

Western Canada Medical Journal

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Business Manager

Commonwealth Block, Winnipeg, Man.

Published on the Fifteenth of Each Month

VOL. 2.

MAY, 1908

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INDEX TO CONTENTS

SOME POINTS IN THE DIAGNOSIS AND TREATMENT OF ALBUMIN- URIA	John Rose Brandford, M.D. 201
THE NERVOUS ELEMENT IN DISEASE.....	Chas. Hunter, M.D. 216
EDITORIAL	
Reciprocity Between Quebec and Great Britain — Councils Safeguarding the Public Against the Crime—Western Canada Medical Association—W.C.T.U. and Quack Medicines—Hygiene and Schools.	232
WINNIPEG CLINICAL SOCIETY.....	235
MEDICAL NEWS	241
BOOK REVIEWS	247

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Advertising rates to be had on application.

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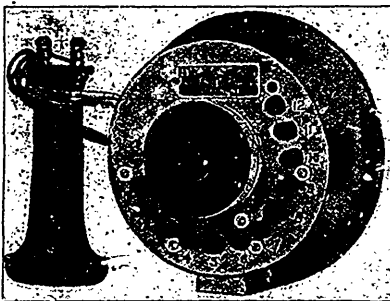
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WESTERN CANADA MEDICAL JOURNAL

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ORIGINAL COMMUNICATIONS.

*SOME POINTS IN THE DIAGNOSIS AND TREATMENT OF ALBUMINURIA

JOHN ROSE BRADFORD, M.D., D.Sc., F.R.C.P., F.R.S.

Physician to University College Hospital, London, England.

Although there is still much doubt as to the exact nature of albuminuria and especially as regards the exact mechanism of its production, there is an ever increasing body of evidence tending to show that albuminuria is dependent mainly on the action of toxic agents on the renal structures. Although there is much difference of opinion as to the exact source of the albuminuria whether it arises as a transudation from the glomeruli alone or also from the renal tubules, there is a general consensus of opinion that toxic agents are answerable for the lesion that results in albuminuria.

Some toxic agents act especially on the glomeruli, others on the epithelium of the tubules and it is especially in the case of the former that albuminuria results. In a considerable number of instances by suitable methods of preparation, the coagulated proteid can be seen in the glomerular chamber. It is, however, probable that the glomerular epithelium may be damaged to an extent sufficient to allow of the passage

*An address delivered before the Leicester Medical Society, November 6th, 1907.

of proteid matter by other than toxic agencies and more especially as the result of impaired nutrition of the epithelium dependent on arrest or stagnation of the blood flow through the capillaries. Most forms of albuminuria probably depend on one or the other of these agencies. The main interest of albuminuria to the practitioner arises from the difficulties in the interpretation of its true significance rather than any difficulty in the diagnosis of its presence.

Errors in testing the urine may fail to reveal the presence of albumin especially when we are dealing with only small quantities and certain forms of albuminuria, such as that variety spoken of as albumosuria, may be overlooked by improper or careless testing, but on the whole most of our mistakes with reference to this condition arise from attaching an improper significance to its presence, and very often from our treatment being too much directed to an attempt to diminish the albuminuria or from its presence preventing our using useful drugs from an undue fear of complications resulting therefrom.

Serious organic disease of the kidneys may sometimes be overlooked owing to the urine being examined but once and conclusions being drawn from the absence of any albumin, since it must be remembered that in some organic diseases, especially granular kidney, albuminuria is not necessarily persistent, and hence repeated examinations may be necessary in order to exclude this malady.

The presence or absence of organic disease usually reveals itself by other characteristic changes in the urine, such as alterations in the quantity and specific gravity, quite apart from the presence of albumin, and one of the most common mistakes of practice is to draw far-reaching conclusions, sometimes of grave import to the patient, from the mere presence of albumin. This mistake is liable to be made both in cases where there is much, and also in cases where there is but little albumin.

In this address I propose especially to consider the interpretation of the significance of albuminuria and for this purpose the following varieties may be recognized: First, the so-called functional albuminuria, which is of ever-increasing

importance from the greater attention it receives and from the very serious injury done to practically perfectly healthy individuals, by exaggerating its significance. Case after case is seen where healthy young men are refused appointments influencing their whole career owing to an imperfect recognition of the nature and significance of functional albuminuria. A very distinct type of functional albuminuria, and perhaps its most important variety, is that now known as postural or orthostatic albuminuria. This is a remarkable form of albuminuria in that the condition is only present so long as the upright posture is maintained. The postural variety is often very difficult of interpretation inasmuch as in some organic diseases of the kidney, both trivial and serious, the albuminuria may have distinct postural characteristics. Thus the mere fact that the albuminuria is of the postural type must not be accepted as conclusive evidence that it is of so-called functional origin.

Albuminuria frequently arises from a slight nephritis, often called transitory nephritis, liable to occur during the the course of a great number of acute infections and this transitory nephritis, as its name implies, is generally of but little clinical importance, and this type of case corresponds very closely with that formerly described under the term of febrile albuminuria.

Disturbance of the circulation in the kidney and more especially passive congestion on the one hand and infarction on the other may give rise to an intense albuminuria which may lead the unwary to diagnose the presence of grave and serious progressive lesions when these do not necessarily exist. Thus infarction is especially liable to be confounded with acute nephritis of a more or less severe type, yet the outlook in the two conditions is very different since infarction of the kidney is often the result of a simple infarct, which, although it may cause an intense albuminuria or even haematuria, or both, is not necessarily of serious prognostic significance.

Another form of albuminuria which gives rise to many errors of diagnosis is that in which the albuminuria is really dependent on contamination of the urine with pus or blood

or even spermatozoa and where, owing to imperfect examination, the presence of these formed elements is not recognized and the detection of the albumin is thus erroneously attributed to other causes.

Functional albuminuria may be defined as albuminuria in the apparently healthy, but it must be distinctly remembered that all cases of albuminuria in the apparently healthy are not necessarily of functional origin, as some of the graver forms of renal disease may exist for a considerable time without producing marked deterioration in health. The great majority of cases of functional albuminuria are seen, as is well known, in adolescence and especially in boys and young men, but in some of these cases the condition persists on into adult life. There is one form of functional albuminuria at any rate that is readily recognized and in which there need be no hesitation as to the significance to be attached to the condition and that is the form seen in athletes after severe exercise. There is now abundant evidence that albuminuria, often considerable in amount, is a very usual phenomenon after any severe physical exercise and even in individuals of robust frame and vigorous physical development. It is especially seen after rowing and after running races. It is by no means confined to the cases where there is great physical prostration, but may be seen in a very large proportion of individuals taking part in these contests even where there is no appreciable physical distress at the end of the race. In one of the recent inter-university boat races a large proportion of the crews of both boats had albuminuria temporarily after each day's training.

The variety of functional albuminuria seen as the result of exercise is different to other varieties of the affection in the fact that it is directly associated with the exercise and is seen for only a few hours after the cessation of the strain, such patients are not albuminuric in the intervals between the periods of exercise. The mechanism of its production is obscure and has been looked upon by some as merely the result of a disturbed circulation and especially as the result of the production of venous congestion of the kidneys as a sequel to the distention and dilatation of the right side of the

heart. It must, however, be borne in mind that after exertion toxic substances are present in the blood and lymph stream, and it is well known physiologically that very severe symptoms can be produced by the injection into healthy animals of the products obtained from the blood and tissues of fatigued animals. Further, in the human subject cases are seen from time to time where very marked symptoms of toxæmia develop after very severe physical exercise. Thus for example convulsions and coma, or at any rate unconsciousness, may occur after very severe physical exertion, as for instance after a long bicycle race. Such a case has fallen under my own observation where a bicycle pacemaker immediately after very prolonged exertion suffered from high fever, fits, drowsiness amounting almost to coma, and where subsequently complete and rapid recovery took place. It is at any rate conceivable that the albuminuria seen after severe physical strain may be of toxic origin, although it must be admitted that such cases often present evidence of considerable cardiac dilatation.

The other and more common form of functional albuminuria, the so-called orthostatic variety, is a much more remarkable affection and one of great importance to the practitioner. At one time these so-called cases of functional or cyclical albuminuria were attributed to a great variety of causes, such as dietetic irregularities, cold bathing, etc., but it is now very generally recognized that at any rate the most common type of affection is that in which the albuminuria is definitely associated with posture and hence it is best termed postural or orthostatic albuminuria. In such a case the urine is free from albumin on rising in the morning, but often within twenty minutes of the assumption of the upright posture the urine becomes albuminous and remains so to a greater or less degree until the late afternoon when it diminishes. Usually, no doubt the amount of albumin, even when at its maximum at mid-day, is small. But cases are seen from time to time where quite large amounts are passed and no case should be excluded from the category of postural albuminuria merely on account of the large amount of albumin present. Diet has little or no effect on the quantity excreted, although such

cases are often put on a rigid diet owing to the true significance of the condition not being appreciated. The only thing which really leads to the disappearance of the albuminuria is the assumption of the recumbent posture and many cases are known where a postural albuminuria of a considerable degree of severity has disappeared entirely during the period in which the patient has been confined to bed with a febrile illness and even with such an illness as scarlet fever which is so often accompanied by albuminuria. Diet and medicinal treatment have but little effect although it is stated that in some instances at any rate the albuminuria has cleared up with the administration of calcium chloride. This, however, is certainly not true of all cases, even when there is no evidence of the existence of organic disease.

The bulk of these cases are seen in young men and school-boys and in some cases other symptoms may be present pointing to vascular derangement such as cold extremities, attacks of palpitation and faintness, but these are by no means necessarily present. The nature of these cases is certainly not fully understood at the present time, although there is much reason to think that they depend primarily on some disturbances of the vaso-motor regulation of the kidney circulation. The assumption of the upright posture is associated with a number of complex reflex phenomena affecting the blood vessels of the body generally and it is quite possible that the albuminuria may be associated with the absence of these normal reflexes, the production of renal congestion.

The albuminuria cannot possibly be dependent simply on the action of gravity on the renal blood vessels, since the albuminuria although most marked when the upright posture is assumed, yet tends to diminish in the latter part of the day when other phenomena, the result of the action of gravity on the circulation, such as swelling of the feet and legs, become more marked. This fact is strong evidence against the albuminuria being due to mere passive engorgement of the kidneys produced by gravity. No doubt in some instances the functional albuminuria in boys and adults may be due to the contamination of the urine with spermatozoa, but many cases of postural albuminuria are seen where the most careful

examination of the urinary deposit fails to reveal any spermatozoa. Crystals of oxalate of lime are very often found in the urine and it has been thought that the albuminuria may be brought about in some way by the direct irritation of these crystals. Still this fails to explain its leading characteristic anomaly, i. e. the influence of posture, and it is difficult to think that this can be due to anything except a disturbance of the normal compensating vaso-motor reflexes which, as already mentioned, occur on the assumption of the upright posture. These vascular reflexes are really of great importance and it is only of recent years that they have been understood. In every movement of the body gravity would influence the circulation unless these protective reflexes counteracted the effect. The well known syncope or tendency to syncope which is so liable to occur on the assumption of the erect posture during convalescence from an acute illness is another illustration of the same phenomenon. Some writers have supposed that postural albuminuria is dependent on a simpler cause than that outlined above and that the erect posture leads to some kinking of the renal vein owing to unnatural mobility of the kidney. Still the class of patient in which functional albuminuria occurs is totally different to that in which movable kidney is known to occur, although it must be admitted that in well recognized cases of movable kidney transitory albuminuria is not uncommon.

Postural albuminuria, however, is unfortunately not always of functional origin and it must be recognized that an albuminuria having all the characteristics of a postural type may be seen in some organic lesions of the kidney. Thus it may be seen in slight nephritis and it may also occur as a more or less terminal phenomenon in convalescence from more severe nephritis and lastly it may be present in such a serious organic disease as granular kidney. The diagnostic problem would be very simple if we could feel certain that a postural albuminuria was always significant of a mere functional disturbance, but there is now abundant evidence that in cases of nephritis that recover and where the albumin ultimately completely disappears, there may be a period prior to its disappearance where it has all the characteristics of the

postural type. Further, in many cases of postural albuminuria in boyhood, although no symptoms of renal disease or of its symptoms can be elicited, a history of some acute infection, often not of a serious character, may be obtained, such as measles, mumps, tonsilitis or in not a small proportion of cases what is described as merely a severe cold quite apart from a more serious malady like scarlet fever which is so intimately associated with the production of renal disease. Acute affections are capable of giving rise to nephritis of all degrees of severity and many of them may also be complicated by slight attacks of pyelitis. In the latter, unless very careful examination of the urine is made, the fact that the albuminuria is due to contamination from small quantities of pus may be overlooked.

In the ordinary case of postural albuminuria in a boy or young adult, the practical diagnostic problem generally to be decided is whether the condition is dependent on so-called functional causes or whether it is due to a slight nephritis or whether it is the relict of a former attack of nephritis.

Although this question may be of some interest from a diagnostic point of view, it is not generally of great importance inasmuch as the outlook is generally favorable, although not equally so in all three instances. There is but little evidence that cases of postural albuminuria of functional origin can go on to serious renal disease, although it must be admitted that functional albuminuria may last sometimes for a number of years and even well on into middle life, but as far as I am aware there is no evidence to justify the wholesale refusal of these cases for life assurance or for commissions in the public services or other appointments in banks and mercantile houses, as is almost universally the case at the present time.

The diagnosis as to whether the postural albuminuria is of functional or of organic origin has usually to be made by a careful consideration of the history, especially of the occurrence of an acute infection and a careful examination of the heart and blood vessels including the retinal vessels to obtain any corroborative evidence of the presence of actual organic renal disease, the detection of casts in the urine is only of

significance if these casts are such as to show obviously a renal origin by containing renal elements. Hyaline casts are probably always present in albuminuria and should not be looked upon as evidence pointing to the existence of organic disease of the kidney. It would seem that at least two organic diseases of the kidney may reveal themselves, first of all as functional albuminuria, although the actual mechanism of the production of the condition is obscure. These are calculus, and movable kidney. I have known of one instance of the former where the patient sought advice on account of functional albuminuria for which no cause could be found and where subsequently renal colic with distinct evidence of the presence of a calculus occurred. It would be well, before assuming that an albuminuria was entirely of functional origin, to examine the patient carefully, not only from the point of view of organic renal disease such as nephritis, granular kidney, but also to bear in mind the possibility of calculus and of nephroptosis.

The albuminuria of serious renal disease leads on the whole to fewer errors inasmuch as other facts pointing to the existence of the underlying malady are usually present, but still, if attention is concentrated too much on the degree of albuminuria present, very serious errors of diagnosis and of prognosis are liable to be made.

In the first place it is essential to bear in mind that even in gross organic disease the albuminuria may have some of the postural characteristics and hence it is advisable only to examine samples of the mixed twenty-four hours' urine as very erroneous deduction of the progress of the case are liable to be drawn from the observations on the urine not being carried out with similar specimens on consecutive days. But probably the error most frequently made in chronic renal disease is not to pay sufficient attention to the fluctuations in the quantity of urine secreted. It is obvious if dropsy for example be increasing that the quantity of urine will undergo a diminution and the albumin an apparent increase, the percentage amount of albumin will of course increase, but the total quantity lost in the twenty-four hours may not undergo any change. In cases where dropsy is increasing this error

is not of any great importance because probably if the dropsy be increasing that of itself is an indication that the condition of the patient is worse. On the other hand an alteration of the diet, and particularly the free administration of milk, often leads to an increased excretion of urine due purely to the diuretic action of the milk owing to the contained salts and especially to lactose, and the percentage of albumin will undergo a great diminution which is really entirely fallacious, the daily excretion remaining the same and in many instances the patient's state becoming aggravated owing to impaired nutrition resulting from a prolonged exclusive milk diet. In all observations of the albuminuria, especially of chronic renal disease, the percentage ought always to be controlled by observations on the quantity of urine excreted.

There is a great tendency to measure both acute and chronic organic disease of the kidney by the amount of albumin actually present, still more often by the mere percentage amount present. Doubtless in many serious organic diseases there is much albumin in the urine, but the gravity of the state should be measured rather by the consideration of other factors. Thus for example in acute nephritis two very definite types of the disease may be recognized even when the malady is dependent on such a cause as scarlet fever, in one the urine is greatly diminished in quantity, loaded with blood and contains very large amounts of albumin, in fact the condition of the patient as gauged by the examination of the urine would seem to be most serious. In the second variety the urine is often not so greatly diminished in amount, blood may be absent and the quantity of albumin notably less, but whereas in the first class of case dropsy is absent in the second class of case dropsy may be the leading clinical picture of the illness. The severity of the renal lesion as gauged by the ultimate effect on the patient is very often much greater in the second class of case than in the first, notwithstanding the fact that the examination of the urine would rather tend to the opposite conclusion. Scarlatinal nephritis, and I only quote this as an instance for the remarks, apply equally well to other forms of acute nephritis, affords a very good instance of the erroneous deductions which may be drawn from con-

siderations based on the albuminuria alone.

In chronic Bright's disease the same conclusions hold, because here we may recognize two forms of the malady, one where the quantity of urine is diminished and the percentage amount of albumin is large, and the other where the quantity of urine is increased and although large quantities of albumin may be lost in the twenty-four hours, yet the percentage is markedly less than in the former type of case. Here also the form of the malady where the percentage amount of albumin is less is really the more serious. The gravity of chronic Bright's disease is to be measured rather by the degree of involvement of the cardio-vascular system and by the general nutrition of the body than by considerations of the mere percentage of albumin present.

There are, however, certain forms of renal disease to which I wish especially to direct your attention and where the most erroneous deductions may be drawn if attention is concentrated on the mere albuminuria. There is a very common class of case where a patient has suffered in former years from nephritis either in its acute or chronic form, where for example dropsy and other serious symptoms may have been present for a very considerable time; recovery then takes place, the dropsy and the various disturbances of nutrition characteristic of the acute stage of the disease clear up and the patient regains apparently his former health, but the albuminuria persists and not uncommonly the quantity of albumin lost is considerable. These patients, speaking broadly, present no marked phenomenon of disease except the presence of albumin and casts in the urine. They are often looked upon as cases of chronic Bright's disease, more especially owing to the fact that the condition is known to have followed an acute renal illness. No doubt to a certain extent they are cases of chronic Bright's disease in the sense that there is an organic lesion of the kidney which is permanent, but still they are in a totally different category to other cases of chronic Bright's disease where in addition to a similar albuminuria other symptoms of uraemia or of a drop-sical character are present. Many of these patients, where albuminuria only is present, may show this phenomenon for

many years even for such periods of time as twenty or even forty years and I have myself seen a patient who consulted Dr. Bright for albuminuria some forty years previously.

These patients evidently are suffering from a non-progressive lesion of the kidney, the organ has been damaged as the result of the previous affection and the damage allows the leakage of albumin. The examination of the urine in such cases will not throw a complete light on the nature of the case and it seems to be unreasonable to look upon these cases and to treat them as cases of chronic Bright's disease. They should rather be regarded as cases of albuminuria dependent on a quiescent lesion, a lesion no doubt which may under certain circumstances undergo fresh development and lead to further damage to the kidney, but this by no means necessarily occurs in all instances. So that we should look upon some cases of albuminuria following acute or chronic nephritis as dependent on stationary non-progressive kidney lesions which are quite compatible with the patient leading an ordinary life for many years. The nature of these cases can often be determined by general considerations, especially the state of nutrition, the absence of anaemia, cardio-vascular changes and dropsy. It would certainly be more in harmony with the principles of nomenclature to restrict the terms chronic nephritis or chronic Bright's disease to cases where there is evidence of a progressive lesion and not to regard all cases as chronic Bright's disease merely because the urine is albuminous and remains so after an attack of nephritis.

Another form of albuminuria where grave errors of diagnosis and treatment may be made is that due to amyloid disease of the kidney. Here also the degree of albuminuria is high, dropsy may be present and the case may readily be looked upon as one of chronic Bright's disease and dieted accordingly, whereas the true principles of dieting amyloid disease, including amyloid disease of the kidney, are quite different to those that guide us in our treatment of chronic nephritis. In amyloid disease the albuminuria is often very excessive and as is well known it is one of the conditions in which a maximum loss of albumin may take place. Although the clinical picture of amyloid disease closely resembles that

of chronic Bright's disease, the distinction can usually be made by the consideration of the etiology or the presence of some associated malady or finally by the fact that if chronic Bright's disease were really present, associated lesions of the heart and blood vessels would also be present, and this is not the case in amyloid degeneration. The albuminuria of amyloid disease is a very good illustration of the harm that may be done by a cut and dried system of dieting and especially a system of dieting based on the mere percentage amount of albumin. Such patients require a liberal diet, in fact a diet which is absolutely different to that of chronic Bright's disease. No doubt difficulties present themselves in some instances, perhaps especially in phthisis where both chronic nephritis and amyloid lesions may exist in the same patient, in such cases the other phenomena of nephritis generally reveal themselves.

There is another form of albuminuria to which I should like to direct your attention, and that is the form due to syphilitic nephritis. Nephritis dependent on syphilis is very much more common than is usually supposed and personally I cannot help suspecting that many cases of acute and chronic Bright's disease in young adults imputed to cold are dependent really on syphilitic infection. Nephritis of severe type, closely resembling the more severe forms of acute and chronic nephritis occurs not infrequently within the first two years of syphilitic infection. The true nature of these cases is often only discovered accidentally, as for instance by the occurrence of a typical syphilitic eruption during an illness presenting all the features of Bright's disease. But I think in many instances it is possible to suspect that the nephritis is really of syphilitic origin by the fact that such patients often present no very marked symptoms of illness excepting a most intense albuminuria, thus for example the urine may be absolutely solid with albumin and yet the patient may present no other features of illness except slight anæmia and possibly slight swelling of the face or extremities. But in many cases there is no anasarca but only the intense albuminuria. The albuminuria is not only intense but very persistent, lasting for six or eight months or even longer, I have known it to last

two years, but yet ultimately to clear up completely. Although the outlook in probably most cases of syphilitic nephritis is good, yet this is not invariable and such cases may die during the acute stage of the malady. Still on the whole the prognosis is much better than that of the ordinary form of Bright's disease. The recognition of these syphilitic cases is not only necessary from the point of view of prognosis but still more so from the point of view of treatment. Mercury, as is well known, is usually held to be contra-indicated where albuminuria is present, and especially so where the degree of albuminuria is high, yet it is imperative that mercury should be administered in cases of syphilitic nephritis and this again affords an instance of the dangers of following a slavish routine.

The albuminuria that complicate certain cases of diabetes is also of considerable interest, and here this complication may be of serious significance. In that form of diabetes or glycosuria associated with arterio-sclerosis and occurring usually in middle-aged or elderly patients, a small quantity of albumin is frequently present in the urine. In these cases the amount of sugar present is usually small, but the patient is exposed to other risks dependent on the arterio-sclerosis and the presence of albumin is often a clue to the diagnosis of the arterial degeneration. Acute and chronic Bright's disease of the ordinary type may occur as a complication in diabetes and, as is well known, they are very serious complications. In these instances the other phenomena of Bright's disease are present and there is generally no difficulty in the recognition of the condition. Albuminuria in diabetes may, however, be sometimes present to a high degree without the development of any other accompaniment of renal disease, the urine simply containing a large quantity of albumin. The pathology of this albuminuria is obscure, but it has not the grave significance of the other forms.

Finally, with reference to the albuminuria of granular kidney, probably the most important point is to realize that in this formidable disease the albuminuria is not only slight in amount, but may be occasional in its presence, and thus repeated examination is often necessary in order to exclude this malady.

My main object in bringing these remarks before you is to emphasize the point that in order for satisfactory diagnosis and treatment to be effected, it is essential not to base our conclusions either on the mere presence or still less on the amount of albumin present in the urine and that certainly our treatment and especially the dietetic treatment should be based on such considerations as the general nutrition and weight of the patient, the presence or absence of dropsy, and the state of the arterial tension and that no system of diet should be ordered simply and solely on the albuminuria.

*THE NERVOUS ELEMENT IN DISEASE

CHAS. HUNTER, M.A., M.D. (Aber.), M.R.C.P. (Lon.)

WINNIPEG.

We are all apt to bring into sharp contrast Organic and Functional Disease. By organic disease we understand, in a general way, disease in which is demonstrable postmortem, changes in the organs which can be held accountable for the symptoms during life, or in which, during life, evidence of infection, say from one of the specific fevers, is present. Even this definition is not wide enough to include many cases of epilepsy, some of diabetes and some of pernicious anaemia, in which there may be no demonstrable changes post-mortem, accountable for the symptoms, or evidence of infection during life and yet which are readily placed under organic disease. It is further obvious that with finer and more intimate knowledge of the underlying pathology of disease, the functional class is becoming correspondingly restricted. Under functional disease we include hysteria, neurasthenia, hypochondria and the special nervous manifestations referable to the various organs, whether these various manifestations arise as part of the general hysterical or neurasthenic condition, or as apparently isolated phenomena.

But the nervous element in disease is not confined to functional disease—it appears in, and tinctures the symptoms of organic disease. An illustration will make this clear and will recall no doubt similar instances to your mind. About two years ago I was called for the first time to see a woman of thirty. She was lying in bed, bible in hand, surrounded by her weeping husband and children and gasped out on my entrance, “you are just too late, Doctor, my heart is exhausted and I am dying.” Her pulse 140-150, respirations 40-50, and well marked evidence of a double mitral lesion. But the patient was lying with head supported by only a single pillow, with no oedema of the legs or blueness of the

*Read before the Winnipeg Medico-Chirurgical Society.

face, no enlargement of the liver or other evidence of decompensation. I was able accordingly to reassure the patient that there was no danger and that she would probably be about next day; that the heart itself, of whose valvular defect she was well aware, showed no sign of broken compensation and would likely give little trouble for some years to come. The re-assurance (aided possibly by a little bromide) was sufficient and she was up and about next day. I have seen her from time to time and have noticed no change in the heart condition. In December 1907 she was eight months pregnant (she had been warned against pregnancy) and the heart was still functioning perfectly. I am unable to say how she stood the actual confinement. Here then was a case of organic disease—enlarged heart, presystolic thrill, double mitral murmur, accentuated 2nd pulmonic sound—in which the nervous element—for the moment dominated the clinical picture. That the actual organic disease determined the point of outbreak of the nervous element is probable. The equilibrium of an enlarged heart would be more easily upset, than that of a healthy organ and this, combined with the all powerful influence of the mind aware of the valvular disease, would be sufficient to precipitate the palpitation and resulting apprehension of death.

The relation of nervous element to organic trouble is not always so easy to trace. Here is the case of Mr. H., aged 36, seen November 1905. Otherwise strong and healthy, he had from childhood a most irregular heart; many doctors have expressed themselves gravely over it and his mother warned his wife on her marriage day that she must always keep strychnine and alcohol in the house as a sudden attack of heart failure might carry him off at any time. The result was to develop an abnormal sensitiveness of the cardiac area—he had palpitation and pains there from time to time. But in spite of the extreme irregularity in force and rhythm, the heart was only a trifle, if at all enlarged and there was no evidence elsewhere of any failing cardiac power. Now, how much of this irregularity was due to inherent causes, how much to tobacco of which he was very fond, and how much to nervous influences? For the close attention and self ob-

servation, originated and maintained by indiscreet medical attendants, is sufficient of itself to cause irregularity in an organ whose rhythm is essentially automatic. When one pointed out to the patient that thirty years of irregularity had left the heart practically unaffected and that he might die of a dozen diseases rather than heart disease, the pains left him though the irregularity continued. But it is reasonable to enquire whether on reaching middle age the patient may not yet suffer. A heart, constantly emptying irregularly, is not so well supplied with blood and so tends in the long run to dilate, and it is possible that the cardiac pains at present functional may later become truly anginal in nature.

Such a development of anginal pains from the neuralgias of neurasthenia, I have witnessed in another case. Mr. T., a man of fifty, with various neurasthenic symptoms, developed neurasthenic pains in the shoulders and back, two years before I saw him in December 1904. Mixed with the neurasthenic pains, appeared distinctly anginal attacks, in one of which the patient afterwards died. The connecting link between the neurasthenia and the angina seemed to be the arterial degeneration, and German observers especially insist on the early onset of arterio-sclerosis in many neurasthenics, owing to the rapid variation of blood pressure in that disease.

Here I may be permitted to enquire, has the nervous element anything to do with catching disease—that is, if a person be afraid of catching a disease, or if a doctor attending a patient mention the possibility say e. g. of typhoid fever developing, does that make him more liable to catch the disease? If the typhoid infection be virulent, nothing, I suppose, would prevent the development of the fever, but should the infection be a mild one, I am not sure but that the anxious expectation of the patient, or the doctor, may not be sufficient to determine its onset where a constant pooh-poohing of the possibility might have averted the danger. Herein, I find, the scientific explanation and justification of the plan of certain physicians in this city with their mixture to “break up typhoid fever.”

Proceeding now to the recognition of the nervous element

in disease, it may be asked, is there a type of body specially prone to nervous disease? There is. It is characterized by poor muscular development, by long narrow chest with acute costal angle (normal on expansion 50-80 degrees), xiphoid-umbilicus distance greater than midaxillary-umbilicus distance, and 10th rib loose, perhaps defective. Normally the 10th rib ends in front in a $2\frac{1}{2}$ -3 c. m. cartilage, which narrows to join the cartilages of 7th, 8th and 9th ribs in the mammary line. There is no cartilaginous union of the 10th cartilage to the others, but the very firm connective tissue between the 10th cartilage and those above keeps the 10th rib firmly fixed and immovable. In the nervous chest, the cartilage is poorly developed, sometimes almost absent, and allows, varying with the degree of the defect, varying mobility of the 10th rib in front, or even of the finger being interposed between the tip of the 10th cartilage and those above (just like a true floating rib). It must be noticed that post-mortem, in very many cases where in life the 10th ribs appear fixed, the relaxation of the ligaments allows the 10th ribs to become quite loose, their tips slipping backwards from the mammary line. Now this looseness of the 10th rib and defect of the cartilage on which it depends is an important sign, and it may be present alone where the chest development is otherwise good. Such a type of man or woman need not necessarily be troubled with nervous symptoms, but he tends far more readily than the ordinary man to suffer from nervous dyspepsia, from neurasthenia, from enteroptosis.

General Characteristics of Neurotic People.—They are in a general way more alive to suggestion, more easily fatigued, more emotional and more sensitive than healthy people. They display in fact merely an exaggeration of tendencies we all have.

A. Suggestibility.—We are apt to forget how large a part suggestion plays in our own lives. We gather, from childhood upwards, beliefs and ideas absorbed unconsciously from home life, from books, companions, from our general atmosphere. Our religious sentiments, our political opinions, our views on the world in general are mainly the result of suggestion. Only in our narrow sphere of knowledge do we attempt to

exercise reason and judgment—only here is our own knowledge broad enough to offer much chance of successfully correcting suggestion at the bar of reason. The experiments on the average normal individual, the facts of hypnotism, the power exhibited by the Nancy School of suggesting sleep to over 90% of all persons without previous hypnosis, all show the extraordinary suggestibility of mankind. Henry Head, in a brilliant series of lectures in 1901, showed how in many diseases hallucinations of sight, hearing, taste and smell occurred—hallucinations complete and detailed enough to make the patients disbelieve in their reality only by independent tests. If this is so of sensations, how much more readily does suggestion play its part in the more abstract ideation.

B. Fatiguability.—This is the distinguishing feature of neurasthenics, as opposed to hysteria, where auto-suggestion plays the leading roll. While it is natural for us to be tired after hard mental or physical work, or on insufficient food, the neurasthenic is tired more or less all the time—when he gets up in the morning after a good night's rest, after reading a little, after walking a little, etc. This feeling of fatigue is capable, however, of analysis. If the neurasthenic be thin and under weight, (say from under nourishment) part of the fatigue will be physical and capable of removal by rest and food. Much, however, of the fatigue of the neurasthenic is mental, auto-suggested and is proportional merely to his belief in his fatigue—this part is removable by heightening his confidence in himself. Part of the fatigue is due to real fatigue, resulting from unnecessary and excessive emotional display.

C. Emotionality.—The neurotic is subject more than the average man to emotions. Actual hard work mental and physical is not so exhausting and recuperation is rapid after it. But "it is worry that kills," as they say. The neurotic is a prey of the emotions—emotions called forth in utter disproportion to the cause, emotions serving no useful purpose, but utterly exhausting the unhappy subject. These emotions, however, it must be remembered from the point of view of treatment, are not mere reflexes. They are called into play by intellectual ideas and can accordingly be controlled by

educating the reason. The more the subject yields to his emotions, the more purely reflex do they become.

Diagnosis.—While the diagnosis of neurasthenia is simple as a rule when the general symptoms of fatigue are marked, there is frequently difficulty should the symptoms be more or less confined to one organ. Take the gastro-intestinal track e. g. It is no exaggeration to say that nine-tenths of all cases of dyspepsia are nervous in origin and that a large proportion of these are treated as if of local origin, with restricted diet, Bismuth, acids or alkalis, pepsin or what not. Yet the general appearance of the patient, the nervous build, the previous history and an attentive analysis of the dyspeptic symptoms should be sufficient usually to prevent the mistake. The discomfort or pain is independent of food or if dependent, acts queerly—there is as much discomfort after a glass of water or milk as after a solid meal—in a word the discomfort is not proportionate to the quality or quantity of the food (as in chronic gastritis, ulcer e. g.) it is dependent on the spirits of the patient and varies from day to day. There is seldom actual severe pain—it is more a heaviness or weight. With all this there is no sign of organic disease—no localized tenderness in epigastrium and back and no sign of gall bladder trouble. Where necessary a test meal may be given—usually the diagnosis can be readily made without it and when so there is no object in putting the patient to the discomfort entailed in passage of the tube. Besides, the introduction of the stomach tube helps to fix the attention on the stomach—the very thing we want to avoid. While usually motor and secretory functions are normal in nervous dyspepsia, it must be remembered that both are under the influence of the nervous system and that deviations in both may occur from nervous influences.

We talk glibly of hyperacidity, forgetting that there is no fixed limit of acidity—that the appetite is an all important factor, that the discomfort from hyperacidity as we call it, depends as much, or more, on the sensitiveness of the gastric mucous membrane as on the increased amount of free acid. So with hypoacidity or anacidity—the latter was formerly deemed almost pathognomonic of cancer. It is, however, a

frequent finding in gastric examination, either as the terminal stage of chronic gastritis when it may be associated with much mucus, or as an achylia gastrica, depending sometimes at any rate on nervous influences. The presence of pus, blood or mucus in the stomach before breakfast or of occult bleeding in the stools, points to be examined for in a doubtful case, would be strong evidence of the organic nature of the trouble.

In regard to the motor functions of the stomach—if the secretory functions are in close touch with the nervous system, the motor functions must indirectly be so too, by reason of the pyloric reflex. When acid contents reach the duodenum from the stomach, the pylorus tends reflexly to contract until these are neutralized when it is again relaxed. But apart from this reflex mechanism, the nervous system affects the muscular coat of the stomach directly—atony is frequent and even cases of atonic motor insufficiency are not so uncommon, where from time to time the stomach tube is needed to remove the stagnating material and where in the intervals, moral suasion and general treatment are more urgently needed than a markedly restricted diet.

The Nervous Element in Children.—The neurotic child is father, or at least potential father, of the neurasthenic man and early recognition of the type, with appropriate measures, is one of the most important duties of the physician in prophylaxis. A glance will often be sufficient—the thin, emotional, restless, shy child reveals in every movement the nervous spirit within. But it is usually for some special symptoms the doctor is called in—for restlessness at night, night terrors, night incontinence of urine; it may be for wasting, for pallor and diarrhoea after food; for feverish attacks recurring and lasting a day or two due to no obvious chill or dietary indiscretion, for twitching, habit spasm or convulsion, for being tired all the time, for headaches and vague aches and pains, for rheumatism, chorea or asthma. The parents demand and expect the removal of the special symptom; the eye of the physician should spy the neurotic background and guard against subsequent neurasthenia. Enquiry reveals the child is wayward and emotional, probably afraid of the dark,

easily startled, capricious in appetite. The inherited defects of character are often accentuated by the fatal example of the neurotic parents—the worst possible educators of their wayward offspring.

Treatment.—(a) **Children.** Kindness and sympathy born of knowledge of the neurotic disposition in children with its fears and hopes, aches and pains are the main essentials in dealing with these cases. The parents should be enlisted on the right side: their own experience in childhood recalled. One can only rapidly sketch some of the factors—cool airy rooms, suitable clothing, plain, simple food with, however, consideration to the child's tastes (e. g. frequent aversion to fat), supervision of books read, pictures seen or stories told, early hours, reassurance against childish fears and encouragement to confide their fears, night lights if desired, play supervised, evil sexual habits corrected, absence of "forcing" at school, and removal from school if necessary with prolonged holiday in the country, education of the child in habits of reason and self-control. These are but indications of the complicated duty before the physician in dealing with nervous children.

(b) **Adults.**—In regard to adults also, much may be done in nipping nervous symptoms in the bud. Thus in adults coming for minor ailments—e. g. fullness and distension after meals, palpitation, aching in the back—we should give up using to the patients such expressions as "weak heart" (this has an ominous sound to many), "sluggish liver," "dyspepsia," "floating kidney," as if these organs were at fault and requiring local treatment. We should reassure them, where this is possible consistent with truth, of the soundness of their organs and if one detects little variations from the normal—a drop in the right kidney, a gastroptosis, a deviation of the uterus, a tenderness of the ovary—we should not alarm the patient unnecessarily. In general terms, we may say that if looking at the patient as a whole, one thinks it likely that the local disturbance is but part of the general lowering of tone, one should treat the general condition and not concentrate the patient's attention on an organ by local treatment. A thorough investigation into the nature, life and habits of the

patient will usually give the starting point of the disturbance and will form the ground work for psychic and general treatment to be mentioned presently.

Should the significance of the symptoms e. g. palpitation and precordial discomfort be misunderstood and the patient be led to believe that there is actually local trouble, the belief tends to fix the local symptoms. Closer introspection and self-observation follows, aggravating the condition. Thus in the case of the heart, especially after a heavy meal or after a little liquor, or under the influence of excitement, the cardiac throb is readily perceptible as one lies in bed on the left side. The average person, secure in the idea of a healthy heart or phlegmatic on the subject, turns over on the other side, or ignoring the sensation goes to sleep. Not so with the nervous person. Perhaps owing to a natural palpitation accompanying an emotion, perhaps from some other reason he too notes the pulsation, but pays attention to it. It is easy for oneself to recognize the cardiac throb in any position, without previous emotion, in broad day with all the stir around us. And now comes a new factor into play. The cardiac rhythm essentially automatic in action is interfered with by this cerebral attention and irregularity ensues with the accompanying unpleasant sensations. Thus the belief in cardiac mischief and the introspection resulting leads to a vicious circle, and the symptoms from which the patient suffers exist just as long as he believes there is something wrong.

The mischief of that can be done by ill-judged (and in the particular case unnecessary) doubt cast on the capabilities of a heart is well illustrated in Mr. S. (aged 32), a G. T. P. engineer, whom I saw in February 1905. Patient came of a nervous family and was himself obviously nervous. Ten years before while playing football he had shortness of breath and a little cough—the heart was then said to be dilated and football was interdicted. From that time whenever he was run down, he had peculiar sensations in the heart (“bubbling as of porridge passing through, instead of blood,” as he expressed it). Ten days before being seen, after smoking heavily, he felt a “hesitation of the heart”—some beats were strong, then a few small weak beats. The medical man he

saw bluntly told him "he might go off suddenly." Overcome by the news he threw up his situation and made for his home in England. I saw him as he passed through Winnipeg. The heart was hardly, if at all enlarged; there was a marked excordial murmur and doubtful signs of slight mitral regurgitation. He went away reassured, and I saw him six months later on his return from England, when his heart seemed normal.

Similar conditions hold in the abdomen. The process of digestion ordinarily goes on outside consciousness, but we are none of us so well balanced, year in, year out, as not to be aware of an occasional digestive ache. The nervous patient posted in symptoms by his friends and neighbors with their full blown troubles, or kept alive to possibilities by reading medical advertisements in the newspapers has some abdominal ache or pain, to which from the first he pays close attention. The idea is formed that he suffering from dyspepsia, that he requires dieting and if he comes to a doctor, he comes with his diagnosis of stomach trouble ready made. Is it too much to say that a not uncommon treatment for such a nervous dyspeptic will be Bismuth and the advice to cut out this and that article of diet deemed indigestible? The medicine given and the advice on diet confirms the patient in his idea of stomach trouble—as time goes on the diet is more and more restricted—he loses weight, the muscles become flabby, the muscular coat of the gastro intestinal track becomes more and more atonic. From under nourishment, true feelings of fatigue are added more and more to the mental fatigue present long before; the patient becomes more and more emotional and thus in a year or two, we witness the evolution of the confirmed nervous dyspeptic. Easy to nip in the bud before the fixed idea of stomach trouble dominates the situation, it is otherwise in the later stages.

The Question of Drugs.—I confess I am utterly sceptical on the value of drugs in such cases; while a judiciously given tonic (Fellows' Syrup or some similar combination) may be of some value when given for a limited period, there is little doubt in my mind that far more harm than good is caused in these cases by indiscriminate drugging. And yet if one

studies the history of the patients over years, one notes that drugs appear to have been the staple treatment and from the patients' attitude, it is easy to see that they still look for salvation outside of themselves. We must admit how little we know of the action of drugs on the human frame—such a Pharmacology as Cushny's written by a conservative scientific observer emphasizes this—how little we know of their action in health, how little of their action in disease. Yet new drugs are constantly appearing, flit like meteors across the therapeutic horizon and are gone. There is not, in my opinion, anything that should raise a spirit of cynicism more readily than the visits of representatives of drug firms with their new synthetic compounds, except, perhaps, a perusal of the medical literature forwarded us gratis in such shoals. The way in which they cut the Gordian Knot of the mysteries of metabolism is amusing. I can still recall a learned discourse now eighteen months ago on the merits of "Glycero phosphates without sugar," though I confess to being in the same box with the old Scotch lady who heard a sermon preached from a text in which the word Mesopotamia figured, and who returned home much comforted remarking that Mesopotamia had "sic a sateesfyin' soon."

If drugs are a failure what of diet, rest, general hygiene, physical exercise? They all have their place. If the patient is much underweight, rest in bed, overfeeding, massage, isolation from the cares and worries of domestic life or business—in fact, Weir Mitchell's treatment—comes into its right. This relieves the physical part of the trouble—does away with the true fatigue and reacts without doubt on the morale of the patient. But we see dozens of cases—in fact, the vast majority—in whom either there is no advanced loss of weight, urgently demanding Weir Mitchell or in whom conditions do not allow of our carrying the rest treatment out. That in these cases something can be done with general hygienic measures, with physical exercise, with vacations, with outdoor employment along with suppression of bad habits (drink, excessive smoking) may be granted at once, but this too does not get to the root of the matter.

It cannot be too strongly insisted that it is the mentality

of nervous people that is at fault and that the rational treatment must also be psychical. To be able to help our patient, after ascertaining the purely nervous origin of the symptoms, we must get an exhaustive family and personal history, so as to appreciate the mental standpoint of the patient and the influences that have moulded him—even in childhood we will usually get hints of the nervous inheritance. Then as to the origin of the symptoms in question, the patient's ideas and the influences moulding them on the subject of his troubles, (here his friends, his reading, his own interpretation, come in), his treatment by doctors and their views—all these must be gone into once thoroughly. We thus arrive at a rational knowledge of the views of the patient on his trouble and of how he arrived at these views and are now in a position to influence by psycho-therapy. (It need hardly be said that at our first interview we must have got thoroughly in touch with our patient and by our sympathy and practical appreciation of his difficulties secured his co-operation.) We explain in language suited to the case the mental nature of the trouble, the absence of organic disease and the folly of local treatment. We trace the origin of the trouble and its deepening under local treatment and endeavor with all the arguments in our power to force our conviction on the patient. That tact is necessary, goes without saying: to crudely state that the symptoms are imaginary is in most cases to court disaster.

In early cases, before the ideas have become fixed success is rapid; in later cases, very difficult. One thing only helps us in these latter cases. The patient ailing for years has suffered many things of many physicians without improvement and has often been gradually arriving at some such conviction of the true cause of his sufferings. In such a case an exposition of the real nature of his illness is the beginning of steady improvement. The patient has to learn to bear and ignore his ills, secure in the conviction that there is nothing the matter locally. The influence of the mental factor in fatigue has to be insisted on and illustrated. The abnormal emotionality has to be pointed out and its great influence in producing fatigue made plain. The education of the reason on true lines with its resulting curb on the emotions has to be maintained.

Those in immediate contact with the patient must be dealt with—their point of view and their influence on the patient ascertained and their views and ideas modified by plain appeals to their reason and thus their influence enlisted on the right side.

As before remarked, Weir Mitchell's treatment by over-feeding and rest may be necessary in combination with the psychic treatment and the ways of living of the patient regulated on appropriate lines.

Any chronic source of worry or irritation in the patient's daily life should be removed if possible; if that be not possible the higher philosophy of bearing must be inculcated. Where a patient has realized by bitter experience the suffering resulting from feelings run riot, he is willing in many instances to accept guidance.

You will note that all this implies a greater interest in our patient than that involved in writing a prescription and in making the vague diagnosis of "functional." It implies an intimate knowledge of the patient's body and mind, of the influences bearing on him and of our power to appropriately modify his mentality by appeals to his reason. It implies on the part of the physician a working knowledge of psychology which as yet the schools of medicine fail to teach. This is one reason why we fail so miserably in relieving the neurotics.

Trained accurately to observe, taught the corresponding pathology to diseased conditions, recognizing the bacteria at work in infection, we magnify the material at the expense of the mental and forget in the study of the disease, the man, the mind diseased.

In post-graduate work too, the mental factor is almost ignored and in ordinary text books in medicine, little mention is made of its all powerful influence. Hence we physicians are turned out into the world, ignorant of an all important branch of our profession, nay more, rather biased against the subject and while later, we may realize the importance of rational treatment we are handicapped by our ignorance of psychology.

And what is the consequence? The neurotics, whose aches and pains are as real to them as those of organic disease

to their unlucky possessors, are unrelieved; they daily perceive that they have no fixed place in the medical world of the day; that their sufferings are misunderstood and unrelieved. What wonder that they turn to quacks and patent medicines for the relief denied them by the regular practitioner. What wonder that they embrace Christian Science and find in that system's dogmatic denial of disease and its triumphant assertion of the supremacy of mind, the faith and hope necessary to face the world afresh.

I give in conclusion a couple of illustrative cases. Mr. M. (33). Seen in October 1906. Kindly referred to me by Dr. Prowse. All his ten brothers and sisters said to be rather nervous and highly strung. Chorea at eleven. Rheumatic fever at thirteen and again at twenty-one. From 1896 till seen in 1906, the usual history of neurasthenia. Sometimes pretty well, sometimes tired all the time with headache, sleeplessness, dyspepsia, emotional outbreaks; he had lost so much time from work by sickness that he had become completely discouraged. He was a thin man with very markedly enteroptotic chest, 10th ribs loose, right kidney lying in the right iliac fossa, slight gastroptosis. In his case an explanation of the nervous element running throughout his history of ten years' illness came as a complete surprise and the response to the suggestions was immediate—As he had lost twenty pounds in weight, a fattening up diet was insisted on. In the course of three months during which I saw him repeatedly he became much more cheerful and less emotional, his aches and pains left him largely, he gained sixteen pounds in weight and he was able to go out on the road as a traveller. I have seen him from time to time and he keeps well. He was very much interested in the nervous element in his case, and read on his own account a couple of interesting books dealing with auto-suggestion.

The second patient is still under treatment, but as she illustrates well a number of points to which I have referred, I take her case in preference. Mrs. M. (aged 35). Seen January 28th 1908. Kindly referred to me by Dr. McTavish. She had been losing weight, dropping from 140 pounds to 106 pounds in two or three years with increasing weakness,

fullness in epigastrium and weight, worse after meals, and constipation. She suffers also from abdominal pain, previously in pelvis, then in right infracostal area and now worse just below the right mamma. She is emotional, tired all the time, very depressed, and is unable to attend to her household duties. During the last year, of four medical men who saw her, one advised some minor gynaecological operation, and the other three urged fixation of the right kidney. Patient presented the usual symptoms and physical signs—emotional, depressed, with pain below right mamma, backache, headache, loss of appetite. A thorough examination revealed nothing amiss save a dropped right kidney, a marked gastroptosis, accompanying the usual long narrow chest with loose 10th ribs, and an anteverted uterus lying across the upper vagina like a roof. In spite of the apparent anaemia the blood examination gave normal condition. I was able to reassure the patient of the soundness of her organs, pointed out in her history the probable origin of her symptoms, how they had been maintained by her more and more restricted diet, how the pains were maintained by thinking about them and by the idea of something being wrong with her organs, how much of the fatigue was due to the actual fatigue from her body being starved and under nourished, but much to her feeling of weakness and helplessness, and much to the exhaustion following her emotions (worry at being unable to attend to her household duties). She commenced treatment in a semi-private ward in the hospital (not an ideal place for her, but the only one available); overfeeding and rest in bed for the first three weeks with resistance movements and daily conversation directed to explaining and encouraging. She has gained over eight pounds in the month, looks much better; in spite of the greatly increased diet there was even at first no increase of abdominal pains and latterly she has referred little to them at all. Though at first unable to accept all the suggestions, she has been responding steadily lately; there has been a marked improvement in her mental condition; she is brighter and happier and grasps, I think, and believes in, the psychic origin of her pains. I expect in another month (the latter three weeks of which she will spend

at home) she should be able to take hold of all her domestic duties. She will require watching, encouragement and further explanation, but the worst is over and I confidently expect to see her in a month or two the woman she was two years ago.

It is but right to mention the cases in which one fails. Being more or less a beginner at this line of work, I have frequent failures, but I think as one grasps the principles involved, as one can meet the objections offered by patients more fully and as one's own confidence and faith in the method increases, the failures should diminish accordingly. If the doctor, himself, be half-hearted in the matter, it is impossible to convince the patient.

REFERENCES :

- Goodhart, "On Common Neuroses." 1894
 Guthrie, "Functional Nervous Disorders in Children." 1907.
 Oppenheim, "Lehrbuch der Nerven Krankheiten." 1905.
 Oppenheim, "Psychotherapeutische Briefe." 1906;
 Schofield, "Unconscious Therapeutics." 1904,
 Schofield, "The Force of Mind." 1904.
 Binswanger, "Die Hysteria," 1904.
 Dubois, "The Psychic Treatment of Nervous Disorders." 1907.
 Stiller, "Die Asthenische Konstitutions Krankheit." 1907.
 Mary Baker G. Eddy, "Science and Health, with Key to the Scriptures." 1907.

WESTERN CANADA MEDICAL JOURNAL

GEORGE OSBORNE HUGHES, M.D. *Editor*

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Editorial and Business Offices

8 Commonwealth Block, Winnipeg, Man.

EDITORIAL

Reciprocity between Quebec and Great Britain

We are glad to report that the Province of Quebec has now reciprocal privileges with Great Britain. This is the second eastern Province. The start having been made no doubt the other provinces will soon follow. If the West had interprovincial reciprocity it would then be much easier to get the same with Great Britain. The advantages from such a relationship are obvious.

Councils Safeguarding the Public against Crime

Everyone must have noticed the numerous editorials in the daily press throughout the Dominion regarding the necessity for an effective supervision and control of the medical practitioners. The Press points out that at present the duty of safeguarding the public against crime and incompetence on the part of any member of the profession is in the hands of the various Councils of Physicians and Surgeons throughout the country, but it states that

there are signs that if this supervision is not more vigorously exercised that something else must be done. Of course, it is impossible for those not in the profession to realize the difficulties that often stand in the way of enforcing enquiries into irregularities. Still this murmuring voice is a healthy sign and shows that any council rigorously enforcing the law and seeing to the just punishment of every member of the profession who brings disgrace on his calling and injury to the general welfare would be upheld and assisted by the public.

At the last meeting of the Winnipeg *Western Canada* Clinical Society the question of the *Medical Association* formation of a Western Canada Medical Association was discussed and the speakers were all enthusiastically in favor of such an association. The great success of the Winnipeg Clinical Society formed only a few months ago shows what can be accomplished by earnest workers whose sole desire is the good of their profession and increased skill in their work. The Society meets fortnightly and each meeting without exception has been largely attended and what is more, lively, pleasant, instructive discussions have always taken place on the cases shown. Through it all a real fraternal spirit has been felt. Not a moment has been dull and at the close of each meeting, members have gone away expressing the benefit they feel can be obtained from such gatherings. Even in these days of many books we all know that the greatest good is obtained from personal contact and interchange of ideas with our leaders and fellow workers. One is spurred in this way to greater effort. This lack of personal intercourse prevented the progress which might have been made considering the number of well qualified men scattered throughout Western Canada. Every day, however, matters get easier—transportation quicker, cheaper and oftener. Meeting others who have interests in common certainly arouses and stimulates. That this has been felt by the members of the W.C.S. is shown by the sacrifices often made to be present at the meetings. The fraternal spirit engendered is not the least of

the benefits. All beyond the Great Lakes are known to the outside world as "Western medical men." Let us join and be Western medical men in truth—our aim is clearly one—the furtherance of public health and the upholding of the standard of our profession in every way. The difficulties of past years are rapidly vanishing—the only one to be overcome now seems the apathy of certain members of the profession to the general good.

The Clinical Society meets every second Tuesday in the Medical Library at 8.30 and a very cordial invitation is extended to any member of the profession who may be in Winnipeg.

W.C.T.U. and Quack Medicines The members of the W.C.T.U. in many places are waging war against all papers containing advertisements of quack medicines known to contain alcohol and harmful drugs. We trust they will preserve in this wise crusade and that others will follow their good example. If the women zealously take up this matter we shall soon see a difference in the advertisement sheets and many frauds will be prevented.

Hygiene and Schools We are glad to note that Hygiene and Public Health was one of the subjects discussed at the recent Educational Convention in Winnipeg. Dr. J. E. Jones read an interesting and instructive paper setting forth the necessity for careful and thorough inspection of school children. The Rev. Canon McMorris, Mr. Swatzell and Mr. J. J. Dougan—the representative of this journal—addressed the meeting on the subject. Mr. Dougan who is acquainted with the schools west of Toronto showed how far the idea had taken root in Western Canada—the tendency, he said, was strongly towards frequent instruction in Hygiene. Speaking for Vancouver and the other Boards, he considered the expenditure under that head was found to be one of the best.

PROCEEDING OF THE WINNIPEG
CLINICAL SOCIETY

April 21st, 1908

Dr. Milroy in the chair. The minutes of the last meeting were read and adopted. A letter was regarding the congress in Winnipeg of the American Public Health Association in August, and Drs. Milroy and Bond were appointed a committee to extend courtesies on behalf of the Winnipeg Clinical Society.

Dr. Richardson exhibited a young girl suffering from distension and swelling in the abdomen and enlargements of the glands. Child foreign extraction; family history good. No hereditary disease. One year ago, the glands in the neck started to enlarge and the abdomen to swell. Appetite gradually decreased with loss of weight and strength. About three months later, swelling in the neck broke and discharged. No doctor had seen the child till within ten days ago. She had been in bed for four months and was feverish—tongue coated—there was considerable distension in the upper part of the abdomen and also a tympanitic note. From slight examination of the chest, there was harsh breathing. Temperature 103½, pulse 120.

Dr. Moody was of the opinion that the case was tubercular in origin. He had known many cases of glandular enlargement of the abdomen do extremely well under X-ray treatment. He did not think there was any fluid present.

Dr. Lehmann said there were a considerable number of nodules present and a distinct mass. He thought it was a case of universal glandular enlargement, calling for a minute examination.

Dr. Hunter wished to know if a case with a temperature ranging from 102 to 103½ was suitable for X-ray treatment.

Dr. Richardson said the treatment should be practised in the hospital but it was impossible in this case.

Dr. Bond—"The present method of treating tubercular cases is to get them out as much as possible and I don't think it does the child any harm. I would advocate putting her in a tent and keeping her out all the time, temperature of no temperature. She has only had three applications and the swelling in the abdomen has certainly decreased considerably, as have the glands in the neck. I am watching the treatment to see that too much material is not carried away at once."

Dr. Lehmann—"I would like to know what definite signs there are that those are tubercular glands?"

Dr. Bond—"Supposing it to be an enlargement of the spleen, the X-ray treatment has been found to answer very well indeed in those cases."

Dr. Richardson—"I think the symptoms are directly opposed to Hodgkin's Disease."

Dr. Lehmann—"I am not referring specifically to any disease, but I say that from a cursory examination the mass does not impress me as being tubercular."

Dr. Hunter—"Unless the spleen is prolapsed, one can definitely exclude any such mischief in this case."

Mr. Milroy—"You have not been able to localize any pulmonary breaking down?" Dr. Richardson—"No."

Dr. Rorke thought the evidence was in favor of the tubercular diagnosis.

Dr. Bond—"One very strong feature as to the case being tubercular is the appearance of the child—the scrofulous appearance."

Dr. Kenny presented a case; male, 21 years; scarlet fever one year ago; treated in isolation hospital of the Winnipeg General. Three months after that he developed endocarditis. He was in the W. G. hospital for three or four months and was discharged from that institution on the authority of the house surgeon, with the prognosis that it was a case of chronic endocarditis, with no hope of further improvement. The man came to the dispensary and on examination showed enlargement of the heart; left apex beat displaced downwards; accentuation of the second pulmonary sound. No murmurs distinguishable over the aortic area; pulse now about 80, intermittent and irregular. No enlargement of the liver.

Dr. McDonald—"The case does not impress me as being very extraordinary, with the exception of the extreme irregularity of the pulse. In arriving at the prognosis, it is interesting to know that it developed after scarlet fever instead of rheumatism. If the endocarditis follows rheumatism, you have to take into consideration the probability of future attacks. The chances are that he will not have scarlet fever again, and from that I would conclude that the prognosis is favorable."

Dr. Meindl—"I think it is an ordinary case of endocarditis, following an infectious disease. The case would need watching in order to arrive at a prognosis."

Dr. Hunter was of the opinion that aortic regurgitation was present. The regurgitant murmur was not heard over the aortic cartilage itself but could be caught going down the sternum, towards the base; an important factor in prognosis. He thought prolonged rest was essential.

Dr. Milroy—"Is it your opinion that the man should still be in the hospital?"

Dr. Hunter—"It may not be necessary for him to be in the hospital but he should not go back to work."

Dr. Kenny remarked that the man was absolutely without resources.

Dr. Hunter—"Assuming it to be a double mitral alone, the huge area of pulsation involved strikes me very forcibly."

Dr. Lehman presented a case of scoliosis in a young boy. Four years ago he had what was diagnosed as meningitis and was unable to walk for a little while, but recovered. The scoliosis was easily recognizable from the prominence of the right hip and other usual symptoms. The muscles of the pelvis and thighs were normal. The iliac crest was distinctly elevated. Length of limbs was normal, both standing and lying. The trouble being due to a toe drop. The scoliosis could be corrected by lengthening the opposite leg, and by raising the heels, the lordosis would also disappear. There was no difference in the calf muscles.

Dr. McKenty who had exhibited a cast of enlarged testicles at the previous meeting, presented the case. Age about 40. History of sores denied; history of gonorrhoea admitted. The enlargement was at one time so great as to entirely obliterate the penis, and was that of the testis proper, not of the epididymis. There were three conditions of enlargement of the glands of the scrotum which had to be diagnosed in a case presenting such an extensive enlargement, viz.: Syphilitic enlargement, tuberculosis of the testicle and new growth. The fact that the enlargement involved, not the epididymis, but the body of the testis, and

also that the cord was free from growth and nodules, was sufficient to rule out tuberculosis. New growths of a benign character matured much more slowly than the history of this case showed; while malignant growths would be rather more rapid. It was impossible to palpate any enlargement of the lymphatic glands. A point in favor of the disease being a manifestation of tertiary syphilis, was the general smoothness and globular form of the enlargement. The final test in conformity with the tentative diagnosis, was the therapeutic test, which had given practical results in reducing the size of the tumors.

Referring to Dr. Kenny's case, Dr. Moody said he could not convince himself that there was an aortic regurgitant lesion. He had been following with interest the experiments of the blind heart specialist of Chicago, who had been treating such cases with salt baths of varying temperatures.

Dr. Hunter said that Schott, of Germany, had for many years been using graduated baths, sometimes with salt and sometimes with carbonic acid solutions.

Dr. Munroe—"What is the rationale of the treatment?"

Dr. Hunter—"I think it is simply a question of experience. Objections have been raised to the method but its practical value has been definitely proved. The indications are for its use in very early stages."

Dr. Rorke said that he had been acquainted with the physician of the late Phillip Armour who had taken the treatment. He thought there were graduated exercises in connection with the treatment.

Dr. Lehmann presented a young man showing an ulcerative condition of the skin, the nature of which was somewhat obscure. About eighteen months ago he contracted bronchitis in the east, which lasted some three months. He came west and contracted measles, and about a month after his recovery noticed a small swelling on the side of the nose which enlarged for several weeks and finally discharged a small amount. A rather large mass then developed over the sternum, which showed considerable fluctuation. It opened, but no discharge issued. It decreased in size after some months. A similar mass then developed on his wrist which still showed considerable thickening. Like conditions also appeared on the thumb and hypothenar eminence and also on the jaw, the latter apparently in connection with some deeper structures, probably glands, discharging a small amount of thin pus. The same on probably glands, discharging a small amount of thin pus. The same condition prevailed on the thumb, which exuded pus on slight pressure. No temperature.

Dr. Hunter presented a boy of 18 who five or six years ago had an attack of rheumatism, which probably affected his heart. He also had an affection of the hands, the fingers being swollen in the joints. Some slight nodules had appeared. During the past month the joints began to swell and appetite decreased. No temperature; definite history of rheumatic fever, and double lesion of the mitral valve. Case was anemic. Several bad teeth and slight enlargement of the glands. No diarrhoea; no gonorrhoea. He was surprised to find lesions present that were usually associated with rheumatoid arthritis.

In reference to Dr. Kenny's case, Dr. Hunter said that assuming it to be a considerably dilated heart, that would make it more insistent that there was a great lack of compensation and therefore the necessity for prolonged rest.

Dr. Milroy—"I think the consensus of opinion is that rest is necessary before a prognosis can be arrived at."

Dr. D. S. MacKay thought Dr. Kenny's case was one of specific trou-

ble. He saw the case three weeks previously and was surprised at the rapid progress.

Dr. White remarked that he had a case which he suspected to be congenital syphilis in a baby. He wished to know whether there were any lesions especially confined to the fingers and toes in congenital syphilis, and also the nature of the disease in the nose.

Commenting on Dr. McKenty's case, Dr. Kenny wished to know if there was any fluid in the sack.

Dr. McKenty rejoined that there was considerable fluid, the re-accumulated fluid having been drawn off; about four ounces on the left side and half as much on the right. Since the treatment, the fluid had become absorbed.

Replying to Dr. White, Dr. Hughes said that the question opened up a very large field of discussion. The hands and feet were really the most common seats of any form of eruption in hereditary syphilis. The condition in the nose was also common.

Dr. Munroe wished to know the treatment in the case of scoliosis presented.

Dr. Lehmann thought the feet could probably be brought up simply by the use of night boots with supports; slight and special attention was necessary to see that the weight of the blankets did not bear down upon the feet, causing further contraction of the muscles. If that was not sufficient, he intended to administer an anesthetic and forcibly bring up the feet. The use of the night boots would have then to be continued, to prevent a recurrence of the contraction.

Dr. Bond wished to know if there was any paralysis of the muscles of the leg.

Dr. Lehmann responded that there were evidences of poliomyelitis in the anterior tibial muscles.

Dr. Kenny—"I understand the doctor to say that there was a difference in the length of the legs. Is that apparent or real?"

Dr. Lehmann—"There is no anatomical difference in the length of the legs. The difference is due to the greater amount of extension of one foot."

Dr. McKenty thought that the case presented by Dr. Lehmann showing an ulcerated condition of the sternum, was one of glandular enlargement associated with syphilis. He thought pot. iodide should be employed.

Dr. LaChance remarked that the measles might have been a skin eruption of secondary syphilis.

Dr. Carscallen thought a syphilitic lesion was present.

Dr. D. S. MacKay suggested that the distribution of the lesions presented the features of actinomycosis.

Dr. Lehmann thought the symptoms were not characteristic of that. He thought the diagnosis hovered between tuberculosis and syphilis. He thought there was no doubt that the rash referred to was measles.

Dr. LaChance suggested trying the ophthalmo-tuberculin reaction, which was assented to by Dr. Lehmann.

Dr. Kenny presented a man who had previously appeared before the society at which time there had been considerable discussion as to the presence of an aortic lesion. He presented the case again in order that the members might satisfy themselves on that point.

Dr. Milroy was of the opinion that aortic lesion was now quite apparent.

Dr. Greiveson thought that the case presented by Dr. Hunter was one of rheumatoid arthritis. Referring to the effect of atmospheric

conditions he gave an interesting account of tests regarding the humidity of the atmosphere in the West, the fluctuation being remarkable. He thought uric acid producing foods should be cut off, but considering the condition of the joints would not advise rest at this stage. Nourishing diet was essential.

Dr. Hunter thought that in view of the cardiac condition, rest from his occupation was very important.

The president then introduced the subject of the formation of a Western Canada Medical Association, which had been informally discussed at the previous meeting. The following expressions of opinion were elicited:—

Dr. McKenty—"I have no doubt a Western Canada Medical Association would meet many of the needs that medical men feel, between the lakes and the mountains, and the absence of a provincial medical association has always been, to my mind, a bad thing for the profession in Manitoba. I am heartily in favor of having an association to represent the whole territory from the mountains to the lakes, or at least including Kenora. Probably the medical men of Fort William and Port Arthur would find it more convenient to fraternize with Eastern men. I think the profession really needs a medical organization for educational purposes, rather than for executive purposes. Any movement with such a purpose in view that takes shape here will have my support."

Dr. Bond—"When this society was formed, the idea was to form a clinical society with branches throughout the West and in time to form one big clinical society for the whole of Western Canada. I think we have no reason to doubt the success of this society from now on, and it is well worth considering as to whether the time has not now arrived for getting associate societies to act with us and form one general society for clinical purposes throughout the whole West. I certainly think the time is ripe and steps should be taken in that direction."

Dr. Hunter—"I would like to very heartily support any movement to establish a Western Canada Medical Association. I see no reason to doubt the success of such a movement."

Dr. Kenny—"I think the idea is a good one and practical. We have as our official organ the Western Canada Medical Journal and in connection with that paper we have sub-editors in the chief centres throughout the West. It would be quite feasible to send circulars to these sub-editors, and through them promote the beginning of a movement that would unite the whole West in a medical sense. The Canadian Medical Association is good, but we cannot go to it each year, and it hardly fills our requirements."

Dr. Lehmann—"The idea appeals very strongly to me."

Dr. Carscallen—"I certainly agree with all that has been said about the organization of a Western Canada Medical Association. There was an editorial on the subject in the last issue of the Western Canada Medical Journal, which I think covers the ground very fully. I certainly think it advisable, if possible, to form the organization. I think the points raised by Dr. Kenny would be very good suggestions to follow. I think everybody would contribute to the success of the movement."

Dr. Milroy—"The concensus of opinion seems to be that this association should be formed. I think myself that the organization would be of great benefit to the profession; not only from a social and fraternal standpoint, but as an educative institution, and I think the subject should not be allowed to drop. The next thing to do is to form an

executive to see that the campaign, if I may use the term, is properly conducted, so that the organization of the association can be successfully accomplished. Dr. Kenny's suggestions appeal to me as being very timely. However, I think we should appoint a committee to further the project."

Dr. Hughes—"I think the idea should be carried out without delay. Calgary would make a good central point at which to gather and as the Dominion Fair will be held there at the end of June, it might be well to get into communication as rapidly as possible with the various organizations."

The following motion was thereupon made by Dr. Munroe, and carried unanimously:—

"That a committee be formed from this Society to approach other societies in Western Canada for the purpose of ascertaining their opinion in regard to the formation in Western Canada of a Western Canada Medical Association."

The selection of the committee was left to the president. The meeting then adjourned.

GENERAL MEDICAL NEWS

MEDICAL SOCIETIES

The 41st Annual Meeting of the Canadian Medical Association will be held in Ottawa 9th, 10th and 11th of June. All information can be obtained by writing Dr. George Elliot, 203 Beverley Street, Toronto.

At the monthly meeting of the Medical Association of Northern Alberta a very interesting address was given by Dr. Barry, late of China, on "The Practice of Medicine in China."

A very interesting meeting was held at the Wascana Hotel, Regina, of the B.M.A. on February 4th, when papers were read by Dr. Johnston on "Closure of the abdominal Wound in Laparotomy" and by Dr. W. R. Coles on "Diseases of the heart not associated with valvular murmurs." Also one by Dr. J. C. Black on "Puerperal Septicaemia." Each paper was followed by an interesting discussion. At the same meeting Dr. Harry Morell was elected a member of the Branch and Dr. David Low a representative to the Central Council.

After the meeting the members in Regina entertained the outside members and guests to a supper which was followed by a toast list and musical programme.

The Winnipeg Medical Society met in the Library May 1st. Dr. J. R. Jones read a very interesting paper on "Fads and Fancies of the Faculty." A lively discussion followed. Dr. Raymond Brown showed a case of "Myosis" which brought out many remarks regarding functional and organic diseases. Dr. Vrooman also showed a case of "Tabies."

out in three separate Corps, a First Aid Corps, a Public Health Corps, and a Medical Corps—the latter consisting of physicians with rank from Lieutenant to Colonel, according to length of service, to whom are afforded special appointments for training. Full details regarding the service and its great work may be obtained from Director, General Pilcher, at Carlisle, Pa.

Dr. Meyer, of Minnesota University, and formerly of John Hopkins has accepted the professorship of Anatomy in the North Western University Medical School and Dr. Richards, of the C. of P. & S., of New York, has been appointed professor of Pharmacology in Northwestern University Medical School. Dr. Murphy has been appointed professor of Surgery and head of the Department in the same Medical School.

Plans are being called for by the Regina City Council for the new hospital of a capacity for 100 beds. The building will be proceeded with very soon. The present building will probably be used as a Nurses' Home.

Dr. Seymour, Regina, is at present in Ottawa attending the convention of the Society for the Prevention of the Spread of Tuberculosis.

Dr. Robert Koch, Professor of the Berlin University—the eminent bacteriologist—is visiting New York.

Dr. J. G. Munroe has been elected Secretary of the Winnipeg Clinical Society.

Dr. R. W. Kenny, Winnipeg, was appointed Secretary to the committee formed to approach the other Medical Societies with a view to the formation of a Western Canada Medical Association.

The Provincial Secretary of B. C. has assured Mr. Eagle-son, M.P.P. for Lillooet, that when the plans for a hospital are ready the government will grant in land a site for the hospital in the reserve and in cash the sum of \$1500.

Saskatchewan proposes to have a Municipal Hospital costing \$55,000.

The Tranquille Sanatorium for Tuberculosis is quite full. Many applicants being refused daily.

At the annual meeting of the Selkirk Hospital, April 21st, the total assets were showed to be \$21,953.52 and liabilities \$11,105.92, a surplus of assets over liabilities of \$10,847.60.

The people of the rural districts are subscribing liberally for a hospital for Wetaskiwin.

The London (Eng.) County Council has issued notice to Head Teachers to forbid kissing games on medical grounds.

The Provincial Board of Health of Manitoba, the Medical Society of St. John, N. B., and the American Health Associations have all passed resolutions similar to that of the Canadian Medical Association asking for a national Department of Public Health under one of the existing Ministers.

The annual meeting of the British Columbia Medical Association will be held in Vancouver 20th and 21st August next. A cordial invitation is extended to any members of the profession from the Northwest. The question of School Hygiene is to be well discussed.—Sec. Dr. Eden Walker, New Westminster.

PERSONALS

Dr. Graham, Stettler, had the misfortune to lose instruments and Medical Library by fire recently.

Dr. and Mrs. Brett, of Banff, have returned from their visit to the East.

Dr. and Mrs. Sugden, Winnipeg, have been visiting the Coast.

Dr. McGuigan who has been a patient in St. Paul's Hospital, Vancouver, since July is much improved.

Dr. Giffin, Strathmore, paid a visit to Calgary.

Dr. Underhill, Vancouver Health Officer, has visited Seattle, Portland and San Francisco to confer with the Health Departments and get co-operation in maintaining the most

stringent regulations to keep bubonic and other plagues out of the country.

Dr. W. S. Rush, of Vegreville, is leaving for Sacramento, Cal., owing to illness.

Dr. Saunders, of Enderly, leaves shortly for England to take a post-graduate course.

Dr. James Faris, Vancouver, has returned from a four months' visit to Nova Scotia.

Dr. Herbert McGregor and Dr. F. W. Andrew, of Manitoba Medical College, are at Victoria and intend taking the examinations for B. C. which will be held this month.

Dr. J. Gibbs, of Vancouver, intends to practice now as specialist in treatment of diseases of the kidneys and bladder.

Dr. J. Park, Edmonton, who has been spending the winter in New York, Chicago and Rochester, Minn., taking post-graduate work in Surgery and diseases of women, has returned.

Dr. R. A. McClurg, Battleford, has decided to practice in Wilkie, Sask. Drs. Sparling and Morrison have taken over his office.

Dr. Raymond Brown, Winnipeg, intends limiting his practice in future to the Eye, Ear, Nose and Throat.

BORN

NEELY—April 11th, the wife of Dr. D. B. Neely, of Regina, of a son.

MARRIED

BRERETON—ROSS—April 16th, Dr. T. Cloudsley Brereton, Carnduff, Sask., to Miss Nellie Ross, of Cannington, Ont.

McTAVISH—SMITH—April 16th, Dr. McTavish, of Vancouver, to Mrs. Matthew Smith, of Olds, Alta.

OBITUARY

ENGLAND—Died April 24th, 1908, Dr. W. S. England, aged 40 years. Graduated from McGill with honors in 1889. Superintendent of General Hospital 1890-92. Then became Surgeon to the Hospital and Professor of Anatomy until his death. He leaves a widow.

BOOK REVIEWS

INTERNATIONAL CLINICS,—VOLUME ONE, SERIES XVIII, 1908, Published by J. B. Lippincott Co., Philadelphia and Montreal.

The editors of the "International Clinics" have the knack of securing eminently practical, stimulating and up-to-date contributions, which are specially adapted for the busy practitioner.

The first volume for 1908 of this Quarterly is perhaps more than usually readable.

Lawrason Brown, of Saranac Lake, N.Y., discusses "The Sanatorium," dealing with the practical points of construction and management, and embodying the results of his experience at Adirondack Cottage Sanitarium.

The right upper segment of the abdomen receives attention from Deaver in an article on "Diseases of the Gallbladder," and from Tilton on "Perforated Gastric and Duodenal Ulcer." There is now no abdominal disease whose aetiology and symptoms have been so thoroughly worked out as gallbladder disease and Deaver's contribution is a masterly resume of our knowledge.

The all-important role of Bacteria in these affections, the latency of symptoms even in the presence of gallstones so long as the flow of bile is unimpeded, the infrequency of jaundice in the symptoms which are so frequently diagnosed as indigestion or gastralgia—these are but a few of the points brought forward.

It is surprising how slowly the profession as a whole has accepted the light shed on the causes of abdominal pain by the work of the surgeons, and this is emphasized in an article by Louis Frank on "Diagnosis of Surgical Lesions of the Abdomen."

"The normal Temperature of the Body," is the theme of Rudolph, of Toronto, who concludes that the body temperature is usually below 98.40F, and that it is lower in cool weather.

There is a clinical lecture on the "Care of the Newborn," by Tuley, who lays weight on a number of practical points frequently forgotten.

Contributions also appear on "Paratyphoid Fever," "Fracture of the Spine," "The Value of the Opsonic Test for Diagnosis," etc.

The second half of the book is devoted to be a review of the progress of medicine during 1907, and it is well worth perusal. For arresting the progress of Rheumatoid Arthritis and relieving the pain, Luff strongly recommends Guaiacol Carbonate, beginning at 5-10 grains t. d. s. and increasing to 15-20 grains.

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The condition of subdeltoid Bursitis—so frequently mistaken for arthritis of some kind of the shoulder joint—is mentioned and illustrated by a photograph.

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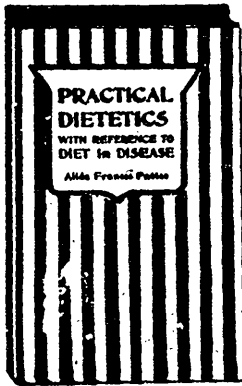
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Synopsis of Canadian North-West Homestead Regulations

Any even numbered section of Dominion lands in Manitoba, Saskatchewan and Alberta, excepting 8 and 26, not reserved, may be homesteaded by any person who is the sole head of a family, or any male over 18 years of age, to the extent of one-quarter section of 160 acres more or less.

Application for entry must be made in person by the applicant at a Dominion Lands Agency or Sub-Agency for the district in which the land is situate. Entry by proxy, may, however, be made at an Agency on certain conditions by the father, mother, son, daughter, brother or sister of an intending homesteader.

The homesteader is required to perform the homestead duties under one of the following plans:

(1) At least six months' residence upon and cultivation of the land in each year for three years.

(2) A homesteader may, if he so desires, perform the required residence duties by living on farming land owned solely by him, not less than eighty (80) acres in extent, in the vicinity of his homestead. Joint ownership in land will not meet this requirement.

(3) If the father (or mother if the father is deceased) of a homesteader has permanent residence on farming land owned solely by him, not less than eighty (80) acres in extent, in the vicinity of the homestead, or upon a homestead entered for him in the vicinity, such homesteader may perform his own residence duties by living with the father (or mother).

(4) The term "vicinity" in the two preceding paragraphs is defined as meaning not more than nine miles in a direct line, exclusive of the width of road allowances crossed in the measurement.

(5) A homesteader intending to perform his residence duties in accordance with the above while living with parents or on farming land owned by himself must notify the Agent for the district of such intention.

Six months' notice in writing must be given to the Commissioner of Dominion Lands at Ottawa, of intention to apply for patent.

W. W. CORY,

Deputy of the Minister of the Interior.

N.B.—Unauthorized publication of this advertisement will not be paid for.

Special Notice to the Profession



THE attention of the Western men are drawn to the following resolution passed unanimously by the members of the Winnipeg Clinical Society at the meeting held on April 23rd last, viz.:

RESOLVED—That a committee be appointed from this society to approach other societies in Western Canada to ascertain their opinion regarding the formation, in Western Canada of a Western Canada Medical Association.”

The Secretary of the Committee, Dr. R. W. KENNY, Glines Block, Winnipeg, will be very glad to have the opinions of individual members of the profession, and if the Presidents of the various Medical Societies throughout the West would bring the subject up for discussion among members as early as possible and obtain their opinion, farther steps could be taken.

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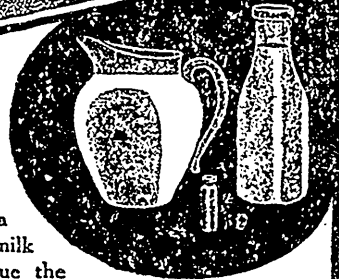
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