour. of the Med. Sciences*, Oct., 1899.

An analysis of 953 cases of aneurism of the aorta was undertaken by these observers with a view of "determining certain statistical points in connection with this very interesting pathological condition." In concluding their very valuable paper they call attention to the following facts which they regard as noteworthy:—

- (1) The lesion is more frequent in males than in females.
- (2) The ascending portion of the arch is much more frequently involved than the other portions.
- (3) Aneurism of the transverse portion is of about the same frequency as that of the descending portion.

(4) In a large percentage of cases pressure from the growth and not rupture of the sac is the cause of death.

(5) Syphilis does not seem to play as large a part as an etiological factor as is usually supposed, although this is negative rather than positive evidence.

W. F. Hamilton.

Clinical Examination of the Blood.

FRANKLIN WARREN WHITE. "Cultures from the Blood in Septicæmia, Pneumonia, Meningitis and Chronic Diseases."—*Journal of Experimental Medicine*, Vol. IV., 3-4.

CHR. DE FINE LIGHT. "Clinical Researches upon the Frequency of Microbes in the Blood."—*Med. Ark.*, No. 10, 1899.

Everyone who has made efforts to obtain during life satisfactory cultivations from the blood in almost any infective disease will appreciate readily the difficulties that arise. Not only is this the case from the danger of contamination in the skin, but also from the possibilities that where so small a quantity of blood is taken one is very likely to get negative results unless the circulation be swarming with the bacteria sought. The value of obtaining more blood in cases of this kind and directly from the veins, rather than by mere puncture of the skin, has been shown from the work done in Baltimore by Flexner, Bloomer and Thayer, and others in the case of the gonococcus where successful cultivations were obtained mainly by gathering large quantities of blood for cultural purposes usually from one of the larger veins of the arm. Dr. White has made a large number of investigations in the Massachusetts General Hospital, in all 92 cases, including severe sepsis, various forms of pneumonia, cerebro-spinal meningitis and severe chronic diseases, and has obtained in this way most interesting results, and the conclusions to which he arrives have been briefly summarised as follows:—

1. Blood for bacteriological examination during life should be taken directly from the veins and in considerable quantity.

2. Resorption of toxines is the most important feature in cases of sepsis, for the pyogenic bacteria invade the general circulation in a very small proportion even in severe cases, and as a rule late in the course of the disease.

3. General infections by the pneumococcus can be demonstrated occasionally in the late stages of acute lobar pneumonia.

4. In the majority of obscure cases it is difficult to obtain cultures during life; where the bacteria are found however the prognosis is extremely unfavorable.

Terminal infections with pyogenic cocci are sometimes the immediate

cause of death in chronic disease. Local infective processes play this part more frequently.

5. Agonal invasion of the blood is infrequent, and therefore where germs are found in the organs at autopsy immediately after death, they have been associated with the course of the disease.

Dr. Fine Licht, working along the same lines, has found likewise the importance of obtaining large quantities of blood from the veins during life in order to obtain positive results in bacteriological examinations.

In 72 patients suffering from various diseases, 31 presented bacteria; in 10 cases of typhoid bacteria were found in 7; in various lesions of the intestine for instance, as appendicitis, strangulation and so on, germs were not infrequently found, and the same in not a few instances of local suppuration.

Both series of observations are thus to be considered as most valuable to the clinician whose repeated efforts to obtain cultures by former insufficient methods have proved so often vain.

The Influence of Fatigue and Repose on the Temperature of Tuberculous Patients.

DAREMBERG ET CHUQUET. "De la Fatigue et du Répos sur la Température des Tuberculeux."—*Révue de Médecine*, Sept. 10, 1899.

The importance of slight febrile elevations in the diagnosis and prognosis of tuberculosis has long been recognised, and in the citation of a few cases of considerable interest the above authors lay still more stress upon the value of exact and frequent observations on the temperature of patients suspected of tuberculosis, even when physical signs are entirely, or almost entirely, absent. Not only is it true that the temperature will rise frequently in tuberculous patients after ordinary physical exercise, but under certain physiological influences, such, for example, as menstruation and disorders of digestion, tuberculous patients in the very early stages seem to present febrile reactions which are not regularly shown except at certain periods of the day or on certain days when repeated examinations of the temperature are made. Tuberculous patients have always been recognised to have a distinct instability of temperature, what the French are accustomed to call "Temperature déséquilibrée." Daremberg has already shown some years ago, and so indeed have others before him, that many phthisical patients may have after short walks, a rise of perhaps $\frac{1}{2}$ degree of temperature lasting it may be from a quarter to one hour, so too after moderate ascents, climbing stairs, etc., and for this reason he has recommended that for the two or three hours preceding the period of evening exacerbations, phthisical patients should never undertake other than the most moderate forms of exercise.

When observed carefully this instability can be made use of for the diagnosis of tuberculosis as well as for its prognosis. In cases therefore of doubt and where physical signs are absent, a certain value is to be gained by prescribing every day moderate exercise for three or four hours, after which the use of the thermometer may give valuable indications of any possible tuberculous disease present. A slight rise will occur after this exercise, the temperature falling again probably within one hour after rest has been taken. Such observations should be made not only for one or two days but for a period of ten days or more, if one would attain accurate results. If then every day the temperature chart shows such a condition of slight elevations after exercise and a rapid subsidence after resting, it may be considered as indicative of tuberculosis, provided of course that evidence of other disease be absent.

These observers have made a number of such investigations and have been therefore led to conclude that results of much value are to be obtained by these means. Not only is this the case after exercise such as mentioned, but with ordinary disorders of digestion they have observed repeatedly a similar febrile reaction, and still more is this marked at the regular period of menstruation.

Where in patients, on the other hand, a certain amount of disease has been found in the lungs and, with this, some fever after exercise, and if subsequently the febrile reactions have disappeared even after moderate exercise, such patients may be regarded as, at all events temporarily, healed. Notwithstanding the lucid explanation given by these authors of the value of temperature charts in early cases of tuberculosis, it would seem difficult to decide even in cases of moderate chlorosis where fever is so common, that the patients thus suffering are also the subjects of tuberculosis; and what applies here would seem to apply also in hosts of other diseases, such, for example, as the early condition of Hodgkins' disease, where the primary enlargement of the gland involves one side of the neck before perhaps any other evidence of disease is present. To decide in such cases from the elevation of temperature (which is almost certain to occur in either case), that the patients are tuberculous, would scarcely seem justified. On the other hand, no doubt where the patient would seem to be in otherwise good health and suffering in no respect from conditions other than perhaps weakness or fatigue after exercise, such careful observations as suggested would no doubt be of considerable value. It is to be regretted that the observations in many cases were not controlled by the use of tuberculin.

Surgery.

UNDER THE CHARGE OF GEORGE E. ARMSTRONG.

The Surgical Treatment of Hæmorrhage from Gastric Ulcers.

ANDREWS AND EISENDRATH. "The Surgical Treatment of Hæmorrhage from Gastric Ulcers."—*Annals of Surgery*, Oct. 1899.

In this very interesting paper the authors give the history of cases of hæmorrhage from gastric ulcer operated upon, and report two cases of their own, one of which was successful. In the other the hæmorrhage was controlled by a second operation for the relief of gastralia, a gastro-enterostomy being performed and union being made by a Murphy button, it resulted fatally from leakage and peritonitis.

They conclude that: (1) The results of the practice of the best modern surgery warrants the statements previously made on theoretical grounds, that early operative interference can save the lives of a part of the patients affected with bleeding ulcers of the stomach, viz., those not improved by internal medicine.

(2) Surgical intervention is to be recommended, first, in small repeated hæmorrhages; second, in severe ones occurring more than once, especially if more than 500 cc. are lost at each hæmatemesis.

(3) A single copious hæmorrhage is not necessarily an indication for operation.

(4) In ulcers at or near the pylorus, pyloroplasty (Heinecke-Mikuliez) is ideal. It makes local treatment possible, gives all of the benefits of gastro-enterostomy, and is safer.

(5) Cauterization and curetting of the ulcer should give place to resection whenever the stomach wall can be reached from without.

(6) If adherent posteriorly and at the ends of the stomach, cauterization, curettement, and ligature *en masse*, are the best substitutes for excision.

(7) Ligature *en masse* is shown by their experiments on dogs to endanger perforation when not supported by external sutures.

Pyelitis with Chronic Appendicitis.

RIESE. "Ueber Pyelitis bei Appendicitis Chronica."—*Archiv. für Klinische Chirurgie*, Band 60, Heft 1.

During the last ten years various complications have been associated with appendicitis. It is many years since abscess of the kidney was

first observed in association with inflammation of the vermiform appendix. Dr. Riese has observed in the last eighteen months, in 37 operated cases, two instances of abscess in the perirenal fat. He also reports two cases of pyelitis occurring in association with chronic appendicitis; one a lad, seventeen years of age, and the other, a fifteen years old girl.

Dr. Riese thinks that adhesions, pulling and kinking the ureters in such a way as to arrest the flow of urine and cause dilatation of the renal pelvis, may be the explanation in certain cases, and, again, that in other instances the pyelitis is due to an ascending ureteritis.

Masked Appendicitis.

EWALD. "Ueber Appendicitis Larvata."—*Archiv. für Klinische Chirurgie, Band 60, Heft 1, 1899.*

Dr. Ewald read this paper before the German Surgical Congress in Berlin, in April, 1899. He has observed patients complaining of indefinite abdominal pain and distress, in which, by exclusion, the symptoms were referred to the appendix vermiformis. These cases taken together form a somewhat typical group. The pain may be in the region of the pylorus or fundus of the stomach, or referred indefinitely to the upper abdominal region or to the navel. It is often of a dragging character, and may be felt more particularly before or after a stool. The appetite is poor and there may be dyspepsia. There may be pain and tenderness in the ileocæcal region, but not always. These patients are sometimes treated for years for chronic stomach or intestinal catarrh, and sometimes for neurasthenia or hysteria.

Dr. Ewald gives the following case reports:—

A lady, thirty years of age, complained of diffuse, abdominal pain, occurring sometimes without any known reason, at other times after meals and especially after going to stool. So severe was the pain that morphia or chloral was required. She was thin and so weak that a large portion of each day was spent in bed. An examination of the lungs, heart, stomach, and sexual organs, found nothing abnormal. The only thing found was a small mass as large as a thumb distinctly to be felt in the ileocæcal region. The cæcum seemed to be distended and filled with gas. Dr. Ewald decided that the lady must be suffering either from a chronic appendicitis or hysteria. Professor Sonnenburg was called in consultation and the appendix removed. The muscular and mucous coats were found thickened, and the canal contained bloody detritus and two concretions. There had been no recurrence of any of the symptoms five years later. Other somewhat similar cases were related.

Masked appendicitis can only be diagnosed by exclusion. Before coming to a decision all other possible conditions, such as diseases of

the gall-bladder, stomach, uterus, Fallopian tubes, ovaries, kidneys, intestines, and mesenteric glands; must be thought of, as well as chronic peritonitis. It is unquestionable that in certain cases, the removal of the appendix has been followed by relief of symptoms. I have operated on several such, which I intend to report in the near future.

The Treatment of Warts.

PURDON. "The Treatment of Warts."—*Dublin Journal of Medical Science, August, 1899.*

Dr. Purdon says that an indiarubber finger-stall, similar to a glove finger, worn night and day sufficiently to cause gentle pressure on the warts will cause them to disappear in six weeks. This is a treatment easily applied to the fingers or toes. The warts are kept constantly in a moist and macerated condition and finally disappear without leaving any mark.

Lesions of the Lateral Sinus in Injuries of the Skull.

GANGOLPHE AND PIERY. "Contribution a L'étude des Lesions du Sinus Latéral dans les Traumatismes du Crane."—*Revue de Chirurgie, September 10th, 1899.*

After discussing these injuries and reporting cases, Gangolphe and Piery arrive at the following conclusions:—

(1) The traumatic lesions of the lateral sinus are the result of a double mechanism; a tearing by a spicule of bone or a foreign body, and a rupture due to separation of the bones at the seat of fracture.

(2) These lesions of the lateral sinus lead to a hæmorrhage, which collects and forms a clot between the dura mater and the bone. The extent of the clot depends upon the extent of separation of the dura from the bone. Frequently there co-exists an intra-arachnoid, semi-fluid collection of blood above the lesion in the wall of the sinus.

(3) The symptoms of these lesions are very variable. It is difficult to define exactly the symptoms of pressure in this region, as they sometimes resemble perfectly those of cerebral hæmorrhage.

(4) It is not only often impossible to diagnose a lesion of the lateral sinus, but even of an intracranial hæmorrhage.

(5) In the presence of these diagnostic difficulties, the surgeon should act as though assured of an intracranial hæmorrhage of traumatic origin.

(6) The proper course to pursue in the presence of a wound of the lateral sinus, certain or presumed, is as follows:—

a. If the lateral sinus is exposed the wound should be tamponed with iodoform gauze, after carefully removing all bony fragments and foreign bodies.

b. If the sinus has not been exposed by the injury, the trephine should be applied over the seat of traumatism. If the surgeon allows himself to be guided by the symptoms of cerebral localization he may trephine at a spot far removed from a blood clot.

G. E. Armstrong.

The Treatment of Hernia in Children.

JOHN LANGTON, F.R.C.S., and others. "A Discussion on the Treatment of Hernia in Children."—*British Med. Jour.*, August 19, 1899.

In opening the discussion upon the treatment of hernia in children, Mr. Langton, after referring briefly to the frequency, diagnosis and complications of the condition, drew attention to the fact that chronic intestinal irritation, leading as it does to distention of the bowels, is a frequent source of rupture inasmuch as it causes increased pressure by the abdominal muscles. Hence a suitable dietary is of essential importance as a preventive measure. Phimosi he does not consider an important causative factor, basing his opinion in part on the fact that hernia is exceedingly common amongst the Jews. The operation of circumcision and the subsequent dressings are attended with pain which the child is apt to resent. The straining of the abdominal walls under such circumstances may produce the protrusion of bowel which the operation is intended to remedy, or avoid.

Muscular exercises are an excellent preventive measure and should be tried in children with a strong family tendency to hernia.

The vast majority of cases will yield to treatment by truss if the appliance be properly adjusted and fitted. Mr. Langton does not consider that the skein of wool truss meets the indications; it is frequently found that it is impossible to keep the knot in position and that it loses rapidly in elasticity and resiliency. He much prefers a properly fitting spring truss covered with soft india rubber, to be worn day and night. The length of time necessary for the wearing of the truss to ensure a cure will vary according to the age at which the protrusion shows itself. If the hernia takes place before the age of one year the truss must be worn until the age of four years; if the truss is not worn before three or four years it must be continued until ten years; if not applied before seven years it must be worn until puberty. Patients treated by this method are cured in large numbers; the greater the delay in the application of the truss, the less the probability of success.

Mr. Langton is adverse to operative treatment in young children unless absolutely called for. The anatomical condition of the part does not lend itself to such measures. If possible, operation should be deferred until the child is five or six years of age.

Mr. Frederick Eve agreed with Mr. Langton's treatment, but would operate on all cases complicated with undescended testis. In the case of people who are not intelligent enough to carry out the truss treatment satisfactorily, he would recommend operation. Recurrence was present in only five per cent. of the cases which he had operated on in early life.

Mr. Robert Campbell was strongly of the opinion that phimosis played a considerable part in the production of hernia. He also thought well of the wool truss, which, when properly applied, was satisfactory. If after two years of treatment with a truss the patient was not cured he would advise operation.

Mr. Edmund Owen was of opinion that phimosis bears a very important part in the production of hernia. He has known on more than one occasion of hernia ceasing to descend when a tight prepuce had been removed. Hernia should be regarded as a symptom of there being something wrong and not as a pathological entity. If the surgeon looked out for and treated the cause, the radical operation was often found unnecessary. In operating on these cases he considered that undeveloped and undescended testes should be removed.

E. J. Semple.

Obstetrics.

UNDER THE CHARGE OF WILLIAM GARDNER.

The Etiology and Treatment of Eclampsia.

DAVIS, EDWARD P. "The Etiology of Eclampsia and the Diagnosis of Impending Eclampsia."—*American Gyn. and Obstet. Jour.*, July, 1899.

NORRIS, RICHARD C. "The Preventive Treatment of Puerperal Eclampsia."—*Ibid.*

Professor Davis in his paper briefly reviews the various theories which have been advanced to explain the occurrence of eclampsia. He states that at present "the bulk of evidence is distinctly in favour of the belief that a profound toxæmia originating in the bodies of mothers and fœtuses causes eclampsia." As yet the exact agent has not been isolated, though the experiments of Merletti show that ammonium carbonate in solution causes eclampsia and death in animals. The lesions found post-mortem by Merletti were granular degeneration of the cell protoplasm of the liver, with alterations surrounding the central vein, granulation of the epithelium of the convoluted tubules of the kidney, and hæmorrhages in the placenta.

Winkler's study of the blood serum in eclamptics proved that the toxins of eclampsia cause convulsions, because they are absent from the urine and excretions, and present in the blood serum and in the organs of the body. Thus the urine during eclampsia is found not to be toxic because the toxins are retained in the patient's body. As it is practically impossible to experimentally examine the blood serum of patients, we must be content with the examination of the urine to diagnose impending eclampsia. The presence of serum albumin in the urine is not an indication, as it is frequently present in normal pregnancy; it is only when the amount is excessive and when it is accompanied by kidney debris that it is a serious symptom. If the urea in the urine is diminished it indicates that incomplete urea (in the form of toxins) is being retained. Davis emphasizes the importance of this point while drawing attention to the fact that the pregnant woman rarely excretes a normal amount of urea. He considers that when urea is present in the urine in quantities of less than 15 per cent., treatment should be inaugurated.

As regards the examination of the urine, he considers that the amount, the specific gravity, the percentage of urea, the presence and character

of sediment, are all points of importance. Where any or all of these are deficient, attention should be directed to the functions of the liver and intestine.

Dr. Norris points out that the only rational and efficacious treatment of eclampsia consists in prophylaxis. He considers that too much importance cannot be laid upon liver insufficiency, the common symptom of which is vomiting associated with dyspepsia and constipation. He suggests by way of prophylaxis a readily oxidized and non-constipating diet, moderate out-door exercise, frequent bathing, avoidance of compression of the waist by tight bands or corsets, and the selection of proper underwear. He agrees with Professor Davis as regards the examination of the urine and draws attention to glycosuria as a certain sign of hepatic insufficiency. He considers that it is important to establish the acute or chronic nature of the toxæmia, in that cases in which there is a sudden diminution in the waste products accompanied by the appearance of alarming constitutional symptoms, are more amenable to treatment, than are those where the toxæmia is slow in appearing and gradually increases. "When the specific gravity of the urine is low, the quantity steadily diminishing, the percentage of urea persistingly decreasing with or without the presence of albumin, the case is really alarming and indicates a chronic process which may lead to the gravest dangers."

In mild cases, he considers calomel the most satisfactory laxative, as it is a valuable intestinal antiseptic besides acting upon the liver. In these cases it is sufficient to modify the diet by eliminating the nitrogenous foods and directing an abundance of milk and water.

In grave cases where the urea is below one per cent., the specific gravity below 1010, and the quantity of the urine reduced to 800 or 1000 grams, he considers that the most active treatment is demanded. Rest in bed, an exclusive milk diet, and lavage of the large bowel daily with at least two gallons of normal salt solution, are the measures suggested. Norris considers that the hot air bath or hot packs should be reserved for cases so alarming as to require the termination of pregnancy. As a purgative in these grave cases he places the most confidence in Epsom or Rochelle salts. Instead of administering diuretics he prefers "an abundance of pure drinking water" and rectal injections of salt solution, these leading to elimination by the skin and bowels, thus saving the already over-taxed kidneys.

With regard to the termination of pregnancy, he considers that this question cannot always be decided by an examination of the urine. If the toxæmia has developed slowly and steadily and the constitutional signs and urinalysis keep pace with one another in giving evidence of the accumulation of toxins; "if in spite of treatment the patient's con-

dition steadily gets worse or after showing improvement manifests at intervals sudden relapses, the only safe course is to terminate the pregnancy."

Fifty Cases of Eclampsia.

BOYER, JOSEF. "Fünfzig Falle von Eclampsia."—*Monats. für Geb. und Gyn., July, 1899.*

In a series of 4250 births Boyer observed 50 cases of eclampsia, a proportion of one in every 85 cases. In every case albumin was present in the urine. The eclampsia occurred in 10 cases ante-partum, of which 6 died; in labour, in 29 cases, with a mortality of 6; in 11 cases post-partum, all of which recovered. Of the 56 children, 13 were born dead, 12 died on the first day, and 31 left the hospital alive.

Boyer seems to place the greatest reliance on morphia as a therapeutic agent. He claims that it prevents the onset of convulsions; its effect was most apparent in the post-partum cases, for in none of these did convulsions recur after its employment. He agrees with Veit in recommending large doses of morphia, as in ordinary doses no effect is obtained. In many of his cases he noted morphinism in the children when born, paralysis of the muscles of respiration and slow action of the heart, which were overcome by persistent efforts at artificial respiration. The effects of morphia on the children were no more marked than those produced by chloroform where surgical anaesthesia had been prolonged in order to permit of an obstetric operation to effect delivery.

Chloral administered by enema, while a valuable drug, is too uncertain in its effects on account of the frequency with which the whole or part of the enema is expelled. After a few trials it was abandoned. Diaphoresis obtained by means of hot baths followed by hot packs, Boyer considers, gives the most satisfactory results. The convulsions diminished in frequency and intensity, cyanosis disappeared, and frequently the patient regained consciousness. Labour was accelerated, as the treatment seemed to favour dilatation of the os and increase the effectiveness of the uterine contractions so that spontaneous delivery resulted, or a least an early recourse to forceps was rendered possible.

Venesection was resorted to in 7 cases, of which 4 died. The mistake of waiting until all other measures failed before employing it accounts for the number of deaths. In two cases, where early venesection was done and salt solution infused, the most brilliant results were obtained. Bleeding, Boyer believes permits the withdrawal of the toxins, and the salt solution introduced dilutes the retained toxins and blood.

Of the 39 cases where the convulsions occurred either before or during labour, 10 delivered spontaneously with only one death. In three cases

Cæsarean section was performed in the moribund state with the hope of saving the children but without success. In the remaining 26 cases operative measures were necessary to effect delivery, resulting in a mortality of 8 mothers. Thus, Boyer notes that forcible delivery distinctly increases the maternal mortality as contrasted with cases where the delivery is left to nature. On the other hand, it was apparent that emptying the uterus had a beneficial effect on the intensity and frequency of the convulsions. In 21 cases they did not recur, in 13 cases their recurrence was diminished, and in 2 cases the convulsions were not effected by delivery. Forceps were applied in 11 cases with three maternal deaths; in all three convulsions persisted after delivery. In 10 cases deep incisions of the cervix were resorted to with four deaths; eight of these were delivered by forceps and two by turning.

Unrotated Occipito-Posterior Positions.

FRY, HENRY D. "The Surgical Treatment of Unrotated Occipito-Posterior Positions."—*Amer. Jour. of Obstet., August, 1899.*

The author first shows the influence over labour of favourable and unfavourable positions of the vertex. With regard to the operative treatment of persistent occipito-posterior cases, he prefers to avoid "undue force" in the application of the forceps by substituting other methods.

"Forcible extraction," he defines as extraction by means of forceps with the employment of prolonged and violent efforts. The blades as usually applied laterally, grasp the head obliquely and so absolutely prevent rotation. The results are a difficult operation and a dead child. In suitable cases he recommends version under anæsthesia after pushing the head up out of the pelvis, but indicates the danger of sepsis, shock, and uterine rupture in this procedure. Were forceps applied to the child's head so as to favour rotation during extraction, and version, are impossible, the choice lies between craniotomy and symphysiotomy, depending on whether the child be dead or alive. Before deciding which operation to select, the hand should be introduced into the uterus and the presence or absence of pulsations in the funis determined. Symphysiotomy he considers a safe substitute for difficult forceps cases as it offers better chances of saving the child while adding but little risk to the mother.

Interstitial Pregnancy.

SMITH, CHARLES F. "Interstitial Pregnancy, with Report of a Case."—*Med. Record, New York, Sept. 9, 1899.*

The patient was a primipara, twenty-four years of age, whose previ-

ous health had always been good. She had missed two periods when after a hard day's work she was seized with severe pains in the abdomen and faintness while walking in the street. After reaching her home she had several loose stools which gave her severe pain. The abdomen was found to be distended, tympanitic, and tender on pressure. Per vaginam, the uterus was found enlarged, the cervix soft but not dilated, and the tubes and ovaries were easily palpated. The pulse, respirations, and temperature were normal. Sedatives were administered. Early the following morning the patient gave a scream and fainted, but shortly regained consciousness. After several such attacks she was seized with violent convulsions and died before the physicians could reach her.

The abdomen on being opened was found to contain three quarts of fluid blood. In the cul-de-sac were a quantity of clots. Extensive laceration of the uterus was found just to the right of the median line and on the posterior aspect. The tubes, ovaries, and ligaments were perfectly normal, with the exception that the right tube and ovary were drawn a little higher by the development of the uterus being a little higher on that side. There was no indication of inflammation. The whole fundus showed degeneration and thickening of the wall, a portion being very soft. A ruptured amniotic sac was found containing chorionic villi and enclosed with degenerated uterine tissue which had no connection with the uterine cavity. The remaining portions of the uterine walls were firm and appeared normal. The decidua had formed in the uterine cavity and the cervix contained a mucus plug.

Sections of the uterus were found to present extensive parenchymatous and fatty degeneration. The area nearest the rupture was almost wholly fatty and gradually blended into parenchymatous, and thence into normal tissue, at some distance from the laceration.

D. J. Evans.

Canadian Medical Literature.

UNDER THE CHARGE OF KENNETH CAMERON.

[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. Such reprints should preferably be addressed to Dr. Kenneth Cameron; 903 Dorchester street, Montreal.]

The Canadian Practitioner and Review.

August, 1899.

1. Preliminary Communication on the Spread of Tuberculosis, WILLIAM GOLDIE.
2. Notes on Treatment of Eczema, GRAHAM CHAMBERS.

September, 1899.

3. The Home Treatment and Prevention of Pulmonary Tuberculosis, T. F. McMAHON.
4. The Role of Wound Infection as a Factor in the Causation of Insanity, A. T. HOBBS.
5. Electrolysis and Cataphoresis in the Treatment of Inoperable and Recurrent Malignant Disease, R. N. FRASER.
6. Medicine in Göttingen, THOMAS McCRAE.

1. GOLDIE says that for a long time one was at a loss to explain satisfactorily why tuberculosis is not even more common than it is. With dust-infection as a main cause of its spread, it had seemed a marvel that any one could escape from the sputa-laden dust of our streets. From the investigations of Cornet, Flügge, and others, it has been shown that in the case of the guinea-pig infection takes place more readily from cough-spray than from sputa-dust. To test the correctness of these results a series of experiments were carried on in the Toronto General Hospital. Patients with clinical history of progressive chronic pulmonary tuberculosis were selected and supplied with carefully cleaned glass plates, which they held six inches from the mouth during the act of coughing. It was demonstrated that the bacilli were thrown out in the spray; for all patients in whose sputa the bacillus was found gave positive plates at *one time or another*; so constant was this that, in one, repeated negative plates led to the examination of the sputa for bacilli, with negative results, even when the centrifuge was used. Further experiments showed that during a single act of coughing a patient may throw out bacteria-laden spray, which will find access to all parts of an ordinary room. Not only is this spray thrown out while coughing, but also in the act of laughing, sneezing, talking, and deep breathing. These

latter facts are not of great interest as regards tuberculosis, for the specific bacteria rarely occurs in any number in the mouth, but they are of importance in connection with other infectious diseases, and with the otherwise unaccountable infection of operation wounds.

4. HOBBS says that we are beginning to estimate the potency of micro-organisms and their products in the frequent production, directly or indirectly, of many cases of mental alienation. The insanities following infection are : (1) Erysipelatous insanities. A study of eight cases of insanity traced to the infection of the streptococcus of Fehleisen shows that the insanity may occur during the attack of erysipelas, or may follow the subsidence of the infection. The cases were all of the maniacal type, ranging from mild, paroxysmal mania to acute violent mania, and which, in some cases, merged into a condition of chronic mania. (2) The septic insanities of the puerperium. These embrace a large field, and may for convenience be described under three heads : (a) Puerperal insanity, with little or no local lesion, caused by septic infection. The insanities from this origin occur probably from absorption into the circulation of the toxins of an infected clot, either through the placental site or some tear or abrasion, or by the absorption of the ptomaines of the saprophytic germ, which find lodgement in the detritus of a puerperal uterus. The majority of these cases, being of short duration, recover at their homes on the elimination of the poison. They are usually of a mild confusional type or a form of muttering delirium. (b) Puerperal insanities complicated by gross local lesions, the result of septic infection. The insanities of this class are usually of a more serious character than those of the former. The local inflammatory lesion acts as a focus, keeping up the prior intoxication by distributing a continued supply of the virus to the already poisoned circulation of the patient, or by reflex irritation. The majority of these patients do not recover the normal mental condition under ordinary systemic treatment. (c) Post-puerperal insanity, induced by pelvic disease, the latter being the result of septic infection.

5. FRASER relates the case of a man, aged 40, who had the right testicle removed for what proved to be cystic sarcoma. The wound healed, but two months later, a tumour was removed from the cord, which was pronounced to be a round-celled sarcoma. The disease returned, and Coley's method of injecting a mixture of streptococcus and prodigious toxins was tried, but as the tumour soon began to fungate, the treatment was stopped, and as much of the growth as possible removed. As the case seemed hopeless, the plan of treatment suggested by Dr. J. McFadden Gaston, in the *Annals of Surgery*, for August, 1897, was commenced. This consisted in the use of cataphoresis with the sponge electrodes and Donovan's solution, with the internal use of 8 minims of the

same solution, three times a day. This was persevered in, combined with the removal of portions of the diseased tissue with the knife. At the time the report was made the man was in excellent health, the cicatrices were all perfectly normal, and there was not the slightest sign of a recurrence, though almost eighteen months had elapsed. Portions of the fifth, sixth and seventh recurrences were examined and pronounced by Dr. Cullen, of Johns Hopkins Hospital, to be adeno-carcinoma.

The Canadian Journal of Medicine and Surgery.

August, 1899.

1. Restoration of the Lower Lip After Its Entire Removal for Cancer, FREDERICK WINNETT.
2. Bacteriological Work in the Laboratory, M. I. BEEMAN.

September, 1899.

3. The Present Attitude of the Medical Profession Towards Illegal Practitioners. THOMAS J. HILLIS.
4. The Plea of Insanity in Medical Jurisprudence. JAMES RUSSELL.
5. Some Opinions on "No Evidence in America of Pre-Columbian Leprosy." ALBERT ASHMEAD.

1. WINNETT describes a modification of the method of Regnier for the removal of the entire lower lip. The directions given by Regnier for estimating the width of the bridge of skin, one centimeter wider than the part removed, would often bring the cicatrix visible on the chin. The average width of the skin from the margin of the lip to the border of the chin is two inches. It is suggested that the bridge be always two inches wide in order to cover the whole chin and bring the cicatrix below it. In the second place, leaving the raw surface to granulate is most objectionable, not only on account of prolonged convalescence and leaving a scar, but also on account of ultimate contraction drawing the lip down. Grafting would likely fail owing to the discharges, and in a male would leave a bald spot. The suggested plan utilizes the loose skin of the neck, leaves no part uncovered and hastens recovery.

4. RUSSELL has long thought that a medical commission composed of men of high standing and long experience in their profession, should be appointed by the Crown to examine all prisoners charged with capital crime where the plea of insanity is set up. He is also of the opinion that when insanity is alleged, a sufficient length of time should elapse between the commission of the crime and the trial, to enable the examiners at intervals to study the nature and progress of the case and thereby reach a conclusion beyond the region of doubt. This would abolish the

too often unseemly confliction of medical evidence on opposite sides of the case, each making admissions and statements under the tortuous cross-examination of clever counsel which they never intend to make, and yet so prejudicing the case for or against the prisoner as to make the issue one of life or death. It would also abolish the tendency of medical witnesses to unduly identify themselves with the side which calls them, and perhaps unconsciously to allow prejudice to sway conviction. It would be a protection to the poor man who has neither money nor friends to engage clever counsel and able medical testimony in his behalf. It would also satisfy the public mind, which is ever sensitive in regard to the righteous punishment of crime, that justice has been done and the law vindicated. There is a growing feeling in the public mind that too many guilty criminals go unpunished by the success with which the insanity plea is urged in court. Any measure that would tend to disarm this opinion and increase public confidence in the justice and integrity of our criminal courts should command our wisest and best consideration.

The Canada Lancet.

August, 1899.

1. Some of Our Resources in the Diagnosis, Classification and Treatment of Cystitis. E. C. DUDLEY.

September, 1899.

2. Proceedings of the Canadian Medical Association.

Dominion Medical Monthly.

August, 1899.

1. Treatment of Appendicitis. T. K. HOLMES.

September, 1899.

2. Proceedings of the Canadian Medical Association.

1. HOLMES takes a conservative stand respecting operative procedure, and believes that by proper medical means, such as purgation, warm applications and rest, better results are obtained than by operating early. He operates in the interval after the urgency of the disease has abated, and in recurrent cases between the attacks. In the fulminant forms he advocates early operation in order to save life, and even then the mortality would be high. Several interesting cases are reported in detail.

The Maritime Medical News.

August, 1899.

1. The Progress of Medicine and Surgery During the Last Third of the Nineteenth Century. A. B. ATHERTON.

September, 1899.

2. Sanitary Progress. A. P. REID.
3. Floating Kidney Simulating Disease of the Genital Organs in Women. A. LAPHORN SMITH.
4. A Case of Sporadic Cretinism. W. G. PUTNAM.
5. A Case of Sporadic Cretinism. G. G. CAMPBELL.
6. Graves' Disease, with the Report of the Successful Treatment of a Case. R. COX.

Canada Medical Record.

August, 1899.

1. Excision of the Lower Half of the Rectum for Cancer. A. LAPHORN SMITH.

September, 1899.

2. Floating Kidney Simulating Disease of the Genital Organs in Women. A. LAPHORN SMITH.

La Clinique.

Août, 1899.

1. Description du Lobule Prostatique. A. GUEPIN.

Septembre, 1899.

2. Dermatoses Parasitaires. PAUL E. PREVOST.

La Revue Médicale.

2 Août, 1899.

1. Les Irrigations Vaginales et les Hautes Injections Rectales en Gynécologie. M. T. BRENNAN.

9 Août, 1899.

2. Un Cas de Fièvre Typhoïde Traité par la Méthode Antiseptique de Woodbridge. A. SABOURIN.

16 Août, 1899.

3. La Caféine dans les Epanchements Séro-Fébrineux de la Cavité Pleurale. J. C. S. GAUTHIER.

20 Août, 1899.

4. L'École Médicale Belge. Dr. JEHIN-PRUME.

20 Septembre, 1899.

5. Les Maladies Infectieuses. L'Examen Bacteriologique dans le Diagnostic des Maladies Infectieuses.

Le Bulletin Medicales Quebec.

1. Traitement du Placenta Prævia à Insertion Centrale. A. SIMARD, JR.
2. Quelques Rapports de Cas Personnelles Traités avec Succès par l'Electricité. CHAS. VERGE.

This is the first number of a new Journal to be published monthly, under the immediate direction of the Medical Society of Quebec and the professors of the Faculty of Medicine of Laval University.

Reviews and Notices of Books.

VACCINATION : ITS NATURAL HISTORY AND PATHOLOGY. By S. MONCKTON COPEMAN, M.A., M.D., F.R.C.P., Lond. 1899. Macmillan & Co., Ltd., London.

This volume, which is a reprint in book form of the Milroy Lectures for 1898, is a thorough and comprehensive account of the present state of our knowledge regarding vaccinia and vaccination by one who has made large personal contributions to the subject in recent years. The history of small-pox, cow-pox and vaccination are dealt with in the introductory chapter. In chapters ii. and iii. the relationship of variola and vaccinia is discussed and a history is given of the various lymph stocks. Chapters iv. and v. deal with the histology and bacteriology of the vaccine vesicle ; chapter vi. treats of variola and vaccinia in the monkey ; and chapter vii. of experiments in the production of an anti-toxin. Chapters viii. and ix. are devoted to animal vaccination and an *exposé* of the advantages of glycerinated lymph. In the appendix there is a full description of the methods adopted in the various vaccine-stations for the preparation of this product. Dr. Copeman's book, in addition to being of interest to the general practitioner, will be especially useful to public vaccinators and those engaged in the manufacture of pure vaccine.

H. A. L.

PRACTICAL DIAGNOSIS. By HOBART AMORY HARE, M.D., B.Sc. Third Edition, 1898. Lea Brothers & Co., Philadelphia and New York.

The issue of a third edition of Dr. Hare's excellent work within two years of its first appearance is an indication of its practical usefulness. To those who are not already familiar with the volume, it may be explained that the scheme of the work is somewhat different from that usually followed in text-books dealing with this subject. The work is divided into two parts, the first dealing with "the manifestations of disease in organs," the second with "the manifestation of disease by symptoms." This conforms with the method of bed-side examination—the information obtained from physical examination and that obtained from a study of the patient's symptoms.

The third edition has been brought up to date and contains many new illustrations. It is a work that may be strongly recommended to students and practitioners of medicine.

H. A. L.

NURSING : ITS PRINCIPLES AND PRACTICE. By ISABEL ADAMS HAMPTON, Graduate of the New York Training School for Nurses, etc., etc. Second Edition, Revised and Enlarged. J. A. Carveth & Co., Toronto, 1899.

This excellent book, which has been brought up to date by its author

in the addition of newer features of nursing work, is probably unexcelled by any other volume on the same subject. The author's experience is the best guarantee for the value of the work,—indeed, one is apt to regard it as too detailed and thus too advanced in some respects for the junior nurse, who scarcely knows how in a three-years' course to select her reading in a complete volume of the kind. The course, as laid out by Miss Hampton for three years' training, would do honour to many medical schools,—indeed, is superior to not a few that we know of.

C. F. M.

AFFECTIONS CHIRURGICAL, DU TRONC. Statistique et Observations par Le Dr. POLAILLON, Chirurgien de l'Hôtel-Dieu ; Professor agrégé de médecine à la Faculté de Paris ; Chargé de cours de Clinique annexe ; Membre de l'Académie de Médecine. Paris Libraire, Octave Doin, Editeur, 1898.

The first volume deals with surgical affections of the trunk generally, while the second volume is devoted to the consideration of surgical conditions of the ano-rectal region and diseases of the genito-urinary organs in both sexes. The volumes are exceedingly valuable as books of reference. They set forth the work, results, and methods of treatment of a man who for years has had a large field for clinical observation. It is well named "statistics and observations," and the latter, briefly yet clearly expressed, are as valuable as the former.

G. B. A.

A TREATISE ON UNRIPE CATARACT. By WM. MCKEOWN, M.D., Lecturer on Ophthalmology, Queen's College, Belfast. H. K. Lewis, London. 1899.

The primary object of this treatise, as stated by the author at the beginning of chapter i., is to "contribute from personal experience to a more precise clinical knowledge of the various forms of cataract, and especially their behaviour under operation ; and to show how various forms and stages of cataract, hitherto not usually thought suitable for surgical treatment, may be successfully operated on." The work, however, is principally a plea for an earlier operation upon cases of cataract, which have not yet reached the somewhat undefined stage of "ripeness" or "maturity," and by so doing save the patients months of waiting and absence from work. Modern ophthalmologists, however, are generally much less conservative on this point, though the probability of a large amount of lens matter remaining in the anterior chamber often deters the surgeon from operating early. In order to overcome this difficulty the author recommends the introduction of a sterilized saline solution between the capsule and cortex of the lens in order to further break down the most superficial fibres and separate the capsule from the body of the lens and, after laceration of the capsule and expression of the lens, flushing of the anterior chamber with the same solution in order to remove whatever soft matter may be left behind. It may be necessary to employ only one, or both procedures, according to the nature of the cataract. To carry out these methods the author has devised a special irrigator, irrigating needles and nozzles, and he gives

in detail the points which it is necessary to observe in order to obtain the best results. This is the main feature of the work. The chapters devoted to "classification, examination of patient, preparation for operation," etc., contain nothing which is not more clearly and concisely stated in most of the modern text-books. While the volume contains some useful hints, we think the author might equally well have pointed out and presented his views in the form of a pamphlet.

F. B.

THE JOHNS HOPKINS HOSPITAL REPORTS. Volume vii. Baltimore, The Johns Hopkins Press, 1899.

This volume is devoted to the consideration of 459 cases of hernia operated on in the Johns Hopkins Hospital from June, 1889, to January, 1899, and to the special consideration of 268 cases operated on by the Halsted method, and the transplantation of the rectus muscle in certain cases of inguinal hernia in which the conjoined tendon was found obliterated. The whole has been carefully arranged by Dr. Bloodgood.

The volume is most interesting as showing the work done in the Johns Hopkins Hospital. It is worthy of note that Halsted has discontinued the excision of a portion of the vein as a routine practice. The idea was to lessen the danger of recurrence by lessening the size of the cord, and the practice was discontinued because of the marked swelling of the testicle that followed.

A very interesting history is given of the use of brass, copper, and silver wire and foil. The use of rubber gloves by both operator and assistants has lessened the number of suppurations. There is also included a description of the method employed to utilize the transplanted rectus muscle in certain cases of hernia in which the palpable portion of the conjoined tendon was found obliterated. This use of the rectus was suggested twenty-five years ago by Dr. Fuller, at that time demonstrator of anatomy in McGill University.

The 459 cases included 405 cases of inguinal, 24 cases of umbilical and ventral, and 30 cases of femoral hernia. There were 395 cases of non-strangulated hernia with two deaths, and 48 cases of strangulated hernia, in which the contents of the sac were in good condition, with 4 deaths. The cases of strangulated hernia, in which the contents of the sac consisted of gangrenous intestine or in which general peritonitis was present before operation, were 16 in number, with 15 deaths.

The cases are nearly all given in detail. The care and labour expended in following up each patient and determining his condition must have been enormous. The different steps of the different operations are most clearly and beautifully illustrated. Altogether, the volume is of great interest and a most valuable contribution to the subject of hernia and its radical cure.

CLINICAL REPORT OF THE ROTUNDA HOSPITALS. November 1st, 1896 to October 1st, 1897. By R. DANCER PUREFOY, M.D., Master. John Falconer, Dublin, 1898.

The report of the work done in this institution for the twelve months ending November 1st, 1897, forms a very interesting little volume. It

is divided into two sections, viz., one for obstetrics and one for diseases of women. During the above period 1825 patients were admitted into the obstetrical department, of whom 1386 were delivered at full time and 62 aborted. Out of these there were two deaths, one due to rupture of the uterus and one to septic endometritis. There were 4655 first visits made by patients to the out-patient dispensary connected with the department, 2007 of these being confined at their own homes, with a mortality of five, one each from pneumonia, placenta prævia, inversion uteri, pulmonary embolism and cardiac disease. The cases treated at both the indoor and outdoor departments are conveniently tabulated.

The gynæcological report begins with a short history of this department and a description of the operating room, wards, etc., follows. The leading features about the operating theatres is that in one of them the part where the actual operative work is done is separated from the students' benches by a glass screen, thus preventing all danger of contamination from the spectators.

The patients admitted to the gynæcological wards (of which there are five) numbered 528, of these 468 received treatment. Nine deaths occurred subsequent to the following operations, viz., four after pan-hysterectomies (eleven in number, two vaginal for cancer, nine abdominal for uterine tumours), one after ovariectomy, one after double salpingo-cophorectomy, one after exploratory laparotomy in a case of acute general peritonitis, one after opening an abscess of the abdominal wall, and one after curetting and injecting iodine for endometritis.

In addition to the tables of diseases and operations, short histories of the more interesting cases are related, the rarest case reported being one of a pus tube with the pedicle twisted three times. A few excellent and interesting cuts and plates are scattered throughout the work.

F. A. L. L.

AMERICAN POCKET MEDICAL DICTIONARY. Edited by W. A. NEWMAN DORLAND, A.M., M.D., Assistant Obstetrician to the Hospital of the University of Philadelphia, Fellow of the American Academy of Medicine, etc., containing the pronunciation and definition of over 26,000 of the terms used in medicine and the kindred sciences, along with over 60 extensive tables. Second Edition, Revised. Philadelphia, W. B. Saunders, 1899.

That a second edition has been necessary within six months is the best evidence of the value of this little work, which we reviewed in November, 1898. The preface states that the only changes are the introduction of a few new words and the correction of some typographical errors. The book is bound in limp leather with gilt edges.

HISTOLOGY, NORMAL AND MORBID. By EDWARD R. DUNHAM, Ph.B., M.D. New York & Philadelphia, Lea Bros. & Co., 1898.

We are in not a little difficulty to know how to review this work, for so far as it goes, it is sharp and precise and excellent both in the way in which it is written and in the general appearance of the work. Our difficulty lies in recommending the use of the same. Where normal and morbid histology are taught by the same individual and in direct asso-

ciation the course given is admirable, but to this class alone is the work to be recommended. Where the two courses are taught, as is most usual, by separate teachers, then the amount of morbid histology at least is insufficient for general purposes. The work, in short, bears evidence of having been primarily prepared in connection with Dr. Dunham's own classes, and those classes are to be congratulated upon the thorough system of teaching that this little manual indicates.

J. G. A.

A MANUAL OF SURGICAL TREATMENT. By W. WATSON CHEYNE, M.B., F.R.C.S., F.R.S., Professor of Surgery in King's College, London; Surgeon to King's College Hospital, and to the Children's Hospital, Paddington Green, etc.; and F. F. BURGHARD, M.D. and M.S., Lond., F.R.C.S., Teacher of Practical Surgery in King's College, London; Surgeon to King's College Hospital and the Children's Hospital, Paddington Green, etc. In six volumes. Vol. I. The Treatment of General Surgical Diseases, including Inflammation, Suppuration, Ulceration, Gangrene, Wounds and their Complications, Infective Diseases and Tumours, The Administration of Anæsthetics, by Dr. Silk. Lea Brothers & Co. Philadelphia and New York, 1899.

The names of the authors should be a sufficient guarantee of the scientific value and practical character of these volumes. The size of the book is a convenient one, the first volume containing about 275 pages. The type is clear, the illustrations are numerous, distinct, and helpful to the reader. The work will probably be deservedly popular.

Treatment is really the end and aim of surgery, and here is a work devoted to the care, hygienics, dietetics, and treatment of patients suffering from pathological conditions known as surgical. Mr. Watson Cheyne is eminently qualified to speak on his chosen subject with authority.

In the first volume, inflammation, ulceration, and gangrene receive attention, and the pathology and treatment are made clear and interesting. The same may be said of the chapters on burns, tetanus, and erysipelas. The article on anæsthetics by Dr. Silk is broad and full.

One criticism might be made, possibly, on the frequency with which strong solutions of carbolic acid are recommended for application to the cutaneous surface. It is just possible that the continuous application of a 1 to 20 solution of carbolic acid to the skin continued for some hours might in some patients be followed by undesirable and unpleasant after effects.

Again, in the treatment, one might expect some statement regarding the efficacy and advisability of using intra-muscular injections of mercury itself in emulsion, as recommended by some army medical officers. Also, on the subject of tetanus, if one is to be guided by some cases recently reported, the quantity of antitetanic serum advised is indefinite and, so far as indicated, too small in amount. Neither is any mention made of intracerebral instillation of the serum as recently practised, and apparently with benefit, at Netley.

The volume as a whole, however, is a most clear and lucid exposition of the recognised methods of treating the subjects discussed.

G. E. A.

THE MINERAL WATERS OF THE UNITED STATES AND THEIR THERAPEUTIC USES. By JAMES K. CROOK, A.M., M.D., Adjunct Professor of Clinical Medicine and Physical Diagnosis at the New York Post-Graduate Medical School, etc. New York and Philadelphia, Lea Brothers & Co., 1899.

This work is divided into two parts. The first, in ten chapters, discusses the general subject of mineral waters and their therapeutic uses. The second part deals with the mineral springs and wells of the United States and with the topographical and climatic features of each State and Territory. An appendix on Potable Waters occupies about nine pages.

The need of such a work as this so ably prepared by Dr. Crook, has been long felt, while its value must be greatly appreciated by all interested in this subject and especially by the physician who has patients in need of a sojourn at some spa or health resort. Dr. Crook has drawn from every available source. In addition to personal observations he has laid those of others under tribute to this work and each source has been freely acknowledged.

That which makes this work especially valuable is the report upon the chemical analysis of the waters of all the important springs and the climate of the localities. "More than two hundred mineral spring localities are for the first time described in a book of this kind."

The work is contained in a neat octavo volume of 588 pages and is a very important addition to the literature on mineral waters and climatology.

W. F. H.

THE HYGIENE OF THE MOUTH: A Guide to the Prevention and Control of Dental Diseases. By R. DENISON PEDLEY, F.R.C.S. Ed., L.D.S. Eng. Dental Surgeon to the Evelina Hospital for Sick Children, Southwark, London. With numerous illustrations. London, J. P. Segg & Co.; Philadelphia, S. S. White Dental Mfg. Co., 1899.

This is a small octavo volume of about 100 pages and fills a long-felt want both as regards the medical profession and the laity. Too little attention has always been paid to the care of children's teeth, especially the milk teeth. Even at the present day one is often, when questioning a mother who takes every care of her children in all other respects, as to why she neglects the cleansing of their teeth, confronted with the answer that the family dentist considers that decay of the first teeth is necessary to aid in the eruption of the second.

The book is divided into two parts, the first relating to the hygiene of the mouth in children, the second in adults. The author points out very forcibly that dental caries always begin on the outside and that it is to micro-organisms that the direct destruction of the teeth is due. The collection of debris from the food and the want of proper cleansing furnish the two conditions necessary for the growth of these organisms. The idea that sugar is deleterious is not entirely borne out by the facts, the children of the lowest classes of hospital patients showing a greater proportionate amount of caries than their more well-to-do, and presumably better fed brothers and sisters, the latter undoubtedly getting more

"sweets." In the author's opinion, starchy foods are much more likely to produce acid fermentation than sugar, on account of the great solubility of the latter and the probability of its soon being washed away by the saliva. The habit of giving children none but soft and easily masticated food is considered a factor, the friction resulting from masticating hard food serving very materially in keeping the teeth clean. The connection between dental caries and some of the nervous disorders of childhood, notably chorea, is clearly shown. One great point made is that "a habit of cleanliness early impressed is seldom lost throughout life, and a child will be as uncomfortable later on in life when his teeth remain uncleansed as when he is unwashed."

Of the chapter on care of the teeth in adults nothing need be said but that the subject is presented in a way that makes intelligible the causes and course of the disease and illustrates by many examples the relationship so often found between indigestion, neuralgia, etc., and dental caries.

G. G. C.

ANNUAL REPORT OF THE SUPERVISING SURGEON-GENERAL OF THE
MARINE HOSPITAL SERVICE OF THE UNITED STATES FOR 1898.
Washington, 1899.

The amount of material in this report, published under the direction of Surgeon-General Walter Wyman, is remarkable and so varied that one cannot help a feeling of pity with this as with so many other official publications, that so much valuable material is practically buried, cheek-by-jowl. With the financial statements, and circulars calling for shelters for deck corps on Western rivers, etc., are valuable articles on the radical cure of hernia, upon tuberculosis, notes upon tuberculosis in Rio and a long series of articles upon yellow fever, its diagnosis, treatment and prophylaxis and the quarantine regulations relating thereto. So also the Annual contains tables showing the geographical distribution of cholera during the year, reports bearing upon the annual history of small-pox in the United States, the Plague in India and other countries, Leprosy in Japan and Denmark, tables of yearly mortality in the cities of the United States with regulations regarding the transportation of dead bodies in the States and finally, a series of valuable reports from the hygienic laboratory upon the infections caused by the pneumococcus, studies of the pseudo-diphtheria bacillus, bacteriological examination of the Potomac water supply and lastly, a report on the best method of disinfecting mail matter—altogether 828 large octavo pages of closely printed matter.

The variety of the contents—and we have but indicated some of the leading articles—is extraordinary, and with reference to many of them the question comes forward, how do these subjects come into the purview of the Marine Hospital Service of the United States? The only answer to this question is that the Marine Hospital Service is much more than its name implies, and that in the absence of any Government Department of Public Health, the official public health work and hygienic investigations of the Federal Government of the United States, are conducted largely by the Marine Hospital Service. We cannot but think

that the time is ripe for giving to this department its proper designation, even if this be at the risk of adding another member to the Cabinet. Yet, recognising that the public health service is so important, it should be placed upon a more direct footing than it at present holds.

As indicated by the title page of the report before us, the Marine Hospital Service has been in operation for just 100 years. During that time it has steadily increased in efficiency and in utility, not merely for the benefit of the Navy but for the benefit of the country at large, and that in so many directions, that it is fitting that its evolution into a great public health service of the nation, should be aided and acknowledged.

In looking through the Report, one or two errors have caught our eye : thus, the time has surely come when no official publication should give the record of a case of "Typho-Malarial Fever," this is given on page 92. While again we ask whether it is not abuse of the term "Secondary Syphilis" to employ this for an eruption with ulceration on the wrists and neck, occurring 25 years after the primary chancre, on page 208.

TRANSACTIONS OF THE AMERICAN DERMATOLOGICAL ASSOCIATION at its Twenty-Second Annual Meeting held in Princeton, New Jersey, May 31 and June 1, and in New York City, June 2, 1898. Official Report of the Proceedings by JOHN T. BOWEN, M.D., Secretary: Concord, N.H., The Rumford Press, 1899.

The contents of this volume of Transactions include the President's address and fifteen papers. The President, Dr. J. Nevins Hyde, in the annual address reviewed the results of the year's work. Among the papers are the following : "Hydroa Vacciniiforme," by Dr. James C. White ; "An Unusual Bullous Eruption limited to certain areas and recurring at irregular intervals," by Dr. W. T. Corlett ; "Are Malignant Growths arising from Moles of a Carcinomatous or Sarcomatous Nature?" by T. C. Gilchrist, the conclusions arrived at being that any malignant growth springing from the ephtheloid cells which make up the mole should be regarded as carcinoma and not sarcoma ; "A Contribution to the study of Premycotic State of Mycosis Fungoides," Drs. J. N. Hyde and F. H. Montgomery, who concluded that the term was not well chosen, the skin eruptions in the early period of mycosis being as significant expressions of the general disease as the tumours themselves. Dr. F. J. Shepherd presented the report of a case of "Granuloma of the Face and Extremities," concerning the nature of which he had great difficulty in coming to a conclusion and asked the opinion of the association. A discussion on "Lupus Erythematosus," introduced by Dr. A. R. Robinson and Dr. J. C. White ; a report of "Three cases of Urticaria Pigmentosa," by Dr. H. W. Stelwagon ; "Papular, Persistent Dermatitis," a report on an undescribed disease, by Dr. J. C. Johnston ; and "Lichen Scrofulosum in a Negro," by Dr. T. C. Gilchrist, complete the volume.

The volume is illustrated with a large number of photographic half-tones and contains as usual, at the end, the table of the combined returns of the association for the year 1897, and also of the preceding twenty years.

Society Proceedings.

MONTREAL MEDICO-CHIRURGICAL SOCIETY.

Stated Meeting, April 15th, 1899.

DR. J. G. ADAMI, PRESIDENT, IN THE CHAIR.

Thrombosis of the Middle Cerebral Artery.

THE PRESIDENT exhibited specimens of the case and related the clinical history.

DR. F. J. SHEPHERD referred to two cases of his own, one of which was the first case he had ever reported before this society—in 1876. There was loss of speech and right-sided paralysis, both of which were entirely recovered from, but the power of writing was never regained.

Atrophy of the Gall-Bladder from Calculus.

DR. D. P. ANDERSON exhibited the specimens from this case and Dr. SHEPHERD related the clinical history.

THE PRESIDENT had seen two if not three cases of atrophy of the gall-bladder associated with stone. In one case there were two stones in a separate cavity.

Tubercular Cystitis in a Child.

DR. A. E. GARROW reported this case.

Rupture of the Superior Mesenteric Artery.

DR. F. J. SHEPHERD reported this case. (See p. 513 of the July number.)

Aortic Disease with Anomalous Signs.

DR. W. F. HAMILTON read the report of this case. (See page 508 of the July number.)

Tumour of the Pons Cerebri.

DR. JAMES STEWART read the report of the case and DR. D. A. SHIRRES described the pathological condition in the brain.

Stated Meeting, May 29th, 1899.

J. G. ADAMI, PRESIDENT, IN THE CHAIR.

Absence of the Outer Third of the Clavicle.

DR. W. F. HAMILTON presented a woman in whom the outer third of each clavicle was replaced by a fibrous band, and discussed the causation of this rare condition.

DR. F. G. FINLEY was inclined to exclude rickets as a possible cause on account of the fact that the clavicle was fully ossified at birth. He

thought the condition must be due to some cause acting during intra-uterine life.

DR. D. J. EVANS agreed with Dr. Finley as regarding the cause. Rickets was a disease developing usually between the second and seventh years. He referred to a case seen by himself in which there was noticed on the day after an easy birth a well-defined callus in the central portion of each clavicle.

Autoscopy of the Air Passages.

DR. H. D. HAMILTON demonstrated the use of the method of direct examination of the larynx by means of the instrument devised for this purpose.

Diagnostic and Clinical Apparatus in Gastro-Intestinal Disease.

DR. C. F. MARTIN exhibited some of the more recent improvements in the apparatus used in connection with the diagnosis and treatment of gastro-intestinal disease. They consisted in various forms of rectal and stomach tubes and the gastro-diaphane.

The Surgical Treatment of Hæmatomesis.

DR. G. E. ARMSTRONG read a paper with the above title, which will be published in the December number.

DR. JAMES STEWART stated that it was rare in his experience to see a patient die directly from the hæmorrhage of a gastric ulcer. Repeated hæmorrhages are the ones which usually cause death in the end. He did not think that a single large hæmorrhage should call for surgical interference.

THE PRESIDENT thought that before deciding on operation it was most necessary to decide upon the nature of the lesion causing the hæmorrhage. Where an œsophageal varix was the cause of the bleeding, operation could do nothing to relieve the condition, as it would be impossible to deal with the large mass of veins there present. Again, in a case of duodenal ulcer, he should judge that the smallness of the lumen of the parts would render operation very difficult.

Cyst of the Epiglottis.

DR. H. D. HAMILTON read the report of this case. (See page 602 of the August number.)

Persistent Thyroglossal Duct.

DR. G. E. ARMSTRONG gave the clinical notes and exhibited the specimen of a case of this rare condition. (See page 853.)

DR. A. T. BAZIN related a case of somewhat similar character, the lower portion of the duct having persisted. (See page 855.)

Resolutions re Prevention of Tuberculosis.

The following resolutions drawn up by the committee appointed for

that purpose at the conclusion of the discussion on tuberculosis were adopted unanimously.

That whereas tuberculosis is exceedingly prevalent in the Province of Quebec and contributes largely to the mortality rate ; and whereas it is fully recognised that pulmonary tuberculosis is a communicable and infectious disease ; and whereas a room or house which is, or has been, occupied by a person suffering from pulmonary tuberculosis must be considered a source of infection to healthy persons thereafter occupying such compartment ; and whereas the expectoration of tuberculous sputum in conveyances and public places is another great source of infection ; and whereas the successful treatment and comparative eradication of the disease can only be carried out in institutions adapted to this end :

Be it resolved : that the Montreal Medico-Chirurgical Society hereby recommends to the Board of Health of the Province of Quebec the enactment of such laws by the Provincial Legislature as shall ensure the diminution of tuberculosis ; and, recognising the good work already performed by that Board, urge the President and members of the same to take such steps as will ensure the passage of these laws so framed as to bring about the following measures for the public good :—

(1) The compulsory notification to local boards of health in the cities and towns of this province of all cases of pulmonary tuberculosis occurring within the limits of these cities and towns by the physician attending such cases, to the intent that specially infected areas may be detected and means taken to arrest the spread of the disease.

(2) The disinfection of domiciles by the Municipal authorities following upon the occurrence of death from tuberculosis in those domiciles, or of removal of a tuberculous patient from the same.

(3) The posting of notices in railway and street cars, on steamboats, in public markets and municipal buildings, courts of justice, and public waiting rooms—forbidding spitting.

(4) The ready conviction and punishment by fixed penalty of offenders found spitting in public places contrary to above.

(5) The establishment of Provincial Sanatoria for the treatment of tuberculous patients who are unable to pay for such treatment.

The following resolution was also passed :—

That whereas the connection between tuberculosis in the human being and tuberculosis in cattle and other lower animals has been definitely established ; and whereas the well-being of the cattle of the Dominion is a matter of national import, and the existence of tuberculosis among these cattle a cause of very serious loss to the farmers ; and whereas, by the employment of tuberculin, it is possible to detect with great certainty the existence of this disease in individual cattle ; and whereas, further,

the observations of the Veterinary Inspectors of this Dominion would seem clearly to have proved that, relatively to other countries, this Dominion is in a most favourable position, in that the proportion of diseased to healthy cattle is apparently less than has been found in any large extent of territory in the Old or in the New World; and whereas, further, it is not anticipated that the cost to the Government for compensation will be excessive and it will be to the credit of the Dominion and to the great augmentation of the value of our cattle if this disease can be practically eradicated from the Dominion;

Your petitioners, the President, Council, and Members of the Montreal Medico-Chirurgical Society, respectfully recommend that the Government of the Dominion take such steps as will lead to the eradication of bovine tuberculosis, by means of the systematic inspection of the cattle throughout the Dominion and by compensation, where found necessary, and by prohibition of the removal of such cattle as react to the tuberculin test.

Resolved, further, that the above resolution be transmitted to T. G. Roddick, Esq., M.D., Member of Parliament for the St. Antoine division of this city, begging him to take such steps as are proper to present the above resolution to the Government of the Dominion.

Stated Meeting, June 12th, 1899.

DR. J. M. ELDER, FIRST VICE-PRESIDENT, IN THE CHAIR.

Discussion on Goitre.

The discussion was introduced by a paper by Dr. J. A. Springle on "The Etiology and Incidence in the district of Montreal." Dr. F. J. Shepherd followed with the "Symptoms and Surgical Treatment," and the President "The Varieties and Pathology." (These papers will be published in the December number of this Journal.)

Stated Meeting, June 26th, 1899.

DR. J. G. ADAMI, PRESIDENT, IN THE CHAIR.

Excision of Cancer of the Rectum.

DR. A. LAPHORN SMITH read the report of this case.

DR. A. E. GARROW reported a similar case and presented the patient.

Tubercular Disease of the Wrist.

DR. J. A. HUTCHISON presented a patient who had been treated for this disease.

Basal Fracture of the Skull.

DR. J. M. ELDER presented two patients and gave the histories of two others with basal fractures of the skull, a report of which is included in the paper on this subject in the October number of this Journal.

Cerebrospinal Meningitis Complicating Measles.

DR. F. R. ENGLAND read the report of this case. (See page 850.)

Hemiplegia Complicating Scarlatina.

DR. A. T. BAZIN reported the case. (See page 856.)

ANNUAL MEETING.

The Twenty-Ninth Annual Meeting of the Montreal Medico-Chirurgical Society was held in the Drummond Hall on Friday evening, Oct. 6th, 1899.

The retiring President, J. G. ADAMI, M.D., occupied the chair.

The minutes of the last annual meeting were read and confirmed.

In the absence, through illness, of the Treasurer, DR. J. M. JACK, the Secretary read the financial statement for the year, which had been duly audited by the Council.

The receipts for the year were \$674.45, and expenditure \$408.08, leaving a balance on hand of \$190.37, which will be largely increased by the reimbursement of funds now held by the election committee of the society. The total assets are \$905.00 and liabilities nil.

The Secretary, DR. A. T. BAZIN, reported that 18 regular meetings had been held during the year, with an average attendance of 42 members, the largest numbering 72 regular members and 18 visitors. Twenty-two new members, including four ladies, joined during the year, making the total membership now 162, which, with 27 temporary members, made the grand total 189. Routine work consisted of 95 items, viz., discussions, 5 ; papers, 12 ; case reports, 31 ; living cases, 9 ; pathological specimens, 33 ; demonstrations, 5.

Work of a more or less public nature was also entered upon, especially in reference to the formation of a Central Hospital Board, the enactment of legislation in the Dominion Parliament recognizing the British Pharmacopœia as the Official Canadian Pharmacopœia, representation to the Dominion and Provincial Governments of the necessity of regulations to prevent the frequency of tuberculosis and the creation of a committee to formulate a Canadian Addendum to the British Pharmacopœia.

The following were elected officers for 1899-1900 :—

President—J. G. Adami, M.D., re-elected.

First Vice-President—F. R. England, M.D.

Second Vice-President—George Villeneuve, M.D.

Treasurer—J. M. Jack, M.D., re-elected.

Secretary—A. T. Bazin, M.D., re-elected.

Librarian—F. A. L. Lockhart, M.B., re-elected.

Council—F. J. Shepherd, M.D., re-elected, Jas. Perrigo, M.D., and James Stewart, M.D.

The newly-elected Vice-President having taken the chair, the retiring PRESIDENT, Dr. J. G. Adami, delivered the following address.

President's Address.

In reviewing the work accomplished by our Society during the past year, it is impossible to restrain a laudatory tone and, as speaking on behalf of the Society, one of definite self-appreciation. Just as the cloud has its silver lining and untoward events some compensatory benefit, so now the very irregularity of my presence in the chair in which you did me the great honour of installing me a year ago, permits me to give vent to the fullest expressions of congratulation upon the good deeds of the Society while at the same time not seeming "to pat myself upon the back," if I may employ this homely term. How much I would have given to prevent my frequent absence from your meetings, I cannot say; the matter is so immediately personal that I cannot dwell upon it. This, however, I may venture, that in the rapid advances made by the Society during the past twelve months we have but another demonstration of how largely the welfare of a body like ours depends upon its secretary. An active secretary, keenly interested in the work of his society or corporation, ready to spend no small amount of time in hunting up those willing and capable to make communications, and having a ready recognition of what will make the meetings attractive, is the greatest factor in making the meetings thoroughly live and successful and in ensuring good attendance. Such a secretary I am glad to say we have found in Dr. Bazin, and departing from precedent, I am glad, first of all, to call attention to the rôle played by him in bringing about the good results of last session's work. Nor again, though I can in this matter, of necessity, only speak from hearsay, can I neglect to express our appreciation of the active services of the 1st and 2nd vice-presidents. For once these positions have not been sinecures, and much is owing to Dr. Lafleur and Dr. Elder for their superintendance over the meetings of the society on very many occasions. Unfortunately, through illness our treasurer, Dr. Jack, is absent to-night and cannot receive in person the token of our recognition of the large amount of time he has freely given to the somewhat thankless and uninteresting task of caring for our finances. Through his watchful care of our interests, the financial position of the Society is much better than it has been for very many years, and following the present policy, which he has been largely instrumental in developing, we are now on the high road towards possessing such a balance at the banker's that we may look forward without anxiety to soon acquiring a permanent meeting-place of our own.

The Secretary's report has brought forward clearly and concisely the

main events characterising the history of the society during the past session, but this report, dealing as it does with the work of the society in a statistical manner, does not call attention to the individual contributions of members and does but refer in passing to what has been a very marked feature, namely, the part played by the society in connection with matters of public and professional interest.

It is impossible to enumerate all the communications brought before the society; nevertheless, much material of no small value has been presented, and in reviewing the session I cannot but bring to mind some of the leading communications. In so doing it must be recognised that this is, of necessity, largely a matter of personal appreciation, and that very possibly I may leave out sundry items which to the majority of the members are of more immediate interest than those here mentioned. As a pathologist, naturally I am inclined to attach more importance to the demonstration of more unusual cases of disease and to observations throwing additional light on causation and symptomatology.

Among the living cases brought forward may be mentioned as being of especial interest, Dr. Armstrong's demonstration of a case of Charcot's joint disease, a condition which appears to be curiously rare on this continent, as again Dr. W. F. Hamilton's remarkable case of congenital absence of the clavicles. Among the pathological material is Dr. Anderson's unusual case of cephalæmatoma with bony development, Dr. Wyatt Johnston's demonstration of a characteristic biological test for the presence of arsenic in tissues by means of growth of a special form of *Penicillium* (*P. brevicaulis*). Among the case reports, several are of more than usual interest—Dr. Birket's case of the presence for long years of a foreign body (thimble) in the nasal passages, Dr. Laphorn Smith's case of operative treatment for the relief of urinary incontinence in the female, a report by Drs. Finley and Wyatt Johnston on a case of double proptosis due to thrombosis of the cavernous sinuses, Dr. Lafleur's clear description of the value of lumbar puncture in cases of tuberculous meningitis with notes of a case in which the tubercle bacilli were found, a case by Dr. Stewart and Dr. Shirres of tumour in the pons, throwing light upon the localisation of the centres for the 4th nerve, Dr. Bazin's study of hemiplegia following scarlet fever, and the instructive series of cases of fracture of the base of the skull by Dr. Elder, together with Dr. Bell's case of huge Suboccipital teratoma.

Passing now to the papers, not a few of these were of more than ordinary interest, more especially I would mention that by Dr. Hamilton upon pneumothorax, in which he drew particular attention to the possibility of this condition occurring in the absence of communication between the pleural cavity and either the lungs or the abdominal

cavity, and that by Dr. Maude E. Abbott upon functional heart murmurs, a paper noticeable as being the first contributed to the society by one of the lady members, and more especially by the careful study of hospital reports of which it was the outcome. Dr. Archibald's paper upon hæmorrhoids in children, a record of a condition very rarely met with, was characterised by evidence of very considerable research into the scattered references to instances of this condition from the beginning of the century onwards. Another paper, also the result of very extensive study of material, and of much original research, a paper not a little remarkable in many respects, one, indeed, which, if the views enunciated be found correct, will become classical, was that by Dr. A. G. Nicholls upon the etiology of chronic Bright's disease, while Dr. Girdwood's paper upon Stereo-Skiagraphy calls attention to a method of skiagraphic observation giving a remarkably sure localisation of foreign bodies in the tissues, a method which Dr. Girdwood had worked out independently of other observers, and which since the publication of this paper has become increasingly employed. Dr. Armstrong's paper upon the surgical treatment of hæmatemesis was not only a most valuable study of the results of this surgical treatment, but contained material of no little value bearing upon the possible etiology of the condition.

I have thus far left out of consideration the valuable series of papers contributed to the discussions. Certainly in the last, as in previous years, these discussions have caused greater interest than anything else and have insured large attendances. Of these there have been three, namely :—

I. That opened by Dr. Roddick upon the subject of Dominion Registration. In this in a masterly manner Dr. Roddick discussed the subject in all its bearings. It is pleasant to see that a cordial vote of thanks to Dr. Roddick for his untiring labor in bringing this subject of Dominion Registration towards a practical issue, was passed unanimously at the recent meeting of the Canadian Medical Association at Toronto. It is only what he fully deserved ; all the same, it is a matter upon which we can cordially congratulate ourselves that one of our members, an ex-president of the society, is at the head of a movement so important for the interests of the profession in this country, and it is a pleasure to see his efforts so cordially appreciated.

The second discussion was one upon the Prevention of Tuberculosis, and was characterised by the essentially practical character of all the papers. So many took part in this, and one and all presented such well-studied contributions on various aspects of the subject, that to mention any name above the rest would be both invidious and unjust. Here again the discussion led to a definite end by the passage of resolutions

brought to the notice of both the Federal and Provincial Governments, resolutions which were made the basis of a discussion on the subject of tuberculosis in the Dominion Parliament, and which we learn have not yet ceased to be active factors in directing public opinion towards this subject, for as a result of that discussion we understand that the Government, knowing that it is to be supported by the profession, (as indeed was shewn also by the resolutions passed at the Toronto meeting), is preparing to introduce legislation calculated to lessen the incidence of this disease in our country.

I feel assured, though, that this society must not be inclined to rest on its oars, nor must it feel that having gone so far, it has sufficiently expressed its views. We as a body and individually must be prepared to stir up public opinion yet further and must agitate for the construction and endowment of sanatoria for the poor in Montreal and in the larger cities of this Dominion. It is for us in the medical profession to take the leading part in the matter. Indeed, it is a subject for this society's consideration whether the time has not come for us to approach those interested in philanthropic work in this city and either to induce the Mayor to call a city meeting on the subject or to form some local society, the object of which shall be to familiarise the public with the dangers and means of prevention and of cure of this terribly widespread disease.

The third discussion was upon a subject peculiarly common in this district, namely, upon Goitre, and here Dr. Springle's paper upon the distribution of the disease in Canada, and Dr. Shepherd's upon the treatment and certain complications of the condition, are both valuable additions to our knowledge.

Yet another discussion must here be mentioned, which was continued over from the preceding session, namely, that upon Hospital Abuse. The result of that discussion has been the establishment of a committee of medical men and of those connected with our larger hospitals: a committee is pledged to establish a central hospital board. A series of regulations is now being compiled which shall be acceptable to the hospitals and to the profession in general, and which shall so far as is possible prevent the notorious abuse of our institutions by those well able to pay the fees of the general practitioner, as indeed of the consultant. It is difficult to frame such regulations, for circumstances admittedly alter cases; the man who can perfectly afford to pay for treatment for a slight surgical or medical ailment may not be able to stand the strain upon his resources which some capital operation by a specialist outside the hospital would necessarily entail. We hope that this committee will formulate some rules satisfactory to the profession in general and capable of being loyally carried out by the admitting officers of our hospitals.

These details of the work of our society show most markedly the position that our society is taking as a public body and as a former of public opinion in matters bearing upon the health of the people, as again in matters which more strictly bear upon the interests of the medical profession in this country at large.

Nor does the list above given exhaust the public work accomplished by the society. Acting under recommendations from us, Dr. Roddick procured an amendment of the Adulteration Act of the Dominion so that now one standard authority is recognised as determining the composition and adulteration of drugs, to wit, the British Pharmacopœia, which thus incidentally becomes the official Pharmacopœia of the Dominion; while again, as already stated by the secretary, a committee nominated by the society has accepted the invitation of the general Medical Council of Great Britain to take an active means to make Canada no whit behind the other colonies and British possessions in formulating an addendum to the same British Pharmacopœia. Inasmuch as the work accomplished by this committee affected the whole Dominion, it was thought well to present its draft report to the Canadian Medical Association, which body has nominated a committee composed of the old members with a few additions, and has authorised it to report directly to Great Britain.

I think I am right in saying that in no previous session has our society made its influence felt outside as it has in that just closed. Indeed, gentlemen, remembering what we are, namely, a society composed of and open to practitioners, English and French, of this the leading city of the Dominion, a society of old standing, of large membership, meeting frequently and having high ideals, we must more and more recognise our responsibility and our power in forming and in influencing public opinion in reference to all that bears upon health and the well-being of the people. Just as the individual practitioner is, in his relation to his patients, very much more than a mere drug giver—is the family adviser and the family friend—so should our society be something much more than a mere centre for the mutual interchange of views upon strictly professional matters. It should have as its object the encouragement and carrying forward of everything that bears upon the physical well-being of the community, not merely here in Montreal itself, but in the Dominion at large. Herein lies our great opportunity, and, as I say, the history of the last session shows that we can well use it for the public good.

One other and notable feature in the history of the year must not be forgotten in this brief review. I refer to the change in the by-laws, whereby all practitioners of good standing, irrespective of sex, are eligible for membership. The society was ripe for this change, and now that it has been made, it seems absurd that it should not have been made

long ago. We have had, as already indicated, one valuable contribution from the new blood thus infused.

Lastly, with so large a membership, it is inevitable that during the course of twelve months some one or other figure well known to us should depart from our midst. Happily, during the past twelve months our loss from death has been limited to but one member, one who, although he had but recently returned and settled in Montreal, had in the brief space of his residence here showed himself a keen and active member, and devoted to his special line of work, and in that special line, a student of no small ability, so that from his contributions during the previous session both of cases and to our discussions he earned the cordial respect of all. I refer to the late Dr. W. M. Nelson, and I can but repeat the terms of the resolution forwarded to his family, that "he had by his zeal, seriousness of purpose and enthusiasm for his special line of work, impressed all with his great value as a member of this society, and gave promise of a brilliant future."

It is a source of deep satisfaction to us that year by year we have developing among us more and more men who are pursuing their special lines of surgical or medical work with enthusiasm, intelligence and a wide knowledge ; men who are not satisfied to depend upon what they have learnt, but who are studying and advancing our knowledge in their respective specialities ; such men are the salt of a society such as is ours. All the same, we can ill afford to lose even one of these from among us.

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THE ACTION OF ALCOHOL.

Notwithstanding all that has been written upon the subject, our knowledge of the therapeutic action of alcohol cannot yet be said to stand upon an unquestioned basis. From the clinical point of view, the statement of its action upon the circulation and the nervous system as given by Dr. Rolleston (*Allbutt's System of Medicine*, Vol. III., p. 840) may be said to represent the general opinion of the profession. This writer says: "After the administration of alcohol the heart beats more forcibly, and with greater frequency, the period of diastole being shortened; the peripheral vessels are dilated, and thus the familiar flushing of the skin is produced. The pulse becomes full and frequent, the circulation more rapid, and the blood passes into the veins in a less venous condition, containing more oxygen than usual. As these effects pass off, the heart beats less powerfully and more slowly, so that the sum of the two phases is much the same as if no alcohol had been taken. Large quantities, however, diminish both the force and the frequency of the heart-beat from the first. On the central nervous system alcohol has first of all an indirect effect; by its action on the circulation it supplies the brain and the spinal cord with more blood, and so increases their activity. It acts, however, directly on the nerve cells as a functional poison. Hence though first stimulated by alcohol, the central nervous system becomes subsequently depressed." In opposition to this view which has been stoutly upheld among pharmacologists by Binz and his pupils, Schmiedeburg, Bunge, and many other pharmacologists hold that the action of alcohol on the nervous system is that of a depressant from the beginning, and that the symptoms of supposed stimulation are in reality due to the depressant action of the drug, weakening the functions of control and inhibition, and allowing the lower centres to act more powerfully than under normal circumstances they would. Cushny, in his work on pharmacology and therapeutics just published, says that there is evidence

on every hand that even the smallest quantity of alcohol tends to lessen the activity of the brain. Wine when taken in moderate quantities in company generally produces a feeling of well being and good fellowship, along with increased confidence in the mental and physical powers of those drinking it ; but if taken without the exhilarating accompaniments of bright lights and exciting companionship, this stimulation seldom occurs. Those who advocate that the primary action is that of a stimulant point to the brilliancy of the after dinner speech, and to the feeling of increased confidence, as evidences of increased activity of the brain. But the confidence is unaccompanied by any increased physical strength; the brilliancy of speech is probably due in part to the speaker's having lost his habitual shyness and nervousness, and in part to the stimulation of the environment. The indications of excitement are absent when the associations are different, and the symptoms of depression become more distinctly manifested. On the other hand, evidences of the depressing action of alcohol upon the brain are numerous. Investigations prove that troops upon the march are able to do more work when deprived of alcohol than when supplied with it, and type-setters can do more work and make fewer errors when they abstain from its use.

Kraplin, quoted by Cushny, states that the receptive and intellectual powers were with careful measurements of the simpler cerebral processes distinctly weakened by small quantities of alcohol, while the motor functions seemed to be facilitated by small, and retarded by large quantities ; the sensation of pain is also found to be lessened by alcohol in even small amounts. Other investigators have corroborated these statements. While there is no absolutely convincing proof that no stimulation of the motor areas occurs, yet no other known drug stimulates the motor areas only without increasing the activity of the lower part of the system at some stage of its action. In the lower parts of the central nervous system evidences of primary depression are less open to question. Cushny considers, therefore, that evidence of the depressent action of alcohol on the nervous centres are numerous, while the apparent evidences of stimulation can be explained as really due to the depression of the controlling inhibitory functions. Cushny states also that there is no evidence forthcoming that alcohol increases the activity of the normal respiratory mechanism, save to a very small extent, due in all probability to a reflex action from the stomach and not to a direct action on the medullary centres. Cushny also questions whether alcohol stimulates the circulation, and says that the only real foundation for this view is the acceleration of the pulse during the excitement stage of alcoholic intoxication, an effect which may be due to increased muscular effort and not to any direct action on the heart.

Jacquet has shown that the pulse rate is unaltered by alcohol in normal

cases, provided that no excitement be produced by the environment. In animals, alcohol acts upon the muscular tissue of the heart, impairing its efficiency and weakening its contractions; it has no effect on the pulse rate, unless given in large quantities, when it produces effects similar to those described under chloroform and ether, but much less marked, namely, weakening first of the auricular and then of the ventricular systole, followed by distention of both cavities, and slowing. Cushny thinks that the slowing of the heart which often follows the administration of alcohol in fever is due rather to diminished cerebral excitement, than to a direct action upon the heart.

Cushny considers the indications for the use of alcohol ill defined. Its value in cases of hæmorrhage, shock, or severe cardiac depression from any cause, he considers due partly to the irritating action of alcohol upon the stomach and partly to a narcotic action lessening pain, and anxiety. Alcohol he considers to have, however, a distinct food value; it is easily absorbed and demands much less energy from the digestive organs than fats and starchy foods, and has a higher value as a producer of energy than sugar. It cannot supply the place of the nitrogenous foods, but given along with them it may lead to a greater economy of the tissues.

While we all recognise the fact that as a pharmacologist Professor Cushny speaks with much authority, few of us will feel inclined to discard at once the experience of the past as to the great value of alcohol as a prompt and reliable cardiac stimulant in certain atonic conditions; nevertheless the results of the many investigations summarised by Professor Cushny cannot be lightly put aside, and the question must arise whether the value of alcohol in disease, may not arise more from the fact that in febrile conditions it acts as a rapidly assimilated food rather than, as we have hitherto supposed, as a prompt cardiac and nerve stimulant.

MCGILL PATHOLOGICAL MUSEUM.

During the coming month there will be a special exhibit in the Museum of a most interesting series of preparations exhibiting Polydactylism and Syndactylism, together with numerous X-Ray photographs of these conditions collected by Dr. Shepherd. A series of specimens contributed during the year by Dr. James Bell, and a collection of old medical instruments which have been brought together from the collections of the late Drs. Holmes, Howard, Ross, Fenwick and other old members of the staff, and from the Montreal General Hospital. Any member of the profession possessing old medical instruments, especially those of last century, is begged to contribute such to this collection, which it is hoped to make both interesting and valuable.

It is the intention to make similar exhibitions of other series of cases or of contributions of individual contributors to the Museum each successive month.

NEW BOOKS, ETC., RECEIVED AND NOTED.

Index Catalogue of the Library of the Surgeon-General's Office, U.S. Army. Second Series, Vol. iv. Washington, Government Printing Office, 1899.

The Hygiene of Transmissible Diseases, Their Causation, Modes of Dis-semination, and Method of Prevention. By A. C. Abbott, M.D. Illustrated. Philadelphia, W. B. Saunders, 1899.

The Treatment of Pelvic Inflammations through the Vagina. By William R. Pryor, M.D. With 110 Illustrations. Philadelphia, W. B. Saunders, 1899.

Minor Surgery and Bandaging, including the Treatment of Fractures and Dislocations, The ligation of Arteries, Amputations, Excisions, and Resections, Intestinal anastomosis, Operations upon Nerves and Tendons, Tracheotomy, Intubation of the Larynx, etc. By Henry R. Wharton, M.D. Fourth Edition, thoroughly revised and enlarged, with 502 Illustrations. Lea Brothers & Co., Philadelphia and New York 1899.

International Directory of Laryngologists and Otologists. Compiled by Richard Lake, F.R.C.S. Published under the Auspices of the Journal of Laryngology, Rhinology, and Otology. London, The Rebman Publishing Company (Ltd.), 1899.

The Johns Hopkins Hospital Reports. Vol. vii., Nos. 5-6-7-8-9. Operations on 459 cases of hernia, etc. By Jos. C. Bloodgood, M.D. Baltimore, The Johns Hopkins Press, 1899.

Pyorrhœa alveolaris and its Relations to General Medicine. By John Fitzgerald, M.D. London, The Medical Publishing Company (Ltd.), 1899.

A Text-Book of Mechanico-Therapy (Massage and Medical Gymnastics) especially prepared for the use of Medical Students and Trained Nurses. By Axel V. Grafstrom, B.Sc., M.D. With eleven pen-and-ink sketches by the author. Philadelphia, W. B. Saunders, 1899.

A Text-Book of Diseases of the Nose and Throat. By D. Braden Kyle, M.D. With 175 illustrations, 23 of them in colours. Philadelphia, W. B. Saunders, 1899.

Judicial Methods. Medico-Legal Testimony. The Zelner Case. By John V. Shoemaker, M.D., LL.D. Reprinted from the Medical Bulletin, April, 1899.

Notes on Malaria in Connection with Metrological Conditions at Sierra Leone. By Major E. M. Wilson, C.M.G., D.S.O. London, H. K. Lewis, 1899.

The Medical Expert's Duty and Where he most frequently Falls in it, with illustrations from the Zelner Case. By John V. Shoemaker, M.D., LL.D. Reprinted from The Philadelphia Medical Journal, April 22, 1899.

Reports for the Year 1898-99, presented by the Board of Managers of the Observatory of Yale University to the President and Fellows.

A Case of Leukæmia of the Splenic Myelogenous Variety. By Otto Lerch, A.M., M.D., Ph.D. Reprinted from the New Orleans Medical and Surgical Journal, July, 1899.

The Unreliability of a Method Considered Germicidal. By Otto Lerch, A.M., M.D., Ph.D. Reprinted from the New Orleans Medical and Surgical Journal, March, 1899.

The Surgical Treatment of Trifacial Neuralgia with Report of Cases of Removal of Casserian Ganglion. By Henry H. Mudd and N. B. Carson. Reprinted from the Medical Mirror, May, 1899.

Recollections and Reflections of a Quarter of a Century. By Stephen Smith Burt, A.M., M.D. Reprinted from the Post-Graduate, May, 1899.