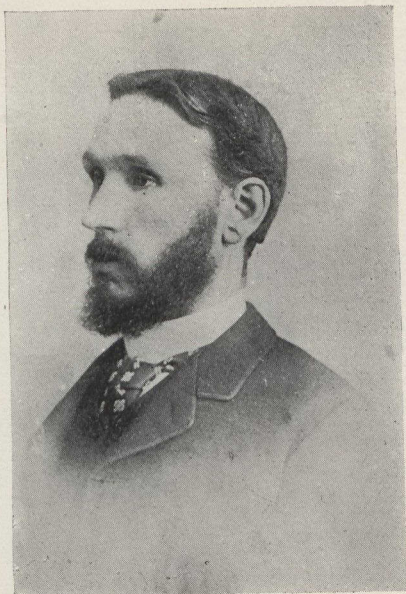
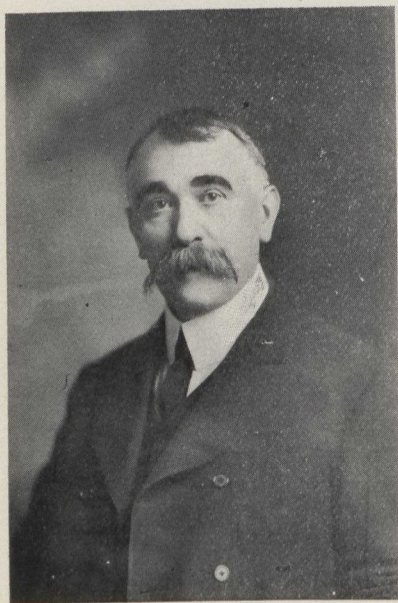




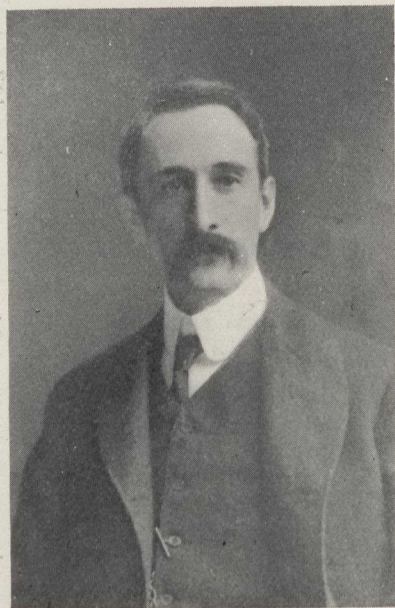
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General Secretary Canadian Medical Association.



DR. H. B. SMALL, OTTAWA,
Treasurer Canadian Medical Association.



DR. C. J. FAGAN, VICTORIA, B.C.
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PRESIDENTIAL ADDRESS, CANADIAN MEDICAL ASSOCIATION. 24TH AUGUST.

By SIMON J. TUNSTALL, B.A., M.D., Vancouver.

MR. Chairman and Gentlemen,—I feel that my first duty to-night is to offer you my very hearty thanks for the honor you have conferred upon me in electing me President of the Association for the ensuing year.

When I recall the names of those who have preceded me in this chair, I can only ask your indulgence for the deficiencies you may find in me, of which I am very conscious, and express the hope that under my presidency the interests of the Association may in no wise suffer nor its honor be in any way tarnished.

The present occasion is no ordinary one. In the appointment of a President from among the members of the Association whose home and work lie in this far distant portion of the Dominion, and in our meeting here to-day at the Doorway of the West, a new departure has been made.

I am far too modest to suppose for an instant that any particular merit of mine has induced the Association to make this departure: rather I conceive it to be due to a general recognition of the claims and standing of the western members as a whole, and of the growing importance of this fair Western Province.

I should be performing my duties but poorly did I not seize this opportunity to thank you on behalf of my western confreres, and on behalf of the people of this Province in general, and of this city in particular for the compliment you have paid us in selecting this Province and this city as the place of meeting for this year, and I feel I am only expressing their wishes in tendering you a hearty western welcome to our midst, and their hopes that your brief stay among us will be both pleasant and profitable to you all.

To many of you, probably to most of you, the rapid progress and general development of this young Province will come as a surprise. It does to most of our visitors from the older parts of the Dominion

who know how recent has been the settlement of the West. And certainly, looking round one, it does seem scarcely realizable that the site of this rapidly expanding city, of which its citizens are so justly proud, and the very spot on which this building stands, surrounded by so many comforts and refinements of modern life, was, less than two decades ago, a wild and almost impenetrable virgin forest, the haunts of the bear, the deer and the primitive savage.

It is less than a score of years by two that the incorporation of this city took place, and yet to-day it will compare favorably with many cities of the older Provinces twice and thrice its age. From the medical standpoint it is reaching after a high ideal.

Steel conduits, from the bosom of the mountains to the north ; the sewerage system, with its septic tanks, that deliver their effluent into tidal waters ; the paved streets, with their array of cleaners ; the cement sidewalks which are now throughout the city, rapidly replacing the earlier and cruder planking ; the public and private hospitals ; the General Hospital, which is now being built, and which, when finished, will be the peer of any hospital of its size, all make it clear that we are endeavoring to keep abreast of the times, as well in sanitary as in other matters.

It is no idle boast, then, if I say that in the West events move rapidly. Time is no sluggard here, and we see history fashioning itself before our eyes. The whole of this great Province was in indisputed possession of savage aborigines a half century ago. The closing years of the first half of the nineteenth century saw the first real settlement made on Vancouver Island, at a place called Camosun, in the native tongue, now Victoria, the capital of the Province.

A few years later, in 1858, an Act was passed in the Home Parliament to provide for the government of this new colony, thereafter to be known as British Columbia. From this date the real settlement of the Province begins. The discovery of gold in the Fraser and Cariboo soon made these districts as famous and as widely known as Sacramento or Ballarat and a great inrush of population was the result. But a very few years later the conception of that colossal and momentous undertaking, the building of the Canadian Pacific Railway, began to shape itself in men's minds, and was finally carried out. You are all, doubtless, familiar with the history of this great undertaking and know the almost insuperable difficulties its earlier promoters had to contend with and how in the end, in spite of political, natural and every other obstacle and hindrance, they successfully carried through the scheme and made possible the union of British Columbia and the great North-West with the rest of Canada, and gave us as a result that splendid heritage, that united land which stretches from ocean to ocean, from the rising of the

sun to the going down thereof—a land of which all her sons and daughters are so proud—our beloved Canada.

It is gratifying to the profession to know that it has been ably and honorably represented among those history-makers in the persons of Drs. Helmcken and Tolmie, who were the first medical men to settle in the colony, about the middle of the last century. Both took prominent parts in the earlier events of the Province. The former still remains with us ; the latter has gone to his rest. Prior to their advent the native Medicine-man had it all his own way.

There is a significance, not without interest to my mind, in the fact that this Association, representing as it does to-day in its various members the highest medical knowledge of this enlightened part of the world's history, should meet here in this new country, where Shamanism, or the cult of the savage Medicine-man, so recently prevailed, and does to some extent still prevail. The old and the new order of things are thus brought into suggestive contrast and juxtaposition, and we are led naturally to reflect upon the stages and steps we have passed since the days when all medical knowledge was comprised in the superstitious and rude practices of our savage prototypes ; and in spite of our sometime failures and our lack of knowledge, still in certain directions the reflection on the whole is a pleasant and gratifying one, both to ourselves and humanity at large. It certainly would not be the least interesting of subjects were I to attempt on this occasion a general survey of the march and progress of medical science from the days and practices of the primitive Medicine-man as we find him even in this Province, down to the times and discoveries of Lister, Pasteur, Virchow and their followers.

But it is not my intention to undertake such a task to-night, interesting and appropriate as it might under the circumstances be, although I cannot leave the subject without calling your attention briefly to a fact of which all of you may not be aware, and which gives pertinence to my reference to the old-time Shaman or Medicine-man. We are all familiar with hypnotism, but there are few of us, perhaps, aware that in the employment of hypnotism as a therapeutic agent we are returning to primitive methods, to the practice of our savage prototypes. Those who have made special study of the practices and customs of savage races inform us that the primitive doctor, or Medicine-man, was not that self-conscious fraud and humbug, knowingly duping his credulous patients, he is thought to have been, but a person who had a real belief in his own powers and cures ; and that those powers and cures were, when genuine, generally, if not always, attributable to hypnotism, especially to that phase of it known as suggestion. A state of hypnosis

was induced in his patient by the monotonous droning of his medicine song and the noise of his rattle, and when in this condition his attempt to extract the spirit of the disease from the patient's body, and his statement that he had presently accomplished it, acted suggestively upon the imagination of the patient and effected the cure. "Extremes meet," and "there is nothing new under the sun," we are told, and the school of Nancy, which is founded upon the suggestive phase of hypnotism, is not a new practice, but an unconscious return, or rather I should say it is an unconscious modification and extension of these primitive methods which were in vogue among our savages here up to a few years ago, and may be to this day, for aught I know to the contrary.

But enough on this head. It is my intention rather to bespeak your consideration to-night of a point or two which I, in common with many of the members of the profession, have very much at heart, and which I deem of such importance as to merit our most careful consideration and endorsement.

I have reference, in particular, to : 1. The Canadian Medical Protective Association. 2. The Federal Health Bill. 3. The Dominion Medical Council. 4. The treatment of Inebriates.

With regard to the first, The Canadian Medical Protective Association, I would desire to urge upon members the strong claims this Association has upon the profession. I am among those who believe in the need of such an Association, and that it may be made a valuable means of assisting and protecting members of our profession from wrongful actions-at-law, to which we are all of us at all times liable ; actions brought by irresponsible persons for alleged malpractice, or by unscrupulous persons for the purpose of obtaining money under threats of injury to our professional character.

It is well known that a medical man's professional prospects depend to a very large extent, if not entirely, upon his professional reputation, and it is not difficult, therefore, for unprincipled persons to attempt to levy blackmail upon him by threatening to bring action against him for malpractice or professional incapacity, which action, though wholly groundless and undeserved, may have the most disastrous effects upon his career and pocket.

During the past two years the Association has fought out several such cases successfully, and has amply demonstrated its usefulness and justified its existence. It is therefore, a matter of wonderment to many of us that the Association has thus far received so little encouragement or support from the profession as a whole. Out of a possible 5,500, the total membership last year was only 252. This is altogether too small a number to make the aims and work of the Association effective or sus-

tain it in a solvent condition, and I welcome this opportunity to invite your earnest co-operation in enlarging its membership and strengthening the hands of the Executive, and would to this end suggest that a special committee be struck during the Convention for the purpose of considering how best to enlist the sympathies and support of our brethren who are not yet members. I cannot but think that a large increase in the membership must inevitably result if the aims of the Association be once rightly understood.

The objects of the Association are such as all can subscribe to. It is not intended to defend or assist in defending unworthy members, or those who are actually guilty of malpractice, or who have brought discredit upon the profession. It aims rather to assist the worthy, those of its members who are wrongfully charged and whose character and reputation are placed at stake; and also to deter irresponsible and unscrupulous persons from bringing action against members of the profession for the purpose of spiting or injuring them, or of exacting a bribe for their silence; and it is only by uniting ourselves together in such a way as this Association offers that we can hope to secure the support of our brethren and become immune to many attacks which would otherwise be made upon us.

I feel, therefore, that we have but to devise some plan of arousing the interest of our brethren in the matter to ensure their support and co-operation.

And now a word or two as to the Federal Health Bill. Thanks to the energetic efforts of the special committee appointed to attend to this matter considerable progress has been made towards the attainment of our desires on this behalf. The interest and sympathy of the Minister of the Crown have been secured, and the Minister of Agriculture, the Hon. Mr. Fisher, under whose department the matter more directly falls, has taken the matter up most courteously and is thoroughly alive to its urgency and need. For the information of those not familiar with this subject, I would briefly say that the Association, at its meeting in Montreal in 1902, placed itself on record by resolution to the effect that it is expedient that a Department of Public Health be created by the Dominion Government and administered under the authority of one of the existing Ministers of the Crown, thus bringing all general questions relating to sanitary science and public health under one central authority to be known as the Public Health Department. There is no need for me to dwell upon the importance or desirability of this step; it must commend itself to every member of the profession.

Thus far the Government has not seen its way clear to grant the desired measure. The work is not yet accomplished, and the need of

pushing the matter still exists. I sincerely hope the meeting will not dissolve without first passing a strong resolution in favor of the measure, and thus encourage and strengthen the hands of the committee who have this work in hand.

And now I desire to touch upon my third point, which I regard as of the highest importance. I refer here to the Dominion of Canada Medical Act, which was assented to in the Federal House in 1902. We are under a deep debt of gratitude to the members of the special committee, and especially to Dr. T. G. Roddick, for his untiring efforts to get this measure placed upon the statutes of the country, and it is with great regret that I notice so much misapprehension as to the scope and powers of this Bill still exists in certain quarters. It has been thought that it would encroach upon the rights and privileges of the different Provincial Medical Boards and interfere with their autonomy, and I gladly hail this opportunity to say a few words which may help to remove this misapprehension. It was, and is, not in any way intended to interfere with existing provincial rights or intrench upon the prerogatives of Provincial Medical Boards. As an instance, in my own native Province, Quebec, our French-speaking brethren will have the right of examination in their own language.

Provincial registration and Provincial Boards will still continue to exist, and each Province will be at liberty to fix whatever standard it pleases for its own practitioners. They can, where they wish, continue as examining boards with power to grant provincial licenses, as they do now, and in any case in their hands will be left all matters relating to taxation and professional discipline.

The Bill is a purely permissive one, and, though it has been placed upon the statutes of the country, it will be necessary, before it can become operative, to have the consent and co-operation of all the Provincial Medical Boards. Each Provincial Board will have to seek a slight amendment to its present Medical Act. This is all that is now required to make this more desirable measure effective, and I sincerely trust that this consent and co-operation will not be long wanting, for the aims and scope of this Act are such as should commend themselves to every member of the profession. Briefly, I would say that the main purpose of this Bill is to establish a Central Medical Council of Canada, with power to examine candidates and grant licenses, the possession of which shall ensure to the holders thereof such a medical status as will enable them to practise not only in all parts of the Dominion, but in the United Kingdom as well, or, indeed, in any portion of His Majesty's Empire: in short, to do away with those mortifying disabilities under which a medicinal man trained in Canada now labors, and put him upon a foot-

ing of professional equality with his brethren in other parts of the Empire. This is assuredly a laudable and most desirable object, and one which, in my humble opinion, should call forth the best efforts of each one of us to bring about its accomplishment ; and I sincerely trust that some concerted action will be taken in this matter before the meeting closes.

It is the least, I think, we can do to show our appreciation of the strenuous efforts exerted in securing the passage of so important a measure.

This brings me to my fourth and last point, "The Treatment of Inebriates." A conviction has been steadily growing in the minds of most medical men of late years that something should be done for the care and control of dipsomaniacs and inebriates in the form of founding establishments combining the main features of a hospital and an insane asylum, where drunkards could be legally confined under medical authority and treated in a systematic and enlightened manner. The practice, hitherto, of treating them as criminals subject to a fine or short periods of confinement in the common prisons of the country, has been shown to be wholly unsatisfactory and often productive of the greatest evil to themselves and those who may be dependent upon them.

There can be no doubt, I think, that the care and treatment of those unfortunate members of society is a question of the gravest and most vital importance, and should command the interest and attention of medical men as a subject, which, coming well within their province, affects so seriously the general commonwealth.

A movement towards this end has already been taken in Ontario, and a Bill drafted, the principles of which have received the endorsement of the Toronto Medical Society, and also of our own Association ; but what we want is a Dominion Act affecting the whole country ; and it would be the source of the greatest satisfaction to me if this meeting would take this question up seriously and nominate a committee to draft a measure that could be submitted to the Federal authorities. This could be done either on the lines of the Ontario Bill or any others that might commend themselves.

Speaking, personally, I may say that I shall be only too glad to help in drafting such a measure and giving any other assistance in my power, for I am convinced that the adoption and carrying out of the provisions of a bill of this kind will do much to diminish the volume of sickness, pauperism, vice and crime that now stains the annals of our country and restore to lives of usefulness and self-respect many of those poor unfortunates whom it is the design of such a measure to control and help.

Before closing my address, I wish to express to our visiting brethren my appreciation of the kindly feeling and interest which have actuated them in taking part in the deliberations of our National Association, and to hope that their stay may be fruitful of pleasant reminiscences.

And now, gentlemen, I must thank you for your kind reception of me as your President this year, and for the patient and courteous hearing you have given to my remarks, and trust that the suggestions I have ventured to offer may meet with your approval and receive your support.

FUNCTIONAL HEART MURMURS; THEIR CAUSATION * AND DIAGNOSIS.

By ROBERT DAWSON RUDOLF, M.D. (EDIN.), M. R. C. P.
Associate Professor of Medicine in Toronto University,

EVER since auscultation of the heart was practised it has been known that heart murmurs frequently occur, which are not dependent upon any organic disease of the cardiac valves. Laennec, the father of auscultation, described these murmurs as follows: "I have known a considerable number of persons to die of different diseases, acute and chronic, who have presented the "bellows" murmur very distinctly during life, sometimes during several months, as well in the heart as in different arteries, and upon examination of their bodies I could discover no organic lesion coinciding constantly with the phenomena, which are not constantly met with in subjects who had never exhibited anything of the kind during life."

Since that time these murmurs have been the object of much investigation, and everyone practically agrees as to their frequent occurrence; but, nevertheless, they are often apt to lead to mistakes involving great hardship to individuals who may thus be prevented from entering the services or from insuring their lives, or may be forced to live a restricted and semi-invalid life with the dread belief always present that they are suffering from heart disease.

Sir William Broadbent in an address delivered before the Northwest London Clinical Society on October 20th, 1897, *Lancet*, Nov. 13th, 1897, alluded to this point and said that young men are sometimes rejected on totally inadequate medical grounds, after having obtained a place on the list at Woolwich or Sandhurst. He describes this class of cases so clearly that I give his description *in extenso*: "The candidate has usually been spending long and late hours in study with restricted exercise and limited fresh air and with possibly unlimited tobacco. He presents himself for medical examination in a state of extreme nervous excitement.

* Read at the meeting of the Ontario Medical Association, 17th June, 1904.

His pulse is rapid and perhaps irregular, his cardiac impulse violent, and may be diffused even beyond the right sternal border. Murmurs may be heard at one or more orifices * * * * * It would take a great deal to make me reject the captain of a foot-ball team of a large school * * * * * I have known such bruits to be looked upon as indicative of valvular disease requiring treatment by digitalis and demanding all sorts of precautions in the matter of exercise." All of us have seen examples of this class. But these murmurs may also occur in the apparently healthy, who have not been undergoing any debilitating process such as students do on the eve of examinations. Thus last week I saw the following case :—

CASE I.—A young man of healthy appearance and good build complained of palpitation on emotion but not on exertion. He was a civil engineer and lived a typically healthy, out-of-door life and neither drank nor smoked. The condition had troubled him more or less since he first entered the University several years ago. As a student he was a good boxer and could stand a great deal of knocking about without distress; but, while waiting to begin a boxing match, or in fact any physical or mental test, he was much troubled with palpitation which, however, always wore off as soon as he got well into the struggle. In the neck a well marked bruit du diable was present. The pulse was 120, but usually about 80, and varied greatly with posture. He noted this point himself and found that his pulse was 70 while lying down and 96 when standing. In the standing posture no murmur was present, but if he lay down a well marked systolic one was audible in the second and third left intercostal spaces. He was not anaemic.

One might describe such cases almost to any number but such would serve no purpose. The subject may perhaps be best dealt with from three points of view : first, a description of the murmurs which occur ; second, a short summary of the views held as to the physical causes of these murmurs ; and third, the diagnosis.

(1) *Description.*—Inorganic or functional murmurs may occur in any of the cardiac areas, but by far the most common position is from the second to the third left intercostal spaces close to the sternum or a little external to it. While heard loudest at this point, these murmurs may be heard over most of the precordium, as far down as the apex and even to the right of the sternum. In an individual having such a murmur there will usually be present also a bruit du diable in the veins at the root of the neck, and also murmurs in the large arteries, but with these vascular murmurs we are not now concerned. There is early and marked accentuation of the pulmonary second sound and such accentuation usually precedes the murmur.

In a well marked case one may sometimes detect four distinct systolic murmurs over the precordium, one at each of the four cardiac areas. Functional cardiac murmurs are always systolic in time and the importance of this point can scarcely be over-estimated. In spite of an occasional statement found in literature to the contrary, it is extremely unlikely that a murmur occurring in any part of the cardiac cycle other than that occupied by the ventricular systole is of a functional nature, and the few cases placed on record in which diastolic murmurs are explained as functional must be considered as open to doubt. Functional murmurs accompany rather than replace the first sound of the heart and vary from mere impurities of that sound up to a loud, rasping bruit; but, as a rule, they are of a soft, blowing nature. The ones occurring away from the base of the heart may be distinctly post systolic in time, that is they occur during the short pause of the heart when the ventricle is still contracting, but the first sound has ceased. They vary very much from time to time, being usually more marked when the heart is acting vigorously. They are much affected by the posture of the patient, being as a rule only slightly marked or even absent in the vertical posture and much louder in the horizontal. They are considerably affected by respiration and are louder during expiration than at other times. They are not propagated so extensively away from the point of their production as are murmurs due to organic disease. These functional murmurs are of extremely common occurrence and it is surprising, if the heart be carefully and systematically auscultated in a series of individuals who are lying down, and who are not supposed to have heart disease, how often one or more of these murmurs may be detected. I found them present in 60 per cent of the inmates of the Surgical Wards of the Sick Children's Hospital, and Mr. W. S. Lemon (fourth year student) found them in fifty per cent of 50 patients taken at random in the General Hospital. Their ages varied from 4 to 84 years. In these cases the apex is usually slightly displaced to the left and upwards. The cardiac dullness is not as a rule extended laterally to any extent but is so upwards, reaching sometimes to the second rib and this is a point of importance which will be again referred to. An unusual amount of pulsation is generally visible in the left intercostal spaces near the sternum.

These murmurs occur very frequently in cases of anaemia, hence the name haemic or anaemic bruits often applied to them.

CASE II.—A girl aged 18 years complains of fainting attacks and shortness of breath. Her blood count shows the red corpuscles to number about three millions while the haemoglobin is only forty per cent. There is a loud bruit du diable in the neck and a well marked systolic murmur chiefly heard on the left side of the sternum about the third cos-

tal cartilage. Under rest and treatment with iron she completely recovered.

But it is a great and yet common mistake to consider that they are limited to such individuals, and the clinician soon discovers murmurs in cases where no abnormality of the blood exists.

CASE III.—A young woman who suffers from well marked exophthalmic goitre. Functional murmurs consisting of vascular ones in the neck and a well marked systolic one in the pulmonary area are present, and yet the blood count shows the red corpuscles to number almost five millions and the haemoglobin to be 80 per cent.

CASE IV.—A. B., medical student, aged 22, complains of palpitation of some weeks duration, has been working hard at his books and feeling run down and is losing weight. Two weeks ago he felt faint and consulted a medical man who told him he had heart disease with enlargement of that organ, and gave him tablets containing digitalis and nitroglycerin to take frequently. He has been distinctly worse since then and the palpitation has been very troublesome. No special shortness of breath and no swelling of the feet. He does not smoke nor drink. Present condition is a pale, anxious, thin youth with cold extremities, has lost twelve pounds in the last year, pulse rapid and slightly irregular, cardiac impulse is marked all over the precordium and a good deal of pulsation is present in the epigastrium which troubles him much. Apex beat is one inch below normal and half an inch outside of the nipple line. There is a loud bruit du diable in the neck. At the apex the first sound is impure but there is no conduction of the impurity into the axilla. At the base there is a loud systolic murmur and accentuation of the pulmonary second sound. The blood is normal, tongue foul. A diagnosis of functional heart trouble was made. He was put on a mixture containing strychnin and, when his digestion improved, on malt and cod liver oil and later on plain cod liver oil. He steadily improved and in six months all the murmurs had disappeared and he had gained eleven pounds in weight. That was three years ago and he has not relapsed in spite of hard work.

Yet one author writes thus (H. A. Hare, *Practical Diagnosis*, p. 289): "Having found that there is a murmur and *from the absence of anaemia* that it is due to organic cardiac disease, it is now necessary to determine at what orifice, etc." The italics are ours. There the reader must assume that if he can exclude anaemia in a given case of heart murmurs then the disease must be organic. It is on the other hand a common experience to meet with cases of even pernicious anaemia where no impurity of the cardiac sounds can be detected.

CASE V.—Mrs. C., widow, aged 53 is suffering from a chlorotic condition in that her haemoglobin keeps between forty and fifty per cent but

the red corpuscles average four millions. There is no leucocytosis, spleen is much enlarged. Patient is so frail and weak as to be confined to bed most of the time. There are no murmurs present over the heart, even in the horizontal posture.

CASE VI.—E. F., a male hospital patient, aged 35, suffering from profound anaemia, probably pernicious, although the diagnosis is not absolute. No murmurs are present over the heart or in the neck.

In all kinds of lowered general health, occurring as a sequel to some acute disease or perhaps being nothing more than a "run-down" condition, these murmurs are apt to appear. Students working hard for examinations, women worried out of good health by domestic affairs, youths following indoor occupations, and perhaps indulging too freely in tobacco, and in other ways possessing habits which tend to lower their general health, are especially prone to have these murmurs. They may also occur where no flaw in health can be detected as in case I have mentioned. They are not common after middle life.

Even in the absence of anaemia these murmurs may be associated with symptoms referable to the heart such as shortness of breath, palpitation, dizziness and faintness, but there are seldom symptoms of real breaking down in compensation such as oedema, cyanosis and venous engorgement of the liver and other organs, and on physical examination the signs of any marked dilatation of the heart are absent. On the other hand the vaso-motor tone is usually lowered and the arterial blood pressure is consequently low. There is generally a vaso-motor instability with a tendency to bounding aorta and throbbing of the carotids and the extremities tend to be cold.

CASE VII.—B. C., aged 20, lithographer, complains of palpitation, flushing, sweating and trembling, duration about one year. History,—has grown rapidly recently; works nine hours a day at his very close occupation; easily gets out of breath. Patient is a pale, nervous youth, weighs 126 pounds, loud bruit du diable in the neck, pulmonary-systolic murmur well marked. Less marked ones over the other three areas. A good prognosis given of final complete recovery. He was put on Bland's pills and recommended to be in the fresh air as much as possible. Murmurs gradually disappeared and two years later I made the following note: patient has been working hard all summer and has had no holiday, feels run down but no murmurs are now present.

Compensation for gravity in such patients is usually imperfect and the pulse beats more rapidly than it should do in the vertical posture, rising perhaps 30 or more beats instead of the normal 10 as compared with what it is when the individual is horizontal. It has been commonly noted that debilitated people, for example convalescents from typhoid,

have no cardiac murmurs while laid up, but as soon as they begin to go about and exercise themselves these develop. When individuals possessing functional heart murmurs die, the chief thing found post-mortem is a dilatation of the right ventricle, this being largely confined to the conus arteriosus. The pulmonary artery is also dilated and the pulmonary valve is carried upwards and outwards, perhaps as high as the second left costal cartilage. Foxwell (*Causation of Functional Heart Murmurs*, *Lancet* Nov., 4th 1899) quotes reports of 20 cases given by different observers in which the pulmonary valves lay on the average behind the second costal cartilage.

(2) *Causation*.—It may be taken for granted that the physical conditions necessary for the production of the mitral and tricuspid murmurs will be the same, and further that the pulmonary and aortic murmurs will similarly be due to the same physical causes, so that we need only discuss the causation of one of each kind of murmur, say the tricuspid, and the pulmonary.

Let us look at the tricuspid murmur first. The only physical condition which will produce a murmur during the systole of the ventricle is one allowing of regurgitation of the blood through the tricuspid orifice into the auricle. The cusps which close the orifice are normal (if abnormal then we would not be dealing with functional heart disease) and therefore it must be the orifice itself which has become too large to admit of its closure by normal cusps. The part played by the papillary muscles is here ignored. The function of these muscles seems to be to steady through the chordae tendinae the cusps and prevent these being everted towards the auricles. A lessening of this action of these muscles might tend to allow of such an accident, but could not well give rise to a regular systolic leakage and murmur. The size of the orifice depends upon the muscular sphincter which surrounds it and the part which the sphincter plays in the closure of the orifice is a very important one. Dr. Clifford Allbutt (*Clifford Allbutt's System of Medicine* Vol., V., p. 507), mentions some experiments done by Dr. D. MacAlister which showed that the auriculo-ventricular sphincter normally so nearly closes the orifice during ventricular systole that "we began to wonder whether valves were not luxuries rather than necessities; for the sphincter fibres contracting during the systole of the ventricle seemed to reduce the orifice almost to an imperceptible chink." The leakage may be of two kinds; either, first, the sphincter may be stretched along with the rest of the heart muscle, it being merely a part of the ventricular wall; or, second, it may alone be enlarged. Stretching of the ventricular wall occurs acutely in the athlete after some violent exertion. It occurs more chronically in obstruction to the outflow of the blood from the ventricle as in emphysema. In

either case it leads to leakage of the orifice, the normal cusps not being able to close the abnormally large opening. But in functional heart murmurs, signs of dilatation of the heart are largely, although not entirely, absent; and it seems probable that the leakage which occurs at the auriculo-ventricular orifice is not due to stretching of the sphincter from general dilatation of the ventricular wall, but rather to the relaxation of the sphincter-hypotonus of the muscle associated and probably due to the same causes as the general relaxation of the vascular musculature. When dilatation of any hollow viscus having muscular walls, for example the stomach, occurs, it arises from one of two causes, either an increased internal pressure, or, a decreased tone of the muscular coat of the organ. Now, in the case of the athlete's heart the right ventricular becomes enlarged and the tricuspid valve leaks because the intraventricular pressure is abnormally high, just as the normal stomach may become dilated from the imbibition of a large quantity of fluid. On the other hand, in certain weakened conditions the ventricles, and especially the sphincters guarding the auriculo-ventricular orifices, may become dilated *not* owing to increased intracardiac pressure but rather to decreased tonus of the muscular wall, just as very frequently the stomach becomes dilated from decreased tone in its wall without any distension by contents. It goes almost without saying that if both factors be present, then dilatation of a hollow viscus will occur with exceptional ease. Thus, if an individual with his heart in a condition of hypotonus run a race or otherwise exert himself, then that heart will very easily dilate. Thus it is that in certain anaemic or otherwise debilitated individuals functional mitral or tricuspid murmurs occur either without, or certainly with only a slight amount of exertion.

Laennec, strange to say, attributed the functional "bellows" murmurs produced at the mitral and tricuspid orifices to a spasm of these orifices. He does not seem to have noted the murmurs at the base of the heart at all.

Looking next to the functional murmurs heard over the base of the heart we find that two distinct systolic ones occur here: one, a comparatively rare one, in the aortic area; and the other, a very much commoner one in the pulmonary area. This latter is by far the commonest functional cardiac murmur that occurs. We may probably assume, as already mentioned, that the physical conditions will be the same in either case and so will only discuss the common or pulmonary bruit. There is much difference of opinion as regards the causation of this murmur and some of the theories advanced are so fanciful that Balfour has somewhat cynically called the pulmonary area the "region of romance." One may classify the theories regarding this murmur into two groups, first, those

asserting that the murmur is produced at or about the pulmonary orifice, and, second, those setting forth that the murmur is not of pulmonary origin at all, but arises at one or other of the auriculo-ventricular orifices and is merely conducted towards the pulmonary area. It might be mentioned in passing that Potain believed that all functional heart murmurs were cardio-pulmonary, i. e., were produced in the lung by the movements of the heart.

Balfour and Naunyn believed that this murmur heard in the pulmonary area was really due to mitral regurgitation. In favor of this view it was urged that a pulsation could frequently be observed in the second left intercostal space farther out than the normal position of the pulmonary artery, and that frequently the murmur was louder over this outer pulsation than elsewhere. It was considered that this pulsation was due to the left auricular appendix, which, being dilated by the leakage through the mitral orifice, was thrust forward against the chest wall. To my mind conclusive arguments can be used against such a theory. In the first place when a non-functional mitral incompetency exists, i. e., one due to organic disease, the systolic murmur is best heard near the cardiac apex and is transmitted towards the axilla. When such a regurgitation exists, pulsation in the outer part of the second left intercostal space is not observed. Again, in cases of debility a loud murmur is frequently heard in the pulmonary region and another in the mitral area and as the individual improves in health the latter disappears while the former persists for some time. I have again and again observed this clinically. Evidently for a time in such cases there is some mitral leakage which produces a murmur in the ordinary position and as the mitral sphincter improves in tone this leakage stops and the mitral murmur in consequence disappears, and yet for some time longer the murmur in the pulmonary area persists. A second theory is that the murmur is due to tricuspid regurgitation, but this is not a very popular view and it is hard to understand why a tricuspid murmur should in case of debility be heard in the pulmonary region rather than in its own position, and further when cases of debility develop tricuspid incompetence, as they often do, then a murmur develops in the tricuspid area, that is over the lower part of the sternum and is accompanied by true venous pulsation in the neck.

Thus it is most probable to my mind that the murmur is produced somewhere near the pulmonary orifice. If this be the case, then what causes it there? It may be taken as proven that an altered condition of the blood will not per se produce a murmur at a normal orifice. Perhaps the belief in the haemic production of murmurs is the most commonly held one that exists and yet it has been proved again and again both experimentally and clinically that a watery state of the blood does not, other

conditions being normal, cause any vascular or cardiac murmur. Foxwell in the Bradshaw lecture for 1899 (*Lancet* Nov., 4th, 1899), gave most convincing experimental proof that alterations in the character of the blood passing through a normally shaped heart would in no case cause a murmur, and as already stated and illustrated we have all seen cases of profound anaemia without murmurs and, on the other hand, cases of well marked functional murmurs without anaemia. Skoda wrote in 1839 that "It is not true that a watery state of the blood is a cause of murmurs because in many cases one does not find it." In order to understand the pulmonary murmur it is necessary to look for a moment at some of the physical conditions which govern the production of murmurs anywhere, and here I must acknowledge my indebtedness to Professor J. C. McLennan of the Physical Department of Toronto University for kindly help given.

1. Fluid of any kind flowing at any speed through a cylindrical tube will not cause a murmur, even if the tube be curved, so long as it retain its cylindrical form.

2. Fluid flowing from a cavity into a cylinder will similarly produce no sound. This explains why no murmurs normally exist at the pulmonary and aortic orifices. Here the blood flows from a cavity into a cylinder, there being no constriction normally at the arterial orifices.

3. Fluid flowing from a cylinder into a cavity may produce a sound, but it is not likely to do so unless the flow be very rapid. Probably the murmur heard frequently over an aneurysm is explained on the physical grounds of fluid flowing from a cylinder into a cavity.

4. The figure par excellence which will most easily give rise to a murmur is one in which the fluid must flow through a constriction. This constriction sets up eddies and fluid veins in the blood which cause sound vibrations.

It is easy to understand now how a true stenosis of an orifice gives rise to a murmur, for here we have a cavity (the ventricle) a constriction (the stenosed orifice) and a cavity again (the normal artery beyond). But can we apply the same explanation to the inorganic murmur in the pulmonary region? I think we can. All that is necessary in order to produce the hour-glass figure that we require is that the pulmonary artery be dilated while its orifice remain of normal size, but to this point we will return. Curiously enough Fagge in discussing the functional murmurs which occur at the base of the heart in anaemia, says, "The trunks of the two main arteries are supposed to be unable to retract in correspondence with the diminished volume of the blood to the same extent as the orifice through which the blood enters them." It is hard to understand how a fibrous ring like that at the orifice could retract and furthermore

the bulk of blood in anaemia is not as a rule lessened. Russell, of Edinburgh, believes that the pulmonary murmur is caused by the bending of the pulmonary artery round a dilated left auricle. He points out that in cases where the murmur exists the conus arteriosus is enlarged upwards so that the pulmonary orifice is carried upwards and to the left with the result that the pulmonary artery tends to be bent, as its distal end is a fixed point, and this bending is facilitated by the enlarged left auricle. Now it has been proved beyond all doubt by Foxwell and others by post mortem results that the pulmonary orifice is displaced upwards by enlargement of the right side of the heart from any cause and may even reach to the level of the second costal cartilage, but there is no reason to suppose that the left auricle is distended, much less that it is so distended that the pulmonary artery could be actually dented by pressure from it in order to produce such a result the pressure in the auricle would have to be higher than in the pulmonary artery and such a condition is extremely unlikely to occur. As a matter of fact at the moment of systole of the ventricle the auricle is probably empty or nearly so. Furthermore, bending of a cylindrical tube, as already stated, will not cause a murmur unless it be so acutely bent as to destroy its cylindricality. A common belief is that a dilated conus arteriosus can by itself produce a murmur, but unless the pulmonary artery be also dilated we merely have a cavity opening into a cylinder, which, as already stated, will not give rise to a murmur. Foxwell thinks that it is a dilated conus arteriosus plus a dilated pulmonary artery which is the cause, but although probably such is the actual physical condition existing, the conus arteriosus need not be dilated in order to give a murmur, for its diameter is normally greater than that of the pulmonary orifice. If then the pulmonary artery alone be dilated, this, along with a normal conus arteriosus and pulmonary orifice will give us the hour-glass figure required. It is likely, however, that as Foxwell points out, it is the dilatation of the conus arteriosus which leads largely to dilatation of the pulmonary artery. By its enlargement it moves the pulmonary orifice upwards and this relaxes the strain on the artery and allows it the more easily to dilate. This dilatation of the pulmonary artery has been shown experimentally to take place six times as easily as that of the aorta after due allowance has been made for the different tensions at which they work (Foxwell). Chauveau showed experimentally, many years ago, that a stream passing from the heart into a dilated vessel produced a sound and such an experiment was easily repeated. A rubber tube 20 feet in length was introduced through the tricuspid orifice into the right ventricle of a bullock's heart and firmly secured there. A similar tube was tied into the pulmonary artery which was cut as long as possible.

The near end of the first tube was connected with a water tap and the far end of the second tube was partially closed. The tap was then turned on and the pulmonary artery was auscultated. It dilated gradually under the pressure and a roaring murmur was heard over it which increased in loudness with the dilatation. This experiment shows that a murmur occurs from a dilated pulmonary artery and that the murmur is louder in proportion to the amount of dilation. The same experiment was repeated on the left side of the heart but the aorta scarcely dilated at all and practically no sound was produced. Taking everything into consideration it seems to me most probable that the common functional murmur, i. e., the one heard chiefly in the second and third intercostal spaces, is produced at the pulmonary orifice and is caused by, and is therefore a sign of, a temporary dilatation of the root of the pulmonary artery.

(3) *Diagnosis.*—It is scarcely necessary to emphasize the importance of clearly recognizing these functional murmurs from those produced by organic disease, seeing that in most cases the prognosis and treatment are so different. As a rule no difficulty exists. Given an overworked, neurasthenic youth with a systolic murmur heard loudest about the third left costal cartilage, associated with a well marked venous hum in the neck, and one can scarcely think of anything except functional and curable disease. But some cases are very puzzling if not quite undiagnosable, and in these we require to make use of every known test in order if possible to reach a right conclusion. I venture to give here a categorical list of such tests, compiled partly from literature but largely from my clinical observation, which may perhaps be of use.

1. Functional murmurs most commonly occur during adolescent and early adult life.

2. They are more common in males than in females, although there are many exceptions to this and chlorotic girls are very prone to have them.

3. They always occur during the systole of the ventricles, either accompanying or immediately following the first sound of the heart; that is they are always *systolic* in time. Certain diastolic murmurs have been described by Cabot and others in which no organic lesion was present, but such are so rare as to be of no practical interest. It should take a great deal to make us diagnose a diastolic murmur as functional.

4. While functional murmurs may occur over any of the cardiac areas, by far the commonest site is the pulmonary area and a little below this, say about the third left costal cartilage. A murmur occurring away from this point and unaccompanied by one here, should not be diagnosed as functional unless for some very special reason.

5. A pulmonary systolic murmur due to organic disease is very rare except when of congenital origin. When due to organic disease, other signs, such as cyanosis, stunted growth, clubbed fingers, etc., are usually present, and the pulmonary second sound is not accentuated.

6. The bruit du diable and arterial bruits heard in the neck are always functional and hence when a cardiac murmur is associated with such vascular ones there is considerable reason for believing that it too is functional. On the other hand there is no reason why organic valvular disease should not be associated with functional disease, and one often finds this to be the case. The functional element may clear up in time while the organic one persists.

7. Functional murmurs are as a rule soft in character and accompany rather than replace the first sound. They may however be loud and rasping, and the pulmonary one is especially apt to be harsh in character.

8. Functional murmurs are not so widely conducted as are organic ones and are seldom heard in the axilla.

9. Functional cardiac murmurs vary more under different conditions than do organic ones. They are louder after exertion and during expiration, and they are markedly increased by the supine position and in fact may only be heard while the patient is lying down. The importance of posture as affecting cardiac murmurs was well emphasized by W. Gordon (*British Medical Journal* 15th March, 1902) and I fully endorse his conclusion "that in describing and discussing murmurs, which posture modifies, the patient's position should always be stated." Zechuisen (*Centralblatt für innere Medizin*, March 11th, 1899) also emphasized this point. Foxwell writes thus in this connection, "The murmur in the pulmonary region is much more evident in the supine than in the erect posture, especially if it be listened for immediately upon the patient's lying down before the circulation has been able to accommodate itself to if it be not the dynamic rather than the static change in position which is the more important element in its intensification." That the horizontal posture in itself is an important factor is, however, shown by the murmur occurring so well in the children mentioned who had been for months horizontal.

10. The pulmonary second sound is early accentuated and this sign may occur before any murmur is audible. In true pulmonary stenosis no such accentuation is present.

11. In functional murmurs there is usually little sign of hypertrophy or dilatation of the heart and the apex beat is not much displaced. A certain amount of cardiac dilatation and displacement of the apex beat is however quite common, the apex being usually displaced a little upwards

and to the left. Wybauw (Journ., Med., de Brux, March 15th, 1900) has pointed out that some dilatation of the heart is 'very common in chlorosis and anaemia and Byron Bramwell mentions the same thing.

12. Cardio-respiratory sounds are sometimes mistaken for cardiac murmurs. They are produced in the adjacent lung by the cardiac movements and largely disappear when the patient holds his breath.

13. Functional murmurs tend to disappear as the patient improves in general health. This is not the case with organic murmurs which are apt to become louder as the heart's action strengthens.

14. Signs of breaking down of compensation are rare in functional cases and such breaking down should always suggest organic disease of the valves or heart muscle.

Here it should be mentioned that the term functional heart murmur may be misleading in that, although nothing be wrong with the actual valves themselves, a great deal may be organically wrong with the rest of the heart. Thus in a case of fatty degeneration of the heart muscle with consequent dilatation, a mitral murmur may occur from enlargement of the mitral orifice. Such a case could not be called one of valvular disease and yet the term functional heart murmur would scarcely suggest the serious condition present. Theodore Fisher in a paper read before the Bristol Medico-Chirurgical Society on the 13th of May, 1896, (Lancet July 18th, 1896) states his belief that in most cases of even rheumatic valvulitis where, at the post-mortem, vegetations are found about the mitral valve, the leakage occurring during life was not due to the valvular disease, which often is evinced chiefly by a row of small vegetations which could not possibly prevent the closure of the cusps, but was rather due to the associated dilatation of the mitral sphincter. In other words we have a functional condition complicating the true endocarditis, and if care be taken not to strain the heart during convalescence the valve will again become competent in spite of the vegetations on the surface of the cusps. Dr. Fisher continues, "Dr. Caton treated several patients suffering from rheumatism, over whose hearts cardiac murmurs were audible, by rest in bed and blisters over the precordial region. Forty patients were kept in bed on an average of 41 days and in twenty-nine the murmurs disappeared. Dr. Caton attributes the disappearance of the murmurs to the treatment of the endocarditis by the blisters, but it seems far more reasonable to suppose that the prolonged rest in bed allowed the dilated hearts to recover, and the murmurs depending upon the dilatation was consequently noted to have disappeared while the patients were under observation."

15. Seeing that functional murmurs are so often found by accident so to speak, as for example examining for life insurance, it follows that a

great many individuals have these murmurs unknown to themselves or their physicians. If now such individuals be attacked by rheumatic fever, scarlet fever, chorea or any of the other conditions in which endocarditis is apt to occur, we may be led to diagnose the more serious condition, although by close attention to the character of functional murmurs we may generally avoid such an error.

16. Fevers are very apt to give rise to functional murmurs. La Salle (These de Paris No., 9, 1898--1899) found that these murmurs occur in 66 per cent of cases of scarlet fever in females between the ages of 15 and 25. He also by the way noted that vasodilators such as trinitrin tended to increase these murmurs, which is evidence in favor of the theory that they are due to a relaxed state of the muscular wall of the heart and vessels. In rheumatic fever they are also apt to occur. How then are we to distinguish them from murmurs due to endocarditis occurring in these conditions? This cannot always be done and in many cases we must wait and watch, in the meantime of course treating the case as if it were of the more serious nature. But an important point here is that endocarditis usually occurs if at all during the first ten days of the rheumatic or other fever, while functional murmurs are apt to occur later when the tissues have become relaxed by the prolonged fever. Thus the earlier in the case the murmur occurs the more likely it is to be due to organic disease. There are very many exceptions to this rule especially in the direction of functional murmurs occurring earlier.

17. No mention has been made so far of the effect of pressure by the stethoscope in altering murmurs. Some writers put considerable weight upon this and believe that functional murmurs are more easily affected than organic ones by this pressure. Sewall states that all non-organic murmurs at the base of the heart can be stopped by pressure with the stethoscope (C. Allbutt's System of Medicine, Vol., V., Page 508). But I am not convinced that this is the case nor, indeed, that pressure has any marked effect upon any cardiac murmurs.

I have purposely avoided lengthening this paper by giving the details of many individual cases. Any practitioner can I am sure think of so many in his own experience that it seems unnecessary to give them.

In conclusion I would express the belief, first, that we all are too apt to conclude that the heart is organically diseased because murmurs are present, and, second, it may be added, that we too easily assume that the heart is organically sound because murmurs happen to be absent. Either error leads to bad prognosis and treatment.

INFLAMMATION OF THE LACHRYMAL APPARATUS.*

By G. HERBERT BURNHAM, M.D., F.R.C.S. EDIN.,

Professor of Ophthalmology and Otology, Medical Faculty, University of Toronto.

THE Lachrymal apparatus is divided into two parts, viz., that which produces the tears, and that which carries them away. This latter begins at the punctum, then next the canaliculi of the upper and lower lids, the lachrymal sac into which they empty single or united, and the nasal duct, whose lower extremity terminates beneath the inferior turbinated bone. It is with this latter, or the drainage part, my remarks have to do.

A troublesome cause of watering of the eye is either stricture of the punctum or its displacement, or catarrhal inflammation of the canaliculus, or some stricture in its passage, or some foreign substance in its interior. A very delicate probe can be passed through the punctum and canaliculus to dilate them. Then by means of the lachrymal syringe liquids can be sent in, and in this way the inflammatory conditions can be removed, and the patency of the tract shown. Also, the patient can be given drops to use at home. The liquids which can be used with the syringe are solution of cocaine to dull the sensitive inflamed tissue of the canal, adrenalin solution, and many others. The patient can be given adrenalin solution to use at home by filling with it the inner corner of the eye and allowing it to remain in ten minutes, or so, in order that it may make its way into the canaliculus. If this should not be satisfactory, the canaliculus can be slit up as devised by Bowman.

This operation is especially applicable as a remedy for malposition of the punctum. However, inflammation of the lachrymal sac is that of which I wish especially to speak. Uncomplicated, primary inflammation of the lachrymal sac is seldom met with, and, if it occur, is usually due to struma, external violence, or the entrance into the sac of an irritating fluid. The usual cause of this inflammation, or dacryocystitis, as it is called, is stricture of the nasal duct. The drainage of the sac being interfered with, the fluid contents accumulate and undergo pertrifactive changes. In this way a chronic catarrhal inflammation or blenorrhœa is set up. The distended sac is continually sending back muco-pus through the canaliculi into the eye. Acute exacerbation may occur.

This abscess of the sac is attended by much suffering and constitutional disturbance. Sometimes the redness and the extent of the swelling is so great as to be confounded with erysipelas. The attack runs its course. The tissue over the sac and the integument become

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affected. When the pus makes its way through the sac wall into the overlying tissue, the pain ceases and an abscess is formed. At the beginning, an effort may be made by leeching, cold and calomel purging to cut short the attack. As a rule this is futile. When the progress of the attack cannot be stopped then apply freely linseed poultices. When there is fluctuation incise through the integument into the sac and thus give exit to the pus.

Later on the condition can be treated by another operation which I shall shortly mention.

A close relationship exists between the drainage apparatus of the eye and the nose. The membrane of the duct is continuous above with that of the sac and below with that of the nose. It is very vascular and is a periosteal and mucous membrane.

The calibre of the duct varies very much, and in the skull will admit the passage of a probe sometimes of three millimetres only, and again of seven in diameter. Owing to the peculiarities of the lining membrane of the duct, it is easily seen why an inflammation may lead to stenosis of the duct, and later on to the formation of periosteal and bony strictures.

This condition never undergoes a spontaneous cure, and, unless treated, is a standing menace to the eye, being a cause of great annoyance, aggravated at times by acute painful attacks.

Inflammation of the conjunctiva has very slight tendency to affect the lachrymal sac, as evidenced by its absence in the most severe forms of conjunctival inflammation.

The history of the inflammation of the lachrymal sac and strictures of the nasal duct would fill books, I may say.

I intend to give the plan of treatment which I have found the most successful. The instruments I use are silver styles of various shapes: probes, Nos. 1, 2, 3 and 4, out of a series of eight sizes; a Bowman's and a Weber's canaliculus knife; and under certain conditions, a Graefe's cataract knife and an Anel's syringe. Having decided to operate by means of a Weber's canaliculus knife, I divide the canaliculus into the sac.

The procedure of slitting the canaliculus was devised by Bowman and was a great advance upon all previous methods of dealing with lachrymal obstruction, and facilitated the passage of probes, which bear his name. As this form of treatment was not satisfactory, several oculists, without being aware of the labors, of each other, decided that if larger probes were used the results would be more satisfactory. These probes varied in size from $\frac{1}{4}$ mm. to 4 mm. At the first probing and afterwards the usual rule is to pass as large a probe as possible every

other day and allow it to remain in position quarter to half an hour. Then later, once every week, ten days or a fortnight, and, finally, eve v month or two, till the stricture shows no tendency to return, and the blenorrhœa of sac and the inflammation of duct have disappeared. Styles of lead and silver, if used, are used under protest almost, and would not be considered, if the patient could remain so as to have un-interrupted probing.

Then some go on naively to remark that the application of medicated solutions of various kinds has never secured any attention, as they were considered almost useless.

With this mode of treatment, viz., the use of as large probes as can possibly be passed and the non-use of medicated solutions, I do not agree. In fact, my procedure is not only different, but I consider much more easily borne by the patient, and also more successful as a curative measure. Having divided the canaliculus into the sac, I introduce by a syringe a 5 per cent. solution of cocaine, then pass a probe, sometimes Nos. 1 and 2 only, and sometimes Nos. 3 and 4, but never any larger, though the largest of the series is No. 8. I irrigate the whole passage, so that the fluid passes freely into the nose, with adrenalin solution, followed by a solution 1 in 2,000 of permanganate of potash, or any other you may choose to use. Then I pass a silver style and allow it to remain in position.

The probes are passed through and taken out at once, so that the whole operation takes but a short time, and is comparatively easily borne by the patient. Then the patient is directed frequently to bathe the parts with hot water. I do not disturb the style till the tenderness consequent upon the operation has subsided, which may be a few days or so longer. On the next visit I withdraw the style, then use the syringe to send in the cocaine solution followed by adrenalin solution, and solutions of permanganate of potash, of argyrol, tannic acid, etc. In this way the sac and duct being pervious are freely irrigated. The style is then replaced. The whole procedure is done quickly with very little suffering, and is a decided contrast to the passing of probes till one is tried so large that, after very firm pressure, it fails to go through, and, if it does, is allowed to remain in position for quarter to half an hour.

This procedure of mine quickly stops all discharge, and hence a condition is established which aids very much in the removal of the stricture. In a short time I send the patient away to reappear at stated intervals, gradually lengthening. While the parts have apparently become healthy, the eye is often annoyed by a little watery discharge, more or less pronounced, which is very disagreeable to the patient and unsat-

isfactory. This often arises from an unevenness of the floor of the divided canaliculus, caused by firm little fibrous bands stretching across its floor, in fact, more like a rising up of the floor here and there into sharp ridges. This is not noticeable at first, but comes on in the process of treatment. It is found out on passing a probe along the floor of the canaliculus, it meets with little obstacles, which catch its top. These can be easily ridden over, so that it goes on and enters the sac. These little bands act as shallow dams and interfere with the proper drainage of the eye. These I divide as they arise in the course of treatment by a sharp-pointed Graefe's knife. I am always on the alert for these bands. This condition is a point not mentioned, or, if noticed, not paid any attention to, whereas I feel it to be of great importance to the full drainage of the eye.

In some cases it is difficult to pass a probe on account of the nature of the stricture. To do so most firm pressure is sometimes needed, so firm that the probe has to be grasped by the hands, and, being sure of the proper direction of your probe, to be forced through, having always the probe so well under command that, when it passes, its course can be stayed. I well remember one case of very severe and long-established inflammation of each lachrymal passage, and which, moreover, had been given up as incurable, when it took me two months to force the passage on one side. In this case, by very firm pressure, I finally made a lodgment in the duct; and then by firm pressure, with both hands on the probe from time to time, finally it went through the natural passage.

The results under my form of treatment have been very satisfactory; and, what is as gratifying as success, with very much less pain, discomfort and dread to the patient than under the treatment commonly advocated. In children chloroform should be used for the first operation; but, in the after treatment of the case on the lines laid down by me, it is not needed, as the suffering is so minimised.

TUBERCULOSIS OF THE FEMALE URINARY ORGANS. REMOVAL OF KIDNEY AND URETER.*

By ERNEST W. CUSHING, M.D.

Professor Gynaecology and Abdominal Surgery. Tuft's University, Boston, Mass.

IT has long been observed that certain cases of chronic cystitis were incurable, and that in spite of every method of treatment the wretched sufferers went on from bad to worse until they perished miserably. In time, as the art of diagnosis advanced, it was learned that these

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cases were tuberculous, and now that we have means of demonstrating the presence of the tubercle bacillus in the urine the diagnosis is easy.

Nevertheless for a long time the improvement in diagnosis was of little value, except to establish an absolutely unfavorable prognosis, for it was still found that only temporary relief could be obtained from any form of treatment.

When at autopsies, held on persons who had died with tuberculous disease of the bladder, a kidney, and, perhaps, the corresponding ureter, were found to be also greatly disorganized with tubercular disease, it was at first supposed that the infection had ascended from the bladder, involving the kidney secondarily.

Finally, however, cases multiplied in which after a tuberculous kidney had been removed, because the principal disease appeared to be located in it, although there was some tubercular disease of the bladder, the result showed that the tuberculosis of the latter organ improved, and finally disappeared under judicious treatment and favorable circumstances. It is now established, therefore, that tuberculosis of the urinary organs is a descending affection, that it first obtains lodgment in the kidney, supposedly deposited there by the blood-stream from some other focus in lung, glands, bone, skin, etc. That the infection then descends with the urine, probably not at first attacking the ureter. That, finally, from some obstruction to the escape of urine from the ureter into the bladder, the current of urine in the ureter is slowed or made to stagnate, and infection of the ureter follows.

By observation of a very large number of cases, and a careful study of post mortem examinations the pathologists are able to assure us that tuberculosis of the bladder is rare, except in cases in which the kidney is involved. They have also established the fact that fortunately only one kidney is affected in the vast majority of cases.

Clinical experience, and the results of surgical operation confirm these assertions, and also establish the fact that after removal of the diseased kidney the tuberculous bladder is generally curable.

The case which I report to-day, and from which I show the specimen, is of much clinical interest, because there were never any symptoms referable to the kidney, and because a long course of life in the open air improved the patient's health so markedly that she was brought up to a condition fit for the serious operation of nephrectomy, and now appears to be in a position to overcome the tuberculous infection which has become entirely localized.

Miss X., age 30, was admitted to my private hospital in February, 1902. She had been healthy as a girl, but for several years previous to the above date had suffered from pain at menstruation. In 1900 she un-

derwent a dilatation and curettage of the uterus, but at that time the womb was found to be retroverted and adherent. An operation for release of the pelvic organs was declined.

During the ensuing two years the patient gradually failed in health, suffering from pain in the back, low down, and a frequent desire for micturition, with much pain in the bladder. On examination, the heart and lungs were found normal, urine showed cystitis, bowels constipated. It was supposed that the cystitis was referable to the pressure of the retroverted uterus.

February 20, 1902. Curved transverse incision, uterus found heavy, badly retroverted, and held firmly by many adhesions. Both tubes swollen, tortuous occluded, and firmly adherent; both ovaries enlarged and cystic. Uterus amputated at level of int. os. and removed with the appendages. Appendix found covered with adhesions and removed.

March 2. Stitches removed, first intention, primary union. Bladder somewhat better, urine clear, and can be held longer. Urine too alkaline, sp. gr. 1010, pale, contained albumen, sediment showed pus and cocci—not searched for tubercle bacilli. Bladder washed out daily with pot. permang., or boric acid. Cystogen internally. Went home in good condition April 1.

April 11. After getting home bladder not washed out for ten days, symptoms increased in severity, and urine became nearly as bad as at first admission. Used irrigation daily at first, and then every three days, cystogen internally t. i. d., much improved, but not cured.

May 8. Found tubercle bacilli in sediment—fairly abundant—patient re-entered hospital. Dilated urethra and touched with silver nitrate some ulcers found in the bladder.

May 17. Bladder seems better, continued treatment, and after each irrigation left emulsion of iodoform in bladder. Patient is now kept out of doors nearly all the time reclining on a couch, and receives the largest amount of food which she can be made to take, in order to improve the general health as far as possible.

July 3. Sudden rise of temperature to 103deg. in the evening, next morning 101deg. Since then every evening 101deg. Spit blood July 5.

Ulcers cauterized, May 10-27, June 6-16-26, July 26, August 16, September 19, October 10-24. During this time marked improvement physically and mentally, gained in weight.

October 28, injections in bladder of protargol every day.

January 7, 1904, process seems to be pretty well localized about left ureteral meatus. Stays out of doors on couch right through the winter, except at night, and then has three windows open; very marked improvement in general health, weight and color.

May 26. Dr. Howard Kelly examined the patient, found extensive ulceration round opening of left ureter, constriction of left ureter about inch from meatus, so tight that catheter cannot be passed further. Gave opinion that there was no doubt that the kidney on left side was tuberculous, and no longer functional. Right side probably healthy, advised nephrectomy.

June 18. Operation after the method of Kelly. Incision in left lumbar region; kidney found and brought to surface. It was a great, irregular pus-sac, with thin shell of cortex.—Separation of adhesions, ligation of vessels twice with catgut, vessels divided at hilus, ureter clamped, divided, ligated and free end cauterized. Incision closed with deep running sutures of catgut and interrupted sutures of silk worm gut, leaving rubber tube and gauze drain. The ligature on the end of the ureter was left long and brought out between two stitches.

Second incision parallel to Poupart's ligament from anterior superior spine of ilium nearly to spine of pubis; peritoneum pushed back; ureter, which adhered to peritoneum, easily found by pulling on free end of ligature. Ureter freed from adhesions, free end of ligature cut off and free end of ureter brought out from the second wound. It was then carefully separated almost down to the bladder, where it broke off; the upper end was very large and thick, but at the place where it broke off it was much smaller than normal, and the whole wall was infiltrated with tubercular matter representing the stricture; here the ureter was lost in a mass of inflammatory connective tissue. As it seemed to me that any further attempt at removal of the lowest part of the ureter could best be done if necessary from the vagina, I next closed the incision with catgut and silk worm gut, leaving drainage to stump of ureter. Recovery uneventful.

June 24. Most of stitches removed, wound in groin healed; wound in back only slightly open with some drainage; a wick was put in. Shortly after the operation there was a large amount of pus and blood in the bladder which rapidly cleared up under irrigation of that organ.

July 1. Patient sitting up, feels and looks much better than before the operation; temperature normal.

As compared with this chronic affection, the record of the second case which I have to report may be of interest on account of the sudden onset of violent symptoms.

Miss Y., aet. 38, had been in fair health until within two or three years, when she began to have pain in the region of the right kidney at intervals, but the pain was not severe nor paroxysmal. Sometimes also she would have scalding pains on urinating. During the last six months she observed that after the painful attacks the last of the urine voided contained pus. She did not ask for medical assistance, however, suppos-

ing that the pus came from the vagina, and was "the whites." She continued to lead an active life, never being confined to bed until the present attack.

On June 28, 1904, after being about and active as usual, the patient was seized with a violent pain in the region of the right kidney, running down the course of the ureter. Provisional diagnosis of renal calculus was made, and morphine was administered with much relief. As the urine was alkaline, turbid and offensive, containing albumen and a purulent sediment, cystogen was given internally.

The second night the pain returned more violently than ever. Temp. 103.5deg., pulse 110. Large hypodermic doses of morphine gave only partial relief. At 4 a.m., the patient passed with her urine a soft solid cast of the whole ureter, which had evidently been obstructing the flow of the urine, for the pain soon disappeared. The cast was some six inches long, and larger than a normal ureter. It had such a foul odor that it was thrown away at once. No calculus was passed at any time. Urine foul, albuminous, alkaline, turbid, purulent.

During the ensuing (second) day, the pains returned; temp. remained 103deg.; there was a slight chill. I was summoned in the afternoon, and agreed with the attending physician, Dr. Bullock, of Weymouth, that the case was serious, and required prompt interference.

The patient was brought to my private hospital the same evening, and operation followed next morning; 62 hours after the beginning of the attack.

The kidney was exposed by the oblique lumbar incision, and was found to be firmly adherent to the adjacent tissues, not much enlarged, dark, irregular, cystic in part, and evidently disorganized. The renal pelvis and ureter were greatly dilated.

It was liberated from the adhesions, and the hilus found, and the vessels clamped and divided. They were then tied twice with separate ligatures of strong catgut. The ureter was cut across between clamps as low down as possible, where it was as large as the little finger. The free end was ligated with catgut, and the extremity carefully cauterized. Wound cleansed with hydrogen peroxide. Drainage of rubber tube and gauze, to stump of ureter, and gauze to stump of vessels.

There was a very free discharge from the drain, soaking the dressings, the condition was critical for three days, from diarrhoea, feebleness and vomiting, which at one time became faecal. Pulse 110, temp. 100deg. The vomiting was checked by small doses of morphine and lavage of the stomach. The urine became clear by the third day, under irrigation of the bladder.

Examination of the specimen showed that the kidney was completely disorganized, and the cortical substance destroyed. The whole in-

terior surface was gangrenous. No stone or gravel in the kidney. Ureter much dilated, thickened and inflamed. Extremely foul odor on cutting across the ureter, and on opening the kidney.

In this case no measures were taken to prove the existence of the other kidney, because during the time when the ureter was known to be occluded by the cast, urine was passed freely, being secreted by the other kidney.

During convalescence a sufficient quantity of urine was passed at all times, and, after three critical days, the patient became fully convalescent.

THE USE OF THE X-RAY IN THE DIAGNOSIS OF DISEASES OF THE BONES.*

By E. A. CODMAN, M. D., Boston, Mass.

IT would be extremely uninteresting to you to listen to a description of each form of bone disease in which I have found the x-ray useful, or to listen to a rehearsal of a series of cases, but I trust that my method of using the x-ray in diagnosis may be worth your attention. In what I have to say to-night I shall limit myself to diseases of the bones, although the same method of interpretation is valuable in the explanation of any x-ray plate.

My particular hobby in x-ray work has been "interpretation." By the interpretation of a plate I mean the drawing of conclusions from it as to the actual anatomical or pathological condition of the part which has been taken. I fear that I have neglected electrical and photographic technique shamefully, for I have felt that the thing which is worth a physician's time in x-ray work is his ability to draw conclusions from his plates after they are taken. Any man without a medical education may soon learn to take a technically good x-ray picture, but it requires an accurate anatomical and pathological knowledge to interpret one correctly after it is taken.

The structures of machines, coils, tubes, anodes and cathodes may be changed indefinitely in the next twenty years, but the anatomy of the bones and the manner in which they are affected with disease will be the same, and it is with these same diseases that experience in interpretation will prove valuable. The ultimate object is to obtain knowledge which will assist in curing the disease. To this end there are four steps.

I. The knowledge of the essential characteristics of an x-ray picture, i.e., that it is a projection or chart of the densities of the different parts of an object.

2. The knowledge of normal x-ray anatomy, i.e., the appearances made by the normal bones in an x-ray picture.
3. The knowledge of the pathology of different forms of bone disease, i.e., the exact manner in which each invades the bone.
4. The ability to reconstruct a picture of the pathological conditions in the individual case from the inferences deduced from x-ray pictures of it.

When we have a competent knowledge of these four essentials, we may reason as follows :—

An x-ray may differ from the normal appearance of the tibia in that it shows a thickening of the cortical bone of the shaft. Since the shaft is affected, it is more likely to be syphilis than tuberculosis, which almost invariably affects the epiphysis. Since there is no loss of bone substance or formation of a sequestrum it is not osteomyelitis. The patient is young, therefore, it is not Paget's disease. There is no chronic lung disease, therefore, it is not osteo-arthropathy pneumonique, etc., etc. Sherlock Holmes would have been a great interpreter of x-ray pictures.

Let me speak a little more fully of each of my four divisions.

1. *The knowledge of the essential characteristics of an x-ray picture.*—The x-ray picture or skiagraph is not like any other kind of a picture we are familiar with. I have racked my brains to try to find something to compare it with. My best definition is a chart of the densities of the different portions of an object. Stop to think a minute ! It is not a shadow, for a shadow is merely an outline bounding a homogeneous interior. It is not a photograph, because a photograph shows merely outline and the surface. It is not a median section, for a median section gives no idea of what lies on either side. It is not a picture of an interior, for you may see it in portions of the object which are on both sides.

It really shows much more than any other kind of a picture with which we are familiar, for, like the shadow and the photograph, it gives the outline, and, like the median section and interior view, it gives some knowledge of what lies inside the bone. To this Maritime Medical Association I may compare it to a graphic representation of a chart of soundings where, instead of the number of fathoms, is registered, in black and white, the number of atoms which each ray meets in traversing the bone. The less the number of atoms met in each portion of the bone, the deeper and darker will be the imprint left by the ray on the plate.

One must remember that the greater the atomic weight of an ob-

ject or substance the more obstruction will it offer in the path of the ray. This is equally true of each little part of that object or substance.

I need not remind you, too, that the portions of an object which are not in contact with the plate, are enlarged because the light radiates from a single point. In this, skiagraphs resemble shadow pictures.

2. *The knowledge of normal x-ray anatomy.*—X-ray anatomy differs greatly from the osteology which we learnt at the medical school. We then learnt to describe the surface of bones, and paid little attention to the density of their various parts. In the x-ray picture we recognize the bones entirely from their outline unless we happen to remember the look of their sections, but in the x-ray the outline surrounds a chart of densities instead of surface markings. In the skiagraph the sustentaculum tali and the unciform process appear as dense rings in the middle of the os calcis and unciform bone, instead of protuberances on their surfaces. The epiphyseal junctions in children appear as irregular overlapping ellipses. The olecranon fossa seems like a hole in the lower end of the humerus.

3. *The knowledge of the pathology of different forms of bone disease.*—I mean by this especially, the particular modes in which each disease invades the bone. How have our predecessors in medicine learned to classify the different forms of bone disease? By the study at operations or autopsy of the different characteristics of each disease confirmed by the clinical history and the microscope. For instance, in syphilis of the bone, they have given us the following facts:

A syphilitic bone has no odor. The x-ray cannot tell us this.

Gummatous infiltration of a bone is not purulent, but a grayish or yellowish granulation-like tissue. The x-ray cannot tell us this.

The surface of syphilitic bone is rough to the touch and the periosteum adheres with more than ordinary tenacity to it. But the x-ray cannot tell us this.

So we might go on with other diseases mentioning many things which the x-ray will not tell us.

Those of us who have had experience do not expect to tell how a bone smells, or how it looks in cross section, or how it feels on the surface. We may, however, infer how it smells, or how it looks, and how it feels after we have found out some of the other things; for, fortunately, our predecessors have told us other things about syphilis of the bone.

For instance, syphilis almost always affects the shaft instead of the epiphysis. This we can find out from the x-ray.

Syphilis seldom forms sequestra. This we can find out from the x-ray.

When one bone in the body is affected by syphilis other bones are x-ray.

Take another disease, e.g., rickets. The x-ray tells us that the zone of ossification is broadened, that the adjacent surfaces of the diaphysis and epiphysis are irregular, that there are areas of little density in the broadened portion of the diaphysis, that there is increased cortical bone on the concave side of the distorted long bones, etc., etc. It does not tell us whether the epiphyseal line is red or yellow, or how the concave side smells, but it does tell us enough so that we should not make one mistake in a hundred in making a diagnosis of rickets. We might then infer that the epiphyseal line is purple because we know that the section of a rachitic bone shows a purple epiphyseal line.

Let us suppose an instance and draw our deductions.

Here is a skiagraph of a tibia, showing a loss of substance in its lower end. This much we can be sure the x-ray says truly, but when we begin to infer what tissue of little density lies in that cavity where the loss of substance has occurred, we begin to tread on dangerous ground. Now we know from pathology that such a loss of substance may be caused by an abscess in the bone or a medullary sarcoma or chondroma or gumma. We examine the x-ray more closely. If it is an abscess it is likely to have a certain amount of new bone formation in its wall. This will make the abscess cavity appear to be surrounded by a dark wall. If the light area is due to a medullary sarcoma, we may see trabeculae passing across it here and there, giving it a mottled appearance. If chondroma, it has probably an erosion or a protuberance when seen in the lateral view. If a gumma, probably there are other lesions in other bones.

Perhaps we shall have recourse to the clinical history for the most important evidence. I would no more make a diagnosis on the x-ray alone than I would say pneumonia on the strength of the stethoscopic examination alone. Sometimes I should feel pretty sure in either case but I should like to hear a cough, or to see the temperature chart and a little rusty sputum before speaking positively.

I have no intention of claiming to make all diagnosis from the x-ray, but it is of great importance. What it does tell us is how the inorganic portion of the bone is affected, and this is a great assistance if our knowledge of pathology can tell us the way each disease affects the inorganic portion.

4. *The ability to reconstruct a picture of the pathological conditions in the individual case from the inferences deduced from x-ray pictures*
This fourth requisition means a thorough knowledge of all the other three steps. One must understand the distortions which are character-

istic of every x-ray picture. For instance, the x-ray picture of a cube may appear like two squares, a larger and a smaller ; or like two superimposed trapezoida, varying in shape according to the angle from which the rays come. One must know how these distortions affect the normal x-ray anatomy of the various bones. One must know the pathology of each disease thoroughly. Finally, one must reconstruct the cube from the larger and smaller square, the actual bone from the x-ray chart, the kind of disease from the particular way in which the bone is invaded, and the odor, the appearance, and the feeling from knowledge of pathology of the disease itself.

Is this way more difficult than deducing the appearance of the heart from what you hear of its murmurs ? Can you not form a mental picture of the appearance of the kidney from your examination of the urine ?

Expressed simply, my statement is this : If you know how to interpret it, a good x-ray will tell you much of the condition of the inorganic portion of the bone. Different diseases affect the inorganic portions of the bone in different ways. If you know what these different ways are you may get great help in your diagnosis from the x-rays.

MEDICAL THOUGHTS.

By JAMES S. SPRAGUE, M.D., Stirling.

"These are the thoughts of things which thoughts but tenderly touch."

JOHN Brown's sketch of his father—a physician—is said by S. Weir Mitchell to have given a nearly perfect story of the simple and honest, dutiful and thoughtful life work of the every-day doctor. Miss Jewet's "The Country Doctor" has done our profession much service and faithful portrayal.

Osler recommends us to read medical biographies such as Wilson's Life of John Reid, Morley's Life of Jerome Cardan, Pichot's Life of Sir Charles Bell, Marion Sim's own book, Ambroise Pare's sketches.

In later years such works as *The Luck of the Vails*, *Flames*, *Sir Richard Calmady*, and *Cinderella* have appeared. A *Comedy of Conscience* by Dr. S. Weir Mitchell, a most charming and classical writer, invites our reading. *Warren's Extracts from the Diary of a late London Physician*, though old, is ever charming. *Brown's Religio Medici* and the *Essay of Noxon of Guys*, *Pilocereus Senilis*, are treasures. Osler speaks highly of Plato, Montaigne, Rabelais, and Oliver Wendell Holmes, the lives of David and Isaiah.

Young doctors are ambitious for the plaudits of men, but those who "see the shadows creepin' and the licht's nae burnin' lang" await the

benediction. In due time this benediction is quickly said, and in a few brief years is never lisped. "A nice doctor" is the usual epithet that is applied to the memory of many who have gone before ; and, no doubt, is in cold storage for you and me. Many who have won the V. C. are now forgotten, and there are many MacLures in your nearest churchyard. Strive to be one, even if undecorated ; for there is a world beyond.

It is not non-professional to have a *hobby* if such does not alienate one's interest from his life-work, and is ancillary to its interests. As an example, a fellow M. D. has, by close study during three years, acquired a speaking and writing knowledge of the German language ; and, while so engaged, has done an extensive practice. Another friend, M. D. for many years, has set aside each year a subject for some special study, during leisure moments ; and, as a result, has become a safe specialist in several important specialities or branches. His work and application are commendable, yet he has too few followers. These two illustrations are given as incentives to those whose study and researches are without design or order.

Dr. Adami, in an address delivered several years since at Ann Arbor, Michigan, made reference to the very defective penmanship of medical students (and doctors ?) That such is too common, I have had, since writing this statement, abundant proofs to verify by close study. That those who are engaged in special practice are good penmen and make use of fair punctuation, is very evident. If these points are not ideal, there are abundant evidences of exactness in the finish and the work to illustrate a knowledge of ideality, or perfection, really worth study and observance.

"Blue-eyed and bright, but waning fast into the sere of virginal decay," is W. E. Henley's description of the nurse. Of the House Surgeon he says :—

"Frank-faced, frank-eyed, frank-hearted, always bright ;
Bland as a Jesuit, sober as a hymn ;
Humorous, and yet without a touch of whim ;
Gentle and amiable, yet full of fight."

A fellow graduate tells us he has written but one article for publication in a Medical Journal. In some respects such is commendable ; but, as a rule, it is not. Are we to sit like our grandsire cut in alabaster and otherwise have nothing to say or to state, either for or against the blessings or evils done and about to be done to our profession ? Have we, who have been over the roads, nothing to state in the way of cheer to those who are just commencing their life-work in practice ? When a school boy, my teacher taught me :—

"Count that day lost whose low declining sun,
Views from thy hand no worthy action done."

It is well for us that before "desire shall fail and those that look out of the windows be darkened" to do something in the way of advice for those who are now to take our place. The cost of the work is nothing. The good will be remembered. For our profession, is not the reward worth our past time effort?

If experience teaches anything, and certainly in no other profession besides medicine does it teach more, is it not our duty and right to give a few pointers or hints to those who are embarking that they may not run on quick sands or otherwise wreck their crafts on dangerous shores? The answer is a plain—Yes.

If Hippocrates, whose *oath* is the most memorable of all human documents (as says Gomperz) has suggested that the sons of physicians shall be taught without fees the science of medicine, why is it that our medical colleges exact fees from such?

Would it not be in the best interests of students in medicine that the M.B. degree be granted after passing the primary examination (such as is done by Laval University), and the degree of M. D., or M.D., C.M., after the finals? Would it not be well to make M.D. course seven years, so as to embody the B.A. or B.S. in it?

Is the degree of M.D. or M.B. of such low estimation with the senates of several universities that they require of dentists and pharmacists a matriculation examination exactly similar? The profession, at large, of medicine, as does the dear public, requires more. Dentistry is a *trade*—that of a mechanic—nothing more. The B.A. or B.S. (the first named better) is imperative as a pass for matriculation in medicine. The ability to know the contents of a 5th reader or *to read* is only required or should be required of dentists. The doctorate to dentists, to Farriers, to piano players, etc., reflects no honor on the title. Such is the opinion of the dear people and they are no fools. Such is grievous to men in medicine, and it is indeed humiliating to the M.B. or M.D., Toronto University or any university, to notice: "Honor graduate of Toronto University" attached to the newspaper card of so many dentists, of which Dr. J. Sydney Jones, Dentist, (Honor Graduate of Toronto University) is a common notice in country newspapers. Domine salve nos—had we not better "throw up" the doctorate to farriers, dentists, etc.?

McGill has recently established a faculty in dentistry. Whether the words, "Thrice illustrious and with honors" will be permitted each graduate to use is not yet stated. This encouragement will arouse tonsorial artists with ambition to obtain the D.B.A., i.e., Doctor in Artibus Barbae.

CURRENT MEDICAL LITERATURE

MEDICINE.

Under the charge of A. J. MACKENZIE, B.A., M.B., Toronto.

IMMUNIZATION AGAINST RATTLESNAKE VENOM.

The summer number of the *University of Pennsylvania Bulletin* contains a letter from Hideyo Noguchi, M.D., who was sent to the State serum Laboratory, Copenhagen, by the Carnegie Institute to investigate this subject. He states that after five months he has succeeded in preparing a strong anti-venomous serum of which the therapeutic value has been proven by experiment. 0.0005 gram of the dried crotalus venom is a sure killing dose for a guinea-pig weighing 250 grams when given intraperitoneally, causing death in twenty-four to thirty hours, this is the *osis lethalis* minimum, twenty such doses cause death in three to four hours. Experiment showed that if the venom and antivenomous serum injected simultaneously, 2.5 c.c. of the latter will protect a guinea-pig against 6 mg. (i.e., twelve killing doses) of the dried crotalus serum: no symptoms developed after the treatment. If the antivenomous serum is given one hour later than the venom about five times larger amount of the serum is necessary to save the animal.

Animals which are poisoned with the above-mentioned dose of venom become critically ill after three hours, and will succumb within an hour afterwards, but if given $\frac{1}{2}$ c.c. of the antivenom at this stage the animal will recover.

Injection intraperitoneally is much more rapidly and certainly fatal than the subcutaneous method, which is comparable to the snakebite, while advantage may be taken of the intravenous method for the introduction of the therapeutic agent.

SCHOOL DIPHTHERIA IN THE METROPOLIS.

In the section of State Medicine of the British Medical Association Thomas, Assistant Medical Officer to the London County Council, read a paper on this subject in which, as the result of experience in a number of outbreaks, he advises against the closure of schools on account of diphtheria, as unnecessary and unsatisfactory.

He recapitulates as follows:

(1) Diphtheria is spread by schools to a certain and considerable degree. (2) It is spread by direct personal transmission. (3) It can

be checked by swabbing and excluding children carrying organisms of the disease. (4) These children are chiefly mild actually suffering cases. (5) Their age is usually between five and eight. (6) Pseudo-diphtheria organisms may be safely ignored. (7) School closure for diphtheria should be looked upon as a confession of impotence and defeat. (8) There is urgent need on the part of medical practitioners of the role of slight cases and carriers. In many instances children sent home by the teachers have returned after seeing a doctor who has said they were not suffering from diphtheria, when their throats were swarming with organisms. (9) All contacts with diphtheria cases should be rigorously swabbed before being allowed to mix with the general population. Disinfection of homes without this precaution is futile. (10) Much greater facilities for bacteriological examination need to be provided.

FORMALDEHYDE IN MILK.

The fact that formaldehyde was being used to control the bacteria in milk, led Dr. Rivas to undertake an investigation into the length of time that this subject would remain discoverable when added to milk. Experiments were made with 15 samples of milk, and the formaldehyde was added to it in the different proportions of 1 in 1,000, 1 in 10,000, 1 in 20,000, 1 in 50,000, and 1 in 100,000, the results were as follows:

(1) Small amounts of formaldehyde added to the milk will gradually disappear from such milk in the course of 24 to 96 hours.

(2) This amount of formaldehyde exerts some detrimental influence upon the activities of the bacteria in the milk, as shown by the relatively lower bacterial content of such sample when compared with control samples.

(3) Samples of milk containing such small amounts of formaldehyde acidify more slowly, and do not coagulate as early as control samples.

(4) The fact that samples of market milk show unusually good keeping qualities, and yet apparently do not contain formaldehyde, should at once raise suspicion that these samples may have had formaldehyde added to them, and that in time the formaldehyde has disappeared from such milk.

THE ECONOMIC VALUE OF REVACCINATION.

In the *British Medical Journal*, for July 30th, there is a report of an address of Mrs. Garrett Anderson, given at the Congress of the Royal Institute of Public Health on this subject. It was shown very conclusively that the cost of providing proper hospital facilities and

equipment for isolation in case of an epidemic of smallpox would be excessive and a comparison of existing conditions in England and in Germany, where compulsory revaccination is the rule, showed that the latter country was able to avoid the greater part of this expense.

There are each year a few cases of smallpox in Germany due to importation, or unsuccessful vaccination or revaccination, but so little is the danger incurred in a population largely immune that the only provision required is a separate pavilion in a general hospital. Thus Berlin with a population of 2,000,000 provides a pavilion with twelve beds, while London in 1900, a non-epidemic year spent £30,000.

SURGERY.

Under the charge of H. A. BEATTY, M.D., M.R.C.S., 12.
Chief Surgeon Canadian Pacific Railway, Ontario Division; Surgeon Toronto Western Hospital.

COCAINE ANAESTHESIA IN GENERAL SURGERY.

In a recent number of the *Columbus Medical Journal*, W. J. Means writes favorably of the results of the use of cocaine in many of the operations of general surgery.

Cocaine should never be administered carelessly or without due preparation to antidote any untoward symptoms.

Its action varies in different persons, but individual susceptibility is largely confined to nervous persons, women especially, and many of the nervous symptoms are due to the fear and horror of an operation. Children relieved of fear, bear cocaine anaesthesia as well as adults.

Reclus, who reports 7,000 operations under cocaine anaesthesia without a death, insists on the observance of the following rules:—

1. Never use a stronger solution than 5 per cent. externally or 1 per cent. hypodermically.
2. Always have the patient recline during the administration of the anaesthetic and not get up for half an hour after.
3. Always have the patient eat and drink something before rising.

It is a well established rule that only fresh solutions should be used. The solution should be free from sediment and used at a temperature of about 100 degrees.

Under most conditions, the milder solutions are not only safer but will produce analgesia quicker, more profound, and over a wider area than the stronger ones.

The formula that the writer has found most useful in general practice, is:—

Cocaine hydrochlorate, gr. 1½.
Sodium chloride, gr. 4.
Boiling water, one ounce.

This makes a $\frac{1}{4}$ of 1 per cent. solution, and this strength Means has found most useful for minor or major work. In operations of any consequence, one may add sufficient adrenalin to make a 1 in 20,000 solution, taking the commercial solution of Parke, Davis & Co., 1 in 1,000, as the unit. Adrenalin aids the analgesic effect of the cocaine, antidotes its lethal action and controls capillary hemorrhage.

The field of operation, whether for minor or major work, should be prepared with the utmost care.

The antidotes to cocaine are morphine hypodermically, or ether and nitrite of amyl by inhalation. As a preventive of systemic effects, whiskey is an excellent agent, given twenty or thirty minutes before administering the cocaine. The most valuable antidote and, at the same time, an aid to anaesthesia is morphine. The writer makes it a rule to give $\frac{1}{4}$ gr. of morphine fifteen to twenty minutes before beginning an operation of any magnitude.

Cocaine will never supplant general anaesthesia, but when its possibilities are appreciated it will be employed much more extensively than at present.

DIABETIC GANGRENE.

In the *Detroit Medical Journal*, August, Street. E. Galbraith presents a paper with the above title. In the treatment of gangrene occurring in diabetic subjects, it is often difficult to decide just when expectant treatment should give way to radical measures.

If the disease does not threaten the use of the affected member and the patient's condition is good, remove only the parts involved.

If the disease threatens the use of the affected member and the patient's general condition is good, do an amputation high above the upper limit of the disease.

If the patient's condition is not good, treatment must be palliative until the general condition is improved, then amputation performed. If the condition cannot be improved, then operation is contra-indicated.

Operations under local anaesthesia, as cocaine, or freezing mixtures, should be avoided, as the tissues are almost sure to necrose. The anaesthetic must be carefully selected, as anaesthesia is at best but poorly tolerated by patients suffering from diabetes.

In each case the clinical manifestations must be carefully observed, and a careful chemical and microscopical examination of the urine, and examination of the blood made.

The prognosis of operations on diabetes may be said to be poor, but if the patient be brought to the table prepared, the urine containing the

minimum of sugar, and free from acetone and diacetic acid, and the operation be done expeditiously, to shorten as much as possible the period of anaesthesia, and care be taken to secure flaps with abundant blood supply. the danger of shock, coma and recurrence will be much lessened, and the results more satisfactory to the patient and the surgeon.

EXCISION OF THE THYROID IN GRAVES' DISEASE.

In the *Brooklyn Medical Journal*, August, M. Figueira considers that a careful review of the pathology and causation of Graves' disease justifies the following conclusions :

In neurotic subjects especially, emotional and other nervous influences may cause changes in the nervous centres capable of influencing distant organs and initiating in them morbid processes.

In this way, the centres in the medulla are affected in Graves' disease, and, as a result of this affection of the medulla, the characteristic symptoms of the disease are developed.

The changes so initiated in the thyroid gland cause an hypertrophy of its glandular tissue and an increase and alteration of its secretions.

This increased and vitiated secretion constantly pouring into the blood as a tendency to perpetuate and aggravate the other symptoms of the disease, such as tachycardia and exophthalmos, as shown by clinical experience with thyroid extract and by the improvement of these symptoms after resection.

Finally, the operation of resection of the thyroid gland is justified, not as a means of curing the disease, but to remove a cause that keeps up the symptoms of the disease and prevents nature and science from relieving conditions of the nervous system forming the origin and cause of the disease.

GYNAECOLOGY

Under the charge of S. M. HAY, M.D., C.M., Gynaecologist, Toronto Western Hospital; Consulting Surgeon Toronto Orthopedic Hospital.

A SECOND CASE OF PUERPERAL ECLAMPSIA SUCCESSFULLY TREATED BY RENAL DECAPSULATION.

By George M. Edebohls, *Boston Medical and Surgical Journal* June 2nd, 1904.

Dr. Edebohls a year ago recorded a case in which he had performed decapsulation of the kidneys in a case of eclampsia in which the convulsions recurred 46 hours after delivery. Subsequent to the operation there were no further convulsions and the patient made an uneventful recovery.

He now records a case where he has performed the operation two days before delivery with most brilliant success. The following is, briefly, the history of the case:—

The patient, a primipara of 20 years of age, about the 38th week of the pregnancy complained of specks before the eyes and dizziness. An examination of the urine revealed a slight trace of albumin. The eye symptoms became gradually more marked till eight days later coma and complete blindness developed. In spite of active treatment convulsive twitching was noticed a few hours later. The abdomen was of unusual size and twins were suspected. The lower limbs, abdomen and back were extremely dropsical. Foetal movements were present, the cervix was closed and there were no uterine contractions. In 24 hours but 360 cc. of urine had been voided, containing four-tenths of 1 per cent. of urica.

The operation of renal decapsulation was immediately performed as being the most certain way of increasing the output of urica. Both kidneys were found enlarged, the capsules being "thick, strong and loosely gathered or wrapped" around the kidneys. The kidney surfaces did not bleed, and presented after removal of the capsules a "dirty, grey turbid, sluggish and stagnant appearance." The operation took 45 minutes to perform.

Almost complete suppression of urine followed the operation for 24 hours, when the urine began to flow freely, 1000 cc. being drawn by catheter and a great deal more being voided in the bed during the second 24 hours. The sight improved, and restlessness disappeared. Labor set in 48 hours after operation, the onset being attended by a slight convulsion, which was succeeded later by two attacks of twitching. After three hours the cervix was found sufficiently dilated, forceps were applied to the presenting head and a male child delivered. The second child also presented by the head and was delivered by forceps. The first lived but the second died soon after birth. The placenta were delivered without difficulty.

The patient slept for most of the 24 hours after labor and awoke with a clear mind. During the four or five days succeeding delivery there was a "perfect deluge of urica," the quantity of solids and urica contained being simply enormous. At the end of a week the daily excretion of solids and urica returned to about normal. The patient nursed her baby and three weeks after delivery was able to leave her bed. Four months after the operation the general condition of the patient was excellent, and an examination of the urine gave the follow-

ing results: Total quantity in 24 hours, 1,950 cc. Specific gravity, 10.12; total solids, 54.52 gm.; total urea, 21.45 gm. No albumin; an occasional hyaline cast.

THE TREATMENT OF GALL STONES.

In a report of the meeting of the American Gynaecological Society held in Boston in May, it is mentioned that Dr. George M. Edebohls, of New York, had occasion at one time to operate on a woman who presented marked dyspeptic symptoms. In addition, she had movable kidney, chronic appendicitis, and induration in the region of the gall bladder. He anchored the kidney, removed the appendix through a lumbar incision, pulled the gall bladder into the lumbar wound, and found a stone about four or five centimeters in length, pear-shaped, and nearly filling the gall bladder. The attending physician was positive that the gall bladder did not produce symptoms of stone in it. He would not let him remove the stone. A year later he opened the woman's abdomen for some other condition, making an incision near the gall bladder. He investigated the gall bladder, found it was perfectly healthy, and that the large stone had either passed or had been dissolved. The treatment after the previous operation consisted of the use of olive oil for about a month, and whether this had anything to do with the passage of the stone, he did not know. At any rate, the stone had disappeared and had left no trace of its former existence.

Dr. R. Stansbury Sutton, of Pittsburg, said that gall stones did not always produce symptoms demanding or justifying resort to operation. If they were encountered during the course of another operation, they had better be removed. There was a remedy, however, which obviated the necessity, in some instances, of surgical intervention, namely, kolalin. He had used kolalin in dozens of cases in which he had held operation in abeyance, and did not have to operate subsequently.

PUBLIC HEALTH AND HYGIENE.

Under the charge of CHARLES HODGETTS, M.D., C.M., L.R.C.P., ED., Secretary to the Provincial Board of Health for Ontario.

THE UNITED STATES SOCIETY FOR THE STUDY OF TUBERCULOSIS.

The inaugural meeting of this new association was held in Atlantic City on June 6th. Professor Osler, of Johns Hopkins University, presiding, and Dr. Jacobs, of Baltimore, officiating as secretary.

The Association will contain those officially connected with leading institutions for the care of consumptives in the United States.

Dr. E. L. Trudeau, Saranac, was elected president, and a board of directors, consisting of thirty members, was chosen. This Society will co-operate with foreign associations established for similar purposes.

THE PREVENTION OF VENEREAL DISEASES.

At the Conference of State and Provincial Boards of Health held in Washington, D. C., January 2nd and 3rd last, Dr. Fred. C. Valentine, New York City, read a paper dealing with the precautions that are necessary to be taken to prevent the spread of venereal diseases. He submitted the following which, in the form of a pamphlet, should be placed in the hands of all physicians for distribution to those suffering therefrom.

COMMUNITIES WITHOUT HEALTH DEPARTMENTS IN THE CRUSADE AGAINST TUBERCULOSIS.

In a very interesting paper entitled, "Communities without Health Departments in the Crusade Against Tuberculosis," read before the Scranton Society for the Prevention and Cure of Consumption, Mr. Laurence F. Flick, director of the Phipps Institute, Philadelphia, says, among other interesting things, "tuberculosis can be cured in any climate. All that is necessary is life in the open air, proper food, well-disciplined conduct, and, in more advanced cases, properly directed rest and exercise. People who can command these things in their homes can be cured within homes. People who cannot command them should be treated in sanatoria. Most people can be treated better in sanatoria than in their homes.—*New York Medical Journal and Philadelphia Medical Journal, June 16th, 1904.*

"As a rule the poverty, helplessness and distress of such people and of their families are great. Provision should be made for separate treatment of early stage cases, middle stage cases and advanced stage cases, and something should be done for those who are dependent upon a stricken down bread winner.

"For some years to come communities which desire to enter upon the crusade against tuberculosis will first have to train their experts. One of the best channels through which education can be carried on in the prevention of tuberculosis is the dispensary. Contaminated houses are a prolific means of spreading tuberculosis. A house which has been inhabited by a consumptive who has disregarded preventative measures may give the disease to a subsequent occupant. The simpler and easier the prevention of tuberculosis is made for the poor and ignorant the more likely it is to be carried out.

"Hospital buildings for their accommodation need not be elaborate or ornamental. The simplest construction may be used with plain equipment. In concluding, the author directs attention to the Act now in force in Ontario, whereby any municipality, which establishes an institution, could draw from the province or state a certain per capita for maintenance, and recommends its adoption in Pennsylvania,"

ANTITYPHOID INOCULATION.

The B. M. J., May 28th, states that a committee shall be appointed by the Army Council of Great Britain to consider the whole subject of Antityphoid Inoculation from the broadest point of view. The names of the members of the committee are a sufficient guarantee that the work which has already been begun will be most thorough in character.

NOTES RE TUBERCULOSIS.

R. Thelin, visiting nurse for tuberculosis, reports in the May number of *Johns Hopkins Hospital Bulletin*, upon three months work. It is the duty of the nurse to visit the patients treated in the separate clinics held in the Hospital Dispensary for these cases. Some 67 patients were visited during three months, December, January and February 245 visits in all being made—the nurse amongst other duties acts as an instructor to the patients and relatives as to the precautionary measures each should take to prevent the dissemination of the disease. Milk and eggs were supplied where, through financial causes, the patients, some 28 in number, were not able to secure the same. The nurse has further been enabled to bring others of whom she had reason to suspect their being affected to the Dispensary for examination and subsequent treatment.

OPHTHALMOLOGY AND OTOTOLOGY.

Under the charge of G. STERLING RYERSON, M.D., C.M., Professor of Ophthalmology and Otology, Medical Faculty, University of Toronto.

TRACHOMA IN THE PUBLIC SCHOOLS OF NEW YORK.

Dr. Wm. H. Carhart's report states that the prevalence of contagious granular lids, or trachoma, in New York City Public Schools was brought to notice by a preliminary inspection of two schools, in which the percentage of communicable eye disease was 19.2 in one, and 15.5 in the other. Investigation into other schools disclosed 6,690 cases of contagious conjunctivitis among 57,450 children, of whom 2,326 had pro-

nounced trachoma. These statistics led to the adoption of a systematic and rigid inspection of the eyes of all public school children. The rush of cases which these regulations caused to present themselves at the various eye clinics and dispensaries was so great that all the existing institutions found their facilities much overtaxed. Under these circumstances there arose a demand that the Board of Health should establish its own hospitals and dispensaries for trachoma. In December 1902, two clinics were established by the Board and two wards of twelve beds opened and a staff of oculists and trained nurses appointed. Within a few weeks the capacity of the new Trachoma Pavilion was taxed to the uttermost, 24 operations a day being the rule, the clinics handling from 900 to 1,000 patients a day. In six months the number treated by operation was 3,017 and without operation 9,820, and the number of visits 64,086. Anesthetics were administered over 3,000 times without an accident, combined ether and gas being used. This is but the beginning of the crusade against Trachoma in Greater New York. While it is true that it afflicts the school children of the tenement house district chiefly, still it is a menace to every child of school age. Buffalo has also had an epidemic, over a hundred cases occurring among the employees of the Lackawanna Steel and Iron Company.

Chronic Trachoma is so insidious in its nature that it is easily carried everywhere by those who are careless and ignorant. From New York it has spread over the country, being carried by immigrants and others. The inspection at the port of debarkation is now so strict that many new cases are not liable to enter the country.

OCULAR LESIONS OF SCARLET FEVER.

Dr. Ellet O. Sisson, of Keokuk, Iowa, in *Medical Fortnightly*, of Aug., 10, describes ocular lesions following or concurrent with scarlet fever. He states that uræmic amaurosis occurs more frequently than other lesions, the blindness comes on suddenly, and becomes complete within a few hours. After one or more days, there is usually restoration of vision. Simultaneously with the attack of visual disturbance other nervous symptoms exist, such as headache, vomiting, dyspnoea, loss of consciousness and convulsions. The fact that reaction of the pupil to light is preserved, in spite of complete blindness, proves that the location of the affection cannot be in the eye or optic nerve, but higher up in the brain which is poisoned by the excretory matters contained in the blood. No ophthalmoscopic lesions were detected and the blindness gradually cleared off. Forster states that in all cases albuminuria was present.

Purulent inflammation of the vitreous or suppurative hyalitis is the product of metastatic choroiditis, which sometimes follows in the wake of scarlet fever. A yellowish reflex is to be seen in the pupillary space, retraction of the periphery and bulging of its pupillary border. Tension is diminished and there may be a pericorneal zone of congestion. When pus in the retina is circumscribed the symptoms at first glance resemble those of glioma?

Phlegmon of the orbit is of occasional occurrence. It is of metastatic origin and generally acute and monolateral. It is attended by constitutional disturbance, exophthalmos, swelling and œdema of the lids and the pointing of the abscess. Permanent loss of vision may follow pressure on the optic nerve.

Thrombosis of the cavernous sinus is a rare complication, only 182 cases being on record. Of this number, 14 recovered. The lids and conjunctiva swell up and the eyeball protrudes. The veins of the retina are seen by the ophthalmoscope to be enormously distended, owing to the fact that they discharge their blood into the cavernous sinus. The œdema present is an important diagnostic sign. A further point of difference lies in the fact that the thrombosis often passes over to the other side.

Wells and Germain report a case that was operated upon the cavernous sinus being exposed and drained. The patient died.

Albuminuric retinitis also occurs after scarlet fever, but is not frequent. The prognosis is more favourable than in this complication of Bright's disease, but partial optic atrophy is often observed.

The sight can also be affected as the result of scarletina, without the presence of albuminuria or any evidence of kidney disease, such as thrombosis of the central artery of the retina.

Pflugger has observed papillo-retinitis after scarlet fever without kidney affection; Betke hemiplegia. Leber reports a case of a boy who became blind without ophthalmoscopic signs and with normal urine. Leber seems to regard this peculiar case as somewhat analogous to the post-diphtheritic affections of nerves. Occasionally accommodative asthenopia follows scarlet fever and is most obstinate.

Fuchs states that suppurative choroiditis may follow scarlet fever and is of metastatic origin.

As a result of this study of the eye lesions following scarlet fever, Sisson feels justified in reaching the following conclusions: 1st. In view of the fact that scarlet fever is one of the commonest exanthems and that the majority of eye lesions occurring in connection with it, are of a serious nature or involving the loss of vision, greater attention should be paid to them than they generally receive.

2nd. That if the operation on the cavernous sinus can be made without grave danger to the patient, and with a chance of lessening the mortality, as is claimed by the operators, such an operation is justifiable and should be performed.

LARYNGOLOGY AND RHINOLOGY.

Under the charge of PERRY G. GOLDSMITH, M.D., Belleville, Fellow of the British Laryngological, Rhinological and Otolological Society.

DISEASES OF ETHMOIDAL AND SPHENOIDAL CELLS CAUSING LARYNGEAL AFFECTIONS AND OZÆNA.

John Mackie, M.D., Nottingham, read a paper at the recent meeting of the British Medical Association. Briefly, his conclusions respecting nasal suppuration are :—

1. That nasal suppurations, for the most part, are either in direct continuity with adenoids and the naso-pharyngeal catarrhs of childhood, or are set up, later in life, in noses where drainage has been interfered with by the deformities and hypertrophies left by these conditions of early life.

2. That the ethmoidal is the sinus most frequently involved.

3. That the frontal and sphenoidal disease is almost invariably due to extension from the ethmoid, and rarely requires individual attention in treatment, provided the ethmoid has been thoroughly dealt with and drainage established in the middle meatus.

4. That antral disease, though occasionally due to diseased teeth, is far more often caused by defective drainage in the middle meatus.

5. That by bearing 3 and 4 in mind the treatment of frontal and central disease is made easier, and the heroic surgical proceedings now being advocated are seldom necessary.

6. That disease of the posterior sinuses is the main factor in an ordinary ozena, and a very frequent cause of chronic catarrhal conditions of the pharynx, larynx, trachea and bronchi, associated with cough, purulent expectoration, and, at times, a oozy type of hæmoptysis. Such conditions are often mistaken for and treated as phthisis. Of this last, the author has some striking instances.

PRIMARY ULCERATION OF THE TONSIL.

Thomas J. Harris, *American Medicine*, July 23, 1904, emphasizes the great value of bacteriological examination in all membranous and ulcerative conditions of the tonsils. He says there occurs several primary forms of ulceration of the tonsil, bacterial in origin, which can be and, doubtless, have been mistaken for the graver conditions due to diphtheria. Almost irreparable harm may result in the patient from a false diagnosis of the latter disease.

EARLY SYMPTOMS OF PRESSURE UPON THE VAGUS AND RE-CURRENT LARYNGEAL NERVES.

David Newman (*Jour. Laryngology, Rhinology and Otology*) says, serious disease within the thorax, of either malignant or aneurismal nature, may be first intimated by laryngeal or other respiratory disturbance. The patient generally believes himself the victim of some purely throat affection, the symptoms, however, proving to be those of pressure upon the nerve trunks. He has obtained from his observations those general results: (1) Sudden and paroxysmal dyspnoea, accompanied by laryngeal stridor, is, in some cases, one of the earliest symptoms of interference with the innervation of the larynx by pressure of an aneurism within the thorax or a mediastinal tumor. This leads to an interesting discussion of the palsies of the adductor and abductor-muscles of the larynx, with reference to Semon's law and other experimental investigations. (2) The characteristic features of the cough, in cases of pressure on the nerve fibres supplying the larynx, are often easily recognized and, in many cases, are so distinctive as to lead the trained observer to suspect at once the nature of the malady causing it. The cough, hoarse and imperfect, is essentially a paralytic phenomenon. (3) In cases of recurrent laryngeal paralysis, the speaking voice may be but little altered from the normal, because of the power of the muscles on the healthy side to compensate for the defective action of those of the paralyzed side, while the alterations of the voice are less characteristic and, hence, less valuable than the other symptoms described as factors in diagnosis, yet, when taken in conjunction with the stridor and imperfect cough, they materially assist in forming an early diagnosis of aneurism or of mediastinal tumor.

X-RAY THERAPY AND SKIAGRAPHY.

Under the charge of JOHN McMASTER, B.A., M.D., C.M., Toronto.

X-RAYS IN SPLENIC LEUKAEMIA.

In the July issue of the *American Practitioner and News*, Dr. J. T. Dunn reports on the use of x-rays in Splenic Leukaemia. As it is such a fatal disease, resisting all forms of treatment, a brief outline of the case is given. The patient is 26 years old and has one child 16 months old. The previous health has been good. The tumour began to appear shortly after the birth of her child. Repeated blood examinations established the diagnosis. Her health grew rapidly worse, there being marked emaciation. Operation was refused by her and she tried "magic healing," without result. When x-ray treatment was begun, her condition was as follows: weight, 110 lbs., muddy complexion, face and

limbs very thin, extreme debility, abdomen distended with growth to size of a woman at full term, heavy offensive sweats, amenorrhœa, urine normal. The mass extended down to within two inches of the pubic bones and one and a half inches to the right of the median line, reaching up to the diaphragm, slightly movable, very hard but not painful. The intestines were displaced to the right. It was very evidently the spleen from the position and previous history. Treatment began on Dec. 17th, 1903. A hard tube was used, and exposures were made over the spleen, at eight inches distance, for ten minutes. Newman's Glycero-Phospho-Calisaya was given internally. Seventy-five treatments were given in 91 days. After two weeks, the sweating began to abate and the appetite to increase, when 36 treatments were given, the spleen was greatly reduced in size and quite soft, the appetite was splendid, and the sweating had entirely ceased. At the end of the first month she had gained 9½ lbs. in weight, while the tumour had diminished even more than this. Hope took possession of the woman and her spirits revived and she became very cheerful and gradually resumed her active duties. A respite from treatment for three weeks was given at the end of 91 days. Her menstrual function returned during this interval, and her condition was excellent. She weighed 119½ lbs. and, although she had the measles, she came through the attack as well as if she had not been the victim of this fatal disease.

Under date of June 10th, 1904, following report on blood condition by Dr. John E. Hays, which is interesting to compare with his report dated October 6th, 1903, about eight and one-half months prior.

October 6th, 1903 : Red, 4,600,000 ; leucocytes, 128,000 ; color index, .65 ; proportion red to leucocytes, 35.1. Red cells : Shape, irregular ; size, irregular ; nucleated, none. Leucocytes : Large lymphocytes, 8½ per cent. ; small, 5¾ per cent. ; poly-morpho-nuclear, 39 per cent. ; eosinophile, 7¾ ; myelocytes, 38 per cent. Remarks : Myelocytes, very numerous. Hemaglobin, 60 per cent.

June 10th, 1904 : Red, 5,544,000 ; leucocytes, 37,000 ; color index, .65 ; proportion red to leucocytes, 149 : 1. Red cells : Shape, irregular ; size, irregular ; nucleated, none. Leucocytes : Large lymphocytes, 5 per cent. ; small, 10 per cent. ; poly-morpho-nuclear, 65 per cent. ; eosinophile 5 per cent. ; myelocytes, 15 per cent. Remarks : Myelocytes not as numerous as in former analysis. Hemaglobin, 65 per cent.

She is still under treatment, and up to date has taken 129 treatments. The spleen continues to decrease in size. The menstrual function is normal, and the patient is anxious to be dismissed, as she feels perfectly well.

Treatments will be continued till the normal ratio exists between the red and white cells.

PROVINCE OF QUEBEC NEWS

Conducted by MALCOLM MacKAY, B.A., M.D., Montreal.

The first report upon the compulsory registration of births in Montreal has been presented by Dr. Laberge to the Hygiene Committee, and indicates a very much improved state of affairs in this particular ; whereas under the old conditions the only means of gauging the number of births was by collecting the baptismal returns ; every doctor is now compelled to register the birth within forty days. There has been some little difficulty in this connection and the chairman of the committee has proposed an amendment, which will make the father responsible for the registration. Section 1 of the amendment ordains that the persons required to give information for the registration of a child are : the father and mother, and in default of these, the occupier of the house in which the child is born, or each person present at the birth, and the person having charge of the child. Whether the returns in connection with this by-law will be as complete as under the present ruling remains to be seen, certainly it is a much more reasonable division of labor as may be judged by the following figures. Of the 500 births registered in the past month and a half, 435 were reported by physicians, the latter being 111 in number, or an average of almost four births to be reported by each attending medical man in this short space of time, a greater number than the average father would have to report in a lifetime. Of the remaining 65, one was sent in by a mid-wife and 64 by relatives.

Dr. Laberge reported in regard to the establishment of a bacteriological laboratory, and pointed out the urgent need of such a department, not only for the bacteriological examination of water, but of milk. He also stated that the increase of typhoid fever during the past few weeks was one of the most cogent reasons for haste in this matter, and added that but very little work would be required in order to put the laboratory in such condition as to be independent of the Provincial Laboratory, to which they had been so much indebted in the past. A grant of \$3,000 was asked for this purpose, and also to pay for the analysis of the city water supply. Dr. Ruttan, of McGill University, Dr. Bernier, of Laval, Mr. Hersey and Dr. J. E. Laberge will take the work in hand, and after one year will present a joint report from four or five analysis per week from the St. Lawrence River, the intake, the aqueduct, and the two reservoirs.

The report of Dr. McCarrey, recommending that the butchers should be prevented from exposing their meat to the open air and selling it on

Jacques Cartier Square, has been favorably considered. He showed that bakers and grocers were not allowed to expose similar classes of goods in this way, and he saw no reason why butchers should be exempt. As a result of this report, a by-law was drafted enacting that no article used as human food should be exposed for sale outside any store or any other place of business in the city, with the usual penalty of fine or imprisonment by the recorder.

Another point of practical interest to the health of the city was brought up by a letter from one of the city ice dealers, who requested that at the earliest possible date the limits for the harvest of suitable ice should be mapped out, as last winter a number of dealers had a large quantity of ice condemned from being collected at places not considered safe. After some discussion it was thought best that all the ice dealers should be requested to submit plans of the points where they proposed harvesting ice, and that these should be approved of or condemned according to the judgment of Dr. McCarrey.

According to a report completed at the city hall in regard to vaccinations in Montreal the progress of this preventive has increased very materially from 1901 to 1904. In 1901 there were 26,374 scholars vaccinated, while in 1903-1904 the total amounted to 31,388, thus showing that this little operation has much less opposition to contend with than formerly. In 1901, when it was decided that all scholars must be vaccinated, hundreds of children left the schools rather than submit to the ordeal, but as time went on the prejudice gradually became less marked and at present there are few children in the city who do not bear a good mark.

The past year has been one of great activity and progress in matters of civic hygiene, and it is encouraging to see the increase of interest manifested by the general public in the health of the community as shown by the vaccination records and the number who have joined the crusade against tuberculosis.

A great deal of very interesting reading matter is to be found in the last report of the meeting of Governors of the Quebec College of Physicians and Surgeons. The many and curious wiles practised by the unregistered student for obtaining a license, the names of those irregular practitioners who have been prosecuted for lack of qualifications, and the number of those in arrears with their college dues are all set out in black and white. The Taschereau bill, with its methods of making doctors by an act of parliament, with an explanation for the compromise which had to be accepted, is also fully discussed; and, after reading the report, one is forced to the conclusion that as the law now stands the College of Physicians and Surgeons has very little power to

prevent another similar attempt at its authority. Under the heading of Nomination of a Provincial Drug Inspector, there is a timely resolution passed by the board which is worded as follows : Resolved that the attention of the Dominion Government be called to the abuses, the serious accidents and numerous losses of life, resulting from the actual sale of prepared and patent medicines, that the Government be requested to have Parliament pass the required legislation in order to have an effective control over the sale of those medicines and preparations. That in the opinion of the College of Physicians the sale of any such preparation should not be tolerated unless every package or bottle bear the name of the preparation and the quantity of each dose, also the maker's name, that of the seller, and price.

In the same department it was unanimously adopted that the Provincial Government be memorialized to appoint a Drug and Medicine Inspector, under the control of the board of health of the Province, with the necessary powers to fulfil his duties and to enforce the provisions of Act 4039 b. of the Revised Statutes.

The medical faculties of McGill, Laval and Bishop's College will have once more entered upon their session's work by the time this appears in print. Indications are that the medical profession will not be less sought after than formerly, if one may judge by the advance lists of registrations the freshman year in each university will be as large as ever. A few changes will be noticed on the staff of McGill University, notably the absence of Dr. Halsey and his replacement by Dr. Scane, and the football field, gymnasium and dissecting room will shortly mourn the loss of Dr. Tait Mackenzie. The hospitals also have new blood infused into the house staff, and graduates of last year are now broken into hospital ways, ready to detect the shortcomings of the new generation of doctors and teach them the way they should go. At the Royal Victoria Hospital the staff rejoiced in again seeing the familiar figure of Dr. James Stewart walking through the wards, but regret that he is again compelled to desist from his work for a time owing to ill health.

At the General Hospital the internes are under the direction of Dr. R. P. Campbell, who has returned from Germany to take the position of Medical Superintendent.

At Quebec the Jeffrey Hale Hospital is under the charge of Dr. Rankin, who has replaced Dr. Carter as Medical Superintendent. Dr. Carter, who intends to practise in the city, has received an appointment as Pathologist, and also has charge of the x-ray department of the hospital.

MEDICAL SOCIETIES AND GATHERINGS

THE CANADIAN MEDICAL ASSOCIATION.

23rd August, 1904.

The 37th Annual Convention of The Canadian Medical Association met on 23rd August, 1904, in the City of Vancouver, B. C. Although the Association met this year in the Province of British Columbia the attendance was large, and the interest in the various papers appreciative. The local Committee had an excellent programme prepared, both on the scientific and social aspects of the convention.

THE CONVENTION HALL.

O'Brien's Hall where the sessions were held had been elaborately prepared for the Convention, and was well worth a visit. The stairway had been carpeted and extra seats placed in the large hall to accommodate the visitors. The lesser hall had been converted into a hall of exhibits. A large space was occupied by Messrs. Chandler & Massey, of Toronto, with their display of surgical instruments and appliances. Messrs. D. K. Wampole & Co., had a very neatly arranged display of their medicines, and Appleton's and Lippincott's both made a fine showing of medical books. Mr. J. H. Chapman, of Montreal, also had a large assortment of surgical instruments of French and English make, on view. In the hall-way there was a medicinal food exhibit and just across from it the Deimel Mesh Underwear Co., displayed its goods. This portion was in charge of Dr. J. C. Cracknell of Montreal. There was an X ray outfit by Heinze & Co., of Boston, Mass. The expert who had charge of this remarkable machine gave several exhibitions before the Association. Mr. J. J. Dougan also installed an exhibit of the many valuable medical works for which he is agent. A pleasing and very much patronised exhibit was that of medicated foods which were served out freely to all comers by neatly dressed waitresses at the head of the stairs. These foods were the product of a Montreal firm, and are a credit to Canadian enterprise.

All arrangements possible had been made for the comfort and convenience of the delegates. A private writing-room had been set off. At the head of the stairs on the second floor were placed the desks of the Secretary and the Treasurer, and there was a post office box, a telephone, and a stenographer and typewriter ; and to the rear of these was a reading and smoking room. On the whole the arrangements reflected great credit on the President, Dr. Tunstall, and the local Secretary, Dr. Brydone-Jack, and those who have so faithfully assisted them in their labors.

Among those who were guests of the Association may be mentioned Mr. Mayo Robson, of London, Eng.; Dr. J. W. Mayo, of Rochester, Minn.; E. C. Dudley, of Chicago; Dr. Sinclair, of Manchester; and Dr. McGillivray, of Edinburgh.

DISTINGUISHED VISITORS WELCOMED.

In opening the meeting Dr. Tunstall stated that they had several distinguished guests among them, and he would be pleased to have their names introduced to the meeting.

The first one to be introduced was Dr. E. C. Dudley of Chicago.

Dr. Dudley spoke of the pleasure it had given him to attend the meeting of the Provincial Medical Association of British Columbia three years ago, and said he felt sure that that pleasure would be more than repeated now.

Dr. J. W. Mayo was introduced by Dr. McKid of Calgary. Dr. Mayo said he was pleased to be present at such a gathering no matter where it might be held, as their profession recognized no international boundaries.

CONSTITUTION CHANGED.

After the adoption of the minutes and the reading of the General Secretary's report, Dr. Small, of Ottawa, moved a resolution to introduce a new by-law into the constitution, empowering the Provincial Medical Associations each to appoint three members who, with the President, should form an Executive Committee.

This resolution was adopted with very little discussion.

ARRANGEMENTS FOR ENTERTAINMENT.

Dr. Brydone-Jack, Chairman of the Committee on Arrangements, then reported to the delegates on the provisions that had been made for their pleasure and comfort. He stated that they would hold occasional Masonic meetings for members of that fraternity. He also read a letter from the Secretary of the Lawn-Tennis Club, offering the delegates the freedom of the grounds, and told of the entertainments and excursions which had been provided for the visitors.

CIVIC ADDRESS OF WELCOME.

Mayor McGuigan, M.D., was received with applause on going forward to welcome the visitors. He said we had here some of the finest scenery in the world. He spoke of the value of the Convention in carrying to the Eastern part of the Dominion a knowledge of what the West really was. He told them there was a valuable organization in the City known as the Tourist Association, whose members would be glad to show them all that was to be seen.

He noticed that the American Medical Association was going to meet in Portland, Oregon, next year. He was sorry that the two bodies had not met on the Coast this year, but as it was he trusted they would both do

much to dispel the false notions that prevailed in the East as to conditions in the West. He had just come from a trip to the East and he knew there was a great deal of ignorance about the Coast.

He spoke particularly of those physicians who were here from the Old Land, and of the tidings they would carry back with them, and it was in many ways a good thing for the medical profession and for the country that this meeting should take place here.

Speaking from a medical standpoint, he said that there was even a higher standard of professional ethics here than in the East, and instanced the entire absence of professional advertising. He stated that there was to his knowledge no illegal practitioner either in Vancouver or Victoria. In conclusion he offered them the freedom of the City, and as Chairman of the Police Commission, he guaranteed that they would find the police and the City officials ready to give them all the information and assistance they might need.

RESOLUTION *re* TUBERCULOSIS.

The following resolution was then moved by Dr. R. E. McKechnie of Vancouver, and seconded by Dr. R. E. Walker of New Westminster :

"Whereas tuberculosis has been positively proved to be an infectious disease;

Whereas the patient is the focus of infection and is capable of infecting, and does infect dwellings, clothing, and private and public places generally;

Statistics already available prove that compulsory notification with educational oversight of the patient and those under exposure to the contagion, together with disinfection of infected materials and places, has resulted in a diminution of the number of cases;

Whereas such action in the Dominion of Canada lies with the various Provincial Governments;

Therefore be it resolved that the various Provincial authorities be and are hereby urged to at once take the necessary steps to bring these suggestions into effect, and that the Secretary be requested to forward copies of this resolution to the Secretaries of the various Provincial Boards of Health."

Dr. C. J. Fagan, of Victoria, Provincial Health Officer, spoke briefly in favor of the resolution. The urgent necessity for some action had encouraged him to take up the matter.

PAPER ON PATENT MEDICINES.

Owing to the non-arrival of some gentlemen who were down for addresses, Dr. Fagan was next called upon and read a paper on Patent Medicines" which gave rise to a great deal of discussion. Whilst all seemed to agree with his views, there was some difference of opinion as to how

the evil should be treated. The thanks of the Association were moved by one member, who declared that the use of patent medicines was a growing evil and should be dealt with. He said that he understood that at the last session pressure was to have been brought upon Sir William Mulock to introduce some measures to check the spread of this evil by pamphlets sent through the mails, but nothing had been done. He was pleased, however to notice that Dr. Sullivan had brought up a resolution in the Senate that the authorities should take this matter up and deal with it.

Another doctor suggested that it should be brought before the Minister of Inland Revenue that the sale of these medicines vastly exceeds that of alcoholic stimulants from which the country derives a great revenue, and a greater revenue could be derived by taxing these proprietary medicines.

It was finally resolved that Dr. Fagan and such gentlemen as he wishes to associate with him should be appointed a Committee to draft a resolution on this question of patent medicines.

GREETINGS FROM NEW YORK.

At the opening of the afternoon session Dr. Tunstall read a telegram from Dr. Nelson, of New York, regretting his inability to attend, but wishing Canada and the meeting success.

WELCOME FROM PROVINCIAL COLLEGE OF SURGEONS.

Dr. Davie of Victoria, Vice-President of the College of Physicians and Surgeons of British Columbia, said that in the absence of the President, it gave him much pleasure to welcome the visitors. This was the first meeting of the kind in the Province, but they had the same interests and studies in common.

ADDRESS ON MEDICINE.

Dr. R. E. McKechnie then gave an "Address on Medicine," which contained a very interesting sketch of the progress of medical science from the earliest ages. He also gave an interesting account of his experience with a rival "medicine man" among the Indians on the Coast. The concluding part of the address dealt with the progress of medicine in recent years. At the conclusion of the address a vote of thanks to Dr. McKechnie was moved by Dr. Lafferty of Calgary and seconded by Dr. England, Montreal. Before putting the motion the President explained that the address redounded the more to the credit of Dr. McKechnie, because less than two weeks ago he had stepped into the place of a gentleman who had been set down for it, but was unable to attend. The vote of thanks was then heartily carried.

EXHIBIT OF NEW COLOR TEST.

As several gentlemen who were down for addresses had not arrived, an exhibition of "The new color test apparatus" was given by Dr. Glen

Campbell. Mr. Mansfield, Fleet Surgeon on H. M. S. Grafton had been billed for this, but as his ship had been called away to Honolulu Dr. Glen Campbell had kindly consented to read the paper he had prepared and to work the color test.

The machine in question is shaped something like a camera with two knobs and different eyeholes in front, but is closed up behind, and is meant for testing the eyesight of candidates for the Navy and Army.

OTHER PAPERS.

When the meeting was again called to order a paper on "Movable Kidney," was read by Dr. Kenneth McKenzie of Portland, Oregon.

Dr. Robert H. Craig of Montreal, followed with a paper on "Case Reports."

Dr. Hackett and Dr. Irvine both of Montreal, spoke briefly on Dr. Craig's paper, both congratulating him on the success of his operations.

THE CONVERSAZIONE.

The conversazione given by the Canadian Medical Association at the Hotel Vancouver in the evening was a brilliant social affair. By ten o'clock there must have been fully 500 people in the large dining room of the hotel, and the hum of many voices in conversation almost drowned the strains of Harpur's orchestra, which was playing at the further end of the room. Among the many guests were the wives and daughters of the visiting physicians, and the members of the Committee on Arrangements had a busy time making introductions. Among the many guests from the City were the Mayor and several members of the City Council, and many of the City officials. There were also several representatives of the City clergy, and the legal profession was present in large numbers. That those present enjoyed themselves was shown by the cordiality and freedom from restraint with which conversation was carried on.

CONVENTION ITEMS.

It may be interesting to know that the handsome badge worn by so many of the Medical Association was designed by the worthy President, Dr. Tunstall. It is a neat heart-shaped button surmounted by a miniature of the arms of Vancouver (the Sunset Gateway of the Dominion) as a crest. Through the centre runs the golden staff of Mercury, and round the edge is inscribed "Canadian Medical Association, 1904." The button is neatly finished off in alternate stripes of white and blue and is a credit both to the designer and the maker.

That the Medical Association is growing was abundantly proved both by the report of the General Secretary and the large number of names proposed for membership yesterday.

Among the arrivals on the evening of the first day was Senator Sullivan

of Kingston, Ont. The Senator is the President of the College of Physicians and Surgeons of Ontario.

Dr. Moorehouse, one of the Nova Scotia delegates, was unfortunately taken ill while en route to the Coast. The ambulance was in attendance on the arrival of the Imperial Limited and conveyed him to the Vancouver General Hospital where it is hoped he will speedily recover.

The smoothness with which the Convention was conducted was largely due to the following gentlemen, constituting the Committee of Arrangements: Vancouver—W. D. Brydone-Jack, Chairman; F. McPhillips, Secretary. Victoria—Dr. R. E. Fraser, Chairman; H. M. Robertson, Secretary Finance; J. M. Lefevre, Chairman; J. M. Pearson, Secretary. Printing, F. T. Underhill, Chairman; G. P. Young, Secretary. Reception, O. Weld, Chairman; J. S. Conklin, Secretary. Exhibit, A. S. Monro, Chairman; X. McPhillips, Secretary.

In honor of the visitors the streets were illuminated on the first night till a late hour.

24 August, 1904.

Dr. Brydone-Jack, Chairman of the Committee of Arrangements, made several welcome announcements of entertainments and outings provided for the visitors. He stated that cheap rates had been obtained for those wishing to visit New Westminster to-day, and for those who did not wish to go, the steamer Kestrel had been retained, and they could explore the beauties of the Inlet. He also announced that all guests of the Association were to receive free tickets to the dinner at the Hotel Vancouver in the evening. He further stated that on Wednesday evening there would be a special Masonic meeting, at which members of the fraternity visiting the City would be made especially welcome. For the ladies accompanying the visitors, carriages would be at the Hotel Vancouver at 2.30 to take them round the Park.

PAPERS READ.

The first paper read was the notable address of Mr. Mayo-Robson, of London, Eng., on "Surgery." Mr. Mayo-Robson's address was vividly illustrated by a superb series of lantern slides, showing the formation of the internal organs, and was listened to with the keenest interest throughout the whole hour that it occupied, and was received with loud applause.

At the conclusion a hearty vote of thanks to Mr. Mayo-Robson was tendered by the audience.

Dr. F. J. Shepherd, of Montreal, then read a paper on "Hernia of the Bladder, complicating inguinal hernia."

The paper was followed by short discussions by Dr. A. A. Macdonald (Toronto), Dr. Meek, (London), Ont., Dr. Secord (Brantford), and Dr. Eagleson (Seattle.)

A paper on 'Moveable Kidney' was then read by Dr. K. McKenzie, of Portland, Ore. Those taking part in the discussion were Dr. R. C. Coffey (Portland) and Dr. Eccles, (London, Ont.)

Dr. S. R. Jenkins, of Charlottetown, P. E. I., then read a short paper on "Report of Hypertrophy of the Breasts."

Before adjournment Dr. Brydone-Jack announced that those who wished it might go with Dr. Underhill to inspect the septic tanks—that was if they preferred that to the lunch in the Pender Hall. There were also bowling and croquet games and lawn tennis at the Lawr. Tennis Club grounds.

The Convention then adjourned for luncheon.

THE NOMINATING COMMITTEE.

The first business to come up in the afternoon was the election of the nominating committee. Drs. Brydone-Jack and Shepherd were appointed tellers, and a ballot was taken resulting as follows:—

Prince Edward Island—Dr. McLaren and Dr. Houston.

Nova Scotia—Dr. James Ross, Dr. J. B. Black.

New Brunswick—Dr. Morehouse, Dr. T. Walker.

Quebec—Dr. Shepherd, Dr. R. Craig.

Ontario—Dr. Howitt and Dr. A. A. Macdonald.

Manitoba—Dr. McArthur and Dr. Chown.

North-West Territories—Dr. De Veber and Dr. Stuart.

British Columbia—Dr. Davie (Victoria), Dr. R. E. McKechnie (Vancouver).

Dr. McGillivray, of Edinburgh, and Dr. Sinclair, of Manchester, Eng., were then introduced to the Association and welcomed by the President.

PAPERS AT THE AFTERNOON SESSION.

A paper on "Diseases of the eye" was then read by Dr. J. W. Stirling, of Montreal.

Dr. G. R. Cruikshanks, of Windsor, Ont., followed with a paper on "Therapeutic Hints from Bacteriology" giving many interesting descriptions of the actions of bacteria on animals. He was of the opinion that too much medicine was used in bacterial diseases as a general rule, and thought that the 20th century would witness a radical change in treatment.

RECEPTION AT PENDER HALL.

At 4 o'clock the meeting adjourned, most of the members going to the Pender Hall, where a reception was held, while others went for a drive round Stanley Park. The reception was quite a brilliant affair. It was attended by several hundred people, and Mrs. Tunstall and the wives of other local doctors, who constituted the Reception Committee, had a busy

time receiving their guests. The hall was handsomely decorated. The windows were treated with dark green dressing, which admitted a softened light. The roof was done in terracotta, and the electric lights were festooned with orange shades and ivy. Undoubtedly the beautiful setting of the scene did much to enhance the success of the gathering.

EVENING SESSION.

There was a large attendance at the evening session, and the Presidential address of Dr. Tunstall was listened to with great interest. Before commencing his address, Dr. Tunstall asked Dr. Powell, of Ottawa, to take the chair.

In doing so, Dr. Powell referred to the pleasure he felt at being at a meeting of the Association presided over by his old friend, Dr. Tunstall.

THE PRESIDENT'S ADDRESS.

Dr. Tunstall then read his Presidential address which appears in this issue of the *Canada Lancet*.

VOTE OF THANKS PASSED.

The Hon. Senator Sullivan, proposed a vote of thanks to Dr. Tunstall for his very able address. He spoke of the gratitude due to this young Province for entertaining in its midst this cultured and enlightened gathering. He spoke of the history of the Canadian Medical Association which had been first established 38 years ago. He congratulated Vancouver on securing so many visiting doctors from the neighboring States. He spoke with approval of the suggestions made by Dr. Tunstall, and said he hoped they would travel East and be taken up with enthusiasm by the profession as they went till they covered the whole Dominion. Dr. Sullivan's speech was replete with witty points and flashes of rhetoric, and was received with great applause.

The vote of thanks was seconded by Dr. Eccles, of London, Ont., and carried with enthusiasm.

PAPER BY DR. DUDLEY.

Dr. E. C. Dudley, of Chicago, then gave an address on "Gynecology," illustrated by a series of fine lantern slides. It was listened to with close attention, and at the close Dr. Dudley received a hearty vote of thanks from the audience.

THE VANCOUVER HOSPITAL.

A number of pictures of the new Vancouver Hospital building were then thrown upon the screen, and were explained to the meeting by Mr. G. W. Grant, of the firm of Messrs. Grant & Henderson, the architects of the building.

During the course of the evening session, the following announcements

were made by Dr. Brydone-Jack, Chairman of the Committee of Arrangements:—

The excursion tickets for to-day are quite free to all their guests, and the Committee hoped that every member present would take advantage of them and take their wives and daughters with them.

He announced that transportation to Victoria would be free to all members from the East. Dr. Fraser, of Victoria, said he hoped that everyone would go as there was much to show them.

MARITIME DELEGATES.

A meeting of the members of the Canadian Medical Association, who hail from the Maritime Provinces, was called at 12 o'clock. The meeting was held in the smoking-room of the O'Brien Hall and was called for the purpose of meeting the local members of the Maritime Provinces Association.

A cordial invitation was also extended by the Art & Historical Association to the visiting members of the Canadian Medical Association to visit the Carnegie Library. The interesting collection on view there was well worthy of a visit.

25th August, 1904.

Many new members were proposed and elected, and Dr. Brydone-Jack announced that the Government steamer *Kestrel* would be ready at the C. P. R. wharf at 2.30 to take out any who had not gone to New Westminster.

PAPERS READ.

The first paper read was that of Dr. J. W. Mayo, of Rochester, Minn., on "Tubercular Peritonitis." The fact that the Mayos have an International reputation for the treatment of tubercular diseases lent additional weight to his words, and his paper was followed with close attention.

A vote of thanks was moved by Dr. Macdonald, Brandon, and seconded by Dr. McKid, Calgary.

Dr. Davie, Victoria, discussed the paper at some length, complimenting Dr. Mayo on opening up new theories of treatment for these troublesome diseases, and praised the ingenuity of the American physicians in the methods they adopted.

Dr. J. K. Holmes, of Chatham, Ont., also spoke a few words expressive of the pleasure he had derived from listening to Dr. Mayo's paper.

Dr. Howitt, of Guelph, Ont., read a paper on "Meckel's Diverticulum, Report of Cases." During the reading of his paper Dr. Howitt had several photographs of diverticula he had treated handed round for inspection.

Dr. Mayo discussed the paper at some length. He said that in these physical freaks it often took a gravestone to teach them anything. He also said that while the lungs would stand a great deal of operation, a small intestine would stand very little.

Dr. C. W. Wilson, of Montreal, read a paper on "Results (after one year) of the Lorenz Reposition on Congenital Dislocation of the Hip," illustrated by a number of radiographs. He showed that of cases treated there had been about ten per cent., of perfect replacements, and perhaps 50 per cent., of good results.

The paper was discussed by Dr. B. E. McKenzie, of Toronto, who cited many cases of dislocated hip which had come under his own observation.

Dr. E. R. Secord, of Brantford, Ont., gave an address on "Operative Treatment of Spina Bifida," which was the last paper read before the Association, as one or two others whose names were on the programme had failed to appear. Dr. Secord's paper was well received, and at the conclusion he was made the recipient of a vote of thanks.

AN ADDRESS PRESENTED TO VISITORS FROM MARITIME PROVINCES.

After the adjournment of the morning session a number of the officers and members of the Maritime Provinces' Association met in the lesser O'Brien Hall, to present an address to the visiting doctors from their home land. Several ladies were present, and before opening Miss Burpee very tastefully played a selection on the piano. When the visitors had gathered together, Mr. John Johnstone, President of the Maritime Provinces' Association, presented them with an address of welcome in which was mentioned the strength of the Maritime Association in British Columbia, wishing the visitors from the East a pleasant visit and recalling the splendid traditions of the Provinces by the Atlantic ocean.

Dr. J. Ross, of Halifax, read an address in reply hoping that those who had settled in the far West from the Maritime Provinces would ever keep up the memories of their old homes, and wishing them prosperity in their new ones.

EXCURSION TRIPS.

About two hundred doctors with their wives and daughters went over to New Westminster in the special cars provided for them yesterday afternoon. After having made a short inspection of the Royal City they embarked on two steamers and were taken down the river past Ladner to Steveston. There the medicoes were duly initiated into the mysteries of salmon canning, the different canneries being thrown open for their inspection. They were also taken on a tour through Chinatown, where they caught a glimpse of life in Chinatown, as it is transplanted in the Far West. They returned by a special C. P. R. train to Vancouver quite refreshed by their outing.

In the morning between twenty and thirty of the doctors drove round with Dr. Underhill, Medical Health Officer, and Colonel Tracy, City Engineer, and inspected the septic tanks.

In the afternoon several delegates, who did not visit New Westminster, were taken for a cruise on the Inlet in the Kestrel.

In the evening a meeting in the interests of Dr. C. J. Fagan's plan for the proposed tuberculosis sanitarium was held in the O'Brien Hall. The Mayor presided and Dr. Mayo-Robson, the celebrated English surgeon, delivered an address.

THE BANQUET.

The dinner of the Canadian Medical Association given at the Hotel Vancouver last night was a distinguished and successful affair. There were about 200 medical men present, nearly all of whom were visitors to the City, and who have been attending the convention of the Association here this week. The event was a highly pleasant one. Dr. Tunstall, the President of the Association, occupied the seat of honor at the table, and on his right hand was Mr. Mayo-Robson, of London, Eng., Prof. Dudley of Chicago University, His Worship the Mayor, Dr. McGuigan; Dr. Sullivan, Senator, of Kingston. On the left of the President, were Dr. Shepherd, of Montreal, Dr. Powell, President of the Canadian Medical Protective Association; Mr. R. Marpole, General Superintendent of the Pacific Division of the C. P. R.

The spacious and well-appointed dining room was well fitted to accommodate the large assembly. The brilliancy of the electric light was augmented by the glint of lighted tapers, and Highfield's orchestra provided music in such a style as to elicit applause from time to time.

THE TOASTS.

After the repast, the toast list was announced by the President, Dr. Tunstall. First, "The King," responded to enthusiastically by the entire assembly singing "God Save the King." The President of the United States was also drunk heartily when "The Star Spangled Banner" was the air. "Canada," proposed by Dr. Brydone-Jack, Secretary of the British Columbia Provincial Association, called for the hearty singing of "The Maple Leaf."

This toast was coupled with the names of Dr. Sullivan, of Kingston, and Dr. McGuigan. Dr. Sullivan's reply opened very wittily, his remarks beginning really when he told of how proud we should be that we were residents of the Dominion. He was glad to see so many from the United States on such an occasion. Dr. Sullivan told of whom he represented from Ontario, and waxed warm and witty over their grand attributes.

Mayor McGuigan, M. D., reminded the members that in the holding of the convention in Vancouver, the Association had completed the extent of

Canada from Prince Edward Island to British Columbia. The members would go down to Victoria on Friday and that would complete the trip to the Pacific Coast. Touching upon Vancouver, he informed his hearers that when he first came to the City, the spot on which dinner had been eaten was forest. He hoped the members of the Association would carry back kind remembrances of their visit to the Pacific Coast.

A song by Dr. Powell was a pleasant interpolation. The selection, entitled, "Where'er St. George's Banner Waves," was rendered in fine voice.

Dr. Chown, Winnipeg, in proposing the toast of the Canadian Medical Association, said with continental railway development it was an easy matter to traverse the Dominion and hold a convention here. It was due to Eastern members in the larger cities that the Association was maintained an active organization, and the present session was remarkable for its large attendance and success. With his toast he coupled the names of Dr. Shepherd and Dr. Good.

Dr. Shepherd, of McGill University, Montreal, after an introductory remark that he recognized some of his old pupils, among them the Mayor, said that the first President, Sir Charles Tupper, was still alive, which was worthy of note. The earlier efforts had been surpassed by the great meetings of later days.

Dr. Good, of Winnipeg, spoke of the benefits of the convention, referring humorously to the length of the papers read. One of the objects of the Association was to bring men together, which had proved beneficial. In his reference to Vancouver, he said it was pleasing to note that a member of the profession occupied the Mayor's chair. Dr. Good said he had come from the County of Bruce and had sat at the feet of his President, Dr. Tunstall, as his school teacher.

GREETINGS BY TELEGRAPH.

Dr. Brydone-Jack read two telegrams which had been received by Dr. Tunstall. One was from J. B. Eagleson, which contained the following: "Yankee doctors, on their way home give three cheers for the convention and the Entertainment Committee." The other was from Hon. Richard McBride, and read: "Kind invitation just received. Regret impossible to be present."

Mr. R. G. Macpherson, M. P., wrote regretting his inability to be present at the banquet and wishing them a pleasant time.

OUR GUESTS.

Dr. Weld proposed this toast. He said that the success of the present convention was due to the presence of distinguished doctors from other countries. Among these were Mr. Mayo-Robson, from London; Dr.

McGillivray, from Edinburgh; Dr. Dudley, from Chicago, and others, whose papers had been of great profit. When they came again he hoped that Vancouver would have a hospital where operations could be carried on with less inconvenience than on the present occasion. With this toast were coupled the names of Mr. Mayo Robson, Dr. McGillivray, Dr. Dudley, Dr. Mackenzie, of Portland, and Dr. Manning, Everett.

Mr. Mayo Robson said Canada was a great country, not only in its details, but in its grandeur. Entering Belle Isle Straits he thought he was near Quebec, but after he had traveled a day and saw the extent of the province, he wondered how great Canada was. When he had crossed the Continent his expectations were realized. When he went back he would know that England was smaller than ever and that Britain was greater than ever. All that was needed was the federation which was now coming about. What was required was to have more Englishmen come to Canada. Narrow policies were replaced by those of a King with a wide knowledge and broad understanding. This was a day of aggregation, not segregation. As a medical man he should not have any politics. He had not seen a more enthusiastic gathering. It was a great pleasure to see 400 or 500 men together at the extreme west side of the Continent. He complimented the resident doctors upon the prospect of a new hospital, and upon the equipment of the present institution. There was no want of learning nor of care among the medical men of this part of Canada.

Dr. E. C. Dudley's first information of Canada was when he was a barefoot boy, and he had formed many opinions of Canada at that time. Since then those good opinions had increased. He said he would like to remark on the different periods in the feeling between the United States and Canada, the latest of which was the period of brotherly love, which was here to remain. In the United States the toast of the King of England was often drunk. British stock and American stock was common stock, and this was preferred stock.

Dr. McGillivray, Edinburgh, said he had learned since coming to the Dominion what true hospitality meant, and said if he remained here he would know what it was to be killed by kindness. The memory of his stay in Canada would remain with him long after he returned to his native country.

Dr. Mackenzie, Portland, Ore., extended thanks for the generous hospitality extended to the delegation from Oregon. It had distinctly a western flavor, which was to him a rare exotic. Since he had made Oregon his adopted home 20 or 23 years ago he had found that the people of that side of the line were much the same as they were in Canada. He was proud to belong to the great Anglo-Saxon race which would ultimately win in the racial struggle now going on. Practically Canada and the

United States were one, only a line, delimited by some engineers, separating them. Next July the American Medical Association would convene in Portland, and as Chairman of Arrangements he extended an invitation to be present.

Dr. Manning of Everett, made a pleasing reference to the similarity of people and said that it would be difficult to find a mistake in the actions of the Canadian Medical Association. In closing he thanked the Canadian Medical Association for the loyal manner in which they had entertained their guests.

Dr. A. A. Macdonald, Toronto,, who was called upon for a Scotch song, said he thought when he came here he was so far from his native heath that he would never be called upon for a speech or a song. He was always a Canadian, but he never appreciated the extent of this great country. This was the preface to a very catchy song.

THE LEARNED PROFESSIONS.

Dr. Lafferty, Calgary, proposed this toast. He depreciated his ability to perform the task, but succeeded admirably. This toast was responded to by Mr. W. R. White, K. C., barrister of Pembroke, and Professor Sinclair, of Manchester, England.

Mr. White said he was at a loss to express his feeling at being present at such a gathering of ability and learning from all parts of America and Britain. He found very appropriate words, however, and his remarks were able and entertaining.

Professor Sinclair declared that this was the first time in his life he had had the pleasure of responding to this toast.

PRESIDENT, DR. TUNSTALL.

Dr. Powell, Ottawa, mentioned his honor of proposing this toast. He had known the President for many years, and his appreciation of him was sincere.

When those present had sung heartily "He's a jolly good fellow," Dr. Tunstall thanked the proposer for his high encomium. When he had received the appointment as President of the Association, he began to think in what way he could carry on the labors of those who had preceded him. If he had succeeded in making this convention a successful one, much was also due to those who had assisted him, and to those also who had come thousands of miles to give their help. If he had done as well as was said, he was satisfied.

The healths of the Treasurer and Secretary, Dr. Small and Dr. Elliott, were also drunk, to which suitable responses were made. Dr. Small, Ottawa, recalled the fact that this was the third largest Convention in the history of the Association. The number of visitors from Great Britain and the United States was also larger than heretofore, and he hoped to

see greater co-operation between the members of the medical profession in the two countries.

Dr. Elliott, Toronto, who for three years had been General Secretary of the Association, affirmed that he had not served with greater satisfaction under any President than under Dr. Tunstall, of Vancouver.

The toast to the health of the local Secretary, Dr. Brydone-Jack was proposed by Dr. Shepherd. Dr. Brydone-Jack said the success of the Convention was not due so much to the Secretary as to the united efforts of the medical men generally.

The banquet closed with the singing of Auld Lang Sync and God Save the King.

26th August, 1904.

The principal business of the morning was the receiving of the reports of committees, and election of officers.

ELECTION OF OFFICERS.

The Nominating Committee sent in the following names as officers for the ensuing year and they were duly elected :—

President—Dr. John Stewart, Halifax.

Vice-Presidents—Prince Edward Island, Dr. McLaren, Montague Bridge; Nova Scotia, Dr. J. B. Black, Windsor; New Brunswick, Dr. A. B. Atherton, Fredericton; Quebec, Dr. James E. Dube, Montreal; Ontario, Dr. H. Meek, London; North West Territories, Dr. W. S. England, Winnipeg; British Columbia, Dr. R. E. Walker, New Westminster.

Local Secretaries—Prince Edward Island, Dr. H. D. Johnson, Charlottetown; Nova Scotia, Dr. G. C. Jones, Halifax; New Brunswick, Dr. T. D. Walker, St. John; Quebec, Dr. J. D. Cameron, Montreal; Ontario, Dr. Stuart, Palmerston; North West Territories, Dr. Hewittson, Pincher Creek; Manitoba, Dr. Popham, Winnipeg; British Columbia, Dr. A. S. Monro, Vancouver.

General Secretary—Dr. Geo. Elliott, Toronto.

Treasurer—Dr. H. B. Small, Ottawa.

Executive Council—Drs. G. M. Campbell, J. Ross, C. D. Murray, Halifax.

Upon motion, the President cast the ballot for the above-named candidates, and they were declared elected.

HALIFAX SECURES NEXT CONVENTION.

It was also decided that the next annual meeting of the Association should be held in Halifax.

FEDERAL HEALTH DEPARTMENT.

Dr. Powell of Ottawa presented a report of the Committee on a Federal Health Department. He said that in accordance with a resolution passed

in London last year, the Committee had interviewed the Government, and he was sorry to report that it could not give them any assurance that the resolution in the matter could be practically considered. He said there seemed to be a general fear lest such a department should interfere with the autonomy of the Provincial Boards, but he had pointed out that there was no fear of that as many matters would come up for consideration that could not be touched by the Provincial authorities. He instanced the medical treatment of Indians which was under the supervision of the Minister of the Interior, and the Quarantine Department under the control of Dr. Montizambert. There were such matters besides as sickness on trails and in camps, which could be dealt with by a Federal Department, and he did not see that there was the least need that it should in any way interfere with the Provincial Departments.

Dr. Fagan said he quite agreed with Dr. Powell's remarks because, as a Provincial Medical Health Officer, he had often been faced with the very same difficulties of which he had spoken. Cases were brought to his notice that were not within the range of the Provincial Department and when he applied to Ottawa he was told that they could not deal with them there.

The following resolution was then carried unanimously: "That the Canadian Medical Association regrets that the Canadian Government has not seen fit to carry out the resolution of this Association in favor of the creation of a Federal Health Department, and be it further resolved that the Association continue to press this matter before the Government, and that the Special Committee in charge of the same be re-appointed and requested to continue its efforts to this end and that copies of this resolution be sent to the Prime Minister, the Minister of Agriculture and the Secretary of State."

RESOLUTION *re* "PATENT MEDICINES."

Dr. Fagan then brought in the following resolution on "Patent Medicines"; "That in view of the large amount of patent medicines which are now on the market containing alcohol and various drugs which, being taken, lead to the formation of evil habits, and are dangerous to the health, and in special view of the false statements concerning these remedies made through the press and by other means, some means should be adopted to control and restrict the sale of such medicines and to prevent fallacious statements advertising the same. Further, that a memorial to the Government be sent to the proper department concerning the matter."

Dr. Shepherd, of Montreal, thought the resolution might have been a little more specific. There was a complaint but no remedy suggested.

He thought that considering the amount of alcohol used in these preparations, the manufacturers should be compelled to print a table of the ingredients as was done in Germany.

Dr. Fagan said the Committee had considered that it would be better first to bring the matter before the authorities in a general way, and let them take what action they might think fit. He scarcely thought it would be courteous to tell them what to do.

Dr. Lafferty said that he agreed with Dr. Fagan in this matter, though, if the Government seemed willing to take the matter up, they might make some suggestion to them next year.

The resolution was then passed unanimously.

REGISTRATION OF PRACTITIONERS.

The Hon. Dr. Sullivan then brought up a resolution urging energetic legislation in connection with the correct registration of medical practitioners.

Dr. Powell said there had been a great deal of prejudice in the Province of Quebec against the change proposed, and the Association must try to remove this misunderstanding on which that prejudice was founded.

Dr. Tunstall said that the great obstacle in Quebec was that the people did not understand our language, but he thought that once this matter was placed clearly before them the difficulties would vanish. The resolution in no way interfered with local practitioners in the Province—all that is required was that anyone wishing to be placed on a par with physicians all over the British Empire must first undergo a Dominion examination.

Dr. Lafferty thought that a memorial should be sent to the Dominion Government in this matter and that it should be propagated in the press.

The resolution was then carried.

The Auditor's report showed the handsome balance of \$602 on the books.

It was also resolved that the usual honorarium be granted to the Secretary.

VOTE OF THANKS.

Dr. Black, of Windsor, N. S., moved and Doctor Lafferty seconded a vote of thanks to the ladies of Vancouver for their efforts in making their stay so pleasant.

Dr. Shepherd moved that a vote of thanks be given to the Canadian Pacific Railway Company for the kind way in which they had treated them on their journey.

Dr. Bry 'one-Jack moved a vote of thanks to the press for their kindness during the convention. They had been very good in carrying out the instructions given them, as well as in making announcements from time to time. He also included in the motion a vote of thanks to Mrs. Mc-

Lagan of the "World" for her generous donation of papers to the members.

It was resolved also that an acknowledgment should be sent to the British Medical Association for their appointment of Dr. Roddick as representative of the Canadian Medical Association.

A hearty vote of thanks was passed to Dr. Tunstall for the able manner in which he had presided over the Association, and this brought this most successful convention to a close.

CANADIAN MEDICAL PROTECTIVE ASSOCIATION.

Directly after the close of the meeting of the Canadian Medical Association, a meeting of the Canadian Medical Protective Association was held.

Dr. Powell, the President, said that when this Association was first started they had hoped that 75 or 80 per cent of the Medical Association might join them. He thought some alteration was necessary in the constitution to bring this question home to members in distant provinces. He thought there ought to be someone in each province to keep alive the interest in this Association.

Dr. Powell then read his annual report which dealt strongly with the necessity of more increased activity in soliciting membership, though full of faith for the ultimate success of the organization.

Dr. Tunstall said he quite agreed with Dr. Powell as to paucity of membership in the Association, and would suggest a few changes in the constitution. In the first place he thought they should combine the offices of Secretary and Treasurer and place more clerical help at the disposal of the President. In consequence of the need of this, there had been a great deal of irritation among members about having no acknowledgment for the receipt of dues and other matters. He also proposed the appointment of a small Executive in each province whose duty it should be to pass upon all cases occurring within the province and to solicit membership. He moved a resolution to that effect, the executives for this year to be nominated by the President.

Dr. Powell said he had found himself under great difficulties for want of assistance in the provinces in this way. When a case of malpractice occurred, he had to communicate directly with the person, instead of with some disinterested party who was on hand and understood the matter. He regretted to say that a very unfortunate circumstance had occurred in this very City, owing to that position of affairs whereby the good name of the Association had been smirched in the minds of the profession in British Columbia. He found that the person in charge occupied a very high position in British Columbia, and somebody pretending to act on behalf of this Association published a false telegram in the Vancouver

press, the object of which was to show that this person did not occupy in the profession the same place as in the Police Court reports. When he found it out, he had at once telegraphed to Vancouver to say that the telegram was false. Had he had a local Executive to assist him it would have never allowed the good name of the Association to be dragged in the mud in this way. He wished to explain that he had an exact copy of the telegram he had sent which was to the effect that they were to send a sworn statement from the accused that he was innocent, and another from his lawyer to the same effect, together with his receipt, and if the Executive thought it was a case to defend they would do so, but not otherwise. They were willing to defend those whom they thought to be wrongfully accused, but the Association would never defend any doctor for wrong-doing.

Dr. Fagan wanted to know whether they were going to pursue any inquiry as to the origin of the false telegram. He said that as a result of it, a Victoria paper had published an editorial attacking the profession and the methods they pursued.

Dr. Powell said that until he had consulted with the solicitor of the Association he could take no further steps in the matter. Several telegrams had been sent to him asking for aid in the case, and one of these was signed "P. H. Weld," which was manifestly a forgery. He said he thought the position of the Association was quite plain. He had been a good deal attacked since coming here for acting on such slight information, and he was glad to have this opportunity to clear matters up. The Association always investigated a case before dealing with it. Some cases they refused to handle, others they advised to settle out of Court, and some cases they defended. In no case would they defend wilful wrong-doing,—they simply could not do so.

The matter was then dropped without further discussion.

Dr. Powell was re-elected as President of the Association, and Dr. James A. Grant, Jr., also of Ottawa, was chosen as its first Secretary-Treasurer, and the Association adjourned to meet in Halifax next year.

THE VICTORIA PROGRAMME.

All arrangements had been completed for the reception and entertainment of the large party of visitors who arrived from the Mainland on Friday afternoon on the conclusion of the annual convention of the Canadian Medical Association in Vancouver. On Friday evening the party were taken for a trip up the Arm, where a concert was given by the Arion Club. On Saturday morning, they were given a drive round the city, and in the afternoon they were given an excursion down the Straits on the steamer City of Nanaimo. In the evening the delegates were the guests of the Government at a reception in the Parliament buildings.

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EDITORIAL

SIMUL ET JUCUNDA ET IDONEA DICERE VITAE.

For the medical student no truer words than the above ones of Horace were ever uttered, namely, to proclaim the pleasure and profit of life together. Student life is a period of great opportunities, and of some special dangers. The study of nature and nature's laws as revealed in the science of medicine, is one of the most fascinating of all mental occupations. In the study of anatomy, physiology and chemistry, a wide field is opened up for the training of the powers of observation. In the latter studies on the course of diseases and the morbid changes wrought in the body by them, there is ample room for the keenest analysis and the widest inductions.

But while the student must be diligent in the pursuit of knowledge—for there is no royal road to it—it is equally necessary that the social side of life be not neglected. John Locke, a doctor and a great philosopher, remarks: "It is beyond the powers of humanity to spend a whole life in profound study and intense meditation, and the most rigorous exactors of industry and seriousness have appointed hours for relaxation and amusement." Socrates, than whom the world has given us none wiser, attached the utmost value to the possession of true friends. Students would do well to so guard their conduct as to secure the esteem of their fellow students, and lay the foundation for friendships that

"No strifes, no quarrels can divide,
And only death, fell death can loose."

The student must keep himself in a receptive frame of mind. Search for truth demands, that the mind be freed from all narrow formulæ, and that life and science must be viewed whole. John Stuart Mill tells you to "keep yourselves in the full air of the world, and play your part in the world's affairs; always study rather than be passive; do not be so unreasonable as to expect more from life in the world than life in the world is capable of giving."

"Life," says Seneca, "is a voyage, in the progress of which we are perpetually changing our scenes." This is particularly true of the student. With him the scenes change rapidly, and it requires a fixed and

determined purpose in life to guide the ship in the middle course of safety. Every student should fix for himself a high ideal. The word honor should ever be before his mind. Schiller, the eminent German writer, says: "Every honorable action raises one, while every dishonorable act lowers, even though these be unknown to the world. They act upon the doer for good or evil."

The student should not be a recluse in his habits. "Books," says Bacon, "can never teach the use of books. "The student must learn by commerce with mankind to reduce his speculations to practice, and accommodate his knowledge to the purposes of life." Pope, again, declares that "the proper study of mankind is man." Bacon tersely puts the methods of mental training thus: "Reading makes a full man, conversation a ready man, and writing an exact man." It is along these lines that true mental discipline must ever follow. Sir Thomas Browne, in his *Religio Medici*, advises the student to study "nature, that universal and public manuscript, that lies expanded unto the eyes of all." Of all professions that of medicine is the study of nature.

The student must keep his mind open for the reception of truth. Marcus Aurelius, in his meditations, lays down to all true students the following advice: "Be always provided with principles for these two purposes. First, to engage in nothing but what reason dictates, what the sovereign and legislative part of you shall suggest, for the interest of mankind. Secondly, to be disposed to quit your opinion, and alter your measures, when a friend shall give you good grounds for so doing." The sage of Chelsea, Thomas Carlyle, has spoken to us thus: "And again, hast thou valued patience, courage, perseverance, openness to light; readiness to own thyself mistaken, to do better next time. All these, all virtues, in wrestling with the dim brute powers of fact, in ordering of thy fellows in such wrestle, there and elsewhere not at all, thou wilt continually learn."

Here there is no resting, but a moving. "Choose well; thy choice is brief, and yet endless." Let us quote the following from Goethe: "The coursers of time, lashed, as it were, by invisible spirits, hurry on the light car of our destiny; and all that we can do is in cool self-possession to hold the reins with a firm hand, and to guide the wheels, now to the left, now to the right, avoiding a stone here, or a precipice there. Whither is it hurrying, who can tell?"

Dr. Samuel Johnston has left us all words of wisdom. Weigh them well! "In the midst of the current of life is the gulph of intemperance, a dreadful whirlpool, interspersed with rocks, of which the pointed crags are concealed under the water, and the tops covered with herbage, on which ease spreads couches of repose, and with shades, where pleasure

warbled the song of invitation. Within sight of these rocks all who sail on the ocean of life must pass. Reason, indeed, was always at hand to steer the passengers through a narrow outlet by which they might escape." Intemperance, as held aloft to scorn by Dr. Johnson, means excesses of all kinds; and Professor John Stuart Blackie taught the same lessons when he counselled his students to moderation.

MIND CURES AND MENTAL THERAPEUTICS.

In the *Boston Medical and Surgical Journal* for August 18, there are two very able articles dealing with the above topic:—The one by Dr. Robert T. Edes and the other by James J. Putnam. It will be at once admitted that Drs. Edes and Putnam are thoroughly competent to deal with the subject, and whatever they may say merits careful consideration.

Dr. Edes states that psychic treatment in some form or another occupies a very prominent position in the public mind. It is well therefore for the physicians to consider what morbid processes can be beneficially affected by mental action. In this it is clearly understood that mind of the other person can have no influence, and any result that follows must be due to the action of the sufferer's mind upon his own organs. In the case of fever, occurring during the course of acute or chronic diseases, the mind of the patient has no influence; and it is readily seen why this is so. In the large group of degenerations, the mind is again powerless to effect any change for the better. Arterial sclerosis, tabes dorsalis, and granular kidney go on to their fatal termination despite complete faith in any method of cure, or the most decided mental belief that there is no disease, or that by an effort of the mind they can be shaken off the system.

Hope, even if falsely implanted in the patient's breast, may temporarily stimulate the flagging digestion, or lead the person to ignore his feelings and imagine he is better than he really is, just as foolish fears may cause him to regard his own case too seriously.

There are some diseases of the functional type, or which do not involve directly the untrition or the processes of organic life but which may do so indirectly, and interfere with the comfort of the individual. It is in this class of cases that we find psychic influences to effect the most marked results. But even here there are very many conspicuous failures. This proves very clearly that mental influence has but a very limited sphere of usefulness in practical therapeutics, as a really curative agency, though often helpful along with other measures in tiding the patient along, while the power of nature and judicious treatment are restoring the balance of health.

In states of mental depression such as melancholia, one would think that the stimulating influence of the hope of cure, as held out by the faith-healer, would be of special value. But it is just in such cases that we have to await the slow and gradual restoration to a normal action of the mind, and in many cases, even in spite of every effort, this restoration never takes place at all. In all those mental states, characterized by delusions, it is absolutely impossible for any form of psychic therapeutics to act upon them.

Dr. Putnam in his carefully reasoned article remarks that many cases of nervous derangements must be studied from the standpoint of the gynecologist, the orthopedist, the digestive organs, etc. When everything has had due attention there remains many cases in which proper education of the mental aspects of these cases is of undoubted value. One of the main objects of the physician is to implant in the minds of these patients the sentiments of courage, confidence, patience and determination. This can often be best accomplished by a well-reasoned appeal to the patient's judgment than by a resort to crude mysticism.

For the study of nervous affections, Dr. Putnam divides them into neurasthenia with its distress of body and mind; and those cases with periodic outbreaks, as hysteria and epilepsy, with their morbid fears, frights, psychoses, and insistent ideas. It is in some of these cases, especially neurasthenia, that the judicious employment of mental influences is so helpful. While this is true, it does not mean the resort to the ignorant practices of the many kinds of "psychic healers" with which we are familiar.

THE RECENT MEETING OF THE CANADIAN MEDICAL ASSOCIATION.

It is noteworthy that the meeting held this year in Vancouver, though in the extreme West of Canada, was the third in attendance in the long history of the Association. It is also worthy of more than a mere passive word that this Association is taking so much interest in public medical affairs and in questions that affect vitally the welfare of the entire profession and people.

One of the questions that claimed considerable attention is the all-important one of tuberculosis. A resolution was adopted urging upon the governments of the various provinces to give the matter attention and to adopt measures looking towards the prevention of the disease. It is encouraging to notice that so influential and representative a convention as the Canadian Medical Association has given prevention of tuberculosis its serious consideration.

Patent medicines came in for a full share of discussion. To say that the sale of patent medicines has become a huge national curse is putting it mildly indeed. The amount of alcohol thus sold to the public is only measured by the thousands of barrels, and the quantity of opium, chloral, bromide, cocaine, etc., totals into the tons. Is this evil to go on forever? Cures are advertised for all forms of disease, many of which are known to medical science to be absolutely incurable. It is true the legislating authorities attempted some measures to put a check upon this great and growing curse. It is doing more harm than many of our serious diseases.

A Federal Health Department was again brought up for consideration. This is a very important subject, and one that the Government of Canada must some day take into consideration. *Salus populi suprema lex est* shall ever remain true. It may require no small amount of perseverance to induce the authorities to move in this matter, but the object is well worth the trouble. The medical profession has no motive other than the good of the people. It is this fact that should give great weight to its recommendation regarding the appointment of a Minister of Health.

Dominion Registration was also discussed. The members of the profession are all familiar with Dr. Roddick's bill looking towards the establishment of a standard for the entire Dominion. This bill requires the assent of the various provinces before it can become law. So far the province of Quebec has withheld its approval and so the bill remains a dead letter. There are two ways of proceeding:—One is to educate the be stayed. I well remember one case of very severe and long-established profession in Quebec up to the view of accepting the bill. This we fear will prove an impossible task. But, if conferences were held between prominent members of the profession throughout Quebec and the other provinces there might result an agreement upon the subject. The other plan is to have the bill amended in such a manner as to grant the power to the provinces other than Quebec to form a common standard of registration. We think that when the profession in Quebec saw the happy workings of such a bill the main obstacle would be removed.

Dr. Powell, of Ottawa, again reported upon the Canadian Medical Protective Association. We have on a number of occasions recommended the claims of this Association to our readers. There is to-day no more worthy organization before the Medical Profession of Canada than this Association. It should have on its list of membership every practitioner in good standing in the Dominion. Dr. Powell and those associated with him deserve much praise for their efforts to build up the Canadian Medical Protective Association.

HEMIPLEGIA.

Hemiplegia is not a disease, but a symptom. It is caused by some lesion of the motor centres or tracts, or as a neurosis.

There are various causes for hemiplegia, but the most common are haemorrhage, thrombosis, an injury, a tumor, and some functional disturbance—the neurosal form.

Conjugate deviation of the eyes always takes place in the early stage of the trouble, but it does not last more than a day or two. As the eye muscles are represented in both hemispheres this symptom is fleeting. The eyes look towards the side in which the lesion is located.

In the facial muscles the paralysis is most marked at the angle of the mouth and in the lower facial muscles. With regard to the orbicularis it should be noted that in facial or Bell's paralysis the eye cannot be closed; whereas in hemiplegia of cerebral origin, there is some impairment on the affected side, but the eye can be closed.

With regard to the upper extremity it should be remembered that the more completely a muscle is dependent upon one side of the brain, the more complete will be its loss of function in the event of disease of that hemisphere. The distal parts suffer most. Thus the fingers will be more paralysed than the wrist, and this than the elbow, and this latter again more than the shoulder. Extension muscles suffer most, and are the last to recover.

In like manner in the case of the lower extremity the foot is more affected than the knee, and the knee than the hip. Dorsal flexion of the foot and extension of the toes suffer most and recover last.

As a result of a destructive lesion, there is a descending degeneration in the motor tract and an increase in the reflexes. The knee-jerk, and the tendon reflexes of the wrist, elbow, and shoulder are also exaggerated. So also are the periosteal reflexes and there is ankle clonus. In two or three months, late rigidity commences, causing contractures in the flexor muscles and sometimes extreme deformity. Thus the arm is adducted, the elbow flexed, the wrist flexed and the fore-arm pronated, the thumb and fingers turned in upon the palm. The Babinski sign is of importance. In a normal condition, the drawing of the finger-nail across the sole of the foot causes flexion of the toes towards the sole of the foot. In lesion of the motor tract in the brain or cord, when the finger-nail passes across the sole of the foot, the toes, specially the great toe, is extended towards the dorsum of the foot.

In hysterical hemiplegia, the leg suffers more than the arm, as a rule; while in organic paralysis, the reverse is the case. In the hysterical form the face usually escapes, or is affected by spasm rather than paralysis. The gait should be noted. In organic hemiplegia the leg is circum-

ducted, whereas in the hysterical form, it is dragged like an inanimate thing. In the organic form there is usually a good deal of motion about the hip and shoulder of the affected side, as these regions are innervated from both sides.

Hemiplegia usually occurs in adults, but it is met with in infancy and may result from injury at birth.

There may be a combination of hemianæsthesia, with the hemiplegia. The loss of sensation may be only tactile, or it may be for location and pain also. When sensation is affected, it has the same distribution as the motor paralysis. It is most marked in the parts that are most volitional. There may be hemianopsia. In the hysterical disease the eye symptoms are those of crossed amblyopia and blunting of taste, smell and hearing. The sensation may be so completely absent in hysterical paralysis that no stimulants can arouse it. This is rarely the case in organic hemiplegia.

LACTO-GLOBULIN AS A NUTRIENT.

In all severe illnesses and exhausting diseases one of the urgent needs is a nutrient that is easily digested, yields a large amount of food to the muscular and nervous systems, and is readily prepared. Lactoglobulin meets these requirements in a very satisfactory manner.

In continued fevers one of the great dangers is the wasting of the muscles, and the failure of the strength of the heart. It has been proven by the most careful investigations that this waste in the muscular tissue of the body can only be checked by the proper use of proteids. Lactoglobulin is a practical food which is easily prepared, easily digested and very nutritious.

Under its use a patient will pass through an attack of typhoid or pneumonia with much less waste and exhaustion in the muscular system than when fed on milk and farinaceous foods in the usual way. We have tested the merits of Lactoglobulin in two cases of typhoid fever of a very severe type.

Careful examinations proved that the milk was not well digested even though peptonized. The Lactoglobulin with abundance of water and a little cream constituted the sole diet of these cases.

The only medicines given were strychnia as a heart tonic, and an occasional dose of magnesium sulphate when the bowels required moving.

The late Dr. Milner Forthergill pointed out that a typhoid fever patient was starved to death in the midst of plenty, because the milk, beef-tea, and gruels were not digested, and consequently the patient was not nourished, though regularly fed. Dr. Alex. Haig has shown that emaciation in fever states is mainly due to waste in the muscles and that this

emaciation in fever states is mainly due to waste in the muscles and that this must be met by a proper supply of albuminous foods.

In Lacto-globulin the albuminous nutriments of milk are obtained by a process that renders them particularly nutritious and assimilable. The milk ferments are not destroyed, and aid in the process of digestion. Boiling milk destroys these enzymes, and lessens the nutritive qualities of the proteids. In Lacto-globulin these active enzymes are preserved. It would seem that this is a nutrient of great value, and should receive a trial in severe and wasting diseases where proteids of a digestible and nutritious character are so urgently required.

PRECAUTIONS FOR CONSUMPTIVE PERSONS.

The following rules are taken from an article by Arthur Newsholme, M. D., F. R. C. P., Medical Health Officer of Brighton, England, which appeared in the August issue of the *Columbus Medical Journal* :—

Consumption is, to a limited extent, an infectious disease. It is spread chiefly by inhaling the expectoration (spit) of patients which has been allowed to become dry and float about the room as dust, or by directly inhaling the spray which may be produced when a patient coughs.

Do not spit except into receptacles, the contents of which are to be destroyed before they become dry.... If this simple precaution is taken there is practically no danger of infection. The breath of consumptive persons is free from infection except when coughing.

The following detailed rules will be found useful both to the consumptive and to his friends :

1. Expectoration indoors should be received into small paper bags and *burnt* immediately; or into a receptacle which is emptied down the drain daily and then washed with boiling water.

2. Expectoration out of doors should be received into a suitable bottle, to be afterwards washed out with *boiling water*. If a paper handkerchief is used this must at once be placed in a waterproof bag, the contents subsequently burnt and the bag washed daily.

3. Ordinary handkerchiefs, if ever used for expectoration, should be *put into boiling water before they have time to become dry*, or into a solution of a disinfectant, as directed by the doctor.

4. *Wet* cleansing of rooms, particularly of bedrooms occupied by sick persons, should be substituted for "dusting" and sweeping.

5. *Sunlight* and *fresh air* are the greatest enemies of infection. Every patient should sleep with his bedroom window *open* top and bottom, a screen being arranged, if necessary, to prevent direct draught and the patient should occupy a separate bedroom.

N. B.—The patient *himself* is the *greatest gainer* by the above precautions, as his recovery is retarded and frequently prevented by renewed infection derived from his own expectoration.

6. Persons in good health have little reason to fear the infection of consumption. *Over-fatigue, intemperance, bad air, dusty occupations and dirty rooms favor consumption.*

STREPTOCOCCUS AND TETANUS ANTITOXINS.

Dr. Victor C. Vaughan, of Ann Arbor, Mich., after discussing in a very lengthy and careful manner the state of our knowledge up to the present, concludes his article on the above topic in the May issue of *The Physician and Surgeon* as follows:—

(1) We must know more about streptococcus toxin than we do, and must be able to prepare a soluble streptococcus toxin before an antistreptococcic serum of value can be prepared.

(2) There is no satisfactory proof that any of the antistreptococcic sera now employed by the profession have any therapeutic value. I beg not to be misunderstood upon this point. These preparations are not fraudulent, nor are they made for the purpose of deceiving. On the other hand, they are made with the very best of intent, but no one at the present time possesses sufficient knowledge of streptococcus toxin to be able to prepare an antistreptococcic serum.

(3) There is at present no satisfactory method of standardizing antitetanic serum. When we use these sera we are quite ignorant of the value of the preparation which we are employing. There is, however, no danger apparently of using too much, as it has been shown that antitetanic serum is harmless.

(4) I consider that the prophylactic value of antitetanic serum has been abundantly demonstrated, and I would recommend that prophylactic doses be given whenever the surgeon is called upon to dress a wound which in his opinion might be infected with tetanus bacilli. Indeed, I recommend that a prophylactic injection be given at the time of dressing and that this be repeated on the third, fifth and seventh days after the receipt of the wound.

THE PRACTICE OF MEDICINE.

Much has been written and said on the ancient and honorable character of the medical profession. What the study of medicine has been the means of accomplishing for humanity cannot be valued by any gold standard. Preventive medicine has blessed its hundreds of thousands; vaccination has saved more people than the wars of the last

century destroyed; anæsthesia has brought consolation in the hour of suffering to its millions; and antiseptics have enabled surgeons to rescue countless numbers from an impending fate. To prevent disease, to prolong life, to lessen suffering, and to soothe the dying, are the noblest acts to which anyone could direct his thought and skill. The medical profession is the only one that bends all its energies towards the curtailment of its own special work. For these great services the profession should receive a fair reward at the hands of the public. Unfortunately, the profession, as a whole, has not reaped its own where it has so bountifully sown. And this is often due to the fact that medical men have not followed the ordinary principles that govern business men in their dealings with each other and with the public. It may be safely said that doctors, as a class, have not been careful in the collection of their accounts. It is all very well to be charitable, but it will not do to be all charity. This would not be just to one's self. In the rendering of charitable services, it is well to remember that there are the Lord's poor, the devil's poor, and the poor devils. The doctor should select the objects of his charity with some care.

The regular collection of accounts has several good effects on a doctor's clientele: it teaches them that he expects to be paid for his services, it prevents their bills becoming large, it weeds out bad pay early, it gives him the use of his money, and it avoids many losses due to removals and deaths. Suppose a doctor has \$4,000 in book debts that a reasonable effort could collect. At 6 per cent. this means an annual loss of \$240. But one of the best results of close collection of one's accounts is that it helps to hold one's patients. Few things is more effective in losing clients than uncollected accounts. To avoid payment, they go elsewhere. If their accounts had been collected regularly and their balances kept small this would not so frequently happen. A physician may possess every quality of head and heart requisite to make him successful, but if he does not collect his accounts he will not make his profession pay. There is no good reason why he should not.

Some physicians have to struggle hard against an inborn carelessness on the matter of the business side of their profession. But the struggle must be made and kept up from day to day. It will bring a rich reward. A moderate practice carefully collected will yield more than a large practice neglected on its business aspect. It is easier to get patients than to get their fees, and easier to get the fees than to keep them. Always remember what Sancho Panza said to Don Quixote, that "a little money in one's own pocket is better than much in another man's purse." Careful collections enables a doctor to do what is known

as sifting. Poor pay is poor practice and in the end the physician is better without it. The late Bishop Strachan once said, while addressing some medical students, that when they got into practice they should render their accounts *dum dolente*—while the patient still felt some of the pain of the disease for which they had been attended.

It is a very bad thing for a doctor to acquire the reputation of being a careless collector. It has the effect of making what would be good pay patients slow in their settlements, and it tends to bring doubtful pay cases his way. Some patients come to a doctor because they wish to confer a favor on him, some because he is the nearest, and others because they regard one doctor to be as good as another. These classes are rarely good pay. Keep their accounts small and get rid of them as soon as they prove doubtful pay with the least loss. As a rule, too, they are very exacting and would consume all one's time.

We have said it before and shall say it again that it is very poor policy for a doctor to take lodge or contract practice. If every doctor would refuse such engagements, the total amount of sickness would be the same and would require the same amount of attendance. There would be the vast difference, however, that the fees would be just and the sick would follow the bent of their own inclinations in the selection of their medical attendants. This would be much better for all parties. The loss in fees and in professional reputation through lodge and contract practice is very great. How much better it would be to give the time to a desirable practice which is given to the undesirable lodge practice.

THE TREATMENT OF SYPHILIS.

In the early part of the sixteenth century, mercury was employed in the treatment of Francis the First. The pill used on that occasion was one made by a doctor Barbarossa. Some two hundred years ago Astruc in his work on syphilis held strongly to the view that crude mercury by inunction was the preferable plan of treatment. From a short article, on the Treatment of Syphilis by Mr. Jonathan Hutchinson, in the August British *Practitioner*, we learn that he holds the same opinion; and that, when he advises administration by the mouth, it is not because it is the best, but the most convenient method.

Mr. Hutchinson takes strong view that the sooner treatment is commenced the better. He contends that an effort should be made to suppress the secondary manifestations of the disease. That this can be done in the majority of cases is undoubtedly true. By the suppression of the secondary, or blood stage, there is much less risk of tertiary

troubles. Mr. Hutchinson regards gummata as local recrudescences of the local dermatitis, pharyngitis, etc. of the secondary stage. If the disease can be brought under control before these symptoms appear, there will be a greatly reduced liability to gummata of the skin and throat in after years.

Another point on which he lays stress is not to begin treatment until the character of the primary sore is definite. By adopting this course there is no doubt in the mind as to the propriety of continuing the treatment for a lengthy period. The treatment should be continuous and for at least one year.

Mr. Hutchinson's favorite pill contains one grain of grey powder and one grain of Dover's powder. The patient is to take one of these pills three times a day, after meals, for a few days; and, if there be no diarrhoea, he takes thereafter four, five or six a day. An alum mouth-wash will aid in preventing ptyalism. "All soups, fruit and green vegetables are peremptorily forbidden." If the iodides are required they should be given in liquid form separately from the mercury. Mr. Hutchinson does not favor giving the iodides and mercury in the same prescription, as when given separately they are both more manageable. In cases where the patient comes under treatment in the secondary stage and with, perhaps, marked ulceration, it is well to give the iodides in full doses along with the mercury.

PERSONAL AND NEWS ITEMS

Dr. G. H. Burnham, Toronto, is back from his trip to Britain.

Dr. McKibbin, of Toronto, has spent two months in Britain and Europe.

Dr. Herbert Bruce, of Toronto, is recovering from his recent severe illness.

Drs. R. A. Corbett and McKinley have entered into a partnership at Port Hope.

Dr. William Bayard, of St. John, N. B., celebrated his 91st birthday on 21st August.

Dr. F. P. McNulty and Miss Sullivan, both of Peterborough, were recently married.

Dr. Price Brown and Mrs. Brown, of Toronto, have returned from their trip to Britain.

The many friends of Dr. J. T. Duncan, of Toronto, regretted to learn of the death of his son.

Dr. George Elliott, of John St., Toronto, has removed to the corner of Beverley and Cecil Streets.

Dr. W. S. Fraleigh died at his home in Toronto on 20th August. He was once an alderman for Toronto.

The marriage of Dr. W. R. Cook, of Elmwood, and Miss Bruelstook took place a short time ago in Toronto.

Dr. C. J. Martindale, of York, has gone to Burlington to take the practice of the late Dr. Wm. Richardson.

Dr. J. C. Forster has been appointed to the position of house gynaecologist Royal Victoria Hospital, Montreal.

Lord Strathcona and Mr. Macdonald have each given \$25,000 towards the endowment of McGill Medical Faculty.

Dr. and Mrs. Dawson, of Toronto, have returned after spending four months in England, Scotland, Ireland and France.

Dr. Charles O'Reilly, of Toronto, was elected First Vice-President of the National Association of Hospital Superintendents.

Dr. James L. Biggar, of Tilsonburg, was married September 22nd to Miss Helen Louise, daughter of Mr. and Mrs. W. B. McMurrich, of Toronto.

Dr. D. M. McCarthy, formerly house surgeon at the Water Street hospital, Ottawa, has purchased the practice of the late Dr. W. P. Buckley, of Prescott.

After an illness of over three months, Dr. John Cascaden, ex-M.P.P. for West Elgin, and one of the oldest practising physicians in Ontario, died at his residence in Dutton 31st August. Dr. Cascaden was born at Ballyshannon, County Donegal, Ireland, in 1840.

A. Y. Massey, B.A., (Tor.) M.D., C.M., (Trin.) Benguella, West Africa, has an article on a new tropical disease in the September number of the Journal of Tropical Medicine published in London, England. Dr. Massey has done considerable original research in tropical diseases.

It is a decided advantage when a physician either wishes to buy or sell a medical practice to have some central bureau where he may be brought in contact with men who wish to sell or buy, and where strict confidence and honorable dealings are practiced. The Canadian Medical Exchange, under the management of Dr. Hamill, meets this important department of medical affairs most fully, and we recommend our readers to secure the doctor's ripe experience in this line when occasion requires. In every issue of this journal among the advertising pages will be found a number of practices for sale. The list changes from month to month

BOOK REVIEWS.

MEDICAL MONOGRAPH SERIES NO. 9.

Adenoids by Wyatt Wingrave, M.D., Physician and Pathologist, Central London Throat and Ear Hospital, late President British Laryngological, Rhinological and Otological Association. London: Bailliere, Tindall & Cox. 8 Henrietta Street, Covent Garden.

The editor of these monographs, Dr. David Walsh, in his preface says the aim of this series is to sketch in brief compass the chief features of given subjects of every day interest to students and practitioners. The editor has displayed excellent judgment in the selection of subjects and could certainly have entrusted the one on adenoids to no abler pen than that of Dr. Wyatt Wingrave. Wingrave's articles are always good, one always gets something new and original in them, and his small work on adenoids certainly is no exception.

He uses the term "pharyngeal tonsil" in an anatomical sense, while the word "adenoid" is used as referring to its clinical or morbid state. He does not consider the small ill-defined depression formed by a small cushion of lymphoid tissue called the pharyngeal bursa (recessus pharyngeus medius) is entitled to sufficient importance to be deserving of any special name or disease. He believes that clinically and anatomically any distinction between it and the rest of the pharyngeal lymphoid tissue is superfluous. The chapter devoted to the anatomy of the nasopharynx and microscopical anatomy of the lymphoid tissue therein is very clear and complete. His experience in connection with tuberculosis in adenoid growths scarcely supports the view, recently so strongly made by many writers, that primary tuberculosis is common. Scarlet fever, measles and diphtheria are given as the most common cause of *hypertrophy* of the pharyngeal tonsil. A cause not infrequently found in adults is the excessive and injudicious use of the nasal douche. Attention is drawn to an anæsthetic state of the fifth and superior laryngeal nerves in long standing cases of mouth breathers. Among the many deformities adenoids may cause, *torticollis* is mentioned as being not very infrequent, but one is somewhat surprised to see squint also mentioned. The chapter on diagnosis is excellent. He states that snuffles in the absence of corroborative evidence are less likely to be due to congenital syphilis than to adenoids. Attention is drawn to the importance of noting the relationship in size between the adenoids present and the vault of the pharynx as a small mass in a small cavity may cause symptoms as serious as a bulky mass in a normal nasopharynx. A fragment, however small, should be thoroughly removed in an infant as it will most likely enlarge before six years of age; if, how-

ever, a small fragment be found about *puberty* and causing no ill effects it may quite properly be left alone. He does not believe medicinal treatment of any appreciable value in the management of these cases. If used, iodine and arsenic are probably best. The iodine should be given in combination with tannic or gallic acid. The galvanic snare, electric puncture and cold snare are quite properly condemned as being impracticable. As an anæsthetic nitrous oxide is decidedly favored, while in very young children (under three) somnoform is preferable. Chloroform is condemned. The entire chapter dealing with the operation and preparation of the patient is very clearly and concisely written. Gargles, sprays, douches, *et al*, are not advised in the post operative treatment. In the reviewer's experience, however, these little patients are made much more comfortable by using a disinfecting ointment in the nose following the operation and cases seem to him to do better. The chapters dealing with the complications and after care of these patients are the most valuable in the book, and warning is given not to interfere with the turbinates at puberty.

The small chapter devoted to adenoids and athletics is particularly appropriate. A very excellent chapter at the end of the book is written by Mr. Holten George on anæsthetics as applied to adenoid operations. Mr. George's extensive experience in this work and the thoroughness of his methods with attention to every little detail makes him most competent to deal authoritatively with the subject. A very valuable feature of this book is found in an extensive formulæ at the end. For a book of but 126 pages, it contains a fund of valuable information both to the specialist and general practitioner.

MATERIA MEDICA FOR NURSES.

Materia Medica for Nursing. By Emily A. M. Stoney, Superintendent of the Training School for Nurses in the Carney Hospital, South Boston, Mass. Beautiful 12 mo. volume of 300 pages. Second edition, thoroughly revised. Philadelphia, New York, London: W. B. Saunders and Company, 1904. Canadian Agents: J. A. Carveth & Co. Limited, 434 Yonge St. Toronto. Cloth, \$1.50 net.

This little work on Materia Medica has proved of great value to the nursing profession, evidenced by the demand for a second edition. The statements are not only clear and definite, but the information given can be relied upon as being accurate. In making the revision for this new second edition, the entire text shows evidence of having been gone over with the greatest care. All the new drugs which have been shown to be of actual therapeutic value have been included, their preparations, uses and doses being clearly and fully described. A valuable feature of the

work is the Appendix, containing such practical matter as Poison-Emergencies, Dose-Lists, Weights and Measures, etc., as well as a Glossary of the terms used in materia medica. There is no doubt in our minds but that this little work is the best of its kind.

VON BERGMANN'S SURGERY.

A System of Practical Surgery. By Drs E von Bergmann, of Berlin, P. von Bruns, of Tubingen and J. von Mikulicz, of Breslau. Edited by William T. Bull, M. D. Professor of Surgery in the College of Physicians (Columbia University), New York. To be complete in five imperial octavo volumes, containing over 4,000 pages, 1,600 engravings and 110 full-page plates in colors and monochrome. Sold by subscription only. Per volume, cloth, \$6.00; leather, \$7.00; half morocco, \$8.50, net. Volume III just ready. 918 pages, 595 engravings, 21 plates.

The American edition of von Bergmann, von Bruns and von Mikulicz's great surgery proceeds regularly and rapidly to completion. The first volume dealt with the Head, the second with the Neck, Thorax and Spinal Column, and the third considers the surgery of the Extremities. The arrangement of the subjects in the successive volumes is evidently planned for the purpose of facilitating consultation.

It is significant of the development of surgical knowledge and skill throughout America that the highest literary product of European surgery should be so warmly welcomed here. Even at this early date the demand for the work exceeds expectations. As each country has its special conditions and preferences as to operations, the translators, themselves skilled surgeons, under the general editorship of Professor William T. Bull, of New York, have added whatever is necessary to make the work representative of American practice, so that readers may feel assured of possessing the latest and fullest surgical knowledge of the two continents. Modern progress is so rapid, and withal so solidly founded, that it behooves every surgeon, and likewise physicians who have even occasional surgery to perform, to add this library of surgical information to their shelves.

The third volume exceeds even its two predecessors in wealth of engravings and colored plates.

DUNHAM'S NORMAL HISTOLOGY.

A Text-book on Normal Histology for the use of Students and Practitioners of Medicine. By Edward K. Dunham, Ph.B., M.D., Professor of General Pathology, Bacteriology and Hygiene in the University and Bellevue Hospital Medical College, New York. New (3d) edition, revised and enlarged. In one octavo volume of 334 pages, with 260 illustrations. Cloth, \$2.75, net. Lea Brothers & Co., Philadelphia and New York, 1904.

The general plan of this work is the outcome of the author's experience in teaching the subject to students under conditions which require:

economy of time—conditions which in these days of crowded curricula prevail in nearly every medical college in the country. The work is a clear and concise exposition of its important fundamental subject, and has proved to be admirably adapted to the needs of students, as well as of those physicians who desire quickly to keep themselves posted on the latest discoveries in Histology.

The present revision has been very thorough, bringing the work well up to date, and, in addition, there has been inserted a most valuable and practical section on the Care and Use of the Microscope, and on Histological Technique. No better text-book and laboratory manual on Normal Histology has ever been issued, and its great popularity has made possible its publication at a price, the reasonableness of which is appreciated by every student.

We can very confidently recommend this book.

RADIOTHERAPY, PHOTOTHERAPY AND HIGH FREQUENCY CURRENTS.

The Medical and Surgical Applications of Radiology in Diagnosis and Treatment. By Charles Warren Allen, M.D., Professor of Dermatology in the New York Post-Graduate Medical School. Octavo, 618 pages, 131 engravings and 27 plates. Cloth, \$4.50, net. Lea Brothers & Co., Publishers, Philadelphia, and New York.

Recent discoveries in radiant energy have developed a new and important system of therapy. In fact, such positive results have already been achieved in maladies which were hitherto considered intractable, as to warrant the recognition of Radiotherapy as a very efficient addition to the resources of the profession. Dr. Allen's work is peculiarly opportune. It is based upon practical experience, as well as upon a careful review of the great mass of literature on the subject coming from almost all quarters of the globe. Naturally, in a science so new, much faulty observation has been encountered, and in this volume no effort has been spared to eliminate the error and to present the subject correctly and abreast of its position to-day. Ample information is given upon the physical as well as the technical side, to equip the reader for the selection and management of appliances. The object of the work is always practical, and it has been the earnest endeavor of the author to enable his readers to secure for their patients prompt and permanent benefit. Accordingly, much attention is given to questions of diagnosis and treatment, and, inasmuch as such powerful forces as are treated of in this volume may do harm if improperly applied, cautionary directions are carefully given and exact instructions for the determination and measurement of dosage. The author has by no means lost sight of the

demands of undergraduate students, and his long teaching experience has enabled him to produce a work which is admirably adapted to teaching purposes. The illustrations are numerous and excellent.

A TEXT-BOOK OF MECHANO-THERAPY.

(Massage and Medical Gymnastics.)

For Medical Students, Trained Nurses and Medical Gymnasts. By Axel V. Grafstrom, B. Sc., M. D., Attending Physician to the Gustavus Adolphus Orphanage, Jamestown, N. Y. Second edition, revised, enlarged, and entirely reset. 12 mo of 200 pages, fully illustrated. Philadelphia, New York, London: W. B. Saunders & Company, 1904. Canadian Agents: J. A. Carveth & Co., Limited, 431 Yonge St., Toronto. Cloth, \$1.25 net.

The second edition of this useful little work has been entirely rewritten, reset, and very much enlarged. Two chapters have been added—one on Massage of the Eye, Ear, Nose, and Throat, and the other on Pelvic Massage. Seventeen new illustrations have also been added. The author states that his object has been to present a work that would be useful as a text-book to students, trained nurses, and medical gymnasts, and as a reference book for the general practitioner, and in our opinion he has fully accomplished his purpose. It is certainly a practical and clear consideration of the subjects of massage and medical gymnastics, and it is with pleasure that we recommend it to our readers. The mechanical get-up is all that could be desired.

TAYLOR'S PRACTICE OF MEDICINE.

A manual of the Practice of Medicine by Frederick Taylor, M.D., F.R.C.P. Senior Physician, and Lecturer on Medicine at Guy's Hospital; Consulting Physician to the Evelina Hospital for Sick Children; President of the Clinical Society; Examiner in Medicine at the University of London; Late Examiner in Medicine at the University of Durham and to the Royal College of Physicians and in Materia Medica and Pharmaceutical Chemistry at the University of London. Seventh edition. London: J. & A. Churchill, 7 Great Marlborough Street, 1904. Price 15s. net.

The first edition of this work appeared in 1890; and the present, seventh, edition this year. During the fourteen years it has been before the medical profession it has become a general favorite. The reasons for the marked popularity of this work on the practice of medicine are its condensed methods of treating the various subjects, the reliable character of its teachings, the attention given to treatment, and that it is up-to-date on all points. It is a crown octavo volume of a little over 1,000 pages; and yet one can find practically everything in it that could reasonably be expected in a work on the practice of medicine. A review of the book convinces one of the fact that the author is a physician of great experience, and that, while the literature of medicine is freely

drawn upon, it is not a book made from other books, but one largely built upon the wide experience of the author. The literary style of the author is good, being simple, direct and perspicuous. Acute rheumatism and dysentery are grouped among the infectious diseases, and acute pneumonia with the diseases of the lungs, though it is regarded as an infectious disease with the primary seat of infection in the lungs. On the same principle that dysentery is removed from the diseases of the digestive system and placed among the infectious diseases, we think that acute pneumonia should also be classified with these and removed from among the diseases of the lungs. We can speak in the very highest terms of praise of this work. It is a safe and trustworthy guide to the practice of medicine.

WOOD'S REFERENCE HAND BOOK.

A Reference Hand-book of the Medical Sciences, embracing the entire range of Scientific and Practical Medicine and Allied Science. By various writers. A new edition, completely revised and rewritten, Edited by Albert H. Buck, M.D., New York City. Volume viii. Illustrated by chromo-lithographs and four hundred and thirty-five half-tone and wood engravings. New York: William Wood and Company.

This volume completes this remarkable encyclopedia of medical science. It is a work of the highest merit in the facts that it covers the whole range of medical sciences, that its articles are of the most reliable character, and that the artistic side of the publication is all that the most exacting could demand. On former occasions it has been our pleasure to review individual volumes as they appeared. On the present occasion we speak more of the completed work. We do not hesitate for a moment in making the statement that every doctor in active practice should secure a set of the Reference Hand Book. By so doing he will have at his hand a complete library, thoroughly up-to-date. The present volume contains a complete index to the eight volumes. This index gives the article, the volume and the page. Those who have these volumes could not be induced to part with them, while those who do not possess them know not what they are losing thereby. We recommend these volumes because of their beauty, excellence, completeness, and trustworthiness.

MISCELLANEOUS.

HOW TO AVOID PRESCRIBING OPIUM AND MORPHINE.

Dr. N. B. Shade of Washington, D. C. in an article published in the Medical Summary, refers to many unfortunate effects of prescribing opium and morphine, intimating that the depressing after-effects of the

administration of these drugs more than offsets the temporary good accomplished by their use. He mentions a very prominent congressman whose life, in his opinion, was cut short by the administration of morphine hypodermically in the case of pneumonitis. Dr. Shade states that he still prescribes morphine, but very seldom, as he finds it much safer to use papine. Papine, in his opinion, possesses all the desirable qualities of opium with the bad qualities eliminated. Some of the brightest minds of the present age are now being devoted to the development of a therapy in which the primitive bad effects of many important drugs are eliminated. Where the therapeutic action of morphine or opium is desired, it would seem to be a safe procedure to give papine a trial.

IRREGULAR MENSTRUATION AND TREATMENT.

By E. C. WILLEY, M.D., Louisville, Ky.

Practitioners of medicine are consulted by no class of patients who display greater solicitude than those who have amenorrhœa.

In the popular mind failure of the menses to appear is supposed to be due either to pregnancy or tuberculosis, and either may cause a degree of anxiety that is truly intense.

The term amenorrhœa is used to mean the total absence of the menstrual discharge, or a marked deficiency in the quantity of the flow. Amenorrhœa may be physiological and pathological. During pregnancy the absence of the menstrual discharge is, of course, physiological and demands no consideration in this article. When pathological, the causes of amenorrhœa may be said in general to be due to the following:

(1) Taking cold, at or near the menstrual epoch. (2) severe mental perturbation, as fright sorrow, or great elation of spirit. (3) It may be symptomatic in several affections, as tuberculosis, anaemia, chlorosis, syphilis, typhoid fever, nephritis pelvic, peritonitis, and other morbid conditions. (4) Obesity. (5) Luxurious life, or overtaxing the nervous system. (6) Stenosis or atresia of the cervical canal, or imperfect development of the tubes, ovaries or uterus. (7) Vicarious menstruation may make the condition obscure, there being a discharge at the regular monthly period from the nose, lungs, bladder, stomach, nipple or other part.

The treatment of amenorrhœa must comprehend attention to general considerations, and special indications must be remembered in the various expressions of amenorrhœa.

The treatment was in a word, comprehend remedies and measures which are indicated by the etiological factors present in every case which comes up for treatment. When the amenorrhœa is caused by having

contracted cold, the patient should have a warm sitz bath, and hot applications should be applied to the abdomen and thighs. Often a hot vaginal injection will serve a most useful purpose, and a laxative, preferably a saline, will greatly aid in bringing on the flow.

In amenorrhea, delayed menstruation and dysmenorrhea. Ergoapiol (Smith) has acted in my hands in a most satisfactory manner. In scanty menstruation, I found it particularly valuable, and I shall enter in detail about one of a series of cases of this character, later on in this article, where this agent brought on a full menstruation and the general health of the patient began to improve at once. When mental perturbation is a factor in these cases it is manifestly the duty of the physician to have the environments of the patient made as quiet as possible, and anti-spasmodic or nerve sedatives should be added to the treatment.

When amenorrhea is associated with syphilis, the uric acid diathesis or morbid condition must receive correct treatment. My experience with Ergoapiol (Smith) is such that I regard it as an indispensable remedy in all expressions of amenorrhea along with proper remedies for any diseased condition associated in the causation of the affection. Of course those cases where the amenorrhea is due to atresia of the cervical canal, and to any other condition which is remedial only by surgical means, drugs will prove of no avail. The same can be said of instances in the amenorrhea due to a rudimentary state of the female organs of reproduction.

A lady some time ago brought her daughter to my office for treatment of amenorrhea. The girl was 18 years old and visibly anæmic. She had an indifferent appetite and was more or less dispirited. She had enough menstrual flow each month to stain the napkin, but this was all that could be said. I had this patient to take Ergoapiol (Smith), one capsule after each meal, and on going to bed regularly for a month. At the next menstrual period the discharge was without pain and free, and the quantity and color was as natural as she had ever known her menstruation to be. She took Ergoapiol (Smith) in the same way another month, and then ceased to have any further trouble. Her color is good and her appetite is likewise excellent; she is full of spirit, and, in a word, well.

A lady aged 33 had scanty menstruation which had covered the period of a year. At no time in the year had her menstrual period been longer than eighteen hours, but generally twelve hours told the tale. Her menses were not only scanty, but the color of the menstrual blood was pale, and this was attended with a disagreeable odor. This woman had no associated disease that most searching examination could bring out

Still she had steadily increased in flesh for the last two years, and to this I attributed the amenorrhœa.

I had this patient to take systematic exercise and a dietary that was rational, and to take Ergoapiol (Smith) with regularity, a capsule four times a day. After two months this woman ceased to take the remedy, her menstruation having become normal.

A girl 20 years old was sent to me by the matron of a boarding school. She enjoyed good health prior to entering the school, but for the past three months she had not menstruated, and was suffering constantly with vertigo and had attacks of hysteria. I attributed the amenorrhœa to change of conditions of life—that of an open life on the farm to that of a shut-in inactive life. Ergoapiol (Smith) was given after each meal for two weeks prior to the day of her usual menstruation. This brought her menses on fully. She has since had no further trouble in this way.

Mrs. A. P. L., aged 35. This lady suffered with frequent attacks of headache, had backache nearly all the time, and suffered greatly with vertigo. She was the mother of three children, the youngest being 6 years old. For the past four years she had constantly had scanty menstruation and the blood was very pale. She rarely had the menstrual flow to continue longer than fifteen hours. I was satisfied that the vertigo and all her distress was due to insufficient menstrual flow, and I accordingly put her on Ergoapiol (Smith). She took it through the mouth, one capsule after each meal; but for a week before the expected period she took two capsules instead of one. She was greatly pleased this time to have a full and free menstruation. Acting on my advice, she took the capsules three times daily for two months, and this acted in a happy manner and she has now passed an entire year and has not failed to menstruate freely.

My diagnosis was fully confirmed by this woman's health being good in every way since the establishment of menses on a basis of health.—*The Southern Practitioner*, July, 1902.

LISTERINE DERMATIC SOAP.

The Lambert Pharmacal Company are introducing an exceptionally meritorious article which will, we believe, be extensively prescribed by physicians for use in the treatment of diseases of the skin as the antiseptic and detergent properties of Listerine "Dermatic" Soap prove beneficial in the treatment of the various cutaneous inflammations and eruptions, in combating all vegetable and animal parasitic diseases, in diseases of the sudoriparous and sebaceous glands and hair follicles, as well as for the relief of excessive and offensive perspiration.