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## Original Communications.

### THE HEART IN RELATION TO LIFE INSURANCE.

BY

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The subject of to-night's discussion, although given as "Heart Disease in Relation to Life Insurance," I take it for granted to include, not only diseased conditions of the heart, but also abnormal ones which may exist apart from disease of the organ itself.

Included in this general heading we have to consider:—(1) Heart sounds. (2) Rhythm. (3) The condition of the muscular substance of the heart itself. (4) Those diseases of the organ that may exist without evidences on physical examination.

It is not my intention to enter into a detailed history of heart disease, I shall refer only in a general way to the more common general conditions of that organ that are met with in Life Insurance. Now, although murmurs are what most attract the attention of the medical examiner, I am afraid that the more important question as to the condition of the ventricular wall and the blood vessels is too often overlooked. Undoubtedly the most frequently occurring of all cardiac lesions met with by the examiner is that of mitral regurgitant murmur. In former years, not so very long ago, it was considered a very serious affection, and one felt inclined to regard with feelings of great sympathy any individual who was so unfortunate as to possess a murmur indicating the condition of the valves that permitted of this reflux. When in addition to the abnormal murmur, the heart was found to be hypertrophied, our fears were increased manifold. Thanks to the growing popularity of life insurance and the necessarily more frequent examination of apparently healthy individuals, the presence of these murmurs is found to be quite consistent with perfect health. Further it is found that those to whom

the discovery of the presence of a murmur has been a revelation—those who have experienced no discomfort or inconvenience of any kind in their ordinary avocations—very often have a hypertrophied heart. We now know that the hypertrophy in many of these cases is a healthy condition and one that makes compensation for the leaky state of the valves. We feel satisfied that so long as that compensation exists the danger of death from “failure” is averted. If this abnormal state of the heart is found in an apparently healthy young man in whom development is not yet complete, the chances are very strong in favour of his reaching the expectation of his life so far as his heart is concerned. When, however, the lesion is the result of disease past middle life the hypertrophy may be absent or of short duration, and there is greater danger of the ventricular power failing with its attendant consequences. It is this failing power we have to fear in these cases. In cases such as these we ought especially to take into account the mode of life, as that undoubtedly has a direct bearing on the heart overcoming and continuing to do so the increased strain put upon it by the leaky valves. An individual accustomed to a quiet easy life with plenty of fresh air has much better chances than one more actively engaged and subject to mental worry and excitement. The free use of tobacco or of alcohol unquestionably increases the danger in these cases. Another point that must have a great deal to do with the comfort of these heart cases is the quantity of food that is taken. That, however, is a question more for the consulting physician than for the medical examiner for life insurance. Although important, the latter cannot question the applicant in that direction as I fear he might consider it impertinent and of no bearing on his case.

Sir William Broadbent says “lots of people develop a mitral murmur about fifty who live to seventy and upwards.”

Now with regard to aortic murmurs, in considering their importance we must take into consideration our clinical experience. Whilst aortic regurgitant murmurs as a rule have a very uncertain future about them, the obstructive murmur is much less to be dreaded. When we take into consideration the fact that about one-third of these latter cases are of rheumatic origin, and when due to acute rheumatic fever occur most frequently in the young, we are confident that we are likely to have a compensating hypertrophy that will probably permit of a long life. Then again many of these cases may not have any increased resistance in the way of stenosis to overcome or it may be extremely slight and the murmur due solely to the presence of vegetations producing slight roughening of the valves.

Quite otherwise is it with the regurgitant aortic murmur whether associated or not with abnormal first sound. We know well that the nutrition of the heart must suffer from imperfect supply of blood through

the coronary arteries and in consequence the organ fail to do its work, and very often without secondary warnings of its failing power. These are the cases which we most frequently hear of in connection with sudden death and consequently to be avoided by insurance companies.

Ailbutt has pointed out the liability to disease of the aorta and its valves with changes in the muscular substance of the heart itself amongst persons engaged in occupations requiring severe, sustained and oft-repeated muscular efforts in which all the muscles of the body are simultaneously engaged. The tension gives rise to a slow process of disorganisation leading to inadequacy of the aortic valves and occasionally, it has been supposed, to atheroma of the aorta itself and sometimes to aneurism. The aortic valves we know are frequently found affected in soldiers who are obliged to make forced and long marches. Similar conditions are also occasionally found in young men undergoing severe athletic strain as required in training for boat races and the like. We have also to bear in mind the possibility of syphilis being the direct cause of aortic murmurs. We know that it is a very frequent cause of aortic aneurism, and may thus at times account for a murmur heard in this region. I consider it therefore of importance that the possibility of applicants ever having had syphilis should be enquired into and noted accordingly.

Another important bearing in heart disease at times is the cause of death of other members of the family. Where we meet with two or more members of the family dying of cerebral apoplexy or Bright's disease and there are present in applicant any symptoms that would lead us to suspect sclerotic changes in the vessels, even in the absence of a murmur or signs of hypertrophy, it would be our duty to treat the case as an impaired life. I do not think that we know sufficient of the cause of heredity to altogether estimate a something indefinite that has been transmitted—whether it is a soil that allows of the easy development of gout from causes less effectual in other subjects. This may be simply a theory, but the experience of insurance companies is that with such histories they have more death claims to pay in which the cause of death has a direct bearing on such a family history.

Whilst the adventitious heart sounds to which I have referred are due entirely to endocardial abnormality, it is not improbable that some of them may be altogether exocardial. This question was raised by Sir William Gairdner at the British Medical Association in 1898. He quotes his experience in the post-mortem room in cases where heart disease was not the cause of death which showed the presence of patches in the pericardium, which we also have occasionally observed, and which he believes must have caused a murmur of some kind during life. If we were able positively to diagnose these conditions during life they would be no bar

to life insurance so far as the heart is concerned. On the strength of these observations in common with some other authorities, he maintains that it is not necessary for a pericarditis, in the case of a patient who completely recovers, to terminate in adhesions. The question is certainly one well worthy of consideration by the life insurance medical examiner, but is one which I am afraid requires the assistance of the hospital clinician, and later on of the pathologist, to decide absolutely. In the absence of these authorities and the presence of a murmur, the medical examiner will best serve the interests of his company in giving the latter the benefit of any doubt that may exist in his mind, and in looking upon it as of more serious importance.

With regard to functional murmurs, those that are associated with fevers, as with certain forms of intoxication, are not likely to come under the observation of the medical examiner; but there are many others in which it is very often a difficult matter to decide positively whether the abnormal sound is of this character or not. Of course a very large majority of such sounds are easily recognised—the general appearance of the individual, the locality of the murmur as well as its character, and various other symptoms that are present, at once decides the question. But numerous cases must occur in the practice of every physician in which grave doubts are present as to the actual character or cause of the abnormal sound. Some of these murmurs heard over the mitral area are not constantly present and are influenced by respiration. The question arises: Are these murmurs due to some derangement of the nervous control of the heart affecting possibly the papillary muscles, or may they not be accounted for by some condition of the pericardium as that just referred to?

A question that occasionally arises is: Is it possible for an organic murmur to disappear? I think it is. I am sure that I have had cases in my practice of undoubted organic murmurs that have disappeared, and again others that have been very much modified; loud harsh murmurs that have become soft and almost inaudible. Of course this fact does not necessarily imply that in consequence they have become less serious, but it is quite possible it may be so. The question is really a serious one from an insurance point of view. I am sure in my experience as medical director of an insurance company I must, in probably two or three hundred cases, have received reports from medical examiners saying heart sounds are perfectly normal, and subsequently, through the central bureau at Boston, have received information that the same cases had been declined by other companies because their examiner had reported mitral regurgitation or other murmur. All companies have similar experience.

Before a policy is issued in these cases I invariably write our examiner,

notifying him of the previous discovery of a heart murmur by another, and asking him to re-examine. Very often he writes admitting its presence, but equally often it is denied; and it is possible that some of these denials are such on a certain kind of principle, but I am quite satisfied that some of these denials are reliable and honest, showing that organic murmurs, which may have existed, have disappeared.

Accentuation of the aortic second sound I regard as being of grave significance especially when observed in those past middle life. When present, most careful examination should be made of the state of the blood vessels. Changes in them would naturally lead us to expect hypertrophy of the left ventricle, indications of which are likely to be present. This accentuation I look upon as a most important physical sign and I fear one that is rarely thought of by medical examiners. Careful examination of the blood vessels may reveal some degenerative changes that will account for this abnormal condition of the heart, or it may be that the chemical examination of the urine will by the presence of albumin explain these changes. If not present at the time of examination I would fear its appearance at a later period or possibly the onset of some cerebral disturbances. Under any circumstances I look upon these cases as extremely hazardous lives.

Disturbances in the rhythm of the heart's action are of comparatively frequent occurrence. It may be that the symptom is purely functional, depending upon some derangement of the nervous control of the heart's movements. Whilst many of these cases may be due to causes easily recognized and satisfactorily treated by the physician, many others may arise from some obscure and serious organic disturbance of other organs, so that I consider it wise to give the insurance company the benefit of any doubt that I may have, and postpone, if not absolutely reject, the risk. This caution applies with much force to those cases of applicants who are accustomed to the daily and frequent use of alcohol. In these individuals the effect of chronic alcoholism in causing degenerative changes in the heart muscle may manifest itself in the state of the pulse.

The intermittent pulse or heartbeat I do not consider to be inconsistent with perfect health. I am sure we can each of us, who have been in practice many years, call to mind patients who in our earlier years were known to have intermittent pulse and who are still alive and in sound health and with the same intermission. I can recall several such cases, individuals in perfect health and free from so-called vicious habits. On the other hand it may be an evidence of disturbed nervous control of the heart, easily remedied by correction of some faulty condition of the digestive apparatus, or possibly some objectionable habit of applicant. I am sure it is the experience of every one of us to have had, at various times, under our care patients with irregular or intermittent pulse, which

we can clearly trace to the immoderate use of tobacco or possibly even tea—cases which get perfectly well in ceasing the abuse.

The condition of the muscular substance of the heart itself is one that comparatively rarely calls for an opinion on the part of the medical board of an insurance company as the result of the report of medical examiner's examination of applicant. Death claims that are continually being paid by the companies forcibly impress upon them the fact that some of these claims might have been avoided had they adhered strictly to the rule of considering very fat men as impaired lives. Sudden heart failure is frequently the cause of death given in these cases. The result of the examination in the post-mortem room, when made in many of these cases, shows that death may be due purely to changes in the heart muscles, alterations in structure that may have been going on for years and yet give no indication so far as the stethoscope or the pulse are able to reveal. It may be that the applicant previous to examination had experienced unpleasant symptoms, which he looked upon in an altogether different light when under examination for insurance, than when consulting his medical attendant. In the former case he makes light of these symptoms and without any dishonest intentions makes no reference to them. In the latter he is careful to miss nothing, mentioning symptoms that may appear trivial, but which to the medical eye of the consultant may be of great significance. In this way signs of degenerative changes may be easily overlooked by the medical examiner and yet require the advice of a medical attendant.

Hypertrophy of the muscular substance of the heart without valvular changes I believe to be more common than is generally supposed. When occurring in young people without changes in the character of the aortic sounds it may or may not be of grave significance. It is no unusual condition to meet with this condition in young men of slight physique but hardened muscles due to athletic or active exercise. In some of these cases you would expect to find normal vessels, although possibly a commencing endarteritis due to increased blood pressure, may be present. But when met with in individuals about or past middle life, in whom careful auscultation of the heart reveals abnormal sounds, we then have to deal with a case that requires a most careful consideration to do justice to both applicant and the insurance company. These points I have already referred to.

Of these diseased states in which a physical examination very frequently reveals absolutely nothing, perhaps the best marked is angina pectoris. We have all met with cases of a most pronounced character, in which nothing could be made out in the intervals of the attack—sometimes even during the attack itself. Whilst post-mortem examination frequently confirms our opinion as to the condition of the heart

and vessels that we believe to be present, possibly just as often it happens that nothing satisfactory is furnished us by the autopsy. In cases presenting symptoms in which there are but the faintest suspicion of this much to be dreaded affection, the medical examiner would naturally advise postponing the acceptance of the risk.

Having recognised some one of the forms of heart disease to which I have referred, speaking from an insurance point of view, the question at once arises: How are we to act in connection with these cases, doing justice to the applicant as well as to the company we represent? Of course there can be no question but that they are impaired lives, *i.e.*, taking one hundred cases of heart disease and comparing their duration of life with one hundred cases at same ages and in similar occupation and with similar family history, who are, however, perfectly healthy and with normal hearts, the duration of life will be considerably longer in the latter. Now, as the premiums charged are lower on the latter class of cases, the important question arises: By how many years will this last class survive the former? This is a most difficult matter to arrive at definitely and on a truly scientific basis, as so few statistics are available of the probable duration of life in heart affections. To draw our conclusions from hospital statistics or private practice, would be manifestly unfair to the applicant for life insurance. As a rule it is only when failing compensation has produced symptoms that call for medical advice that these cases come under our care, whereas the medical examiner necessarily discovers many such cases that live to a good old age, dying of diseases in no way associated with the heart affection.

For these reasons there is no unanimity amongst companies as to the procedure that should be adopted in these cases. The tendency of late years is to place fewer restrictions. In my early years of life insurance it was the custom of nearly all companies to regard these cases as extremely hazardous ones, and by many as uninsurable. Later on some discrimination was practiced by some companies—they would under certain circumstances offer policies with very much increased premiums. At the present day many companies will not accept cases with heart murmurs on any terms. Some companies will not accept on any terms lives with aortic murmurs, whilst they are willing to issue policies in some cases of mitral regurgitant murmurs. I quite agree with them so far as aortic regurgitant murmurs are concerned, as I consider them too hazardous to accept on any form of policy that an applicant is likely to accept. The practice adopted by the English companies, where they are willing to assume the risk, is to add a certain number of years—say five to ten, generally about seven—to the age of applicants and charge the premiums at the advanced age. Thus an individual aged say thirty years would pay at the rate of thirty-seven so long as he lives. I doubt



very much if this is sufficient protection for the company, as the healthy individual aged thirty has an expectation of thirty-five years, whilst the rate charged for one aged thirty-seven is calculated upon the basis of living for a little over thirty years. That would shorten the expectation of life in the heart cases a little less than five years, and I doubt very much if that estimation is in accordance with facts, as I fear the difference to be much greater. American and Canadian companies that are willing to accept these risks as a rule adopt a different plan. The plan adopted by the company with which I am connected, when we first accepted these risks, now about fifteen years ago, was to offer a ten-year endowment policy with a diminishing debt on it. Increased experience has taught us that longer term policies are safe investments; so that now we issue a fifteen or twenty-years' endowment with a debt of \$600.00 per \$1,000.00, gradually diminishing, until at the end of the term the debt would be completely wiped out, and the full amount paid over to the applicant if he survived to draw it. If he died in the meantime, a proportionate amount is taken off, according to the number of years he lived. If death was the result of accident, the lien does not apply, so that the heirs of applicant draw the full amount no matter how soon after issuing the policy. This appears a very fair form of policy, as at the end of the period applicant is in as good a position as one with a perfectly sound heart. I am told that one or two American companies will issue an endowment policy with profits without any debt except as far as it applies to the profits. An individual dying at any time before the expiration of the twenty years loses all his profits. This plan is a better one for the applicant who dies shortly after effecting an insurance, but is certainly very much worse for the individual who dies anywhere near the time the policy matures. The age of the applicant is an important consideration as to whether or not a policy should be issued and the term of endowment or the extra rating. My own opinion is that after fifty years of age no valvular case ought to be accepted unless it can be clearly shown that the condition is one that existed in youth, and there are present no unfavourable symptoms. Cases that have made their appearance during adolescence and have existed for several years subsequently without any discomfort whatever or apparent injurious effect, may, I think, be looked upon as likely to reach the so-called expectation of life, and are safe investments for insurance on the plan mentioned, that is to say, with a very heavy lien or addition to age.

Cases of mitral stenosis or double valvular murmurs, some companies are willing to accept with a high extra; for my part I consider them altogether too hazardous to accept on any terms.

Aortic cases, even when appearing in the young, no matter from what cause, I consider too hazardous to accept on any terms after forty-five

or fifty years of age, as we know that these cases proceed to a fatal issue more quickly than mitral.

With regard to functional murmurs, I think it advisable to postpone the accepting of these risks for a few months, unless the applicant be willing to accept a loaded policy; they unquestionably are impaired lives. It is quite true that the impairment is probably only temporary or of but little significance, but as it exists, the applicant cannot be claimed as a first-class life in every respect, and therefore should not expect a policy on as good a plan as one free from blemish. Where it is associated with anæmia I would certainly advise postponing it, as the anæmic condition, if very long continued, is likely to produce permanent structural changes. When due to other causes a very slight addition to the rate will cover any extra risk.

The occupation of the applicant has a very important bearing on life insurance in heart cases. When, apart from heart trouble, we take into consideration the fact that excessive or increased blood pressure, if long continued, is sure to produce a change in the structure of the blood vessels of the nature of a chronic inflammatory condition, in fact an endarteritis, we know that it must result in a thickened state of the vessels. That thickening will interfere with their physiological functions of rhythmical dilation and contraction, and eventually cause them to become practically almost rigid tubes. Now, if added to this we have leaky valves, the natural inference must be that any man, whose occupation requires high blood pressure, and who has diseased valves, ought not to be accepted without a very heavy extra, even supposing up to the time of examination he was not aware of his physical defect and had suffered no inconvenience from it. The chances are very strong against this individual reaching an advanced age. We have to dread all the consequences of the heart losing its compensating power before he reaches fifty years of age.

Quite different is it with the man who is accustomed to a sedentary life, provided he is not a speculative individual; the latter case I would dread almost as much as the hard-working man. It is a curious and interesting fact that the deaths from cerebral apoplexy are much greater amongst those who are able to insure their lives for five thousand and over, than amongst the poorer classes; showing the bearing of mental worry in producing changes in the vessels, for it is the wealthier classes who worry the most. The clerk with the small income, which satisfies all his wants, although he may have a leaky heart, may easily reach his expectation so far as life insurance is concerned.

# LIFE INSURANCE AND CARDIAC DISEASE.

BY

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It has been gradually recognised that the presence of a cardiac murmur is not necessarily a sign of serious cardiac disease. In many instances such a sign need cause no apprehension for the immediate future, and in others no material shortening of life need be anticipated. Under these circumstances it is not surprising that many insurance offices are now ready to accept selected cases of cardiac disease for a term of years, or again to insure them with the protection of a lien.

The practice of different companies varies widely. The more conservative still decline any case so long as a murmur is present whether this be of organic or non-organic origin. In many instances this results in an injustice to the applicants and in a loss of business to the company. Others, more progressive and liberal, endeavour to distinguish the more serious cases of disease from those of a benign character. In the selection it is needless to say that much depends on the knowledge and discrimination of the examiner, and his responsibility is much increased in dealing with damaged lives.

There are certain principles to be considered in endeavouring to form a prognosis in any case of cardiac disease, and this must be based on the individual's whole clinical history and on his general health, as well as on the local evidences of disease. Much stress must be laid on a history of acute rheumatism which leads in many instances to serious and even fatal consequences. The proportion of cases in which the heart is damaged in acute rheumatism is variously stated in different statistics. In 965 personal cases of Pribram the heart suffered in 38.2 per cent.; these figures closely correspond with those of Schott, 42.9 per cent.; Schramm, 38.7 per cent.; and May, 42.75 per cent. We may therefore safely conclude that in over one-third of the cases of rheumatism a damaged heart is the result. With this knowledge it is not surprising that insurance companies are extremely chary of accepting applicants who have recently suffered from the disease, particularly when it is remembered how often recurrence and fresh damage to the heart may ensue.

Hereditary influences play only an indirect part in cardiac disease. Acute rheumatism has undoubtedly an hereditary tendency, but as the disease usually appears in children or young adults, hereditary influence

need seldom weigh against an applicant, hitherto free from rheumatic disease. Arterial sclerosis, on the other hand, with its accompanying renal and cardiac changes, is a very important factor in estimating longevity. Members of arterio-sclerotic families are often large in bone and muscle, they are often somewhat free livers, or again they may be subject to frequent mental strain, as financiers or professional men, and fail to attain old age through disease of the arteries. After middle life the effects of vascular or renal disease are noticeable, and they succumb to cardiac disease or apoplexy. Where a marked history of cases of this nature runs through families insurance offices may well regard such business as unduly risky, and provide against loss by refusing to accept them as first class lives.

The habits of the applicant particularly in regard to the use of alcohol is of much importance. Excesses in this direction undoubtedly lead to hypertrophy and dilatation, often with degenerative changes in the heart. In a damaged heart this influence is even more potent, and excesses can only be regarded as of more than usual gravity.

The sex of the individual has some bearing on the prognosis. Men usually stand cardiac disease worse than women owing doubtless to their more active lives and their more frequent abuse of alcohol. An important exception must however be made in the case of married women, in whom pregnancy not infrequently induces the first symptoms of failing compensation. In mitral stenosis the influence of pregnancy seems to be more injurious and fatal than in any other cardiac lesion.

With regard to the station in life, the affluent or sedentary classes are much more favourably placed than those engaged in manual labour. The necessity of daily toil removes the possibility of obtaining the periods of rest which are often essential for the prolongation of life. Cases in which the lesions are stationary for a period of three or more years are much more favourable than recent cases, in which it is difficult to estimate how rapidly further changes may develop. In the single interview accorded to an examiner it is usually impossible to determine this point, and it is one on which important information may sometimes be obtained from the family physician. A stationary condition may be inferred when acute rheumatism dates back several years, and when with this, changes in the size of the heart are trifling or absent.

We may next briefly consider certain cases where murmurs are present and are regarded as of functional origin, and then pass on to the consideration of cases due to organic change in the heart or its valves. A frequent difficulty is met with in young nervous people in whom the heart's action becomes rapid or violent under examination. The forcible action and the occasional presence of a murmur under these circumstances may lead to an erroneous diagnosis, and it is only by subsequent examination that such an impression can be corrected.

Systolic murmurs at the pulmonary region are of a frequent occurrence; although soft and blowing they are occasionally harsh and loud, and may even have a character closely resembling pericardial friction. They are often heard up to the sternoclavicular joint and are occasionally transmitted to the aorta and heard down to the apex. Although more frequently found in chlorotic girls than in other conditions, still it is important to remember that they are occasionally found as a temporary phenomenon in healthy well-nourished men. They are frequent in neurotic hearts, in the latter stages of febrile affections, and in a variety of debilitating conditions, but as these have no special bearing on the present subject they need not be further referred to. When the heart and vessels are free from disease, when there is an absence of cardiac enlargement, of arterial sclerosis and of a history of conditions leading to cardiac disease, the prognosis must be based rather on the general condition of the applicant than on the presence of the murmur, and if we can feel fully satisfied that it is of a functional character it may be disregarded.

Another murmur which is frequently heard is that in the subclavian arteries. It is systolic in rhythm, often rather harsh, more common on the left than on the right side and not infrequently present below and to the outer side of the clavicle. This murmur often occurs in strong, healthy men and has been attributed to the pressure of large muscles on some part of the subclavian artery altering its calibre at certain parts of its course. In the absence of pulmonary disease I believe it may be disregarded as of any special significance, although it has occasionally led to a suspicion of aneurism.

The cardio-pulmonary murmur is heard at the apex or just outside it, or sometimes along the left border of the heart and even along the right side of the sternum. It is soft, systolic, short and puffing, and its most important character is due to its being distinctly influenced by respiration, being heard best at the end of inspiration and dying away with expiration. It is, however, sometimes heard all through the respiratory phase, becoming extremely faint during expiration. If careful observation shows that it has these characters and if other evidence of cardiac disease is lacking it may be disregarded.

In all forms of cardiac lesions, after compensation has once definitely broken down, the tenure of life is insecure and uncertain. Although cases are occasionally met which survive for a period of ten or fifteen years after suffering from general anasarca, yet these are too exceptional to allow of their being taken into account. According to N. S. Davis, the average period of duration of life after compensation began to fail varied from 2.6 years in mitral regurgitation to 3.8 years in aortic

stenosis, the figures for mitral stenosis and aortic regurgitation being between these extremes. Both Broadbent and Balfour place the average duration of aortic regurgitation after signs of failing compensation have set in at four years.

The acceptance of cases for life insurance in which there is judged to be organic disease requires a good deal of nicety in selection. There are obviously numerous cases which must be ruled out as likely to terminate fatally in a few years, or again from the nature of the disease a fairly definite opinion cannot be expressed that the applicant will live for a period of ten or more years.

Affections of the myocardium without valvular lesion occur for the most part over middle life, and therefore in a class who seek insurance less frequently than younger individuals. Cases of dilatation and hypertrophy are so frequently associated with degenerative changes in the arteries or kidneys, or result from alcoholic excesses that they are, in my opinion, too risky and uncertain to be eligible risks.

We must of course recognize that many individuals with moderate grades of cardiac enlargement survive for long periods of years, but it is difficult, usually impossible, to say with any degree of certainty how far degenerative changes have proceeded. Many cases of cardiac dilatation are associated with or due to sclerosis of the coronary vessels, and the impossibility of recognising such changes during life, in the majority of cases, should render us very cautious in recommending the acceptance of such risks, more particularly as the liability to sudden death is a notorious feature of such cases.

Fatty infiltration of the heart is usually found in very stout people who habitually get easily out of breath on exertion. Such individuals, altogether apart from the condition of the heart, are usually regarded with disfavour by insurance officers. Experience shows that the expectancy of life in obesity is not so good as in individuals of about normal weight, and it is a common practice to reject applicants who are more than 40 per cent. over weight. A hard and fast rule in this respect is however unfair. Individuals who owe their over-weight to bone and muscle must be regarded with more favour than when the excess occurs in fat and flabby subjects.

It is in valvular lesions that the chief problems lie in connection with life insurance. Serious lesions at the aortic valve are usually due to regurgitation. This in turn depends on rheumatic inflammation or on the slowly advancing sclerotic changes resulting from strain, syphilis, or arterial sclerosis. The rheumatic type is usually regarded as the more benign, owing to the freedom of the coronary arteries, but this advantage may be balanced by the tendency to further damage to the valves in subsequent rheumatic attacks. The liability to sudden death

is seen in all forms of aortic regurgitation and more particularly in the arterial cases where the orifices of the coronary vessels are apt to become narrowed from the sclerotic process, or again, these vessels may suffer from sclerotic changes and diminution of their calibre at any point of their course. This tendency to sudden death is in itself sufficient reason to reject all applicants with aortic regurgitation.

True aortic stenosis is, apart from senile cases, a rare disease. It is a common mistake to regard systolic murmurs in the aortic region as depending on stenosis. In the great majority of instances this is incorrect, these murmurs being sometimes functional or depending on slight thickening of the semilunar segments or of the intima of the aorta. The rough harsh murmur, the thrill, the ventricular hypertrophy and the small slowly rising and prolonged pulse of true aortic stenosis are absent. The prognosis is favourable in cases of aortic direct murmur when evidences of degenerative changes are absent and when there are no compensatory changes in the ventricle, and are probably about equal to cases depending on slight changes in the mitral valve. In people over middle life the probability of such murmurs being due to arterial sclerosis must be borne in mind. True aortic stenosis is a serious disease, and although the risk of sudden death is not great, yet the duration of life is materially shortened.

In connection with lesions of the aorta a brief mention may be made of the accentuated ringing second sound so commonly heard in arterial sclerosis and renal disease. The sound may not be unduly loud, but it is higher pitched, sharper and more metallic than in health. The presence of such a sound may be an early sign of interstitial nephritis, and even precede the presence of albumen in the urine, or it may indicate sclerosis of the root of the aorta with involvement of the coronary arteries, and it is therefore when present quite sufficient to warrant a rejection. In a patient under my care at the Montreal General Hospital this ringing sound was the only evidence of cardiac disease, and yet this man died quite suddenly one day in rising from his bed.

Lesions of the mitral valve are usually regarded as less serious than those of the aorta. The tendency to sudden death is so slight that it may be practically disregarded, and when this accident does occur it is almost invariably preceded by a long period of failing compensation. Whether mitral stenosis or mitral regurgitation is the more serious lesion is a question on which writers are by no means in accord. If all systolic murmurs heard at the apex are included with mitral regurgitation there can be little doubt that this form of disease is less serious than stenosis. Many murmurs are however of a temporary character and are found under varying circumstances, such as excited action of the heart, from temporary dilatation, from anæmia or from slight cases of endocarditis which occur without serious deformity of the valve.

Osler states that the most favourable cases are those in which a moderate degree of stenosis is associated with regurgitation, whilst the worst cases are instances where the valve is much puckered and contracted, allowing of free regurgitation. He is inclined to regard regurgitation as almost as serious as stenosis. Oliver regards regurgitation as the more serious lesion. N. S. Davis states that the average duration of compensation in regurgitation is 5.1 years and in stenosis is 9.5 years. It is obvious, however, that each case must be judged on its own merits and no general rule can be laid down as to the number of years in which compensation is likely to be maintained.

Stenosis of the mitral valve occurs for the most part in young people. In 31 cases of which I have notes only 5 occurred over forty. Of five fatal cases the average at death was thirty-eight, a figure which corresponds very closely to Broadbent's statistics (males 33, females 38). The comparatively early age at death and the infrequency of this lesion over forty clearly indicates the marked tendency to the shortening of life. Although the rheumatic process which terminates in stenosis frequently begins at about puberty and terminates in males at 33 and in females at 38, he would be a bold man who would venture to guarantee a period of ten years in a well-marked instance of this disease. Even in patients in whom compensation is well maintained, in whom dyspnoea on exertion is slight or absent, a break down may come on rather rapidly and unexpectedly. Pulmonary embolism frequently forms an early link in the downward course. Pregnancy is accompanied by serious dangers, and again compensation may be seriously and permanently disturbed by an attack of pneumonia. Recurring bronchitis so frequent in mitral lesions reacts injuriously on the heart and tends to bring about a cardiac breakdown. Apart from such causes compensation in the left auricle and right heart must ultimately give way, and once disturbed is not likely to be fully regained.

It is in mitral regurgitation that we most commonly see examples of prolonged duration of life in chronic cardiac disease. Even with sufficient damage of the mitral segments to lead to considerable enlargement of the heart the patient may survive for a period of twenty, thirty or forty years, and during this long period of years may suffer from such cardiac symptoms as moderate dyspnoea on exertion and recurring bronchitis.

In selecting cases of mitral regurgitation it must always be borne in mind that a fatal termination is not infrequent before thirty-five years of age and consequently only favourable cases can be considered as suitable for life insurance. In the physical examination the mere noise of the murmur must be disregarded and attention paid to the apex site, to the character of the impulse, to the percussion dulness of the heart



and to the character of the pulmonary second sound. It is only when these secondary changes are slight or absent that we can feel assured that the cardiac lesion is not likely to be of a serious character. The graver forms of mitral regurgitation are evidenced by considerable enlargement of the left ventricle, by a diffuse and feeble impulse and by a marked pulmonary accentuation. Absence of pulmonary accentuation may, however, indicate a failing right ventricle, but here other danger signals will not be lacking. The character of the pulse must be carefully considered. If of good volume and average tension it is evidence of a strong ventricle and consequently indicates a favourable outlook. Irregularity of the pulse is more frequent in mitral regurgitation than in any other valvular lesion and if only occasionally present may not indicate any serious cardiac disturbance. It is, however, a sign which must be regarded with a certain amount of apprehension, and if it continues it is of unfavourable omen.

In estimating the extent of a mitral lesion the presence or absence of symptoms is of much importance. Where the heart proves insufficient for the daily requirements of its possessor, when for instance dyspnoea is produced by moderate exertion, when oedema of the ankles is present in the evening, or when any tendency to pulmonary, renal, or hepatic congestion exists, then the applicant cannot be considered eligible from an insurance standpoint.

The class of cases therefore which an insurance company is safest in accepting are those of mitral regurgitation and aortic direct murmurs in which secondary changes in the heart are slight or absent. Cardiac symptoms, particularly dyspnoea on exertion, should be excluded by the personal observation of the examiner, and as far as possible all cases excluded in which the lesion is likely to be progressive. Recurring rheumatic attacks exert a most unfavourable influence from further attacks of endocarditis or pericarditis.

A station in life not involving manual labour and early adult life, at which period arterial sclerosis is unlikely to be present, are further elements which must be weighed in the acceptance of such cases. Careful habits and good general health are also important in estimating these risks.

In conclusion, it may be said that life insurance companies usually take the precaution of preventing heavy losses by limiting the insurance to a term of years, by adding an increased premium or by a system of liens. Under such a system there are many individuals the subject of murmurs or slight cardiac lesions who can obtain the benefit of insurance. Although occasionally unexpected losses are likely to occur, yet these will be more than balanced by more favourable cases.

# NOTES OF THREE HUNDRED AGGLUTINATION TESTS TRIED WITH B. COLI COMMUNIS.

BY

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In the absence of sufficient data upon the agglutinative action of blood serum upon B. coli, it was thought well to try this action in a routine of cases taken at random in the various wards of the hospitals; and, in addition, some healthy cases were observed. Many of the cases noted, were examined with a view to their Widal reaction, and those which gave the reaction are referred to as typhoid.

### *Technical Method.*

Three forms of B. coli were isolated, selected from a number, and named I., II. and III.

I. Showed slight motility, slight fermentation and very slow formation of acid. It was isolated from the healthy bowel.

II., from the stomach of a case of pernicious anæmia (and proved to be B. coli), was of very slight motility, moderate acid-forming and slight coagulating ability, and of moderate gas-producing power.

III., was isolated from the bowel of a case of chronic diarrhœa, was of slight motility, strong acid-forming and coagulating power, and strong gas-producing power.

The limit of reaction fixed at one hour; and the dilution was in case of fresh serum, 1 in 10. Where the specimen was dried blood, a dilution was made as near as possible to 1 in 10, though of necessity this could be only estimated. Whenever a specimen was positive at 1 to 10, it was tried at 1-20, 1-30, etc., until reaction failed.

A complete reaction was decided to be present in those cases in which cessation of motion occurred, together with clumping and decided clearance or tendency to clearance of the field between the clumps. Where there was a distinct clumping without the field being cleared of free bacilli, the reaction was called "suggestive." These semi-reactions were fairly frequent, and no doubt indicate the cases in which a true reaction would occur if the dilution were 1-2, 1-3, etc., instead of 1-10.

Every hanging-drop was examined as a control previous to the serum being added to the culture, to prevent pseudo-reactions. This was especially necessary in the case of Colon iii, which at times would show a pseudo-reaction 2 to 3 hours after the bouillon had been inoculated.

It was found necessary in this case to use one of two expedients, viz.: (1) use the culture at a very early moment after inoculation, or (2) use a bouillon culture 3 to 5 days old, when the greater number of the bacilli settled as a sediment, and those in the supernatant fluid showed little, if any tendency to clump. At the same time, the question arises if, from some cause, such bacilli would not have lost their power of clumping to ordinary stimuli (such as that of bloom serum).

*Results (300 Agglutination Tests).*

Positive . . . . .	10
Suggestive . . . . .	18
Negative . . . . .	272

Of 10 positive reactions, the distribution was:

With bacillus . . . . .	I . . . . .	1
“ “ . . . . .	II . . . . .	1
“ “ . . . . .	III . . . . .	8

Of 18 suggestive reactions, the distribution was:

With bacillus . . . . .	I . . . . .	1
“ “ . . . . .	II . . . . .	2
“ “ . . . . .	III . . . . .	15

Of the 10 positive in 1-10 dilution, one showed a positive reaction in 1-15 dilution; the others no higher than 1-10. One case only (a case of undiagnosed chronic stomach trouble, (gastritis) reacted to both ii and iii.

Of 10 positive reactions, the diseases were as follows:

Bronchitis . . . . .	1
Typhoid (convalescent) . . . . .	1
Anæmia . . . . .	1
Gastric ulcer . . . . .	1
Gastritis? (v. sup.) . . . . .	1
Undiagnosed . . . . .	5

Of 18 suggestive reactions, the diseases were as follows:

Appendicitis . . . . .	2
Acute rheumatism . . . . .	1
Bronchitis (acute) . . . . .	1
Exoph. Goitre . . . . .	5
Typhoid . . . . .	3
Gastritis (v. sup.) . . . . .	1
Organic heart disease . . . . .	1
Undiagnosed . . . . .	7
Normal . . . . .	1

Of cases, possibly of *B. coli* infection, which gave no reaction, the following were tested :

Cholecystitis . . . . .	1
Appendicitis . . . . .	3
Typhoid . . . . .	11
Probably typhoid, no certain data. . . . .	8

#### RESULTS, INFERENCES, ETC.

1. The greater liability to reaction of III, renders it very desirable that different races of *B. Coli* should be used, each one with a shorter series of cases than 100.

2. As has been frequently stated, the liability of a strongly acid and gas-producing bacillus to clump (so far as this series shows) is demonstrated.

3. It is desirable that the virulence of such a strongly acid and gas-producing bacillus, be tested; as it is probable that from its growth and character on different media, III. would have proved to be the most virulent of the three forms selected.

4. It is also desirable that a dilution of at least 1 in 10 and a time limit not exceeding 1 hour be adopted, that the clumping power of normal blood serum be avoided.

5. It is desirable that a series of cases of such acute infections as are liable to be caused by *B. Coli*, should be tested. So far as the above series goes there appears to be no increased reaction observed in the cases of appendicitis, cholecystitis, etc.

From the number of positive typhoids which gave no reaction (in which the Widal test was made the crucial point), it, so far, does not differ from the observations already made by Drs. Johnston and Mac-Taggart, that a decided reaction of *B. Typhosus* is generally accompanied by a low degree of reaction to *B. Coli*.

6. If, as the researches conducted here by Drs. Adami, Nicholls and Ford seem most clearly to demonstrate, the colon bacilli and other bacteria are constantly being taken in small numbers into the system, and are to be found in the tissues in various stages of degeneration, then this mere taking up, even if constant, is not, under ordinary conditions of health, sufficient in man to develop any pronounced serum reaction against the colon bacillus. This would seem to indicate that the mere act of arrest of growth and destruction of bacteria by the tissues, does not in itself lead to the development of any large quantity of agglutinating substance in the circulating blood and may indicate that there must be an active proliferation of the bacteria in the tissues before any recognisable amount of agglutinating material is produced.

7. Lastly, remembering how abundantly the colon bacilli proliferate

within the intestine under normal conditions, it would not have been surprising to find that human blood constantly exerted a very definite agglutinating action upon the colon bacillus. The very fact that the reaction is so relatively uncommon is of interest as showing that the presence of toxine-bearing and toxine-producing bacteria within the intestines does not result in the circulating blood containing what I may term, broadly, reactive substances. It is true that like those of the typhoid bacillus, the toxins of the colon bacillus only diffuse out with difficulty. It is difficult, however, to imagine that none of these toxins are discharged from the bodies of the bacilli when they are growing within the intestinal canal and that none are absorbed. Indeed, the results here presented, so far as they go, seem to indicate that for the development of agglutinating substances in recognisable amounts within the blood, there must be some very intimate reaction between bacilli which have invaded the tissues and the tissues themselves.

# EXCISION OF THE EYEBALL AND SOME ALTERNATIVE OPERATIONS.

BY

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The operation of enucleation of the eyeball versus other methods of achieving the same object, is still exciting a good deal of attention amongst ophthalmologists the world over. The report of the Committee on Excision, etc., appointed by the Ophthalmological Society of the United Kingdom, and published in the Transactions of that society in 1898, has, it would seem, by no means settled the questions at issue, and the subject will come up for special discussion at the International Medical Congress to be held in Paris next July.

That the operation of enucleation or simple excision is not unobjectionable, there can be no doubt, else we should not see these persistent efforts to find something better. True enough, the removal of a hopelessly diseased or injured eyeball may confidently be relied on to bring immediate relief from pain and minimize the dangers of a threatened sympathetic ophthalmia, or of systemic infection in cases of intra-ocular sarcoma, etc.; but this operation is invariably followed by more than one undesirable consequence, such as the inevitable disfigurement which results from the more or less sunken appearance of the upper lid and the restricted mobility of the artificial eye subsequently inserted. Moreover, the hollow space between the glass shell and the depressed conjunctival sac retains secretions which in turn perpetuates a state of chronic conjunctival irritation, to the annoyance and discomfort of the patient. Erosions of the conjunctiva and subsequent cicatricial changes in many instances make the wearing of an artificial eye more and more unsatisfactory and perhaps impracticable.

All these disadvantages are in a great measure obviated by the Mules' operation of evisceration with the insertion of a hollow, glass globe in the scleral cavity, which, in contrast to excision, gives an infinitely better cosmetic result, both in regard to mobility and general appearance of the artificial eye, and in the healthy condition of the conjunctival sac, which now affords no free space for the accumulation of secretions. In a word, after a successful Mules' operation, the patient wearing a well fitting artificial eye is no longer abashed by a sense of disfigurement and is no longer annoyed by a chronic conjunctivitis.

The objections raised against the Mules' operation are:—

(1) Greater liability to sympathetic ophthalmia than in cases of simple excision.

(2) Excessive reaction and prolonged convalescence.

(3) Liability to fracture of the glass globe at any time after its insertion.

(4) Liability to extrusion of the globe, especially within a few weeks of the operation.

In regard to the first objection, it is worthy of note that the Committee were only able to find five cases in which the operation had been followed by sympathetic ophthalmia. In all of these the original injury was of a sort that would in itself be likely to cause sympathetic ophthalmia. In this connection it must be remembered that there are many cases on record in which sympathetic ophthalmia has occurred within a few days or weeks after excision, and it is a well established, clinical fact that in these the disease runs a much milder course than when it has come on before excision. Now the five cases above mentioned all followed exactly this rule and all recovered with good vision; therefore, the first objection loses much of its weight.

As for the second objection, the question of a few days discomfort or a few weeks longer in hospital, can hardly be weighed against the subsequent advantages of the Mules' procedure.

The third objection lacks data to give it more than imaginary value.

The fourth rests so much on the judgment, care and skill of the operator that a definite estimate of its value is scarcely attainable. Some operators report a large percentage of failures, others a very small percentage.

The success of all surgical operations depends so much upon attention to details and perfection of technique, that such discrepancies can only be accounted for by the unknown quantity in "personal equation." The writer has only experienced two failures in twenty-six consecutive operations, and both of these were done in the presence of recognized contra-indications, viz., one in a case of suppurative panophthalmitis, the other in a greatly shrunken globe.

Apart from these two, twenty-four successive cases, all perfectly satisfactory in their results, tell strongly in favour of the technique followed by the writer, as described in a communication read before the Ophthalmological Section of the British Medical Association in Montreal, in 1897, and which differs in some respects from the original procedure of Mr. Mules, as well as from all other known modifications of that operation.

In the minority report of the Committee made by Mr. Thomas H. Beckiston, the statement of his views on the question of excision may,

in the writer's opinion, be accepted as perfectly sound and correct. The statement is as follows :—

“In accordance with the general principles of conservative surgery and the experience of practice, *excision* is only necessary in, and its adoption should be strictly limited to :—

“*(a)* Intra-ocular malignant growths and orbital malignant growths.

“*(b)* Extensively lacerated or contused wounds of the sclerotic.

“*(c)* Shrunken globes in which the uveal tract cannot with certainty be completely removed.

“*(d)* Cases where sympathetic disease has already been excited.

“In *all* other cases *evisceration*, with or without the insertion of a sphere, is the embodiment of the above principle, and while respecting the moral, religious and physical scruples of the patient, amply fulfils the pathological requirements of each case.”

It is well to remember, however, that the class *(d)* may include cases in which the exciting eye still retains some vision; under these circumstances neither excision nor evisceration would be allowable. It should also be borne in mind that even when excision has been chosen as the most suitable operation, the insertion of a glass globe into Tenon's capsule, after the method of Adam Frost, may often be practiced to the great advantage of the patient, instead of simple enucleation.



# A CASE OF ENTEROPTOSIS WITH FACTITIOUS URTICARIA.

BY

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The following case is of interest from the fact that while it presents in a marked degree the physical conditions of enteroptosis, the symptoms for which the patient sought relief were not apparently related to the abdominal condition ; although from the history of the case and the known connection between various forms of neuroses and this disease, in all probability they were induced by it.

Mrs. M., aged 26 years, came to the dermatological clinic of the Montreal General Hospital, complaining of red blotches on the face and body, appearing after any form of slight stimulation of the skin.

*Family History.* Father died at the age of 44 from unknown cause. Mother is living, aged 43, and in good health. She has three brothers and one sister living and in good health ; several of the family died in childhood of unknown causes. No history obtainable of tuberculosis, nervous diseases, etc.

*Personal History.* The patient was born in Halifax, N.S., and has lived in Montreal the most of her life. She has always had good health up to the commencement of the present illness. She was married at the age of 16, and has five children, all living. The first child was born within a year after her marriage, the next two at intervals of about eighteen months ; she then had two miscarriages at the second and third month, respectively. The fourth child was born two and a half years after the third, and the fifth eighteen months later again. She has nursed all five children and was perfectly well until the birth of the last child.

*Present Illness.* Three years ago, on leaving her bed after the birth of her last child, the patient noticed that she was not as strong as after her previous confinements and was very much troubled by great itching of the body at night. She is positive that she never suffered from this symptom before. This itching has continued up to the present time, getting neither better nor worse ; and seems to be induced by exposure of the skin to the cold air on the removal of her clothes. It does not prevent her from sleeping, passing off when she gets warm in bed. At about the same time the patient noted that in a few minutes after washing her face red blotches would appear on the parts touched by the water. These were accompanied by a stinging or burning sensation in the affected areas which passed away a few minutes later as the redness

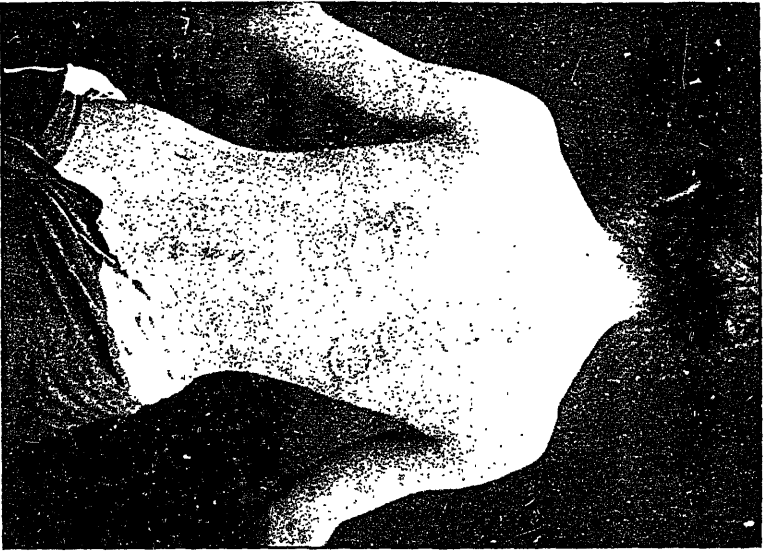


FIG. I.

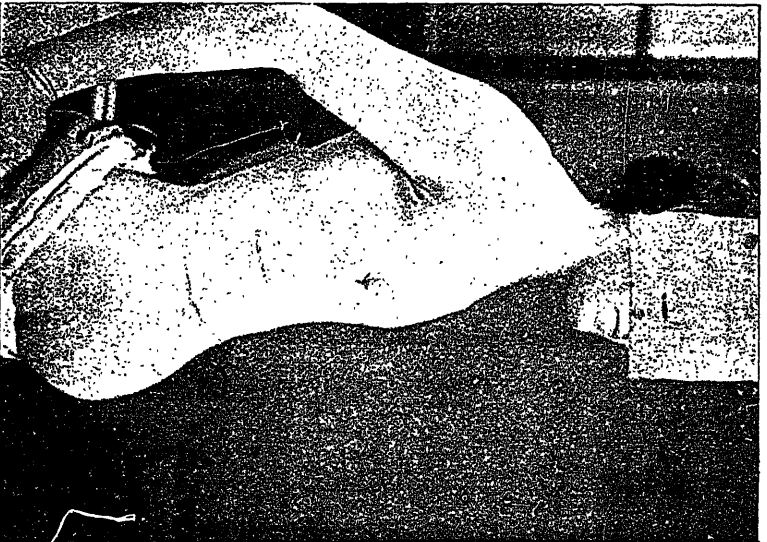


FIG. II.

disappeared. The same effect is produced by both hot and cold water and by merely rubbing the face with a towel. She has found, too, that they come out when she is using washing soda or lye, even though it does not come into contact with the skin. Emotional blushing instead of producing a general redness of the face comes out in similar patches. The condition is present during both winter and summer, but exposure to cold in the winter time will induce an attack.

Ten months ago, May 1899, she was in bed for two weeks with frequency of micturition and pain over the lower part of the abdomen. Four months later she began to suffer from pain in the left side of the abdomen coming on at odd times and often lasting a whole day. The pain she describes as feeling as if a blunt instrument was being thrust into the side and it has no relation to the taking of food, and is not accompanied by nausea or diarrhoea. At the present time she complains of having a lump in the stomach in the mornings on getting up. This lump occasionally rises into her throat and produces a choking sensation. While it has only lately become severe enough to cause much discomfort, this latter symptom has been present for over a year.

*Present Condition.* Patient is a slight, well nourished woman, of medium height and good intelligence. She is quiet and self-possessed and does not give one the impression of being at all of the so-called neurotic temperament. The mucous membranes are a good colour. The skin is pale, soft, and moist, but on getting her to rub her face with a wet towel, in a couple of minutes, irregularly shaped patches of bright red erythema make their appearance. These are accompanied by a burning sensation. On drawing the finger nail or a blunt pointed instrument over the skin of the thorax or abdomen, an extremely well-marked condition of factitious urticaria develops within five minutes. The wheals are raised, white, and surrounded by a zone of deep red erythema. (See Figure No. I.) The occurrence of the urticaria is attended by itching in the affected parts.

The thorax is long and narrow and tapers uniformly to the waist, measuring 28 inches just above the mammary glands, which are quite flat, 26 inches at the level of the xyphoid cartilage, and 24 inches at the waist. The subcostal angle is small and the distance between the lowest ribs and the crest of the ilium about one inch. There is a distinct transverse depression at the level of the ninth costal cartilages in the mid-axillary line, the ribs below this level turning abruptly outwards. The patient states that this was produced by tight lacing, and it corresponds to the waist. The lungs extend lower down than normal, percussion giving a clear lung note down to the seventh rib in the nipple line on both sides. The cardiac dulness is also lower than usual, beginning at the lower margin of the fifth rib above and extending from the left

border of the sternum  $2\frac{1}{4}$  inches to the left. The cardiac impulse is felt in the fifth and sixth spaces just within the nipple line. The breath sounds and heart sounds are normal.

On inspection of the abdomen in the erect position there is seen a rounded prominence of the lower portion below the umbilicus, resembling the fourth or fifth month of pregnancy, but lower down and overhanging the pubic bones. See the accompanying figure II. By palpation the lower border of the liver can be felt  $2\frac{1}{2}$  inches below the costal margin in the parasternal line and the right kidney one inch below the level of the umbilicus and midway between it and the crest of the ilium; while what is presumably the left kidney can be felt on the left side at about the level of the umbilicus. In the supine position the liver and right kidney can be easily palpated in the positions referred to, the latter being very movable, but owing to the close approximation of the costal cartilages to the crest of the ilium, it is difficult to gain accurate information with regard to the left kidney and the spleen. The skin of the abdomen is inelastic and marked with numerous lineæ ablicantes, the walls are very soft and lax and the abdominal aorta can be felt down to its bifurcation. The size and position of the stomach cannot be defined. There is no tenderness on pressure anywhere. The uterus is high up in the pelvis. The patient suffers from profuse leucorrhœa. The digestive and urinary functions are normal.

In the photographs the positions of the organs as determined by palpation and percussion was marked by black lines. The costal margin on the right side and the upper margin of the cardiac dulness can be seen as faint lines.

Since the patient came under my care she has been wearing an elastic abdominal supporter which has caused her considerable comfort, although she did not complain when first seen of the dragging or bearing down sensations so common in cases of enteroptosis. The support given to the abdomen by the binder makes her feel much stronger and better able for her work, but she was not aware of any particular weakness there until after she had tried the effect of the support.

It seems reasonable to infer that the enteroptosis bears a casual relation to the erythema and factitious urticaria. It is quite true that the condition of the nerves of the skin which is concerned in the production of factitious urticaria may be present for years and be only discovered by accident, as was the case in a patient I presented before this society about four years ago. In the present case, too, the patient was unaware of its existence until it was demonstrated to her. At the same time, the erythema of the face is only a less severe form of the same lesion and it could certainly not have been present without being detected. Of the other symptoms, with the exception of the pain on the left side of the abdomen, all seem to be of the nature of neuroses.

## SOME REMARKS RELATIVE TO POSTERIOR POSITIONS OF THE OCCIPUT IN LABOUR.

BY

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Having carefully observed the difficulties which may arise due to occipito-posterior positions of the head during labour, I have thought that a few practical remarks may not be out of place and possibly of interest to some.

In a given case, a combination of circumstances and conditions is sometimes found which occasions the practitioner no little trouble and anxiety. I refer to occipito-posterior positions of the foetus. According to Lusk, Hirst, and several others, these positions occur in about four per cent. of all cases. The greater proportion of these are supposed to rectify themselves during descent or even after the head has reached the pelvic floor, but my limited experience goes to convince me that the few cases which do not rectify themselves are quite sufficient to give trouble, especially among primiparæ.

As far as I have been able to clinically study these cases, I find that there is liability to a serious complication, that of *face presentation*. This would very naturally occur during descent by the occiput passing over the promontory and dropping into the hollow of the sacrum. Now comes trouble, if the pains are frequent and vigorous, and no time is to be lost. The face now is likely to be impacted hard against the symphysis, and flexion is very difficult if not impossible to secure. It would, I think, be good practice not to allow such a condition to develop from an occipito-posterior position, for I believe it to be preventable if taken in time.

While the chin has not as yet impinged against the symphysis, it is comparatively easy to secure sufficient flexion to convert *face* in *vertex* presentation, by introducing the hand, palm downwards, along the posterior wall of the vagina, the patient being anæsthetised and in the dorsal position, and with the tips of fingers to raise and draw forward the occiput between two pains, holding it in this position until the next contraction takes place, when the position will probably be maintained. External backward pressure against the trunk of the child may, at this juncture, materially assist in bringing about a favourable termination.

But just at this point arises another difficulty. Flexion being maintained, descent progresses, but the occiput being to the rear, the vertex enormously distends the perineum, a condition which is quite difficult

to relieve and which results generally in more or less laceration of that part during the passage of the head. In multiparæ, this may often be in some measure avoided by the application of a pair of small, light forceps, lifting the head with cautious traction over the perineum until the parietal eminences engage in the vulva, when, after quick and careful removal of the forceps, the head may be forced forward, the face from the root of the nose to the chin sweeping sharply under the pelvic arch, and delivery being successfully terminated as in normal cases.

In primiparæ, however, these precautions are not usually sufficient to save the perineum from some amount of damage, however slight. Generally the laceration is extensive and is very liable to involve the bowel, but if this accident is immediately and properly repaired under strict antiseptic precautions, the risk of septic absorption may be inconsiderable.

Some writers on the subject consider these occipito-posterior positions the gravest of all abnormal positions, and for this opinion I see very good reason, for in cases presenting transversely or by the breech or shoulder, version may be employed, and the case terminated without special risk; whereas, in occipito-posterior positions, where the occiput fails to rotate to the front, nothing is left to the attendant but to deliver as promptly as possible in order to save the child and prevent further exhaustion to the mother. The conservative plan of "trusting to nature" will generally prove disastrous in these cases. Here, especially, as soon as a positive diagnosis of the position can be made, the lower bowel should be thoroughly washed out, if not already attended to, as accumulated fœcal matter may seriously interfere with already difficult descent, and jeopardize the integrity of the bowel which is already threatened by enormous pressure, and that in the direction most calculated to produce the worst results.

I may say that I have had, since I came to this country, six of these cases, one of which was rectified by anterior rotation during traction by the forceps. In the other five the abnormal position was maintained to the last. Taking an equal number of confinements while practicing in the east, I met with only two such cases.

My reasons for prompt interference in such cases as I have referred to may be summed up briefly:—After a labour which has already lasted many hours the patient is not in a condition to endure much more, and when all progress is arrested and the pains are utterly ineffectual, exhaustion very soon takes place and further delay is only making matters worse. Then, as regards the child, if the position of the occiput has resulted in developing a face presentation, delay is simply criminal;

for extension has become so great that undue pressure is exerted on the anterior aspect of the child's neck, congestion, probably fatal, being the result. If, on the other hand, the vertex presents, delay is almost as reprehensible as in the case just referred to, for, if the pains are strong, the perineum is likely to suffer ultimately, and probably severely.

Speaking generally of injuries during the passage of the head; I believe that in a large majority of cases, even under the most favourable conditions, the perineum suffers to some extent, and in very many cases, even in the hands of experienced obstetricians, and where the greatest possible care is exercised, pretty severe perineal lesions occur with great frequency. Where the conditions are reversed and everything tends towards the inevitable production of such lesions, the practitioner is fortunate who brings his patient through without her sustaining serious present injury, and perhaps a subsequent train of troubles.

## NOTES FROM IOWA.

BY

J. HERBERT DAREY, A.M., M.D., of Northwood, Iowa.

Fellow of the American Academy of Medicine.

### **Congenital Fistula of the Neck.**

J. K. O., aged thirty years, a hardware merchant, born in Norway, told me one day that he had a small weeping fistula in his neck, which had existed from birth. The external orifice of the fistula was located one inch above the sternoclavicular joint in the skin overlying the sternal head of the sternomastoid muscle. It never caused him any discomfort except if he happened to be wearing a shirt or collar which did not fit. At intervals it discharged a white, glairy, albuminous fluid, then it would seem to dry up for a while and later on break out again. Mr. O. told me that it had excited considerable interest among some of the leading physicians in Bergen, Norway, where he formerly resided. One of them had passed a fine probe in for about an inch. He did not wish anything done for the condition as it did not inconvenience him sufficiently to warrant surgical interference. I tried to pass an ordinary silver probe into the mouth of the fistula but could not introduce it as the orifice was too small. I record it merely as a curious congenital anomaly perhaps due to incomplete closure of one of the brachial clefts.

### **A Case of Smallpox.**

On December 5, 1899, T. S., a clerk, aged 29 years, walked into my office and told me he was afraid he had smallpox. He stated that he had visited Albert Lea, Minnesota, (twenty miles north of here) about two weeks previously. Albert Lea had had an epidemic of smallpox for about six months at that time. I at once stripped off his clothes and found a beautifully marked smallpox eruption all over his body, of the discrete type just beginning to enter the pustular stage. The patient said he had been feeling under the weather for a week past and on November 30th had had a chill and high fever. On December 2nd he noticed the rash on his body but did not pay any attention to it. On December 3rd he consulted another physician for cold and loss of appetite and stated that he was afraid he had the smallpox on account of the rash on his body, but the physician without even examining the rash made a diagnosis of stomach trouble and said that the rash was probably due to the condition of his stomach. He was also given some powders which made him feel better, but as the rash kept on increasing he came to me on December 5th. I locked him up in my office and at



once notified the mayor that I had a case of smallpox in my office. A hurried meeting of the City Council was called and the city physician, Dr. C. A. Hurd, was ordered to see the case. He agreed with my diagnosis as did also Dr. T. M. Stixend. The first physician who had seen the case was asked to see the patient also but declined to do so for obvious reasons. An officer of the State Board of Health, Dr. J. C. Shrader, was telegraphed for and he pronounced it a well marked typical case of discrete smallpox. This was a great relief to the three of us who had pronounced it smallpox as none of us had ever seen a case before and the city was all agog with snap diagnosis of chickenpox, "Cuban itch," etc., made by lay wiseacres who not only had never seen the case but politely but firmly declined to see him in quarantine. The secondary fever set in after a few days with a curious phenomenon, viz., that the morning temperature was invariably (with but two exceptions) higher than the evening. I was discharged on the seventh day of my attendance by the patient himself on the ground that I was a robber for charging him \$10.00 a visit. He made a good recovery under the subsequent care of an immune nurse. The patient had never been vaccinated.

#### **A Family Epidemic of Diphtheria.**

On January 4th, 1900, I was called eight miles out in to the country to see a case which I found on my arrival to be diphtheria. The patient, Rosa H., aged fourteen years, had been sick since the evening of January 1st. I gave her tincture ferri perchloridum, mx, and potassium chlorate, gr.iii. every two hours with whiskey. On my return to town I found that there was no antitoxin on hand, but on discovering by telephoning that there was some at Kensett, six miles south, and that it could be obtained there, I made arrangements to have it sent up early next morning. However, one of the druggists telegraphed in the night and a full supply was at hand by 1 o'clock p.m. the next day. I went out in the morning and injected all I had, the 500 units. I was sent for late the same afternoon as the girl was getting worse. On my arrival at six p.m., I found that the membrane had extended down the larynx and she could hardly speak and had a very weak thready pulse. I thought she could not live until the morning. I at once sent my team back to town for another physician, tracheotomy tubes, chloroform, etc., and gave immediately 2000 units of P. D. & Co.'s antitoxin. The consulting physician, Dr. D. S. More did not arrive until 10 p.m., by which time the laryngeal symptoms had greatly improved. He advised potassium bichromate gr.  $\frac{1}{20}$  every hour to dissolve the membrane. She was given also strychnino sulphate gr.  $\frac{1}{30}$  every hour for thirty-six hours. Later in the night we gave 2700 units of antitoxin and in the

"wee sma hours" 500 more. We both gave her up for lost about 2 a.m., but she rallied and made a good recovery. I gave her sister, aged 16 years, and her brother, aged 8 years, 500 units each to immunise them.

I ceased attendance on January 13th, but was called out again on the 17th, as the boy Willie, had membrane in his throat. He had got wet making snowballs the previous day. I gave him at once 1500 units of antitoxin and his sister 500 as an immunizing dose. The latter had the next day a faint hoarfrost patch on the left tonsil. The following day it was the same so I did nothing more. The day following again she had a hoar frost patch on the right side of the uvula, so I gave her at once 2000 units of antitoxin and put her to bed. Dobell's solution was freely used in all three cases for cleansing the nares and also Loeffler's solution of thymol, toluol and alcohol as a spray to the pharynx. The latter had a very marked effect in dissolving and loosening the membrane, acting within fifteen minutes after its application. The first girl, Rosa, had paralysis of the muscles of the pharynx and larynx, but could taste and smell perfectly while the last one, Emma, could swallow quite well but could neither taste or smell. The boy had no paralysis at all. All three made a complete recovery. The first case was not seen until the fourth day and was consequently the most serious.

Before the house could be disinfected, after the quarantine period had elapsed, two little children whose mother was a sister of the above mentioned patients and who had died suddenly of eclampsia in the sixth month of pregnancy, were brought to the house to be taken care of by their grandmother as no one else could do so. Within a week or ten days, one a boy, aged 3 years, sickened and died before a doctor could get out to the farm. I was called next day to see the remaining child, Greta B., aged 5 years,, and found a marked case of diphtheria. I gave at once 1500 units of antitoxin and followed it by 1500 the next day and 1500 four days later. She made a good recovery having the same treatment as the others.

#### **Scarlet Fever Complicated by Diphtheria.**

On February 3rd, 1900, I was called to see E. T., a boy aged 7 years, whom I found to have scarlet fever. In quick succession three younger children, aged respectively 4 years, 2 years and 9 months, and the father and mother came down with the disease. On the 12th, the girl aged 4 years, developed diphtheria, and this disease quickly prostrated the whole family. Two women nurses were in attendance shortly after the diphtheria developed, and for a few days a man in addition to help about the house. The treatment was the same as in the preceding series of cases; antitoxin was used freely and Loeffler's solution as a spray.

The little four-year-old girl developed on the left side of the neck a mass of enlarged glands, extending from the jaw to the clavicle. After poulticing for a few days the mass was opened by Hilton's method and three and one-half inches from the skin an abscess was found containing about an ounce and a half of pus. The child had an extremely high fever running up to  $107^{\circ}$  F. at one time. In spite of all I could do, after being up with the child for two nights in succession, she died on February 23rd. After opening the abscess I had great hopes of her recovery, but the last night of her life she developed an enormous amount of flatulence and distension of the abdomen so that I began to fear that I had an intussusception to deal with. With a long rectal tube I irrigated the colon and forced soapsuds and water past the ileo-cæcal valve till the small intestines were thoroughly flushed out. The water was all easily expelled by gentle massage and her abdomen returned to its natural size. She died of diphtheria with the scarlatina rash still on her body. The other cases all recovered after a serious relapse caused by the fires going out one night when they all took cold.

# RETROSPECT OF CURRENT LITERATURE.

## Medicine.

UNDER THE CHARGE OF JAMES STEWART.

### Early Diagnosis of Measles.

CAZAL. "Du Diagnostic précoce de la Rougeole." *Gazette des Hôpitaux*, No 94, 1899.

The difficulty in preventing the spread of measles lies in the fact that the disease is most contagious before the appearance of the exanthem, during the height of the catarrhal symptoms. It follows that isolation of the patient on the appearance of the rash is quite futile, and that every means should be taken to detect the disease at an earlier stage. There is nothing pathognomonic in the initial oculo-nasal catarrh that ushers in an attack of measles, and unless there is an epidemic of this disease the symptoms are apt to be mistaken for those of a non-specific coryza. There are, however, certain signs contemporaneous with these inflammatory phenomena in the larynx, eyes and nose, which permit a positive diagnosis of measles to be made at least two days before the appearance of the rash. The buccal and pharyngeal mucous membrane and the soft palate are reddened and swollen; the gums particularly are swollen, and, though not bleeding, are frequently covered with an easily detached, pultaceous deposit. This "erythematopultaceous stomatitis," first noticed by Comby, is almost constant, appears most frequently two days before, and lasts as long as the rash. No doubt, as Comby says, it is not confined to measles, occurring as it does with scarlatina, influenza and other acute diseases. But it is absent in German measles and in morbilliform erythemata, and thus serves to exclude pseudo-measly eruptions. Another early sign noted by Sevestre and d'Espine is a punctiform erythema appearing on the soft palate one or two days before the exanthem.

Still more important is the enanthem described by Koplik. This consists of bluish-white spots, two to six millimetres in diameter, found on the inner surface of the cheeks and lips and surrounded by an in-

flammatory areola. These "Koplik's spots" are usually six to ten in number, sometimes more, and may be found usually three days before the eruption on the skin, disappearing when the latter shows itself or on the following day.

Combe (of Lausanne) has found them in 95 per cent. of his cases. (Slawyck, reporting from Heubner's clinic, finds them in 96 per cent. of the cases.)

No value attaches to the phenomenon described by Bolognini as peritoneal friction, and supposed to be due to an enanthem affecting the peritoneum covering the intestine. It is, no doubt, produced in the intestine and is common to many diarrhoeal conditions.

The above signs, if carefully sought for, should enable the physician to make a diagnosis of measles during the period of invasion. Combe, however, believes that the disease is contagious even during the last days of the period of incubation, and claims to have found a new sign which will at least suggest the diagnosis, even before the development of any catarrhal symptoms. He has observed that during the period of incubation of measles there is always a considerable *hyperleucocytosis*, which reaches a maximum four or five days before the buccal enanthem appears and then declines, gradually giving place to a *hypoleucocytosis* during the last two days of invasion and throughout the period of the skin eruption. In a given case the leucocytes, four days before the enanthem, numbered 34,000, and on the second day of the skin rash had diminished to 5,000, per cubic millimetre. It is not claimed that the hyperleucocytosis is special to measles, but that it appears during the period of incubation while in other diseases it is found only when the symptoms have declared themselves. It is obvious that this means of investigation is adapted chiefly to hospitals, polyclinics and schools, where it is very important to restrict the spread of an epidemic as quickly as possible by isolating the suspected individuals before there is a possibility of contagion.

#### **Open Air Treatment of Pulmonary Tuberculosis.**

MILLET, C. S. "The Night Air of New England in the Treatment of Consumption." *Maryland Medical Journal*, Jan., 1900.

This unpretentious little article makes most interesting reading and shows what good results may be obtained under apparently very unfavourable conditions, if the physician be in earnest and succeed in impressing his ideas on his patients.

Dr. Millet introduces his remarks on the open air treatment of consumption by a reference to the "national reputation for insalubrity" which the climate of New England enjoys, owing to the variability of the temperature and the prevalence of bleak east winds. The country

is flat and low-lying with a clayey subsoil. Consumption is rife and "during the past ten years has caused one-fourth of all the deaths in this community" (Brockton, Mass.) The writer mentions that he was induced to try the effect upon consumptive patients of sleeping out of doors, by reading how Detweiler compels his patients to remain out in their reclining chairs until ten o'clock at night. "Feeling convinced that the night time would be far better spent in bed I urged my patient to try sleeping out of doors." This patient had incipient pulmonary tuberculosis and had been recommended a change of climate by a consultant. From the last of June, 1898, he slept out of doors under no roof or awning for five months, excepting nine nights which were rainy. The improvement was immediate and marked. At the end of a month there was no fever, the cough and wheezing had almost disappeared, and at the end of four months he had gained twenty-two pounds. He took no medicine except nux vomica. The patient's home was twelve miles from the sea coast and the altitude a hundred feet above sea level. What is quite remarkable is that he worked in a shoe factory nine hours a day throughout his course of treatment. At night he wore a soft felt hat and a cotton nightshirt and was covered with the ordinary bedclothes. He usually went to bed at 9 p.m., because the sun awakened him early in the morning.

Dr. Millet gives notes of four cases of pulmonary tuberculosis, three of whom were working men, in all of whom sleeping out of doors was followed by arrest of the disease. It is a real pleasure to read the following note:—"Not one of these five cases of tuberculosis has taken a single dose of any cough mixture or sedative. Almost the only medicines have been nux vomica and occasionally a laxative." Eight hours of sleep in the open air were insisted upon.

Though not obliged to do so for reasons of health, Dr. Millet, unlike most doctors, has "taken his own medicine," sleeping out of doors, and speaks from personal experience of its refreshing effects. He rightly condemns the fear of "dampness" and "draughts." "Many times these patients have found their bed coverings and nightclothes wet with dew, and once in a while a summer's rain has disturbed their healthful slumbers, but with no harm beyond the necessity of drying the bedclothes before another bedtime."

In conclusion the essentials of treatment are summarized as follows:

"(1) The patient having bought a clinical thermometer is taught how to use it and told to take his own temperature at 9 a.m., 4 and 8 p.m., and to make careful records for the physician's inspection when he makes his visit, which is usually twice a week. The one o'clock temperature if 99° F, or below, generally indicates that the patient need not be closely confined to his bed in the afternoon; but the eight

o'clock temperature will decide whether he has taken too much exercise or not. The rule is, rest in bed during the day long enough to keep the temperature below  $99.5^{\circ}$ , or better  $99^{\circ}$ . I am in the habit of telling these invalids that I don't like  $100^{\circ}$ , but am encouraged by anything below that.

(2) The patient is instructed to keep a record of the number of hours which he spends in the house, and to give good reasons for not having spent them out of doors.

(3) He is urged to eat all he can at the three ordinary meals. No hard and fast restrictions are placed upon the diet. Milk, eggs and vegetables are recommended, and the use of pastry and confectionery discouraged.

(4) All those who can spare the time are required to take a cold sponge bath in the morning and another bath at about  $90^{\circ}$  before going to bed."

The writer adds a word as to the necessity of paying attention to the nose and throat, correcting any abnormal conditions that may interfere with proper breathing or be the cause of an irritating cough.

The value of this instructive communication is materially enhanced by photographs of the bed platforms on which Dr. Millet's patients have spent their nights during the course of treatment. Such a method will commend itself to the vast majority of general practitioners, whose patients, as a rule, cannot afford to give up their work for any long period of time, much less bear the expense involved in removal to and prolonged sojourn in a suitable climatic environment. Dr. Millet has emphasized one of the facts that we know but often forget, that after all the cure of pulmonary tuberculosis mainly depends upon rest, a constant supply of fresh air, and superalimentation, and he deserves the thanks of the profession for showing in such an objective way how these measures may be carried out anywhere and by anybody.

### Roentgen Rays.

WILLIAMS, FRANCIS H. "Roentgen Ray Examinations in Diseases of the Thorax." *Yale Medical Journal*, April, 1900.

Williams gives his experience with the X-rays in the diagnosis of abnormal thoracic conditions during the last five years. More than four thousand examinations were made in both medical and surgical cases and no burn or inconvenience resulted in any case. For the internal organs, which are moving, the fluorescent screen is better than the photograph. The former has the additional advantage of allowing a simultaneous physical examination by the ordinary methods. The patient should be supported in a comfortable position, and should be so placed that it may be possible at subsequent examinations to bring the tube into exactly

the same position with reference to his body. This may be done by putting the patient upon a stretcher which is placed upon supports above the tube.

It is too early as yet to determine precisely the value of X-ray examinations in diseases of the chest, but in some cases they give information not afforded by other methods. For instance, in pneumonia we may find evidence of the disease which was not to be obtained from the history or physical signs. An example is cited of a case in which the symptoms suggested cerebro-spinal meningitis, and a careful examination by three physicians failed to detect anything abnormal in the lungs or heart. A subsequent examination with the X-rays showed an increased density of the upper right lobe and a shortened excursion of the diaphragm on that side. In a few days the temperature fell by crisis, though no physical signs had been found throughout the disease. Subsequent X-ray examinations showed improvement, and finally a clear lung, and in this way alone was the diagnosis established. In another instance a senile pneumonia was diagnosed only by the use of the X-rays.

This method of examination is very useful in detecting aneurisms of the aorta, especially when the signs derived from physical examination are inconclusive or actually misleading. Three cases are cited: in one the trouble was thought to be stricture of the œsophagus, in the second pulmonary tuberculosis (on account of hæmoptysis), but an X-ray examination showed an aneurism in both cases. In a third case, in addition to an innominate aneurism made out by physical examination, the rays showed a small aneurism of the descending aorta.

The rays also serve to differentiate new growths from vascular tumours, though much experience may be required in some cases to do this.

In tuberculous disease of the lungs, the X-ray examination may afford evidence of very early involvement of the lung as shown by (1) a shortened excursion of the diaphragm, (2) the apex of the affected side darker than the other, (3) the heart a little to the affected side during full inspiration. The examination may be of use in three ways. It may draw attention to an abnormal condition in the lungs before the onset of any symptoms or before there are any well marked physical signs. It may aid in deciding whether the patient should leave home or not by indicating the extent of the disease, which is sometimes far greater than it seems to be by the signs afforded by percussion and auscultation. Again, repeated examinations may show whether the lungs are improving or not. (Cases are cited showing the value of the X-rays in these different respects).

In the determination of the size of the heart the X-rays are very useful giving more accurate results than percussion.

*H. A. Lafleur.*



# Canadian Medical Literature.

UNDER THE CHARGE OF KENNETH CAMERON.

[The editors will be glad to receive any reprints, monographs, etc., by Canadian writers, on medical or allied subjects (including Canadian work published in other countries) for notice in this department of the JOURNAL. Such reprints should preferably be addressed to Dr. Kenneth Cameron, 903 Dorchester street, Montreal.]

## The Canadian Practitioner.

January, 1900.

1. Report of a Case of Brain Tumour. R. W. BRUCE SMITH.
2. Septicæmia. CHAS. A. PAGE.
3. The Interne Service in Modern Hospitals, A Comparison of the Canadian and American Systems. T. LEONARD VAUX.
4. The Chemical Rays of the Solar Spectrum as a Remedial Agent. GRAHAM CHAMBERS.

February, 1900.

5. Pregnancy and Labour Complicated by Tumours. A. A. MACDONALD.

March, 1900.

6. The Placental Inspection: Its Uncertainties and its Dangers. J. F. W. ROSS.
7. Puerperal Septicæmia. ADAM H. WRIGHT.
8. A Case of Tubercular Peritonitis, Complicated by Insanity. THOMAS OVENS.

1. SMITH describes the symptoms of a case of glioma of the brain. At autopsy the tumour was found to be one and a quarter inches long by one inch in thickness, involving the greater extent of the right occipital lobe and extending over towards the right side, pressing on the lower parietal and middle temporal convolutions. The case had a somewhat unique history lasting four years and two months from the first symptoms, a slight paralysis of the left side, and of having an abatement of all the symptoms for a considerable period, during which he worked regularly. There had been absence of headache and vomiting, and no convulsions. The tumour seemed to have given rise to much pressure on the region of vision, and death was evidently due to coma in consequence of the gradual increase in the intracranial pressure.

2. PAGE reports a case of fatal septicæmia, the patient being a girl of eighteen, in whom an incision had been made for an imperforate hymen. On the third day after the operation she had a chill and the temperature ran up to 102°. Two weeks later she was admitted to

hospital, where she was treated with thorough local applications, and the use of antistreptococcus serum, and both the intracellular and intravenous injections of saline solution, but without avail. A bacteriological examination of the blood gave a pure culture of the staphylococcus albus, and the incisions made for the salines broke down and sloughed, showing the absolute lack of the physiological healing process.

5. MACDONALD, in this paper, deals with the treatment of the new growths, chiefly ovarian tumours and fibroids of the uterus, which complicate pregnancy and labour.

6. ROSS is convinced that it is impossible for any obstetrician to say positively that all the placenta has been expelled, from a mere inspection of it. Chloroform and the index finger are the two weapons with which the occurrence of septicæmia following miscarriage can be prevented. He is a strong advocate of the administration of an anæsthetic in every such case and a thorough inspection of the interior of the uterus with the finger, in the belief that prevention is better than cure. He further advocates as a routine practice in all cases of normal labour the introduction of the finger into the uterine cavity to ascertain that all the secundines had been removed. This is done, however, only on the condition that it carried out with very careful attention to aseptic and antiseptic details.

7. WRIGHT takes exception to the views expressed by Dr. Ross in the above paper as he believes that the advice to explore the uterus after every labour is wrong, and if generally acted on would cause incalculable harm; that it is contrary to the teaching and practice of all the most modern obstetricians and hospitals in the world. Such proceedings are on a par with those of the worst forms of meddling midwifery of the pre-antiseptic era. As to the treatment of the third stage of labour he advises the obstetrician not to introduce his hand into the uterus unless there is some sound reason for such procedure, as post-partum hæmorrhage, suspicion of retained placenta, etc. In all such cases the patient should be anæsthetized, the hand introduced and the contents removed. It is however a grave operation on account of the danger of introducing pathogenic germs or air, and he consequently avoids it when he can do so.

8. OVENS relates the history of a woman of 26, who shortly after her marriage began to show symptoms of tubercular peritonitis. During six months this condition continued, when she was taken ill with severe abdominal symptoms, and shortly afterwards began to show signs of acute mania. She was removed to the London Asylum, where, after a few days' observation, it was thought necessary to open the abdomen. All the pelvic organs and intestines were matted together, and the peritoneum was studded with miliary tubercles. As many

adhesions as possible were broken up, the cavity flushed with normal saline solution, and the wound closed. Three months later the patient was removed to her home, sane, and free from all her former symptoms. After fourteen months she was in excellent health and of sound mind.

### **The Canadian Journal of Medicine and Surgery.**

January, 1900.

1. The History of Medicine. EZRA H. B. STAFFORD.
2. The Treatment of the Acute Digestive Disorders of Infancy. ANDREW R. GORDON.
3. Anæsthesia by Chloroform and Ether. WILLIAM B. JONES.
4. Case of Puerperal Sepsis Treated with Anti-Streptococcus Serum, with Notes. GEORGE T. MCKEOUGH.
5. The Hospital Room in each Dwelling. W. J. TELFER.

February, 1900.

6. Address in Surgery. W. B. COLEY.
7. The Relation of Insanity to Pelvic and other Lesions. A. T. HOBBS.
8. Extreme Emaciation in Hysteria, with notes of a Case. T. BEATH.
9. A New Epoch in Hospital Evolution. ERNEST HALL.
10. The Smallpox Outbreak in Essex. P. H. BRYCE.

March, 1900.

11. Address to the Association of Executive Health Officers of Ontario. J. J. CASSIDY.
12. On the Role of Primary and Secondary Osteoplastic Surgery in the Treatment of Complicated or Compound Fractures of the Extremities. THOMAS H. MANLEY.
13. An Experience in Formaldehyde Disinfection. F. MONTIZAMBERT.
14. Systematic Intra-Uterine Exploration after Expulsion of the Placenta. JOHN HUNTER.

2. GORDON discusses those acute attacks of digestive disturbances occurring in previously healthy infants. Such attacks are usually the result of the disturbance of the equilibrium between the digestive forces and the materials which they are supposed to digest. He urges the withholding of every kind of food, except water or water with a trace of common salt added, for twenty-four hours, or until the urgent symptoms have disappeared. After that rice, barley, arrowroot, toast, or albumen water may be administered. Small quantities of beef-juice or beef extracts may be added. Purgation, and purgation repeated again and again, is of essential importance. The return to the accustomed diet must be made with extreme caution.

3. JONES urges that a more thorough teaching of the administration of anaesthetics be given to students, and considers that the time is ripe for the employment of professional anaesthetists in our cities.

4. MCKEOUGH reports in detail the results of the use of antistreptococcus serum in a case of puerperal sepsis. Although the published reports of the use of the serum are most conflicting and, on the whole, not encouraging, yet in this case it was used with great advantage. Thirty c.c. were used in three doses, at intervals of about twelve hours on three different occasions, and on each occasion the temperature fell, the condition of the vagina so characteristic of puerperal infection, improved, the patient's general condition was much better, and after the last injection recovery ensued.

5. TELFER suggests that in all houses a room should be specially arranged, so that it could be entirely isolated from the rest of the house in time of sickness. The walls, ceiling, and furniture should be made of a material that could be readily rendered aseptic. He discusses the many advantages which such a hospital-room would afford.

6. Published in the September Number of this JOURNAL.

7. HOBBS deals with the relation of insanity to diseases of the pelvic organs.

8. BEATH relates the history of an interesting case of hysteria accompanied with great emaciation, which was completely cured by a course of six weeks' segregation, with massage and electricity.

9. BRYCE states that from the study of the statistics of the recent outbreak of smallpox in Essex Co., four facts stand out prominently:—  
1st. The practically absolute protection of a previous attack. 2nd. The practically absolute protection of a prior vaccination where a good cicatrix is present. 3rd. The power of a recent vaccination running concurrently in the system to greatly modify the severity of the disease. 4th. That a lymph of attenuated virulence, while producing in appearance a fairly successful vaccination, fails to be more than a partial protection although very recently performed. It does not seem to have done more than modify the severity of the disease.

13. Published in the October Number of this JOURNAL.

14. HUNTER advocates the same procedure as Ross does in the paper noted above.

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### Dominion Medical Monthly.

January, 1900.

1. An Eruptive Plague. JOHN COVENTRY.

February, 1900.

2. The Treatment of Inebriety. J. McA. DUNSMORE.

March, 1900.

3. Proceedings of the Toronto Clinical Society.

1. COVENTRY discussed the epidemic which recently occurred in Essex County, and is of the opinion that it was an attenuated form of smallpox, so benign in character, that it was only feebly contagious and was easily controlled by isolation and vaccination.

2. DUNSMORE describes the plan of treatment for inebriety followed in the Lakehurst Sanitarium at Oakville. Alcohol is gradually withdrawn, and the patient is treated with tonics. For sleeplessness, bromides or hyoscine are used. Tincture of capsicum has also given good results. Emphasis is laid on the use of moral tonics. All patients are put upon their honour and are not restricted in any way. They are at perfect freedom to come and go as they wish. Under the circumstance a man taking alcohol clandestinely would find himself regarded as a traitor to his trust.

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**The Canada Lancet.**

January, 1900.

1. A Case of Interstitial Emphysema. HORACE C. WRINCH.

February, 1900.

2. Presidential Address, Toronto Medical Society. GILBERT GORDON.

3. A Case of Male Pseudo-Hermaphroditism. ERNEST HALL.

March, 1900.

4. Peptones in Typhoid Fever. FREDERICK FENTON.

5. Subcutaneous Abscesses in Connection with a Bacillus in the Circulating Blood. THOMAS BRADLEY.

1. WRINCH records his observations on a case of subcutaneous emphysema, and an advanced state of tuberculosis of the lungs. The patient was a well-developed male child six and a half months old. The emphysema appeared as a soft swelling above the clavicle on the right side of the neck, and spread over the body and greater part of the head. The child died on the sixth day. On opening the thorax air rushed out as soon as the left pleural cavity was perforated. On section the left lung was in a condition of miliary tuberculosis throughout. No cavities. The right lung was riddled with cavity formation in its upper and middle lobes, the pleura being greatly thickened over the cavity area. Bacilli were found present in immense numbers in the lungs. The cause of the emphysema was doubtful, for as the gas ceased to spread after death, and was not found in the liver, the possibility of the condition being due to the Bacillus Aerogenes Capsulatus was excluded.

3. HALL describes a case of male pseudo-hermaphroditism. The patient was a healthy-looking well-developed child of fourteen, and came under his care for double inguinal hernia. Labia majora were fully developed, and the clitoris was enormously hypertrophied with well formed glans, which was continuous with the labia minora. A slight groove with elevations on either side was continuous from the frenum for three-quarters of an inch to the meatus urinarius which was well formed and normal in appearance; directly below this was the opening of the vagina with well formed carunculæ. The vagina was but an inch and a half deep, ending in a blind cul-de-sac. Upon the examination of the pelvis, neither uterus, tubes, or ovaries could be determined. The body was of the masculine type, the thighs alone bearing some resemblance to the female; hands were large but the feet were small; breasts undeveloped. As the child had been educated as a female, it was decided since it was practically impossible to obtain functionable male organs, that social and domestic conditions be allowed precedence. The canal on either side was opened, and after the testicles were removed, was treated as an ordinary case of hernia. At a subsequent operation the clitoris was removed and the upper part of the labia minora united, giving the parts a distinctly feminine appearance.

4. FENTON publishes the notes of two cases of typhoid fever in which he used peptone feeding with marked benefit, as owing to the severe vomiting no food could be taken by the mouth. He prepared the peptone by finely mincing the whites of ten hard-boiled eggs and mixing them with a pint of artificial gastric juice made of pepsin and hydrochloric acid in due proportions, and kept at body temperature in a water bath for some hours until no trace of the egg was left on inspection. He points out that the constituents of enemata should be essentially nitrogenous as the large intestine is adapted only for the adsorption of water and substances in solution. For this reason albumen which has been precipitated, as in hard-boiled egg, is the best, for its complete solution by pepsin can be observed.

5. BRADLEY relates the history of a man of 21, who had suffered for ten years from inflammatory swellings which broke down into subcutaneous abscesses. From the blood of this patient he cultivated an organism which acted differently from any bacillus, that has been described, occurring under similar conditions or otherwise.

#### **The Maritime Medical News.**

January, 1900.

1. Asthma and its Treatment. MURDOCH CHISOLM.
2. Prostatic Affection in Young Men. JAMES ROSS.

3. The Treatment of Erysipelas by Marmoreck's Serum. A. DE MONTIGNY.

February, 1900.

4. Hygiene for School Children. M. CLARA OLDING.

5. Senility. STEWART SKINNER.

1. CHISOLM attaches more importance to the prevention of the paroxysms of asthma than to its relief, and he therefore prescribes alternatives rather than antispasmodics. The alteratives that are of the most value are iodine and arsenic in any of their compounds. He prefers the ammonium salt and the syrup of hydriodic acid. As auxiliaries it is well to combine or alternate with them remedies which act upon the bronchial cells, such as allium, senega, blood root, copaiba, and the balsams.

2. Ross discusses the inflammation of the prostate that is frequently met with in young men, and of which the most important cause is gonorrhoea. The treatment should be the local applications of solutions of nitrate of silver, in various strengths, or thallin sulphate. In chronic cases massage of the prostate through the rectum is of value. He advocates the use of ergotin combined with nux vomica as a prostatic tonic.

3. Published in the November Number of this JOURNAL.

4. OLDING points out many of the defects in our system of education, and gives some excellent advice as to the way they should be remedied.

5. SKINNER deals with the various phenomena observed in the aged.

### Kingston Medical Quarterly.

January, 1900.

1. Ectopia Vesicae. D. E. MUNDELL.
2. Colles' Fracture Ending in Litigation. J. M. CONERTY.
3. A Method for the Detection and Estimation of Sugar in the Urine. A. R. ELLIOTT.
4. Cancer. E. KIDD.
5. Antistreptococcus Serum in the Treatment of Puerperal Infection. R. W. GARRETT.
6. The Cure of Stammering and Stuttering. J. C. CONNELL.
7. Early Diagnosis of Tubercular and other Lesions by Roentgen Ray. JAMES THIRD.
8. A Case of Heterotaxia. P. M. CAMPBELL.

1. MUNDELL thought, that in view of the varied objections to the present status of reparative surgery of the extrophied bladder, it would be possible to replace the skin flap of Wood, or the bowel flap of Rut-

kowski, with a flap of normal bladder tissue. He undertook some experiments on animals, to ascertain whether it would be feasible to transplant the bladder of one animal into the body of another. The experiments were successful and he suggests that some such procedure might well be followed in cases of ectopia vesicæ.

2. Published in the January Number of this JOURNAL.

3. ELLIOTT describes a test for sugar in the urine, which he claims is superior in accuracy and convenience to any of the other copper tests.

4. KIDD in an interesting paper, reviews the knowledge which we possess at the present time concerning cancer.

5. GARRETT reviews the recent literature concerning the use of the antistreptococcus serum in the treatment of puerperal infection.

6. CONNELL considers that the proper line of treatment for stammering and stuttering is gymnastic and didactic; gymnastic to invigorate the entire system and the respiratory organs in particular, didactic, to re-establish by pedagogic methods the correct co-ordination of the function of respiration, phonation and articulation. Treatment should always begin with exercises in breathing, then follows vocal gymnastics, then cases it is well to place the patient under the care of a specialist in voice cases it is well to place the patient under the care of a specialist in voice troubles. Many persons who are intelligent and persevering do not need the aid of a tutor. If they are taught the nature of the defect and the principles involved in its mastery, they will acquire the new habit of speaking in the normal way by dint of intelligent and persevering practice.

7. THIRD discusses the use of the X-rays in the diagnosis of tuberculosis, and enumerates the work done in the Kingston Hospital during the last three months. Of fifty-two cases of suspected disease thirteen were diagnosed tuberculosis, seven in the incipient stage, and six in the advanced stage. Of the seven in the early stage the diagnosis was confirmed by bacteriological examination in all but one. The sputum in that case contained no bacilli. Of the remaining thirty-nine there were found four only whose appearance suggested tuberculosis. The sputum of these was examined with negative results. On several occasions the X-ray examination of the chest sounded the warning note when auscultation and percussion have indicated no departure from the normal. The progress, great as it is, must only be considered a reconnaissance.

8. CAMPBELL records an interesting case of this anomaly.

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### Canada Medical Record.

February, 1900.

1. The reflex Symptoms of Retroversion of the Uterus. A. LAPHORN SMITH.



**La Clinique.**

Janvier 1900.

1. De la Micturition Fréquente. ADELSTAN DE MONTIGNY.

Février 1900.

2. Ostéo-péristite Syphilitique Localisée à l'Apophyse Mastoïde. PAUL VIOLLET.

Mars 1900.

3. De l'Electricité dans le Diagnostic, le Pronostic et le Traitement de la Paralyse Infantile. H. LEBON.

1. DE MONTIGNY treats of the frequency of micturition so often met with, and describes the various symptoms that are to be inquired about, so that an exact diagnosis may be arrived at in certain cases, and a probable one in others.

**Le Bulletin Medicales de Quebec.**

Janvier 1900.

1. Ligature des Artères de l'Utérus pour Cancer Inopérable de cet Organe. M. J. AHERNE.
2. De l'Occlusion Intestinale et de son Traitement. S. BOLDOC.

Février 1900.

3. Un Cas de Pouls Lent Permanent. ARTHUR ROUSSEAU.
4. Un Cas de Dystocie. LEON COTE.

Mars 1900.

5. Les Maladies sans Nome. F.-X. JULES DORION.

1. AHERNE reports a case of a woman, aged 39, in whom he ligated the uterine arteries for the relief of free hæmorrhage in inoperable cancer of the uterus, with the result that the hæmorrhage was checked for six weeks, but it again started and she died shortly afterwards.

2. BOLDOC records three observations which convince him of the value of copious injections of hot water into the bowel in cases of intestinal obstruction. It is the most rational treatment and should be carried out before having recourse to laparotomy.

3. ROUSSEAU reports the history of a man whose pulse beat from 18 to 28 times a minute. The man was first seen after having fallen on his head and in a comatose state. No previous history could be obtained. He was subject to syncopal and epileptiform attacks. His urine contained albumen.

**La Revue Médicale.**

No 29. Janvier 17 1900.

Coq-à-l'âne Médicaux.

Nos 30 et 31. Janvier 24 et 31 1900.

1. La Faculté de Médecine de Bruxelles. JEHIN-PRUME.

No 32. Février 7 1900.

2. Les Maladies Infectieuses:—Diphthérie.

No 33. Février 14 1900.

Revue des Journaux.

No 34. Février 21 1900.

2. Les Maladies Infectieuses:—Diphthérie.

No 35. Février 28 1900.

Coq-à-l'âne Médicaux.

No 36. Mars 7 1900.

3. La Déontologie en Gynécologie et Sujets Collatéraux. M. T. BRENNAN.

No 37. Mars 14 1900.

Coq-à-l'âne Médicaux.

No 38. Mars 21 1900.

4. Kyste du Mesentere-Hematome de Trompe Droit. M. T. BRENNAN.

No 39. Mars 28 1900.

Coq-à-l'âne Médicaux.

## Reviews and Notices of Books.

ESSENTIALS OF PHYSICAL DIAGNOSIS OF THE THORAX. By ARTHUR M. CORWIN, A.M., M.D., Instructor of Physical Diagnosis in Rush Medical College; Attending Physician to the Central Free Dispensary, Department of Laryngology, Rhinology and Diseases of the Chest. Third Edition, Revised and Enlarged. Philadelphia, W. B. Saunders, 1899. Price, \$1.25.

The third edition of this little work on physical diagnosis differs but little from the second which has been already noticed in these columns. The author has adhered to the original arrangement making use of a large number of different styles of type for the headings in order to reduce the whole book to tabular form. While this in some instances is a help, in others again the large number of subdivisions causes confusion, and it would seem better to have simplified the tables so as to give a comprehensive view of the subject.

AN AMERICAN TEXT-BOOK OF SURGERY FOR PRACTITIONERS AND STUDENTS. By Phineas S. Conner, M.D., Frederick S. Dennis, M.D., William W. Keen, M.D., Charles B. Nancrede, M.D., Roswell Park, M.D., Lewis S. Pileher, M.D., Nicholas Senn, M.D., Francis J. Shepherd, M.D., Lewis A. Stimson, M.D., J. Collis Warren, M.D., and J. William White, M.D. Edited by W. W. KEEN, M.D., LL.D., and J. WILLIAM WHITE, M.D., Ph.D. Third Edition. Philadelphia, W. B. Saunders, 1899. Canadian Agents, J. A. Carveth & Co., Toronto. Price \$7.00.

The popularity of this text-book is amply shown by the fact that it has now entered its third edition. Owing to the careful supervision of the editors and to the fact that all the proof sheets are submitted to each author for criticism and revision, a uniformity has been secured which is often lacking in works which are written by many contributors. By this means also repetition is avoided.

The recent advances in surgery are as fully dealt with in this edition as is compatible with its production in one volume. Amongst these may be mentioned: the forcible straightening of the spine in Pott's disease; the surgery of typhoid fever; the use of dry heat at high temperatures; new methods of operating on the intestines, etc.

The surgery of gastric ulcer, a disease which causes so large a number of deaths annually, might have been dealt with more fully. It is a subject which has been attracting considerable attention of late and the

results so far are, as a rule, satisfactory. The article on appendicitis has been enlarged and deals very fully with this important subject. Taken all in all it is perhaps one of the best articles which has yet appeared. A plate representing various conditions of morbid appendices adds greatly to its value.

In all respects this text-book of surgery is one of which the authors may well be proud. The plates and text maintain the high standard of the earlier editions.

*E. J. S.*

TRANSACTIONS OF THE AMERICAN OPHTHALMOLOGICAL SOCIETY.  
Thirty-fifth Annual Meeting, New London, Conn., 1899. Hartford, published by the Society, 1899.

The proceedings of the American Ophthalmological Society for 1899 are not quite as voluminous as previous numbers, but they certainly do not lack in interest.

Among new instruments exhibited, is a reflecting phorometer by Dr. Verhoeff, which would seem to assist more clearly in defining the torsion movements of the eyes. Another was a double needle to facilitate the operation of capsulotomy. Dr. Buller invented the latter instrument.

Of the papers read, the most interesting were:—"Retinitis albuminurica as a factor in secondary glaucoma," by Dr. C. S. Bull; "Primary tumours of the optic nerve (with sections)," by Dr. Buller; "Spontaneous rupture of the eyeball in acute glaucoma," by Dr. Milliken; and "Is there a hypermetropia acquisita?" by Dr. Randall.

*J. W. S.*

INTERNATIONAL CLINICS; A Quarterly of Clinical Lectures on Medicine, Neurology, Surgery, Gynæcology, Obstetrics, Ophthalmology, Laryngology, Pharyngology, Rhinology, Otology, and Dermatology; and Specially Prepared Articles on Treatment and Drugs. By Professors and Lecturers in the Leading Medical Colleges in the United States, Germany, Austria, France, Great Britain, and Canada. Edited by JUDSON DALAND, M.D. Volume IV., Ninth Series, 1900. Philadelphia, J. B. Lippincott Company, 1900. Canadian Agent, Charles G. Roberts, Montreal.

The concluding volume of the ninth series International Clinics contains over 300 pages of reading matter with an index for the volume and general index for the whole series. As one would expect in a volume embracing clinical lectures from a large number of the leading schools of the medical world, the subjects discussed are those in great part that one finds occupying the pages of current medical journals, while the promise of the publishers, in the prospectus issued at the beginning of

the series, to furnish subscribers with a larger number of short, pithy articles has been fulfilled in this as in the preceding volumes for the present year.

While it is impossible to refer to all the thirty-seven papers contained in this volume, the following may be pointed out as of more than usual interest and value.

The method of treatment by subconjunctival injections in certain diseases of the eye, now receiving so much attention among ophthalmologists, is described by Dunbar Roy. A most valuable paper for the country practitioner who is unable to avail himself of the advantages of a large hospital for those of his patients demanding the cold bath treatment, is Alfred C. Haven's lecture on "Hydrotherapy in the Homes of the Poor." The plan described is the use of three yards of ordinary, table oilcloth, made into a bath by being slung from the head and foot of the bedstead by means of straps made of canvas. It is both simple and inexpensive.

Frederick P. Henry, of Philadelphia, describes the treatment of pneumonia by hypodermoclysis in an article illustrated by half-a-dozen charts showing the temperature curve and pulse rate in some of the twelve cases reported. A pint of salt solution (68 grains to the pint) was used once a day, and several of seemingly hopeless cases were successfully treated. The notable feature about the cases is that defervescence occurs by lysis rather than crisis. Hektoen of Chicago, in a very interesting article, discusses the "General Etiology of Actinomycosis," showing that in the vast majority of reported cases the infection could be directly or by inference traced to foreign bodies of vegetable nature, especially the beard of barley and other cereals.

A lecture upon "Defects of Speech," by Makuen of Philadelphia, forms a valuable addition to the volume as treating of a condition about which the practitioner is frequently consulted, but is unable to obtain any information from the ordinary text-books. Hallopeau, of Paris, furnishes a lecture on "Mycosis Fungoides."

**SURGICAL PATHOLOGY AND THERAPEUTICS.** By JOHN COLLINS WARREN, M.D., LL.D., Professor of Surgery in Harvard University, Surgeon to the Massachusetts General Hospital. Illustrated. Second Edition with an Appendix. Philadelphia, W. B. Saunders, 1900. Canadian Agents, J. A. Carveth & Co. Price, \$5.00.

"In the second edition of this book the attempt has been made to embody all the important changes in a new appendix which replaces the old one and a chapter on Antiseptic Surgery."

The main body of the book is altered very little if any, and it need only be said that the matter therein contained is well arranged and

illustrated, and that the doctrines of surgical pathology are clearly expressed. It is a standard work that can be relied upon.

On turning to the appendix, one finds in the beginning a chapter on the somewhat new and certainly important subject, "Blood Examination as an Aid to Surgical Diagnosis." The author does not attempt to teach the details of the method employed in this examination but rather "what laboratory methods can be expected to yield in positive results. Practically no surgical disease presents pathognomonic blood conditions." A great deal of information, however, can be obtained in certain conditions. The indications which might prove helpful in differential diagnosis in inflammatory conditions, typhoid fever, appendicitis, and hæmorrhage, are stated. By carrying out a systematic examination of the blood much light, amounting in some puzzling cases to a diagnosis, may be made; for instance, suspected perforation of the intestine in typhoid, perforation in appendicitis, or the first sign of the pocketing of pus.

Of the chemical constituents of the blood, sugar, present in normal blood, is much increased in certain conditions the chief of which is carcinoma. Tuberculosis and syphilis, though showing an increase, are so far below the amount found in cancer that usually they do not cause confusion.

A sufficient space is given to the prevailing method of skin bacteriology and to the flora found pretty constantly in certain parts. In discussing the different methods of skin disinfection, including the preparation of the surgeon's hands, one finds no mention of that most excellent method, the use of pure alcohol. Bacteriology occupies a very considerable part of the appendix and the bacteriology of the mouth, nose, eyes, gall-bladder, urethra, ureters, etc., are considered in detail. Most interesting in connection with the bacteriology of peritonitis are the reports of the investigations of Muscatello and Askanazy on the important role of the lymphatics in peritonitis.

The book closes with a short chapter on sero-therapy in tetanus, tuberculosis and syphilis.

G. E. A.

A TEXT-BOOK OF THE PRACTICE OF MEDICINE. By JAMES M. ANDERS, M.D., Ph.D., LL.D., Professor of the Practice of Medicine and of Clinical Medicine in the Medico-Chirurgical College, Philadelphia, &c. Illustrated. Third Edition, Revised. Philadelphia, W. B. Saunders, 1899. Canadian Agents, J. A. Carveth and Company, Toronto. Price, \$5.50.

The third edition of this work follows the second at an interval of less than a year. While the second edition was practically the same as

the first which appeared in 1898, the present one has been extensively revised and a number of articles rewritten, while Glandular Fever, Ether Pneumonia, Splenic Anæmia, Meralgia Paræsthetica, and Periodic Paralysis have been added as new subjects. A page is devoted to Glandular Fever, the description of the disease being based upon West's epidemic and Dawson Williams' article in his recently issued text-book of diseases of children. Ether-pneumonia is introduced as a subdivision of lobar pneumonia under the heading of "clinical varieties and anomalous types." We very much question the wisdom of placing ether pneumonia as one of the clinical varieties of lobar pneumonia, both from the absence of any symptoms characteristic of a pneumonia following ether anæsthesia which are not present in a frank case of the type and from the fact that it has not been shown that the pneumonia following ether narcosis is in any direct way attributable to the effects of ether vapour or of the state of anæsthesia. Thus the author enumerates as the "causes" 80 per cent. in the winter and spring, "catching cold" from exposure during a protracted operation, bronchitis, etc., during the time of administration, and dried secretions or incrustations of foreign matter drawn downwards into the lungs. Of all these the latter only has any direct connection with the anæsthesia and not with ether anæsthesia alone. It is also a septic pneumonia as often lobular as lobar and not as the author states in his definition of lobar pneumonia:—"An acute infectious disease caused by the micrococcus lanceolatus." The matter would be hardly worth referring to were it not for the harm done by adding to the fears of timid people. It would seem to us more reasonable to include ether anæsthesia as one of the predisposing causes of pneumonia than to place it among the clinical varieties and so add to the fears of what is acknowledged the safest anæsthetic.

Half a page each is devoted to splenic anæmia, periodic paralysis and meralgia paræsthetica.

A PRACTICAL TREATISE ON DISEASES OF THE SKIN FOR THE USE OF STUDENTS AND PRACTITIONERS. By JAMES NEVINS HYDE, A.M., M.D., Professor of Skin, Genito-Urinary and Venereal Diseases, Rush Medical College, Chicago, &c., and FRANK HUGH MONTGOMERY, M.D., Assistant Professor of Skin, Genito-Urinary and Venereal Diseases, Rush Medical College, &c. Fifth and Revised Edition. Illustrated with 111 engravings and 24 plates in colours and monochrome. Lea Brothers & Co., Philadelphia and New York, 1900.

The present, the fifth edition, has followed within two years of its predecessor and well illustrates the popularity of this excellent work. It

is so well known that only those features which have been added to the present edition need be referred to here.

The most interesting addition is the chapter on Blastomycetic Dermatitis, a disease which has been extensively studied since Gilchrist published his study of a case in the *Journal of Experimental Medicine*. The liability of the disease to be mistaken for lupus or tertiary ulcerating syphilide make it of peculiar interest and the fact that iodide of potassium causes a complete or partial resolution of the lesions makes the diagnosis from syphilis difficult, and an absolute diagnosis can only be arrived at by finding the specific organism in the lesions. A plate showing the appearance of the disease on the hand of one of the author's cases illustrates and one regrets that there is not also a plate illustrating the appearance of the organism under the microscope.

The book is divided in the following manner. Opening with 50 pages descriptive of the anatomy and physiology of the skin, a short chapter each is devoted to general symptomatology, etiology, diagnosis, prognosis and therapeutics. Then follows the descriptions of the individual diseases, the classification followed being that of the American Dermatological Association. The title Herpes Iris is introduced in two places, first under erythema multiforme, and again later as a separate disease between herpes simplex and zoster. The author looks upon it as being on the border lines between the erythema and herpes. Dermatitis exfoliativa, pityriasis rubra and pityriasis rubra pilaris are distinguished as distinct diseases and described separately, although the author refers to the difficulty of drawing hard and fast lines between the two former on the one hand and the two latter on the other. Eczema scaberrhomicum is also given a separate place immediately following eczema in the classification. The old term of Acne Rosacea is still retained for cases in which the lesions are mainly acneiform while hypertrophic cases are described as Rosacea in another section of the book.

G. G. C.

**MANUAL OF PATHOLOGY.** By JOSEPH COATS, M.D., Late Professor of Pathology in the University of Glasgow. Fourth Edition. Revised throughout by LEWIS SUTHERLAND, M.B., Professor of Pathology in University of St. Andrews. Pp. 1133; 490 illustrations. Longmans, Green & Co., 1900.

Coats' pathology has always occupied a position of its own among English text-books upon the subject, it differs from most works of its kind in the constant endeavour that is manifest throughout to collate pathological conditions with clinical experience and thus as Sir W. Gairdner remarks in his prefatory note, "it is found full of suggestions



for the busy man in the routine of daily practice." But also as Gairdner implies, the late Dr. Coats' mind fell short of the highest type of creative originality. And reading this new edition one cannot but feel that, more especially the earlier part upon general pathology, is to say the least common-place and wanting in an appreciation of recent literature and of the light thrown upon pathological problems by recent research. It is when we come to the chapters on special pathology that we reach the most valuable portion of the volume. Here, stated simply and broadly, one obtains an excellent first idea of both the gross and histological appearance of the various organs in various conditions of disease, with frequent indication of the mutual bearing of symptoms and lesions the one to the other. If we miss references here to more recent observations, this is, it may be, to be explained by the long illness and death of the author prior to the publication of the work. But the careful description of the gross appearances of organs and of the different appearances which should be present in different organs at different stages of disease is of permanent value, and very largely makes up for any deficiency in the other respect. These chapters of Coats', though not so full, are capable of being to the English medical student what Orth's *Pathologisches Diagnostik* is to the German. The added illustrations are a great improvement upon the old, and indeed, we would recommend that in any future edition all of the old illustrations be completely replaced by something on a larger and clearer scale.

*J. G. A.*

**THE SURGICAL DISEASES OF THE GENITO-URINARY TRACT: VENEREAL AND SEXUAL DISEASES.** A Text-book for Students and Practitioners. By G. FRANK LYDSTON, M.D., Professor of Surgical Diseases of the Genito-Urinary Organs and Syphilology in the Medical Department of the State University of Illinois. Illustrated with 235 Engravings. Philadelphia, New York and Chicago, The F. A. Davis Company, 1899. Price, \$5.00.

The author covers a great deal of ground in one volume of about a thousand pages. The book is generally in accord with the most advanced thought and teaching on the subject treated.

In reading the chapter on the anatomy of the parts one is struck by some of the terms used. For instance, a good deal is said concerning "Buck's fascia," which seems to have much the same distribution as that generally known as Colles' fascia. Again, the author does not seem to be quite in accord with the teachings of some of the leading bacteriologists and shows a tendency to assign a good deal of etiological power to filth and chemical products in the causation of conditions generally ascribed to micro-organisms and their toxic products.

In the treatment of gonorrhœa the value of urethral irrigations is fully set forth and at the same time due consideration is given to the use of the injections for patients who "cannot afford the time and money required for systematic irrigation."

A strong plea is set forth for the earlier surgical treatment of enlarged, hypertrophied prostates, before the secondary, pathological developments have rendered the patients unfit to undergo any kind of operative treatment. The plea will be more opportune when better surgical methods of dealing with enlarged prostates have been evolved.

In speaking of urinary calculus the author says:—“(1) Lithotomy seems still the standard operation in children, litholapaxy being indicated only exceptionally. (2) Litholapaxy is to be the rule in adults the cutting operation being performed only when the crushing operation is impracticable. (3) Stones above an inch and a half in diameter, very hard stones, stones with foreign bodies for nuclei, most cases of multiple calculi, cases with complicating strictures and severe bladder and prostatic or renal disease, requires lithotomy, preferably the suprapubic operation. Litholapaxy gives the best results in old men in whom the stone is accessible and the bladder and kidneys in fair condition.” The book is a credit to the author who has decided opinions and can express them.

G. E. A.

OPERATIVE SURGERY. By JOSEPH D. BRYANT, M.D., Professor of the Principles and Practice of Surgery, University and Bellevue Hospital Medical College; Visiting Surgeon to Bellevue and St. Vincent's Hospitals; Consulting Surgeon to the Hospital for Ruptured and Crippled, Woman's Hospital, and Manhattan State Hospital for the Insane. Vol. I. General Principles; Anæsthetics; Antiseptics; Control of Hæmorrhage; Treatment of Operation Wounds; Ligature of Arteries; Operations on Veins, Capillaries, Nervous System, Tendons, Ligaments, Fasciæ, Muscles, Bursæ and Bones; Amputations; Deformities; Plastic Surgery. 749 Illustrations. New York, D. Appleton and Company, 1899.

This is a third edition, the second appearing in 1886. The present volume is well up to date, the letter press, clear, the illustrations are wonderfully clear and materially helpful. The author goes sufficiently into detail to make even the small points clear. The chapter devoted to the control of hæmorrhage is, as it should be, very full and the different methods of dealing with hæmorrhage fully described and illustrated.

The chapter on excision and amputation is increased in value by the introduction of an anatomy of the parts. Illustrations of cross sections

remind the reader of possibly forgotten points in the relations of the parts.

A very good description is given of some of the most commonly used methods for disinfecting the hands of the operator and the field of operation.

The volume closes with one of the fullest and clearest chapters on plastic surgery, particularly of the face, nose and mouth, that has yet appeared in English. Some of these operations are sometimes difficult to understand, but Dr. Bryant, by means of his beautiful illustrations, has made them so clear that this difficulty is removed. The book altogether is one that can be most confidently recommended.

G. E. A.

**BACTERIOLOGY IN MEDICINE AND SURGERY: A Practical Manual for Physicians, Health Officers and Students.** By WM. HALLOCK PARK, M.D., Associate Professor of Bacteriology and Hygiene, University and Bellevue Hospital Medical School and Assistant Director of the Research Bacteriological Laboratories of the Department of Health, City of New York. Assisted by A. R. Guerard, M.D., Assistant Bacteriologist, Department of Health, City of New York. Small 8vo., 693 pp., 87 engravings and 2 coloured plates. New York and Philadelphia, Lea Bros. & Co. Price \$3.00.

It may be confessed freely that upon first taking up this work and reading the first chapter or two, the impression given was that Dr. Park had but produced a new work in a field already well covered. For example, the introductory chapter upon the history of bacteria and the next upon the general characteristics of bacteria are very trite and in no sense in advance of other manuals. But further reading greatly alters one's estimation of the work and this little book of close upon 700 pages fills a very distinct gap. None of the ordinary text books in our language take up the subject of bacteriology so thoroughly and so soundly as does this from the point of view of the hygienist and public health officer. And as might be expected, from Dr. Park's long association with the Department of Health of the City of New York, the work contains admirable chapters upon infection, destruction of bacteria by various means and disinfection and sterilization in general, while in dealing with the individual pathogenic bacteria, as for example with the bacillus of tuberculosis and the bacillus of diphtheria, one recognizes throughout the hand of an authority.

We have in reading through the work noticed a few printer's errors, thus on page 62 "obligatory anaerobes" should be "obligatory arobres." In speaking of the fermentation test we should like to see Durham's Modification of the Fermentation Tube recommended in place of or

along with Theobald Smith's; the mortality among Eichhorn's bent tubes in sterilization and handling is so considerable that the method of placing an inverted test tube inside the other is, for practical purposes, distinctly preferable. On page 54 there is a familiar mis-statement, or more correctly, imperfect statement, namely, "that the majority (of bacteria) absolutely require oxygen for their growth"—*all* bacteria require oxygen for their growth, but not all require *free* oxygen. On the whole, however, the work is correct and very well up-to-date. It is pleasant to see that in the appendix there is a brief description of certain pathogenic organisms which are not bacteria, including the actinomyces group, the plasmodium malariae and the amoeba coli. It is a great mistake that in consequence purely of the secondary consideration of terminology, the ordinary bacteriological text book in general passes these over, or at least passes over the minute animal forms. As I say this is purely a question of terminology, for the ordinary bacteriologist has to deal with these forms, his study being not that of bacteria alone but of all minute living forms or microbes. And in consequence it is, I think, essential that in any text book of medical bacteriology which pretends to be practical, these should be dealt with.

J. G. A.

THE INTERNATIONAL TEXT-BOOK OF SURGERY BY AMERICAN AND BRITISH AUTHORS. Edited by J. COLLIS WARREN, M.D., LL.D. Professor of Surgery in Harvard Medical School; Surgeon to the Massachusetts General Hospital; and A. PEARCE GOULD, M.S., F.R.C.S., Surgeon to Middlesex Hospital; Lecturer on Practical Surgery and Teacher of Operative Surgery, Middlesex Hospital Medical School; Member of the Court of Examiners of the Royal College of Surgeons, England. Volume 1: General and Operative Surgery. With 458 illustrations in the text and 9 full-page plates in colours. Philadelphia, W. B. Saunders, 1899. Canadian Agents, J. A. Carveth & Company, Toronto.

The first is a large volume of nearly 950 pages devoted chiefly to general surgery, the various branches of special surgery being reserved, according to the announcement, for the second volume.

The editors have associated with them such men as Golding, Bird, Bradford, Cabot, Watson Cheyne, DaCosta, McBurney, Parker, Pilcher, Warbasse and many others, each standing high in his department. One opens such a book with great expectations and happily in this instance one is not disappointed.

Chapter I. deals with Surgical Bacteriology in clear and concise terms, in fact a full statement of the bacteriology of the day is given

in 26 pages. Inflammation is divided into simple and infective. So long as the term inflammation is used to express the changes which take place in the tissues as the result of trauma, as for example, those which follow a simple fracture, and which clinically are changes which result in repair, the division is probably the best that could be adopted. The course of infective inflammation is clearly shown and well illustrated.

A most interesting chapter is that on the Surgical Pathology of the Blood. This subject is bound to receive considerable attention in the future. The condition of the blood in shock, malignant disease and in infective conditions, is given so far as is known. The importance of examining the blood as a means of diagnosis is emphasized and a very full statement made of the conditions under which leucocytosis may be expected to obtain. In speaking of the bacteriology of the blood in pyæmia and septicæmia it is stated that "not in all cases and of the severest type show any bacteria in the peripheral circulation. The presence of the streptococcus or the golden staphylococcus is almost always equivalent to a fatal prognosis."

The section dealing with wounds, burns and scalds is satisfactory as a rule, but one finds no mention of some reagents now being used with some considerable success, for instance, picric acid in burns. There is a brief chapter on the effects of lightning, but none on the destruction of tissue from contact with heavily charged electric wires.

The chapters devoted to Fractures and Dislocations are particularly well written and well illustrated. The light or rather the shadow thrown on these injuries by the use of Roentgen's discovery is made use of to good advantage. The treatment of fractures is in accord with the most modern views and due consideration is given to the ambulant method.

Altogether, the book is a credit to both authors and publishers and is one of the best that has been issued during the year.

G. E. A.

#### Volume II.—Regional Surgery.

The second volume opens with a weak and imperfect description of the congenital deformities of the lips and mouth. The subjects of harelip and cleft palate are poorly illustrated, and many of the operations performed for their relief are given imperfectly or not at all, while no mention is made of the advantage of the Trendelenburg position in operations about the lips and palate.

This is followed by most interesting, well illustrated, and well written chapters on Diseases of the Jaws and Gums, Pharynx and Tonsils, Surgery of the Nose, Surgery of the Neck, and Surgery of the Oesophagus.

The chapter on the Surgery of the Throat is very good. It includes description of the method of entering the posterior mediastinum for the evacuation of collections of pus or the removal of foreign bodies from the œsophagus or bronchi after all other methods have failed. There are two good plates illustrative of the procedure by Bryant.

Surgery of the Breast receives the attention which it merits, including some good plates showing the arrangement of the lymphatics by Sappey. The technique of Abdominal Surgery, the Diagnosis of Abdominal Diseases, Peritonitis, Acute Intestinal Obstruction, the Surgery of the Stomach and Intestines and the chapter on Appendicitis, are all most admirable. Too much can hardly be said in commendation concerning the surgery of these important regions. Hernia is most ably treated, preference being given to Bassini's operation for radical cure.

In turning to those paragraphs dealing with Cancer of the Rectum one is forced to criticize unfavourably the statement that, "in the vast majority of cases the treatment of cancer of the rectum is of necessity restricted to palliative measures." It does not ring the right note. Cancer of the rectum is not usually a very rapidly growing thing, nor very prone to recur locally. Early diagnosis and thorough removal may accomplish even more here than in other regions. The operation described for excision of the rectum is the old one for disease low down, modified somewhat by Cripps. Kraski's method is briefly given in fine print and no mention at all is made of the great advances in this field since Kraski noted in Volkman's Klinik that the sacral canal could be opened with impunity.

Take it altogether, the International Text-book of Surgery is a most valuable addition to surgical literature and worthy of the greatest confidence.

G. E. A.

## Society Proceedings.

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### ANNUAL MEETING OF THE SOCIETY OF AMERICAN PHYSICIANS.

The Society of American Physicians opened with an address by Dr. Janeway, who was followed by Dr. J. B. HERRICK on

#### **Notes on Diabetes.**

referring to a low specific gravity at certain periods in diabetes and to the presence of casts preceding coma. Cases of low specific gravity are occasionally seen and a case of the writer's was as low as 1004, whilst cases are recorded of 1002 or 1003. Low specific gravity oftens accompanies diabetes complicated by interstitial nephritis and it may also be present as a temporary phenomenon from exhaustion, or from the ingestion of large quantities of fluid. The practical inference is that the chemical tests for sugar should not be omitted even with very low specific gravities.

Another interesting observation is the presence of casts preceding the onset of diabetic coma. The urinary sediment consists almost exclusively of enormous numbers of broad, finely granular casts. There may be albumen but its quantity bears no relationship to the number of casts. In cases where recovery takes place the casts disappear. Finding casts may confirm the suspicion of the onset of diabetic coma.

#### **Infrequency of Infectious Disease in the First Year of Life.**

A. C. ABBOTT called attention to the Infrequency of Infectious Disease in the First Year of Life, supporting his statement by statistics of the Registrars-General of Great Britain and the United States. Ehrlich has shown that suckling animals, whose mothers are strongly immunized, are themselves immune. Applying this hypothesis the writer suggests that an immunizing substance is secreted in human milk which protects the nursing infant. This hypothesis assumes that the mothers themselves have been rendered immune by previous attacks of infectious disease. In support of this view it is interesting to note that the number of infectious cases in infants in the first year increases with age, or in other words, during the later months when nursing is often given up, the infectious diseases are more common.

### Four Cases of Recurrent Vomiting in Children.

J. P. C. GRIFFITH reported Four Cases of Recurrent Vomiting in Children and elicited considerable discussion. The attacks are marked by incessant, violent vomiting, coming on without apparent cause, accompanied by constipation, which is sometimes so severe as to stimulate obstruction; there is great restlessness, thirst, sighing respiration and marked prostration. Although occasionally terminating fatally, recovery is the rule, even when death appears imminent from exhaustion.

The attacks occur at irregular intervals of from three weeks to sixteen months, and last from two to eight days. Albumin and casts are absent from the urine until a late stage when they may appear as a terminal phenomenon. The attacks of vomiting are best explained as a neurosis with a toxic origin and are an effort at elimination. Morphine hypodermically checked the vomiting in one case but failed in two others.

Dr. Stockton stated that the vomit in these cases was pure gastric juice: as soon as the excess of hydrochloric disappears the vomiting ceases.

Dr. Johnson stated that recurrent vomiting always occurred in the children of neurotic parents, he recommended the hypodermic injection of saline solution.

Dr. Kinnicutt referred to the benefits of enteroclysis and dermatoclysis of saline solution.

Dr. Forcheimer supported the neurotic theory of the disease. Hysteria is more frequent in children than has usually been recognized and constipation is frequent in these cases. In the intervals the child should not be overworked physically or mentally.

### The Sanitary Treatment of Pulmonary Tuberculosis.

Dr. Trudeau referred to the importance of early treatment of tuberculosis, 68% of his early cases being apparently cured, and only 11% of later ones. The pre-tuberculous stage of phthisis is the period before the development of physical signs. At this period the X-rays are of value in diagnosis, a shadow being present at the apex and the excursions of the diaphragm being limited on that side.

Tuberculin is of great value in the early recognition of the disease and it does not seem to be productive of any harm when used carefully. The initial dose is .001 grm. and if reaction is absent it is increased until .005 grm. are used. Rest as a curative agent in the treatment of pulmonary tuberculosis has not been generally enough recognized, as a therapeutic agent. In tubercular joints this means of treatment has long been advocated by surgeons, and the benefits of rest are very



striking in laryngeal tuberculosis after tracheotomy. Rest in the open air reduces temperature and digestion goes on well in spite of the absence of exercise.

Treatment by tuberculin in selected cases was spoken of in a hopeful manner. In apyretic cases with good nutrition this treatment may be carried out for several months until no reaction results from the toxin. The treatment is free from danger, and probably exerts a favorable influence.

#### **Actinomycosis.**

Dr. Wright gave a beautiful lantern demonstration of the ray fungus and its lesions. It is probably commoner than has hitherto been recognised. The diagnosis can be made from the presence of grey granules in the pus which show the characteristic radiate arrangements with the microscope.

#### **Multiple Abscess from a New Pathogenic Fungus.**

Dr. Hektoen presented photographs and exhibited lantern slides of a sporothrix resembling that described by Schenck. It occurred in a boy who was infected by a wound in the thumb, and in whom abscesses developed in the forearm. The organism is pathogenic for mice and white rats, producing typical ulcers with undermined edges. Three cases have been reported, and in all infection took place through a wound in the hand.

#### **Pernicious Anæmia.**

Dr. Cabot presented a study of this disease based on 110 personal cases. The etiology is obscure, most cases coming on without any apparent cause. Hæmorrhages occurred in 37 cases, but this seemed to be a symptom rather than a cause of the disease. The hæmorrhages occurred most frequently from the bowels, and then from the nose and gums; in one instance the patient lost almost a pint of blood from the ear.

The symptoms were often slight even in active stages of the disease. Muscular weakness and dyspnoea on exertion were the earliest symptoms. Gastro-intestinal paroxysms, consisting in vomiting and diarrhoea, were common; they were not continuous, and passed off without apparent reason or relation to treatment. The disease is never progressive, intervals of improvement occurring during which the patient may return to work. The spleen was enlarged in thirteen cases, and the ophthalmoscope showed hæmorrhages in the fundus in fifteen instances. Fever was present in two-thirds of the cases. The urine was normal in fifty-three cases, it was usually pale and only presented the dark sherry aspect, which is so frequently spoken of, in two cases. In one-third of the cases

nervous symptoms were present (due to changes in the spinal cord), and sometimes simulated tabes or diffuse myelitis.

The blood examination showed a count of under two millions in 106 cases; the white blood corpuscles are usually below normal; hæmoglobin was in excess of the red blood cells in seventy-nine cases, and megaloblasts were found in every instance but three; in these only one examination was made. Megaloblasts often vary from day to day, and they should never be pronounced absent from a single examination. Myelocytes were present in sixty-six cases.

The remissions which are such a constant feature of the disease in spite of the term "progressive anæmia," are ill understood, and although improvement is usually attributed to the use of drugs, the writer believes that no remedy exerts any influence on the condition, and that even arsenic is of no benefit.

During a remission the number of red blood corpuscles increase; the hæmoglobin sometimes fails to keep pace with the increase, so that the blood examination resembles that of chlorosis. The red cells are often very large during remissions. The average course of the disease is from one to two years, and it may last for five years. Recovery has taken place after the development of coma.

Papers on Pernicious Anæmia were also read by Drs. Billings and Henry.

### **Addison's Disease.**

Dr. Johnson presented a case of Addison's Disease with Improvement on Suprarenal Extract. In the summer of 1897 the patient became acutely weak and lost flesh rapidly, there was also gastro-intestinal disturbance for two months. He rallied in the autumn and pigmentation developed during the winter. The following summer he was very weak from vomiting and purging, and was confined to bed. He again improved and remained well during the winter of 1898. During the summer weakness was prominent, but after the administration of suprarenal extract and rest, he gained flesh and improved. Of forty-three cases of Addison's Disease treated by suprarenal extract, thirteen were improved, nine were cured, eleven died and five were unimproved. In Dr. Johnson's case the arterial tension increased markedly after the administration of the extract.

### **Venous Thrombosis in Cardiac Diseases.**

Dr. Welch referred to four cases in which venous thrombosis occurred in the subjects of cardiac disease. These cases are not referred to in the text-books, but from the writer's personal experience it seems probable that they are not very uncommon.

The first case occurred in a negress, aged 17, who suffered from aortic and mitral insufficiency. She suddenly developed a swelling in the neck, with a hard and painful cedema of the left arm. The pulse was 120, weak and intermittent. At the autopsy cultures from various parts proved sterile with the exception of those from the thrombus, which showed pure cultures of streptococci.

The second case was one of mitral stenosis, and recovered. The left side of the neck became swollen and tender, and later a hard cord was felt. A week later the left arm became swollen and hard. In two months the collateral circulation was established and in spite of embolism of the popliteal artery, the patient recovered.

The third case was one of advanced aortic and mitral disease. Oedema of both arms developed, but was more marked on the left side. The left brachial, axillary and subclavian veins were thrombosed.

In the fourth case the patient was a male of 78, with arterio-sclerosis. The left femoral vein became thrombosed, and ultimately recovery occurred. This case must be placed in a different category to the others.

Twenty-seven cases of peripheral venous thrombosis were found in the literature, of which twenty-three occurred in the upper and four in the lower extremities. The affection is found principally in mitral stenosis, so that the condition is oftener found in the female, seventeen of twenty-one cases being of this sex. Half of the cases occur under thirty. The veins of the left arm are much more frequently attacked than the right (twenty-one out of twenty-three cases). The predominance of the condition on the left side is referable to the more oblique and longer course of the left innominate vein and to pressure from the enlarged left auricle. In addition to mechanical factors an infection is probably the true explanation of these cases.

### **Rupture of Aneurism to Superior Vena Cava.**

Dr. Stengel recorded a case of rupture of an aortic aneurism to the superior vena cava. The condition was recognised during life. The patient, a male *æ*t. 30, suddenly felt something give way in his chest, and this was followed by a great sense of oppression. Great swelling and cyanosis of the neck and upper part of the body as far as the waist followed, whilst the lower half of the body remained perfectly normal. Death took place after twenty-four days.

In commenting on the length of time a patient may survive, a case of some months duration was referred to, and another which apparently resulted in recovery. Venesection in such cases might be suggested by the intense lividity, but such a proceeding would probably prove injurious by preventing the coagulation of blood in the aneurysmal sac.

**Graves' Disease Without Exophthalmic Goitre.**

Dr. W. H. Thompson recorded a number of cases of this disease with tremor and tachycardia, yet without prominence of the eye-balls or goitre. Of sixty-six cases, thirty-two had neither exophthalmos or goitre. Dr. Thompson therefore considers that the thyroid origin of the disease is improbable, and that an explanation of the symptoms must be sought elsewhere.

T H E

# Montreal Medical Journal.

*A Monthly Record of the Progress of Medical and Surgical Science.*

EDITED BY

THOS. G. RODDICK,  
A. D. BLACKADER,  
GEO. E. ARMSTRONG,  
WILLIAM GARDNER,  
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## ON COMPULSORY VACCINATION.

It speaks well for the officials of our Provincial and Civic Boards of Health and the methods employed by them that small-pox, and that of a virulent type, should have been introduced into one of the busiest hotels in this city, and, notwithstanding the circumstances, which were peculiarly favorable to its rapid spread in our midst, they have managed to limit the epidemic to some four cases, and indeed have completely stamped it out. Other places have not had the same good fortune. The disease, it would seem, was introduced from the West, and at more than one point between Winnipeg and Montreal there is at the present time the greatest anxiety lest the disease pass beyond the control of the authorities.

But we in this Province must not be lulled into inactivity by a false sense of security. Time and again during the last five years Dr. Lachapelle and his able coadjutors, have arrested threatened epidemics, but good fortune may not always wait upon watchful and zealous service, and should some active focus of the disease develop in the Country to the south of us, or at some one or other spot in Canada, the disease might become disseminated in so many different parts of the city and province that our Health Board, with its small staff, would be wholly unable to cope with it, and the awfulness of 1885 be with us again.

The outlook is not reassuring. For the last year and more, as indicated in our last number, a peculiarly mild type of variola has been prevalent in the Northern and Middle States—a form so mild as not to be typical—and as a consequence, many cases not being diagnosed, the disease has spread insidiously. During the last few months we are beginning to hear more frequently of more virulent cases, whether these are the lineal descendants of the milder forms, or are the result of a separate importation from the west coast, is here of little practical moment. Suffice it is to say that the disease is being reported from so many centres as to create deserved alarm. Now, within the last few days, has come the news that the disease has shewn itself in the densely congregated settlement of French-Canadian factory hands at Lowell, Massachusetts, with the disquieting information that many families there, fearing the employment of active measures by the health authorities, are hurriedly returning to this province.

The prospect is more than disquieting. During the hot summer months, judging from previous experience of this disease, there may be no extensive development, but with the autumn it looks as though we may expect a most serious condition of affairs throughout the Province. Some communities are almost wholly unprotected. Those who are wise are already vaccinated, and have assured the safety of their families, but some of our population have taken no heed to the lesson of fifteen years ago, and remain averse, nay, actively opposed, to vaccination and the security it conveys. And thus if—as is well within the boundary of probability—the disease extends so as to be out of the control of the Board of Health and the methods of isolation and segregation, we have to look forward to a period of enormously augmented mortality, the little children more especially swelling the roll, to a most serious interruption of intercourse and the ordinary routine of life throughout the Province, to commerce being brought to a standstill and to an arrest of the present prosperous advance of the Province, from which it will take years to recover.

The matter, therefore, is one affecting the whole community, one which not we of the medical profession alone, but the community as a whole, must cope with. Unless the community as a whole agrees to the rigorous carrying out of precautionary and preventive measures, we remain exposed at any moment to this terrible visitation.

First and foremost among these preventive measures is compulsory vaccination, and that especially of little children. It is unnecessary in these pages to demonstrate how this procedure renders a country secure. We may, however, refer to the most modern instance. When the Americans—how shall we express it?—assumed the protectorate and paternal direction of the Island of Puerto Rico, but a few months ago, they found

small-pox rife, in fact, endemic among the inhabitants. They immediately ordained compulsory vaccination of everyone, and now small-pox is non-existent there and absolutely a thing of the past.

Now, there is but one authority which can take the position in this Province taken in Puerto Rico by the American Government, and that one is the Catholic Church. We appeal to Archbishop Bruchesi and the Catholic Hierarchy of this Province to take up the matter—to issue pastorals and direct the clergy of every parish to publish to the people the meaning and the value of vaccination. Doing this, they can be assured of the fullest co-operation of our profession and of the gratitude and appreciation of the whole community.

In making this appeal, a necessary corollary is that the Catholic Hierarchy aids us in the establishment of compulsory registration of births. Unless there be a compulsory official return month by month of all the births, it is impossible to keep trace of the children born, impossible to determine whether all have been vaccinated. As we have pointed out, it is among the little children that the deaths from small-pox are most frequent—and on their behalf, as again for the protection of the community as a whole, we make this appeal. With the help of the Bishops, this stigma of neglect of necessary hygienic precautions can be removed from our land. We ask for that help.

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#### THE ANNUAL MEETING OF AMERICAN SURGICAL ASSOCIATION.

The surgical section of the American Association of Physicians and Surgeons, which met this year in Washington, devoted the greater part of the three days to the surgery of the stomach. Papers were read on the surgical treatment of gastric hæmorrhage, perforating gastric ulcer, pyloric stenosis, and the early recognition of cancer of the stomach. The President, Dr. Weir, read a valuable paper on duodenal ulcer and its sequelæ.

There are certainly advantages in bringing together a number of papers dealing with subjects that are closely allied, as are the different surgical procedures applied to the stomach. On the other hand, the plan allows of more than the usual vagueness and wandering from one subject to another by the members taking part in the discussion. This feature is the more marked when, as in Washington, all the papers are read before any discussion is permitted. A member on rising to discuss knows that he is limited to ten minutes, probably wishes to speak on more than one of the papers, and therefore, can only make bare, and too often unqualified and disconnected statements. More ground is covered by this plan but at the expense, in some instances, of clearness and of force.

The feeling of the meeting seemed clearly on the side of early operative interference in perforative ulcers, earlier interference in selected cases of gastric hemorrhage, and greater pains in the earlier diagnosis of beginning malignant disease of the stomach. In this connection the suggestion that the stomach wall be curetted by a weighted stomach tube and the scrapings submitted to the microscopist seems worthy of an extended trial.

The frequency with which the pylorus becomes fixed by adhesions was the subject treated by Cabot. The question of pyloroplasty versus gastro-enterostomy often depends upon the fixed or movable condition of the pylorus. The failure of pyloroplasty would seem in some cases at least to have been due to adhesions fixing and holding the pylorus in a high situation. Under such circumstances a free opening between the most dependant part of the dilated stomach and the duodenum, permitting a better emptying of the stomach is followed by much greater relief of the symptoms that may have been due to dilatation.

Dr. Weir was a model chairman and under his direction everything passed off promptly. No time was lost waiting for volunteers. The proceedings all through were of a high scientific order and everyone felt that they were more than repaid for attending.

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### McGILL MEDICAL LIBRARY.

REPORT FOR THE QUARTER ENDING APRIL 30TH, 1900.

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#### PAMPHLETS.

F. W. Campbell, M.D., (3); G. Gould, M.D., (9); Editors of the Montreal Medical Journal, (30); G. E. de Schweinitz, M.D., (6); F. J. Shepherd, M.D., (25); Royal Infirmary of Edinburgh, (1); University College, Bristol, (1); G. C. Whipple, M.D., (2).

## Obituary

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### DR. J. L. LEPROHON.

There are some who in due course pass away, full of years, and their departure is looked to as to the timely and inevitable; the seasonable and natural. In these, outward tokens of failing energy and declining vigour become more and more evident. It was not thus with Dr. Jean Lukin Leprohon, whose death we now record. Although nearly eighty years of age, he was apparently as strong and vigorous a week before his last illness as he was at fifty, and he still gave promise of many years of active life. His step was firm and elastic; his intellect clear and unclouded, and his urbanity and polished manners had not suffered the depressing chill of life's advancing evening. Dr. Leprohon was, in the full acceptance of the term, a gentleman, mild, gentle, affable manner, courteous and polite, as were Charlebois, Boyer, Bruneau, Peltier, D'Orsonnens, and other gentlemen of the old school, who once adorned the French section of the medical profession in Montreal. Dr. Leprohon like them, had the advantage of an excellent classical education, while his professional training at McGill and in Europe were thorough and complete. He spoke French and English with equal ease and with equal correctness. He had a facile pen, and his ability as a writer was conspicuous in the pages of the "Lancette Canadienne," which he published fifty years ago, but which had not the extended life of its founder. Dr. Leprohon was born at Chambly in this province on the 7th April, 1822, and died on the 23rd May, 1900. He commenced practice in 1844 at what is now 181 McGill Street upstairs. He married in 1851 Miss M. E. Mullins, a lady who was remarkable for her literary ability, who has left many evidences of a versatile and gifted writer with "hand that penned and tongue that uttered wisdom." Dr. Leprohon leaves behind him four sons and four daughters, Dr. Rodolphe E. Leprohon, and Claude de B. Leprohon, Vice-Counsel of Brazil, both of this city; and Messrs. E. T. Leprohon and J. de N. Leprohon, who reside in the United States; Mrs. J. Alex. Bonin, Mrs. Albert Leplat, Mrs. L. Villeroy, and Miss Leprohon.

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### MR. WOLFERSTAN THOMAS.

It is with most sincere regret that we record the death of Mr. F. Wolferstan Thomas. He died, aged 66 years, on Thursday, 17th May. In every philanthropic work Mr. Thomas was foremost, and everything he

undertook he did with all his energy, never sparing himself. He was a man of great executive ability, and never undertook duties which he did not perform.

He was President of the Protestant Insane Asylum, Treasurer of the Mackay Deaf and Dumb Institute, closely identified with the Ladies' Benevolent Association and many other charities too numerous to mention. There was one charity, however, which was very dear to his heart, and with which he was more closely associated than any other. We refer to the Montreal General Hospital, of which he was President. Under Mr. Thomas's presidency the hospital made many and great advances; when he took office, six years ago, the hospital was old-fashioned, out of repair, unsightly and unsanitary, and much in the same condition as it had been for sixty years. Mr. Thomas converted it into a modern hospital, well equipped with all the latest appliances, having bright, cheerful, airy wards, capacious and aseptic operating rooms, modern electrical plant and ventilating apparatus, etc. The money required for these improvements he himself was chiefly instrumental in collecting. In addition to this, by his exertions, a most beautiful and comfortable Jubilee Nurses' Home was built, the foundation stone of which was laid by Lord Lister when he was here with the British Association in 1897. Mr. Thomas was always thinking in what manner he could improve his beloved charity, and on his death bed was planning for the erection of an Out-Patient Department.

Mr. Thomas was a most energetic and resourceful man, of wide and varied sympathies, and having a keen insight into affairs. His position as a banker is well known to all, and notwithstanding his active connection with so many charitable institutions, the work of his bank was never neglected. We often were amazed that he could do so much outside work and yet make such a grand success of the banking house with which he was associated. His death removed one who will be greatly missed both in the commercial and charitable world. Especially will he be mourned for at the Montreal General Hospital, where he was so often seen and for which he did so much. His family have our sincere sympathy in their great loss.

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#### DR. JOSEPH ALLAN, OF OSGOODE STATION.

It is with great regret that we record the death of Dr. Joseph Allan, of Osgoode Station, at the advanced age of 77 years. Dr. Allan was for over half a century one of the leading practitioners of the Ottawa Valley. A few years ago he was compelled by failing health to retire from active practice. He received his medical education in Glasgow, taking the license of the Faculty of Physicians and Surgeons of that city as far

back as the year 1843. Shortly afterwards he came out to Canada and started practice in the village of Metcalfe, in the County of Carleton, Ontario. He was the first medical man in this section of the Ottawa Valley, and for a long period was the sole practitioner in an area of many miles. The country at that time was a veritable wilderness, and the trials and difficulties which Dr. Allan passed through were far beyond anything dreamed of by the practitioner of the present day. Among the few of the original settlers of this district left, Dr. Allan's name is to this day mentioned with the greatest respect and kindly feeling. His high sense of duty and the unbounded interest he always had for his profession made him always a welcome visitor when trouble visited the homes of the settlers of the past generation.