Western Canada Medical Journal

A MONTHLY JOURNAL OF MEDICINE
SURGERY AND ALLIED SCIENCES

TWO DOLLARS A YEAR

WINNIPEG, CANADA

VOL. III. APRIL, 1909 NO. 4

Western Canada Medical Journal

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Editor.

REGINALD PHILLIPS,
Business Manager.

Commonwealth Block, Winnipeg, Man.

Published on the Fifteenth of Each Month.

VOL. 3. APRIL, 1909 No. 4

INDEX TO CONTENTS

NOTICES

Subscription price Two Dollars per annum in advance, postpaid. Single Copies 25 Cents.

Advertising rates to be had on application.

Remittances at the risk of the sender, unless made by Registered Letter, Cheque, Express Order or Postal Order.

Subscribers not receiving their Journal regularly would confer a favor by reporting such to the "Business Manager."

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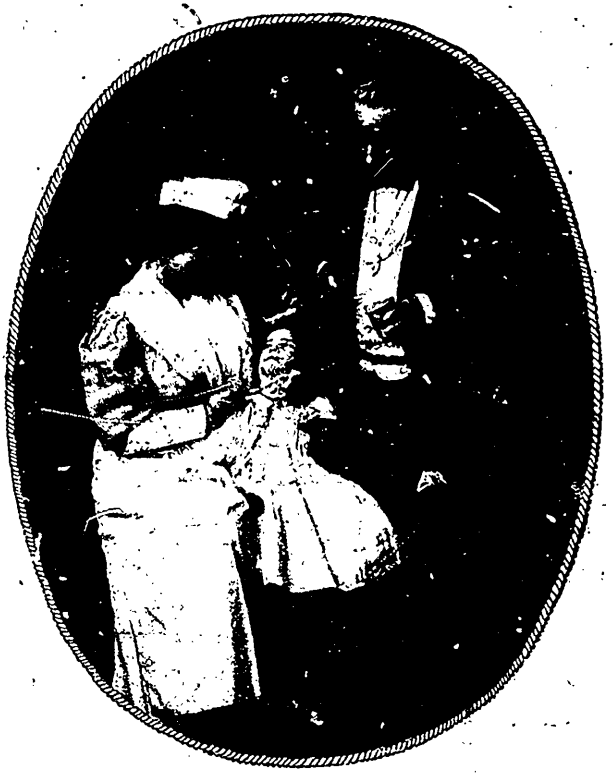

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NEW YORK

WESTERN CANADA MEDICAL JOURNAL

VOL. III. APRIL, 1909. NO. 4

ORIGINAL COMMUNICATIONS.

RESEARCH AND PROGRESS IN MEDICINE

BY

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Some months ago I was called upon to deliver at the College of Physicians the annual oration in honor of the great Harvey, and I chose for my subject the "Need of Research in Medicine," stimulated by a consideration of the valuable work done by that great man nearly 300 years ago, of the obvious profundity of our ignorance even at the present day, and of the desire on the part of some of our lay friends to restrict us in our endeavors to enlarge our knowledge of nature and disease. Nothing can be more stimulating to him who is ever anxious to know more of the basis upon which the science and art of medicine is founded than to read the life and works of Harvey. He demonstrated, as is well known, that the blood not only moved in the vessels, but that it circulated, moved in a circle, or circles, from the heart to the periphery, and back to the heart; from the heart again to the lungs, and back again. But that was not the whole of his work; and one can see in his treatise on the "Generation of Animals" how

thorough were his methods, with what industry and how exhaustively he examined a subject in order to see it in all its bearings, and to secure to himself a comprehensive and therefore certain knowledge of it.

To those of us who are thinking constantly of the problems of medicine the proposition, that research is necessary, seems self-evident; but to many in the profession and certainly to our lay brethren it may be an advantage to consider some of the facts and arguments which support it. Nobody who thinks over the prevalence of disease, and this should mean also the duration of human life, can deny that we, as a profession, have still much to learn. As long as a disease remains which is not amenable to treatment, the physician has his task before him. But what wants to be impressed upon the public mind is that cure does not consist alone in putting drugs into the human body to act upon this or that organ; but that every disease or ailment ought to be studied closely in order to understand the cause of the first divergence from the normal, and that the prevention of such divergence and its rectification as soon as possible should be our chief objects, whether by means of drugs, or by any other method that may be found applicable and will attain the desired end. Hence the study of the origin of disease, or **pathology** and further back still the study of nature's workings during health on the human body, or **physiology**, are of the utmost importance to the physician. Let no student think that he has done with physiology, when he has gone through the course preliminary to the study of medicine.

Research in physiology is constantly throwing fresh light upon the mechanism of the human body, explaining things hitherto obscure, or upsetting former hypotheses and substituting new ones more conformable to the new facts discovered.

In spite of the 250 years which have elapsed since Harvey's demonstration of the circulation of the blood, there are still questions of the heart's mechanism which require answer. Harvey recognized the commanding position of the auricle in the hearts cycle of contraction; he noted how the auricle was the first to start beating, and the last to stop beating; but it is only within the last few years that it has been recog-

nized that there is a special bundle of muscular fibres which appear to be the means of transmission of the wave of contraction from the auricle to the ventricle; and that if this bundle is diseased, an interference with the transmission of the wave may take place; and either the ventricle will fail to contract when it normally should, or it will contract independently of the stimulus from the auricle, and therefore irregularity.

Many views have at different times been held as to the movements of the stomach and the disposal and discharge of its contents. Ocular demonstration was impossible; but now by the aid of X-rays in conjunction with the administration of the salts of bismuth by the mouth, much more accurate ideas can be formed of the course of the gastric contents, and the time they spend in the different parts of the stomach. In a similar way by repeated observations of the X-ray shadow cast by the bismuth salt lining the intestine, information can be gained as to the progress of the contents of this viscus.

Of another kind are the researches by which Professor Starling demonstrated that the development of the mammary glands during gestation in animals was due to chemical substances absorbed from the foetus and not therefore of influences of a purely nervous origin, as was formerly thought.

These illustrations, which might be abundantly increased will suffice to show what large emendations and corrections are being made in our knowledge of physiology, nearly all of which must have some bearing upon our conception of what takes place when the organs are diseased.

When we come to pathology, the nature of disease, nobody could for a moment suppose that any progress can be made without further research. Think of what was known of disease fifty years ago, as compared with what is known now; what additions to our knowledge have been made in this period by the whole science of bacteriology, and all that comes out of it—antiseptic methods of treatment and prevention, the doctrine of immunity, and vaccine methods, and elaborate microscopic methods, by which details of structure in blood, lymph, and tissue formerly undreamed of are now recognized.

These have not come to us waiting idly with hands in our pockets, but by diligent, unceasing effort, always pressing forward into the unknown, checking and testing at every turn, till certainty is attained.

It is curious that there should be any need to advocate research in medicine, pathology or physiology. No other departments of human knowledge are enlarged without effort; and yet it seems to be thought by some that the art and science of medicine have been laid down now for all time.

Much of the direct opposition to research comes from those who are opposed to experiments upon living animals. Desirous of protecting all animals from any kind of experiment, they seek to prove that no knowledge of any importance can be derived from the practice. But the problems of disease and the problems of physiology, that is the ordinary everyday functions of the body, involve processes and changes in the living structures and organs of the body, structures and organs which no ingenuity of man has ever succeeded in exactly copying. Experiments and observations upon living tissues and organs must be conducted upon the living things, whether animals or plants; and the observations, which are all. so far as animals are concerned, swept together under the now opproprious name of vivisection, are deprecated or condemned and the scientific men engaged in them are regarded with horror, and perhaps publicly stigmatised as brutal.

One must admit there is a moral side to the question, but one should not be carried away by one's feelings into a position of antagonism to facts. Scientific physicians all over the civilized world are convinced that progress can only be quickly made by the judicious use of experimentation upon living animals; they can show that results of immense practical importance and benefit to both animals and men, have already accrued from these methods; and they feel that the benefit to the human race vastly more than compensates for the injury done to the animals pained or sacrificed. Opinions may differ as to the extent to which animals should be made to suffer for the good of men: and some may think that no animals should ever be injured intentionally. But it is clear that anyone who attempts to carry this view to its logical conclusion would

soon find himself in a hopeless dilemma: and probably no one has ever in this world seriously tried to do so. It would mean exclusive vegetarian food, exclusive motor traction, complete immunity for wasps, bugs, fleas, and any creeping things, as well as all larger animals and birds of prey.

This thing is, of course, unthinkable. But where is the logical difference between, on the one hand, defending your life with a rifle from the man-eating tiger or lion, or deliberately attacking the tiger to prevent the decimation of a human settlement and on the other protecting yourself from apparently inevitable disease by the help of the infliction of death or some pain on other living animals. If the inviolability of the animal's life and comfort cannot be pushed to its logical conclusion, if some animal must be killed or hurt in the service of man, the question is, where is the line to be drawn? It is curious that it is chiefly when the effort is made to increase our knowledge of the nature, prevention and cure of disease, an effort which must benefit animals as well as man, that the sentimentalists are up in arms; while they are content to kill wasps and fleas, shoot and maim pigeons and partridges, work horses every day of their lives, and regard their suffering as inevitable.

But before leaving the subject of vivisection, there is another aspect of the research question on which two opinions are held, and that is the expediency of performing experiments upon living animals in order to illustrate lectures or demonstrations to the students. There are many, even among those who see the expediency of vivisection, who think that from the point of view of animal suffering this is an unnecessary and undesirable extension of the practice: there are some who state that an experiment on a living animal degrades and brutalizes the student who witnesses it. This statement, I believe to be absolutely devoid of foundation. With regard to the advantage of illustration in teaching, there cannot be a moment's hesitation. Illustration by diagram, by lantern slides, by apparatus and by experiment, is the essence of all good lecturing, and their necessity and importance have been made more and more recognized in practice during recent years; and no lecture theatre would be considered adequate

without means for supplying these desiderata.

It is a truism to say that things which have been actually seen are better remembered than those which have been merely talked of. Horace, 1,900 years ago, expressed the same fact when he said: "Segnius irritant animos demissa per aurem quamque sunt oculus subjecta fidelibus, et qua ipse sibi tradit spectator."

It seems incredible that we should still want to be reminded of such an elementary fact of human nature.. There are occasions on which the lecture or demonstration cannot be complete without the experiment: it remains with the moral sense of the community to determine whether the teaching shall be adequate or not.

We may return to a consideration of what research has done for medicine and medical science.

It will be better to have a clear idea on this point. Research reveal natural phenomena hitherto unknown; and it is sought to take advantage of new knowledge to prevent or cure disease. Sometimes it must be admitted, research is for the time fruitless. Fresh facts are acquired, but other facts are necessary before any valuable application of the former can be made. Influenza is a good illustration: for more than a generation prior to the year 1890 influenza was practically unknown to the profession. The prevailing impression left by those who had seen it before 1850 was, that it was not a contagious disease, but that it diffused through the air or arose from the soil and that it was indeed endemic rather than epidemic. A careful consideration of the spread of the epidemic of 1889-90, from country to country in Europe, and then over the seas to America and the British colonies, proved conclusively that contagion and a very short period of incubation would explain any outbreak; and the discovery of Pfeiffer's bacillus within some twelve months confirmed this view entirely. What is the practical application? At present no more than this, that influenza is directly contagious, that the risk of catching it can be diminished by proper precautions, or increased by reckless exposure. But for a method of cure by drug or by vaccine, and for a method of protection against it, we are still

*De arte poetica, 180-182.

awaiting further research. And indeed in spite of our knowledge of the causative organism, we are no better off in the case of influenza than in the case of measles or scarlatina; of which we do not with the same certainty know the organisms. Indeed in some ways we are in a worse position, because the last diseases in the majority of instances immunise those whom they attack: whereas any protection that may accrue after influenza seem to be so rapidly exhausted that some people have had it five, ten and fifteen times.

On the other hand there are instances where the discovery by research has resulted in incalculable benefit to the human race. Persistent observations and microscopic research showed conclusively, (1) that the blood corpuscles of persons suffering from malaria contained an organism. (2) That this organism was also found in the stomach and other parts of certain mosquitoes. (3 That a complete series of changes in the organism took place, partly in the human blood and partly in the mosquitos. (4) That mosquitos which had bitten patients suffering from malaria conveyed malaria to previously healthy persons.

Hence the two facts—that Malaria was due to an organism having a double life in man and mosquitos, and that mosquitos conveyed it from man to man. The application came promptly—destroy mosquitos whenever they could be found; destroy their larva by draining or drying up all pools of water in which such larva abound; protect the human beings from contact with the mosquito by screens, veils or other means. Already a large diminution in the prevalence of Malaria has been effected.

Quite as striking have been the practical results of a similar discovery in Yellow Fever; to the effect that this disease is also conveyed by mosquitos from patient to patient. Here, however, the nature of the organism or virus conveyed by the insect is uncertain; only the share of the mosquito in the transmission has been experimentally proved by methods similar to those adopted in Malaria, and far-reaching results in the dimunition of the disease have been attained in different parts of South America.

Another striking illustration of the practical application

of scientifically conducted research is that of Malta fever. The steps in research have been: (1) The discovery by Col. Bruce of the micrococcus melitensis as the cause of the trouble, come though not very fatal pyrexial illness, which is common along the Mediteranean coast and in Malta and other Mediterranean islands. (2) The discovery that this organism is constantly present in the milk of the goat. (3 The knowledge that goat's milk is largely drunk by residents in the parts where Malta Fever is present. (4 The absention on the part of residents from the use of infected milk.

The results of this policy have been most striking. It will not fail to strike the reader that the above three instances of advantage accruing from properly conducted research, have been gained by prevention, and not by the discovery of a cure. The successful treatment of malaria by quinine has been known for years, and the value of this is not affected by the discoveries which have been made with regard to the mosquito's share in the transference of the disease; nor indeed by the discovery of the parasite except in so far as observations of the progress of the disease may be more accurate.

It may even be urged that modern surgery owes its remarkable success largely to prevention, in that the manipulation and mechanical devices employed in every part of the body have only become possible now that suppuration and other secondary inflammations are prevented by the aseptic methods introduced by Lord Lister. It is a large part of the function of surgery to re-adjust or re-mould the natural structures, when they have been altered by injury or disease, assisted by aseptic methods in the prevention of suppuration, and by anaesthesia, local or general, in the reduction to a minimum of shock or pain.

That research should have so often resulted in preventive methods is extremely gratifying, for nothing can be more true than the old adage "Prevention is better than cure." For firstly, and most obviously, however prompt a cure is, the patient has suffered something before the cure comes into operation; secondly, cures are only effected as the result of isolated effort in separate and individual cases; whereas prevention in many instances will have a wide influence from a

single effort; thirdly, it is rarely that a cure, or antidote, can be found of such a nature as to be independent of the strength of the original virus it is intended to neutralise, or of the resistance and power of the body or tissues in which the virus is working.

Thus in Syphilis, a disease which has been known for years to be amenable to mercury and potassium iodide, the early treatment has been conducted blindly so far as the dose, and continuance of the drug, are concerned, with no certainty that the later manifestations of the disease, such as ataxia and aneurysm will be prevented; while the late, or tertiary results in the form of gumma of the disease will recur again and again, even after apparent cure, and finally prove fatal in spite of persistent drugging. Time is yet wanting to show whether the use of arsenical derivatives, introduced since Schaudin's discovery of the syphilitic organism, will be more successful in combating its destructive tendencies. And the imperfection of our curative methods is illustrated even by the diptheria antitoxin. For it is well known that its success is not absolute, but is in direct proportion to the promptness with which it is administered after the invasion of the disease; and that if not administered until the fourth or fifth day, it may entirely fail to ward off the fatal termination.

Still it is in the domain of antitoxic sera and vaccines, that the improvements in actual curative methods as a result of modern research will chiefly be found. Enormous numbers of human lives have been saved to the community during the last fifteen years by the use of diphtheria antitoxin. Titanus antitoxin has also proved of much value; and to anti-streptoccal serum many recoveries must be attributed, although it may have to be admitted that here have been a great many failures. But after all, it is the successes that count, and the failures, even if they disappoint, are not to be placed in the scale against them. The failures are negative as good, but fortunately not positive, as harm.

A large amount of work has been done in another method derived from the study of Bacteriology, and that is the opsonic method, devised by Sir A. Wright. In this it is sought to increase the phagocytic power of the patient's cells for the

offending organism by injecting cultures of the organism into the blood. Here also the success has no doubt been very great; but, like so many other devices, this seems to have a somewhat limited application, and while eminently satisfactory in some septic conditions, it fails in others.

When all these facts are considered, it is obvious that there can be no halting in our endeavors to learn more, to perfect methods already employed with success, to obtain more control over natural processes, to combat wherever we can the extraordinary destructive capacity of these minute bodies, which after all are as much a part of nature as the higher organisms. And does not the recognition of the share of micro-organisms in so many diseases cast ridicule and doubt upon the wisdom thought to be in the old expression, Vis medicatrix naturae? Whose nature, forsooth, the nature of man, or the nature of the micro-organism? The triumph of one is the death or destruction of the other. But even in conditions which do not comprise either the infectious diseases or the lesions, we may trace the presence or influence of the micro-organism, and it would be a bold man who would deny that similar bodies, hitherto undescribed, may have a large or predominant share, or possibly constitute the whole of such pathological conditions as senile degeneration, and tumors.

Already we recognize that lardaceous degeneration must be the result of the toxins of tubercle and syphilis; that fatty degeneration is caused by the toxins of acute infectious diseases, that fibroid degeneration, or sclerosis of the spinal cord in ataxia, and in pernicious anaemia of the liver in alcoholism, and of the kidney in gout, are clearly caused by different forms of toxin. While the action of obscure autotoxins appears to be a reasonable explanation of the fibrous or fatty changes which take place in the arteries under the name of arterio-sclerosis.

With regard to tumors other than the granulomata, a microbic origin has by no means been established, but it has so far not been conclusively disproved.

Thus we see that a great part of the pathology of man is the invasion of different kinds of organism; and thus we find the highest creature in the biological scale, the almost helpless

prey of infinitesimally minute beings, crowding upon him in their millions, much as Gulliver was captured and held in bondage by the Lilliputians in their thousand; nature indeed represents for us the perennial warfare of living beings upon one another, the life of any one necessitating the sacrifice of others. The end must inevitably come to each of us, but we may reasonably try to postpone its arrival as long as possible. This we can only do by learning how to repel successive invasions of our destructive antagonists.

Minute research into their nature, their modes of reproduction, their powers of preparing toxins, the nature of these toxins, and the possibility of resisting or neutralizing such toxins, must be the duty of the medical profession, and those who represent it, in bacteriological and pathological knowledge.

The enormously increasing field of bacteriology, the ever more manifest complexity of the relations of such minute things as the bacteria themselves, must force upon us the thought that even now we may be far from having sounded the depths of pathology in this direction; and must make us wonder what is in store for our successors fifty or one hundred years hence.

In conclusion I have two remarks to make:

In discussing bacteriological work so fully I am quite alive to the fact that there are many other departments of knowledge bearing upon medicine which must be no less thoroughly investigated. As illustrations I have alluded previously to the action of the heart's muscle, to the movements of the ailmentary canal, and to the physiology of the mammary gland. There is also the large subject of ferments, in which progress has been made, and there is the work of the pharmacological chemist, and the wonderful advance in synthetic chemistry. There are, moreover, the electrical relations of the human body, in the form of X-ray treatment, on the one hand, and ionic medication on the other. All these subjects are receiving diligent attention at the hands of eager researchers.

The other remark is this: That I consider that whatever attention may be paid to bacteriology, chemistry and experimental physiology, it is essential that clinical study should not

be neglected or ignored, and that the tendency that one sees in some quarters to rely solely upon work done in the laboratory should be carefully guarded. Physiology owes a large debt to clinical observation, as witness the history of Addison's disease, or kneejerks, of Babinski's reflex, or syringomyelia and of spinal scleroses; and there are still numbers of familiar clinical occurrences, which the physiologist is as yet unable to explain.

Clinical observation must go hand in hand with minute pathological research, and wide generalisations must be based equally on the results of both these methods of enquiry.

MEDICAL EDUCATION

BY

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At this particular juncture in the history of our profession in Western Canada, the subject of Merical Education is of especial importance, when we assume the possibility of the establishment of a Western Board. It is necessary, therefore, for the various 'bodies' engaged in teaching or registration of qualifications to make ample provision and preparation for this long-looked for event. Uniform or equivalent curricula will greatly facilitate paving the way for the accomplishment of Western registration. In Canada there are as many standards of Medical Education as there are political subdivisions.

The great aim of the medical profession is to create on a sound and enduring basis a Western Medical Board whose qualification can be registered in every province of the West. Nor need we rest here; its qualification may in time be Dominion, but Imperial, capable of registration in Great and Greater Britain.

Preliminary Education

In Dr. Roddick's bill provision was made for the proposed board to conduct the medical entrance examination by examiners appointed by the Council. It is desirable that examination in general education be left to the universities and such other institutions engaged in general education and examination as may from time to time be approved by the board. Let the Council select or erect the standard of medical matriculation, and then accept educational certificaes of equivalent or higher value, for registration as a medical stu-

dent. This is the practice followed in England by all bodies granting qualifications excepting the universities.

For our students' matriculation we should fall back on the National educational bodies, whose examination should reach a specific uniform or equivalent standard. We can safely entrust this department to our educational institutions, which will receive the recognition and endorsement later of the Dominion Medical Board. By accepting approved certificates the Western Medical Board is not only relieved of responsibility and expense, but more students will avail themselves of Western registration than if they are compelled to prepare on a range of subjects out of harmony with the curriculum of the institution in which they are receiving their edu ation. Every uni. esity in the Domnion of Canada will receive equivalent certificates from sister institutions; and these universities also will receive partial certificates granting, for example, "pro tanto" standing to school teachers holding first and second-class certificates. These certificates are accepted by the university in all branches—law, medicine and arts.

Medical examiners in England as well as in Canada are fully convinced that there is some defect in the preliminary education of medical students. The standard is not high enough. Many students pass into the medical colleges utterly unprepared to profit by the education of their medical teachers—their minds not being disciplined that they might be competent to engage in the difficult studies of the profession with advantage.

The question naturally arises, what should be the range of the medical matriculation examination? Should Latin be eliminated and modern languages be substituted? Should an elementary knowledge of chemistry, physiology and comparative anatomy be demanded? I think there should be no special preparation for the study of medicine; that it should be that preparation common to all educated professions. Notwithstanding the advocacy of the elimination of Latin in medical entrance examinations by such eminent men as Huxley, Sir Willoughby Wade, Jonathan Hutchinson, Herbert Spencer and Sir John Williams, the weight of argument to my mind is in favor of its retention. I would even go a step farther

and advocate the inclusion of Greek.

The justification of the advocacy of Greek lies in the cardinal circumstance that it is "par excellence" the language of science. A very large proportion of technical terms, compound scientific words and descriptive names are derived from the Greek. Almost the whole of scientific and medical nomenclature is derived from Latin and Greek, especially the latter.

Permit me to quote two eminent authorities who favor the retaining of classical education as training for professional studies. Dr. Alexander Hill, a member of our own profession, who is master of Downing College, Cambridge, says: "How to make a competent biologist; how to obtain that proper balance between the development of observation, the cultivation of the memory and the attainment of the ability to correlate and compare observations; to draw inferences, and to base hypotheses. An early training in science is the surest guarantee of eventual proficiency." 'To this my experience gives an emphatic denial. Science scholars often cause their tutors the greatest disappointment. Their appearance in the examination before they are nineteen years of age—the limit for the entrance scholarship—means too often that they are the boys who at the earliest possible age have deserted what we may call the proper work of the school for the sake of preparing for the science scholarship. They are not "lads of parts," but the boys who have been crammed with scientific facts by clever teachers and taught to show them off in the most impressive way. Their knowledge is often extraordinarily accurate and extensive. They have a magnificent test-tube acquaintance with chemistry, they have thoroughly mastered the elementary formula of physics; they have acquired the elements of botany and zoology—but they have no mental training. Let them work ever so hard during their three years' course at Cambridge, they are quickly overhauled by by the youngest boys from the big public schools, who when they came up did not know the test-tube from a barometer. The science scholar as turned out by schools with a successful modern side is a prodigy of information and difficult to beat on the earlier levels of his subject; but as soon as he

reaches that region in which is needed a nice appreciation of the relative cogency of arguments, the close following of a train of inferences, he is like a clod-hopper on a glacier without feet to grip or a heart to dare."

This is the result of the experience of the Master of Downing.

My second authority is Professor Jebb, of Berlin, who summarizes under the five following headings the advantages of classical education.

1. Ignorance of Latin and Greek is a positive obstruction to the pursuit of many branches of study.

2. Ideality of the scientific sense is cultivated by studies which have not an immediate bearing upon daily life.

3. An actual knowledge for its own sake is promoted by them.

4. The power of thinking receives a varied general exercise in these studies.

5. They are of historical value as illustrating the foundations on which so much of modern thought and life has been built.

This subject was discussed in the German Federal Council, and at the conclusion a resolution was passed affirming that the certificates of classical education should alone give the right of admission to the medical examinations. Some years ago Berlin University expressed a very decided opinion upon the question and furnished a series of reasons for maintaining classical studies as a basis of professional education. The utilitarian educationalist, who, vandal-like, would exclude classics from the preliminary examination, desires instead a knowledge of science, physiology, anatomy, biology, etc., thus partially relieving the medical curriculum and affording a partial preparation for the professional course.

Others, Professor Schaeffer, for example, more wisely recommend a year's course in science, sandwiched between the passing of the preliminary examination and the student's entrance at a medical college. This is an ideal plan, but is scarcely practicable in Canada. I consider it a great mistake to cram in small elementary scraps of scientific information designated as "science" in the schoolboy's curriculum. Science

should not be taught until a sufficient knowledge is acquired of the ordinary subjects of general education; hence it cannot be taken up till the final period of school life. The meagre scientific equipment of our schools and the unfitness of our teachers would render the teaching of science a very elementary one and most confusing.

Scientific knowledge and education thus produced would be of no appreciable practical value in a medical career. In regard to the subjects embraced in the medical matriculation, the most lamentable defect is in the English paper. This is the most neglected subject in our primary schools. The same defect exists in England, the majority of those rejected came to grief over the English paper—a composition on the prosaic subject of tramways. The teachers were in revolt and demanded a revision of their papers, which confirmed the examiners' verdict.

The majority of rejections at the Conjoint Board in England were attributable to the results of a defective knowledge of English.

Having acted for many years as an examiner at our University, I have concluded that the teaching of English takes a very subordinate position in our schools. Spelling and composition prove that English takes a third or four position when candidates from all parts of the Dominion present themselves at our university examination, and the same defect exists among the students from other provinces of the Dominion. It is obvious that English ought to be a prominent subject of the medical matriculation examination. Every student should be able to express his thoughts coherently and intelligently.

Professional Education

The medical curriculum has subjects difficult to acquire; worthless as mental gymnastics, useless in practice and speedily forgotten when acquired. The methods of teaching are imperfect and vicious. The student in didactics lectures is not taught—he is over-lectured and undertaught. The lecturer describes rather than demonstrates, and instead of making the student follow him step by step in his methods of observation, collecting, comparing, testing and recording facts and

of reasoning thereon, the didactic lecturer leaves them to be learned by being described, forgetful that they can be learned only by being practiced.

The main tendency of the present method of didactic lectures is to give students smatterings of scientific knowledge at the cost of that thorough knowledge of their art which is essential to its successful exercise. In the curriculum there is overlapping of similar subjects in the didactic and clinical courses. The course of didactic lectures should be entirely demolished or radically modified. Teaching should be bedside work—oral and written examinations with comments by the teacher. In analyzing the didactic course, I would like to direct the attention of the Association to several defects and useless wastes of time which could be more profitably employed.

What earthly use is there for a didactic lecture on descriptive anatomy, a subject which can only be mastered in the dissecting room. Professor McAllister, of Cambridge, states "that anatomy, being a practical subject, can be learned only in the dissecting room." The line of demarcation between descriptive and practical anatomy is arbitrary and fanciful. In a large class in descriptive anatomy the favored few near the lecturer and the dissected part derive some instruction, but to all the rest the hour is useless and wasted. Persistent work in the dissecting room under the guidance of an experienced demonstrator who will describe, discuss and constantly orally examine the student, is the rational and effective method of teaching anatomy.

Another useless subject is medical jurisprudence; the interest in it ends after the examination, and to the general practitioner the knowledge thus gained is of no practical value. Few men are called upon to give evidence in criminal cases, and when we do, the knowledge acquired while at college is either useless, fragmentary or forgotten, and in order to cut a respectable figure in court, we frantically read up Taylor and Reese. All knowledge is useless, but that derived from medical jurisprudence is about as practical to the general practitioner as the geography of Timbuctoo or the philosophy of Confucius.

The object of medical teaching is to turn out good practitioners.

Another subject as at present taught, which is a weariness to the flesh, is sanitary science. Its pretensions are stupendous; it is supposed to teach everything—land surveying, architecture, organic chemistry, agriculture, plumbing, drainage and civil engineering. The student is crammed with this conglomerate stuff, which he must intelligently reproduce at the annual examination. In sanitary science we have a splendid exemplification of the "cram" system and the utter uselessness of the knowledge, the very essence of smattering.

In order to show the uselessness of the hard work expended in sanitary science, I will quote a few questions from the examination papers on this subject:

1. What do you understand by the expressions "effective population," "dependent population" and "density of population?"

2. Define the word "nuisance" according to law. Show the statutory provisions under which "nuisance" may be dealt with.

3. What impurities of a deleterious character may be found in bread?

4. In the event of typhoid fever occurring in a family, what steps should be taken to ascertain that the water supply and sanitary fittings are in proper order? I will answer this question for the benefit of the Association—"Send for the plumber."

The questions I have quoted are well enough for the candidate for the science degree, but of no use to the general practitioner.

The burden of the medical student of today is very great. More attendance at lectures is demanded, more subjects are being wedged into the curriculum. That conglomerate heap labeled "Materia Medica" might be treated in a bag and baggage fashion. It is impossible to encompass this large mass of dry technical knowledge in the students' course. Materia medica is a mere tax to the memory; the acquisition largely of bare facts being necessary, and facts that are neither retained nor applied. Mr. Huxley's views in an address to the students

of St. Mary's Hospital are appropriate. He says, "I am quite prepared to admit and, indeed, I have always had a strong conviction that there is something absolutely preposterous in the volume and bulk to which some of our treatises on materia medica extend, and the enormous quantity of irrelevant matter with which their pages are crammed." What scraps of information can a didactic lecturer impart to his students which they cannot r eadily find in the text book. An occasional quiz class with specimens of drugs and their preparation should take the place of the systematic lecture; in fact, let pharmacy and therapeutics take its place.

The careful perusal of the materia medica examination paper convinces one that in this subject there is a great deal of misdirected energy in the acquisition of evanescent knowledge, because it is a mere verbal memorizing. Let me give a few examples culled from English sources. I would not cull examples from Canadian examinations for reasons that are very obvious.

1. Name the pharmacopeial preparations into which potassii tartras acidi enters, and give doses. Describe the action of this drug.

2. What is limi farina? Give its source and enumerate all the preparations into which it enters. .....

3. Contrast the physical and chemical properties of castor oil and oil of turpentine.

Apropos of these very questions, Mr. T. Prigden Teale says, "This is the kind of rubbish that the elaborate and costly machinery of a public examination has to waste its energies on." This, I would say, is the stuff doled out by your didactic lecturer of materia medica and which demands the bodily attendance of our students for the prescribed course.

My sympathy goes out to the overburdened medical student weighed down by an accumulation of courses and annual examinations. His corporeal presence is required at so many lectures that he has little time, inclination and energy for hospital work, recreation and private reading.

Sir William Stokes truly says: "I have satisfied myself ever and over again that the failure of a large proportion of candidates to answer up to the required standard was due, not

to want of diligent or conscientious work on their part, but simply to brain exhaustion from an attempt to overload it with facts which were believed to be essential."

"The system of imparting instruction by lectures is a medieval custom originating when text books were few, costly and inaccurate. It is a purely traditional system. Now that there are text books in abundance covering the whole range, and of excellent merit, these lectures should be modified. The chief value of lectures is that the student is obliged to hear a certain quantity of a subject every day, whether he likes it or not, whilst no authority can compel him to work at a text book except by moral suasion or arguments of a practical character addressed to his self-interest. A restricted number of lectures may be advisable, but the number could be abbreviated with advantage, and confined to the inculcation of principles; removing difficulties and obstacles from the student's path; explaining types and divergencies of disease; giving information not within the pages of a text book. The time hitherto employed in systematic lectures might be devoted to class examination on previously announced subjects in which the teacher should indulge in questions, explanations, corrections and comments. This is the true education—drawing out instead of the pouring in process.

The lecture system reminds one of the daughters of Danaus, whose destiny was to fill pitchers which could hold no water; the students are percolated receptacles of transitory knowledge.

Mr. Dennis Hovell, in his address to the Hunterian Society, very truly says: "Education is a subject much misinterpreted in word and abused in deed. It is intended literally to mean a drawing out of the faculties, but by being altered into mere pouring in and puffing up it has often resulted in checking and repressing some of the most valuable of them. Its highly necessary adjutants, discipline and training, are not only too often but too entirely neglected, and the want of these is much felt because it operates negatively by preventing and neutralizing the good effects of teaching." We might with profit emulate our brethren in the United States in our methods of teaching. In that country there is an approach to the tutorial

system. Students in the various subjects are divided into small sub-classes, each presided over by a lecturer; each student receives individual attention in the small group or section instruction. It is simply a means of enabling the individual to see, hear and touch for himself under the best possible scientific guidance. His weakness is discovered, his knowledge tested; his observation is stimulated and cultivated; his attention rivited; his application of the laws of thought employed and rightly prosecuted, it is the inductive method applied to medicine.

The "case" method advocated by Mr. Cannon, of Harvard University, in March, 1900, has received the endorsement of many teachers in England and the United States. This method is supposed to supplant the dreary, old-fashioned didactic lecture, and is an imitation of the plan adopted in the Law Department of Harvard. The plan is to secure printed histories of actual cases which, perhaps, the student may have seen in the hospital. Each student is previously supplied with a printed copy of the history for careful perusal some time prior to the discussion. The class and teacher meet and discuss the diagnosis, pathology, symptoms and treatment. Text books and other literature are consulted, and the case is thoroughly threshed out. The student is learning the judgment of clinical data; the estimation and relative value of the various symptoms, distinguishing between the important and the unimportant, the common features and the more unique. He not only receives, but acquires knowledge. The case method may supplant or supplement the didactic and clinical courses This plan is no experiment, for it has been on successful trial by several professors at Harvard, by Dr. J. W. White, of Philadelphai, and Dr. R. E. Riggs, of the University of Minnesota. Possibly I may be prejudiced, but from personal experience I favor the English system of clinical clerkships and dresserships as the most feasible, practical and thorough for the development of medical teaching. It embraces all the advantages claimed by the advocates of the case system and the sectional plan. Moreover, the student is brought into direct contact with the patient for whose history he is responsible. By this method the medical student is trained to habits of minute,

careful methodized observation registration of the phenomena of disease. The student observes his case from the incipient stage to either recovery or the post-mortem room, to the verification or otherwise of his daily recorded observations. Upon this solid foundation of actual personal experience he builds to fit himself for life's battle.

Western Registration

The educational requirements of the proposed Western Board will completely determine the nature of the instruction imparted to all students at the medical colleges. If this Board is successful in securing even a modest number of candidates for its qualification, then the mandate of the Board will regulate the whole machinery of medical education, preliminary and professional, and the influence of this body will have far-reaching effects upon the profession in the west. The various medical colleges will be compelled eventually to conform to its regulations just as is the case between the teaching bodies and the general medical council of Great Britain. Although not endowed with the supreme prerogative of the Medical Council of Great Britain, its enactments, regulations and requirements will practically have the same beneficent effects. Granting Dr. Roddick's scheme is launched, after some years, there will be conflict and confusion between the requirements and curricula of the Dominion Board and those of the licensing bodies of the various provinces of the Dominion, and these opposing requirements will tax the resources of the medical colleges to meet the necessities of the two classes of students —those desiring the provincial qualification and the others desiring the national one. Hence it is necessary that all medical colleges should have the same curriculum. The course should be identical, but the method of instruction should be left to the wisdom of each.

The alternative requirements suggested for the Western qualification may be summarized under the following headings:

The candidate must secure provincial registration before presenting himself for the Western license, and the Western Council would examine him in the intermediate and

final subjects; the final examination to be passed five years subsequent to medical matriculation.

2. The second alternative is that the candidate must pass the Western Medical Board in all the subjects of the professional course. The primary and intermediate subjects to be taken under the supervision of the Western Medical Board at the various centres in which medical colleges are located.

In order that the license of the Western Medical Board should obtain a predominant position, I think it should demand examination in all subjects of the professional course. A hybrid examination, part by the provincial licensing body and part by the Western Medical Board, might prevent us securing reciprocal arrangements with the Medical Council of Great Britain. A joint scheme of examination might frustrate one of the great objects of Dr. Ruddick's bill—registration in Great Britain.

Passing from the purely educational aspects of the question to the practical one, namely, the establishment of a Western Medical Board, the subject bristles with many difficulties—legal, financial and representative. The general Government of Canada cannot deprive the provinces of their vested constitutional privileges, nor can the Provincial Legislatures unite and create the Western Medical Board. We are therefore in the horns of a legal dilemma, and in order to extricate ourselves are forced to resort to the most extraordinary roundabout legislation. It is alleged that under Section 91 of the British North American Act the Dominion Parliament has power to "make laws for the best order and good government of Canada in relation to all matters not coming within the classes of subjects by this Act assigned exclusively to the Legislature of the Province." Under this clause, when it was proposed to create a Dominion Medical Board, and such legislation is alleged to be constitutional, possessing all the elements of permanence, two essential perrequisites were found necessary before the Bill could become a law and become operative. One was to secure the consent of the Provincial licensing bodies, and the other was to secure such local legislation as would enable the local councils legally to register the Do-

minion qualifications. Now let us suppose that the consent of these bodies has been secured and the necessary local legislation obtained. The possessor of the Western qualification must register before the local council of the province, paying the usual fee where the candidates will practice. Should he desire at any future time to locate in another province, registration must again take place. In other words, his Western qualification entitles him to interprovincial endorsement.

*PUEPERAL GANGRENE

BY

J. DUNN, M.D

EDMONTON, ALTA,

Mr. President and Gentlemen:—

In presenting this paper with the above title I do not claim anything of original research, but very little is written on this subject in any of the works at my disposal, and, although comparatively a rare disease, yet sufficiently frequent to arouse our interest and demand our earnest attention. The notes of my case are not as full as I would wish, but are the records of one in country practice, where the facilities were anything but elaborate.

Dr. Magnus A. Tate, of Cincinatti, reports six cases, four of which are taken from Simpson's work on Obstetrics, one related by Swayne, and one in his own practice. A short resume of these cases might be of interest:

Case 1. Mrs. G., aged 36, healthy. Delivered of fourth child. On the fourth day after delivery had a severe rigor, and when seen her countenance was anxious and distressed, face pale, eyes sunken. She was suffering from excruciating pains in upper and inner portion of left calf, which was cold and tense, but not increased in size. Condition extended to the foot on the fore part of which a large spot of ecchymosis appeared. Uterus, larger than usual, lochia ceased, and milk scanty. In the evening pulse was feeble, tongue parched, and of a fiery red hue, the mind sluggish and wandering. Discoloration had reached the swell of the calf and was still increasing. Next morning visication had begun on spot first discolored and patient rapidly sinking. She died on the fourth day of disease and the eighth day after delivery.

Case 2. Patient, aged 25. Ten days after delivery of her first child was seized with gangrene of the lower extremities.

*Read before the Alberta Medical Association.

It involved the foot and leg and nearly to knee joint. Patient greatly exhausted and anxious, but not suffering severely. The limb was amputated at lower third of thigh, but not a drop of blood followed the knife. She died next day.

Case 3. Patient had previously borne large family. Last labor easy. Child was premature and deadborn. On third or fourth day after delivery fever supervened, followed by swelling of left leg, which was attended by great pain. In two or three days gangrene set in, and she died ten days after delivery.

Case 4. Patient, aged 39 years. Pregnancy favorable until within one month of delivery, when she suffered from cough and great debility. Labor expeditious, lochia small, and after-pains slight. After ten days symptoms of pleuritis with considerable constitutional disturbance presented themselves. Two or three days after recovery from the pleurisy, patient complained of pain in the heel, passing from thence to the great toe and ankle joint. This pain was treated as neuralgia, but with no good result. At length a livid spot appeared on one of the toes, the temperature of the foot and leg gradually diminished and sensibility was impaired. The toes became black, and this appearance involved the foot and ankle. The line of demarcation formed about two inches above the ankle joint, and amputation was performed above the knee. Recovery was complete, and patient afterwards bore two children.

Case 5. (Swayne's) The disease came on during the seventh month of pregnancy, after a long journey, and attacked the integuments and muscles over a space the size of a man's fist on the upper and inner third of the right thigh. The symptoms had existed four days before the occurrence of premature labor, but were not very severe until after delivery, when they became much more severe and proved fatal, early on the third day.

Case 6. (Tate's.) Patient, aged 25 years, primipara, family history negative, was pregnant six and one-half months, when she had a convulsive seizure, followed by two others. When seven and one-half months pregnant she gave birth to a dead child. Eight days after delivery complained bitterly of pain in the feet and ankles. There was a bluish patch on each

ankle, which discoloration spread rapidly up the legs nearly to the knees. No line of demarcation present, bowels constipated and urine loaded with albumen. On twentieth day after delivery had first elevation of temperature and next day it reached 103. Patient died twenty-three days after confinement.

Mrs. S. aged 34 years, wife of a farmer, married nine years, but never had a living child. Had five miscarriages previous to present illness; last one being in May, 1893. The usual course of these miscarriages was thus: When from three to six months pregnant, albumen would appear in the urine in large quantities, accompanied by considerable oedema of the limbs and body. This oedema always disappeared about two weeks before miscarriage would take place. Her recoveries were uneventful, and she enjoyed fair health in the intervals. Was called to see her on June 13, 1897. Patient was then six months pregnant. A great deal of anasarca of whole body, urine about normal in quantity but heavily loaded with albumen. By use of usual remedies and careful dieting the albument slightly decreased for a short time, but there was no improvement in her general condition. July 1st, her condition was desperate, breathing very much labored, stomach very irritable, and body and limbs at the point of bursting from pressure. About a pint of urine passed in the twenty-four hours, as heavily loaded with albumen as at the beginning. July 2nd. Labor brought on by dilating cervix with Barne's bags, and patient was delivered by internal version the following day. Everything now progressed as favorable as could be expected, considering that we were then passing through the very hot spell at the beginning of this month. July 10th. (Eight days after delivery) Hypostatic pneumonia developed. Up to this time there had been but very little elevation of temperature, and no abdominal symptoms. The pneumonia cleared up in three days under very strong stimulation. There was now very little oedema of the body and limbs and the albumen was lessening very rapidly. July 13th. (Thirteen days after. Patient complained of very severe pain in the left foot and ankle with coldness of the extremity. It took a grain of codeia hypodermically to relieve this pain sufficiently to make it bearable to

patient. July 14th. The foot was quite black as high as the ankle, temperature of limb much lowered and no pulsation could be felt in the Anterior Tibial artery. The discoloration then very much resembled the cut of a case of gangrene of the foot given in the American Text-Book of Surgery the result of gunshot wound of the femoral artery with this exception, that the tissues covering the back part of the Os Calcis in this case were not discolored. July 21st. Patient sinking. Temperature was ranging from subnormal in the morning up to 103.5 in the evening. Could take very little nourishment or stimulant. July 30. General condition of patient much improved, but still very weak. Line of demarcation was fairly well marked, so removed the dead foot except the Os Calcis, the tissues at the back of the heel being attacked. This was done without any anaesthetic. Patient complained very little. August 5th. Patient now seemed to have reached as high a state of improvement as could be hoped for without removing the offending member, the disease having extended up the tissues of the leg without any involvement of the skin to within a short distance of the popliteal space behind and the tubercle of the tibia in front. August 6th. Amputated the limb above the knee, although the case seemed almost hopeless. Patient was almost moribund, temperature 97.5, pulse 135 and very thready; surface of body cold. That evening temperature reached about 100. For several days afterwards life was hanging on a mere thread, but improvement came gradually and in ten days everything pointed to recovery. Twelve days after amputation the temperature became normal and remained so, so far as it was possible for me to follow the case.. Recovery was from this time uneventful except for a slight breaking down of the tissues on the inner side of the stump close to the bone, which necessitated washing for about four weeks, when it closed entirely. In three weeks, less one day, the patient had recovered sufficiently to be set up in a chair for about ten minutes, and in three months was wearing an artificial limb. Was able to keep this patient under observation for eight years, during which time she enjoyed excellent health, doing most of her own housework during all that time. She died a little less than ten years afterwards, of uraemia.

Etiology: A general division of the causes of gangrene into traumatic, physicial and infections, may be made but it is evident that whether the death of a part follows mechanical violence or by other causes, the result must be the same, namely, an interference or arrest of the nutrition of the part due to obstruction of the circulation. In cases of dry gangrene the parts become dry and mummified, producing slight or no constitutional disturbances; but when the tissues break down the staphylococcus and strepticoccus find a fertile soil. Senn says:—"Gangrene resulting from mycosis of the tissues is caused by one of three well defined conditions. (1) The microbes are so numerous in the capillary vessels that their presence interferes mechanically with the blood supply and death of the part ensues in consequence of greatly diminished or suspended nutrition. (2) The microbes in the tissues produce ptomaines which destroy the tissue by their direct destructive action on the protoplasm of the cells. (3) The specific inflammation caused by the microbic infection is so intense that the inflammatory products in the paravascular tissues accumulate so rapidly and in such abundance that nutrition is suspended by impairment or suspension of the arterial supply or mechanical interference with the venous return of the blood from the part or both of these conditions combined. For these reasons no one variety of microbes can be the sole cause of gangrene. Playfair when speaking of this form of gangrene says that sometimes the obstruction seems to depend on some general blood dyscrasia similar to that producing venous thrombosis or on some local change in the artery itself. Thus Simpson records a case apparently produced by local arteritis causing gangrene of both lower extremities and ending fatally in the third week after delivery.

Garrigues says that in most cases the gangrene is preceded by phlegmasia Alba Dolens, and it has been observed where the veins of the foot alone and no arteries were affected. In other cases there was an embolus in an artery and no obstruction in the veins, and in others again both arteries and veins were blocked up. A thrombus or embolus on one side may by fibrinous precipitation extend upward and reach the Aorta or Vena Cava and descend through the common iliac

vessels to the other extremity or the arterial thrombosis may start at the placental site and extend upward to the common iliac and even the Aorta and common iliac on the other side. Venous Thrombosis may also begin at the placental site or in the extremity itself; but in order that the foot shall become gangrenous without closure of the external or common iliac vein all the veins must be blocked up, which probably can be brought about only by that increase in the coagulability of the blood which takes place towards the end of pregnancy. Of course, if the obstruction is found in both the arterial and the venous spstems the development of gangrene is much easier.

Treatment may be divided into local, general and surgical. The local treatment is chiefly preventive and can only consist in elevating the limb and keeping the threatened part warm. After gangrene has developed, the most important point in the treatment of these cases if the gangrenous part be not removed is to prevent the septic decomposition which will otherwise take place, in other words favor the production of the dry form as much as possible. This is best done by shaving the limb after rubbing with turpentine to remove all grease, wash well with soap, followed by an antiseptic as bichloride or carbolic; especial attention being paid to the nails, which should be cut short and the folds of skin under and about them scrubbed with extreme care. Having thoroughly carried out this disinfection apply an antiseptic dressing designed to prevent decomposition and at the same time to allow of drying of the part. For this purpose a large mass of cyan ide gauze soaked in a weak solution of bichloride (1-4,000) outside which is applied a thick layer of freshly sterilized wool taken direct from the sterilizer and on which no dust has settled. This dressing should not be disturbed unless we wish to examine the limb or the discharge comes through. Above all things the use of ointments should be avoided as they prevent the evaporation of the fluid and so keep the gangrenous part moist. The limb should be placed on a water pillow and slightly elevated. Galvanism has been highly recommended in these cases. General treatment consisted of plain nutritious diet and free stimulation. This patient took twenty-four ounces of the best rye whiskey every twenty-four

hours for over three weeks, also strychnine, strophanthus and spirits ammonia aromatica as occasion required. One week after commencement of the disease began using antistreptococcus serum in free doses. Generally gave nine c.c. night and morning but gave as much as twenty-seven c.c. in one day. This seemed to have a decidedly beneficial effect; the temperature range was much less and patient took nourishment and stimulant much better. Continued this for nine days after amputation when it seemed to have no further good effect.

Surgical Treatment: Naturally amputation is our only course to pursue as soon as the line of demarcation is established. However, this was impossible under the circumstances here and we were compelled to wait as the patient was too weak for an anaesthetic at the beginning and it was only when her strength had gained as much as it seemed to be going to gain that amputation was decided upon, as the only chance for a very hopeless case. Then, as has already been stated, this was done above the knee higher than all diseased tissue, with the happy result—complete recovery.

EDITORIAL

Wesvern Medical Association

Another question to be discussed at the meetings this year is that of a Western Medical association. We need one leading authority in the West. It would seem well to have one head association where matters to be sent on to the council could be finally threshed out by the members. One has only to read the daily papers with the news of the new universities and possible new medical schools that are to be formed in the West to recognize that we shall make decisions this year that will have a momentous bearing on the position of the Western medical profession in the years to come. Since we have had a means of communication through our journal, we, in the West have certainly been drawn closer and there is growing up a common understanding about matters relating to our profession's welfare. This is a great step forward.

Large attendances at the various meetings this year will still further hasten the settlement of our difficulties. These meetings with their discussions for the object of obtaining greater **unity** should be the means of getting rid of the small divisions and rivalries which have wrecked many causes and done such harm to medicine in the past. The mass of the profession are in favor of such organization. The only objection one can discover so far is that attendance at a Western annual meeting might lessen the attendance at the Dominion. This is not very probable and history relates that the expense and time are the principal causes of lack of attendance. On the other side of the line there is such an association, and it is not found that the annual meetings of the A. M. A. have been affected. Provincialism, which usually comes from colossal ignorance of what is done outside one's own province, is dying out in the West—fortunately for the West, and the experience of other countries and the story of their past struggles are considered a profitable subject for study. One point is clear—all

are united in desiring a medical standard in the West equal to that of other countries, and to attain this end a strong Western Authority seems the best means.

Manitoba Medical Association Annual Meeting

The provisional programme of the Manitoba Medical Association at Brandon in June is printed elsewhere. We hope the members will remember the date and endeavor to arrange to be present. Matters of immense importance will come up at the business meetings, among others, Inter-provincial Registration, and the Registration of vital statistics. A large attendance is expected, not only from Manitoba, but from Saskatchewan, Alberta and British Columbia, Minnesota and Dakota. Delegates are to attend from the Western provinces.

Committee for Reciprocity

Everything points to the formation of a general committee for investigating the advisability of Western Inter-provincial Reciprocity. Ontario also has applied for such privileges with the west. The necessity for one strong authority in the West gets more and more obvious as time goes on from the constant recurring problems of exams, laws, etc., as the lack of power of the provincial medical councils becomes apparent. Such was made clear the other day when the decision of the council of Alberta to erase a name from the Medical Register was over-ruled by the legislature, and the name ordered to be replaced. We have heard of several such instances of late. Without discussing the justice of either act, it is evident that the medical authorities at present controlling our affairs receive scant respect from the outside world. This has fortunately aroused a strong desire to discover the reason. We wish for no privileges for our profession that would work injustice to the public whom we serve, but we certainly should so order our affairs that the opinions and judgments of our leading authorities are respected as much as those of other professions, as the law, for instance. This would be the case if we had an effective Western authority representing the profession from the Lakes to the Pacific. A move in the right direction has been taken by the colleges of P. and S. of Manitoba and Alberta. These have selected delegates to meet and confer on the subject. Saskatachewan has no college at present, and only a registrar pro-tem, but by June the council will probably have been formed and their delegates chosen, and before the Dominion meeting in Winnipeg it is expected the delegates of the four provinces will have come to a decision.

PROCEEDINGS OF THE WINNIPEG CLINICAL SOCIETY

The Winnipeg Clinical Society met Tuesday, March 9th, with the President. Dr. Nicholls, in the chair. Dr. Munroe, the secretary, read the minutes of the previous meeting.

Dr. MacKay.—On the 5th of February this man came to me complaining of bronchitis. On examination I found little trouble in the lung other than that caused by what I considered a back pressure. The heart was found badly damaged. Patient had a tedious attack of typhoid 7 years previously, and never felt well since. Three years ago he had a very severe heart attack, and been advised by several doctors not to over exert himself. His occupation is switchmen, and he thinks that it is not injurious to him as he didn't mind crawling up on a box car, in fact, thought he was even better then. I sent him home dimished his diet, and gave him Guy's pill. No albumen in urine. On Feb. 7th, I was called, found him suffering from a severe pain in the back, the pulse rapid, about 2-5th dgree of rise in temperature, but he looked ill. I got a specimen of the urine next day and found specific gravity to be 10-28, with albumen. I sent him to the hospital, and had the urine measured, and found the specific gravity high on each occasion for the first ten days, diminished urine ao eight or ten ounces, with a great deal of albume. I applied hot packs, and put him on plenty fluids and diminished the diet to milk I had him for forty-eight hours on only barley water. It took several days to bring back the urine to its normal amount. As the urine increased in amount the albumen diminished. The heart didn't give much trouble, he could lie down and didn't suffer from dyspnea. He was in the hospital from seventh to nineteenth February. When he went out, the urine had reached 48 cunces in the 24 hours, and no albumen. The internal treatment was only a couple of doses of calomel, followed by salts. He went home feeling fairly well and since he hasn't been feeling very well. He complains during this last attack of dyspnea, the difficulty in sleeping. The only real good sleep he had was the other night he pulled a chair up to the bed and leaned over the chair and had a three hours' sleep. I haven't examined the urine today, but I wish you to examine the heart and help me out in regard to the methods we are to pursue in regard to treatment of his case. He has a certain amount of pain in the epigastrium.

Dr. Munroe.—What did you find on microscopic examination of the urine?

Dr. MacKay.—There were granular casts. There was no anasarca or puffiness of the ancles or arms. Guy's pills are 1 of squills, 1 of mercury and 1 of Digitalis. My diagnosis was this was an aortic regurgitant following typhoid, and there is mitral insufficiency due to the enlargement of the heart and the nephritic symptoms depended on the cardiac condition. The boy is in a bad condition; his home is in Minneapolis; his father died of heart failure, and I think you might say that the heart is fast losing compensation, and I wish to find ou what is the best line of treatment to adopt which will give the patient most relief. There is a murmur present.

Dr. Rorke.—I agree with Dr. MacKay that the case is largely that of aortic regurgiation. The apex is throbbing, in the auxiliary line and murmur will be heard at the base as well as at the apex.

In most cases of aortic conditions have not a good prognosis. When they have a loss of compensation it is very hard to keep it going, no matter what your treatment is to be, if he is to do very much in the way of work.

Dr. Hunter.—It is interesting to hear of this following typhoid. It is very rare to hear of an endocarditis involving the aortic valves. I haven't seen a case. One could feel the apex beat into the auxiliary line. There is no reserved power in that heart. Even resting, he had dyspnea, and his heart going rapidly. In that case, one must get the exact history of how long he has been lying up, and how much exertion he had tonight to form any progosis. He ought to be in bed and have a careful and restricted diet and bowels kept well open and a return to Guy's pill or blue pill.

Dr. Kenny.—This case reminds us of the first case presented before this society. The patient died in St. Boniface three days ago. I think he was in about the same condition as this man when I first saw him. He hasn't been able to do anything since that date.

Dr. Dorman.—I know a man who was riding to hounds, and had double aortic lesion. He had been doing that for ten years and suffered very little discomfort. This man, I understand, has been climbing over box cars and seems to think he is much better while at work. In this case the man had a double aortic lesion, and had a tremendous large heart, almost as large as his head. He had the upheavel of pulse. He had very little distress.

Dr. Milroy.—After typhoid fever we get cases of myocarditis and acute endocarditis. In some cases you get acute dilitation without endocarditis. You may have insufficiency of the valves without much deformity of the valves, and in cases of this kind, under rest and the plan of treatment outlined by Dr. Hunter, you get very good results. If there was a considerable degree of endocarditis and perhaps a considerable deformity of the valves then the prognosis is much the same as in Dr. Kenny's case that we had before us a year ago.

Dr. Rorke.—I would like to ask Dr. Dorman what happened to his case after he lost compensation. I think after the loss of compensation the chances are very small.

Dr. Dorman.—He really came to the hospital for treatment, but it seemed to me that the discomfort he had at this time was very small in comparison with the amount of lesion he had present. He had the Corrigan pulse, and yet was able to go with his work and suffered very little. I don't think he really lost compensation altogether.

Dr. Hughes presented a case to be examined. The patient has been nder treatment for two years. At first it started as a small spot on the right cheek and has gradually spread over the other side and last March he had an attack of typhoid fever and it disappeared and has only returned lately and is much worse. My diagnosis is Lupus erythematosus. My basis for diagnosis are: The method of distribution, the scarring (isn't very plain here), and the position and there is a mucous membrane to be seen in spots. It has been overlooked but Dr. Sequira reported a series of 200 and I think it was about 90 per cent. that they found of the mucous membrane lesions in connection with lupus erythematosus. The best treatment I think is application of camphor, carbolic acid and salicylates internally. The strength is about twelve per cent. carbolic acid. Another good thing is iodin. X-ray treatment has proven very unsatisfactory. Ethyl chloride freezing makes it spread more rapidly. In lupus ehythematosus sumorilla is generally best as a rule.

Dr. Lehmann —What is the effect of the treatment with cauterization? I believe it had been tried with Lazzar, and what is the ultimate result?

Dr. Hughes.—They have been in one way satisfactory by eliminating the inflammation in the region, but the scar left is bad.

Dr. Bercovitch.—About the use of cautery in these cases I do not know if Dr. Lehmann has reference to the electric needle, which has much the same effect as a cautery as far as burning is concerned. I have seen cases treated in London in the St. John's Hospital for the Skin and got very good results. As to the use of X-ray, Dr. Walker of Edinburgh says it should not be used for lupus erythematosus. The needles were used by superficial scratching on the patches and the superficial scratching to be very, very lightly done, not sufficient to burn it off, made fairly hot and the continual scratching on it wearing it off, treating two or three times a week.

Dr. Bond.—That would be electric cautery.

Dr. Kenny.—I saw a case of this kind situated on the lip. It was treated by ethyl chloride, but the relief was only temporary. It had been treated for sycosis.

Dr. Nicholls.—Dr Good treated a case of lupus vulgaris in a 14-year-old boy with radium and he made a good recovery.

Dr. Hunter.—What is Dr. Hughes' prognosis with your treatment?

Dr. Hughes.—In all cases of lupus erythematosus the prognosis is bad. With the different treatments it disappears, but returns.

Dr. Lehmann—Through kindness of Dr. Chas. Mackenzie, I present you a case of a very large tumor of the abdomen in a young man, 24, family and personal history negative; tumor first noticed by him last July. The growth has caused no functional disturbance. The tympanic percussion not found over the greater part of the tumor proves the mass to be retro-intestinal and probably retro-peritoneal. The enlargement extneds from the costal margin to the pelvis and through the external inquinal ring, presenting an appearance not unlike a strong cut hernia. The tumor has no relation to the liver but, on the other hand, is fixed to the pelvis. The tumor is not nodular, but seems to be in several layers. It is evidently malignant, and I think sarcoma is the only possible diagnosis. The age of the patient, the region of the growth and the lack of involvement of any of the viscera which is seen by the normal function of the bowels and kidneys, his lack of pain, the lack of involvement of the muscles and his present good general condition would all indicate that the growth is sarcoma and not carcinoma. The latter invariably produces severe constitutional symptoms long before the tumor reaches dimensions such as our case shows. In this connection permit me to exhibit an operation specimen clearly showing how sarcoma grows, not involving neighboring structure. The adjacent structures and muscles are crowded, but not invaded nearly as early as in the carcinoma. The remarkable circumstance in this case is the fact that the man has been working up to about a week without pain. He has had a little pain coming on spasmodically in the buttock region, no doubt due to the involvement of the muscle origin. When one looks at a specimen like the one being passed around it is easy to understand how that should come about. The bony attachment of muscles has been involved in the growth and any action of the muscles would give rise to pain. Why the lower extremities should be so much more frequently involved than the upper I do not know. This is the fourth case of pelvic origin I have seen in a comparatively short time. One of the patients complained of an ordinary sciatica and thought there was very little wrong with him. Sarcoma,

especially the osteosarcomas, do not invade other structures except those primarily involved. The case represented by this photograph originated in the upper part of the femur, the pelvis was not involved. Another case I had a short time ago and which came to P. M., originated at the same region as the case under consideration, and the whole Rt. Os. Inom. was totally destroyed; the sacrum, on the other hand, remained uninvolved; the pubes was perfectly normal and the head of the femur was simply surrounded by a huge mass of sarcomatous tissue, was normal and even the cartilage was not involved. I would be inclined to think that the large mass above, in this case, is simply an excrescence from the lower, just as one sees in fibroids, growing out from main mass.

Dr. MacKay—I agree with the diagnosis of sarcoma. I have seen three cases of sarcoma; two, I might consider, interesting. The first was that of a young fellow, age 20, working on a tipple at the mouth of a coal mine. He was a big strapping fellow, six feet high, and was shoving the box in front o fhim on a table, of about half-inch steel of the plate. He went up against an iron projection on the box that struck him in the abdomen, but it did not lay him off work. In about a month's time he began with a certain amount of pain in the sciatic nerve. This gradually grew worse but he continued working for about a month until he felt a slight lump and that was the first time he plate, and the box happened to strike an obstruction on the other side consulted a medical man. This rapidly increased in size, the sciatica became much worse: there were some bladder symptoms, and pain developed on the front of the thigh; the pain increased, the lump increased in size and it was diagnosed as sarcoma. He was sent to Halifax to the V. G. Hospital and his case was diagnosed as inoperable sarcoma, and eight months from the time of the injury to the tumor occupied the abdominal cavity and was about the size of an 8-months' pregnancy. He lasted two months longer and suffered a great deal of pain and died. A postmortem examination was held and the tumor was found to have sprung from the Illium at the junction of the sacrum and Ilium.

The second case I saw was a sarcoma of the femur. It was about the size of the fist. Operated, doing a thigh amputation, and the result was good for six or eight months, but he died of supposed pnuemonia and on postmortem examination it was found to be a secondary condition of the lung.

The third case was in Winnipeg. A young woman came to me in March, 1906, for a growth in the scar of the breast. In 1904 she had the breast removed for sarcoma. I removed this nodule purely for examination purposes and the diagnosis was spindle cell sarcoma. I advised her to go home, and she refused to take my advice and continued her work of boardinghouse keeper. ater she came again to see me, suffering from amenorrhoea and a good deal of pain in the scar. I examined pe rrectum and per vagina, and found a mass in the right fossa, and again advised her to go home. She went to the coast, and six months later developed a condition in the chest, which was diagnosed as tuberculosis. She returned about a month after, and I examined chest and there was consolidation. I examined sputum on several occasions but could not detect the tubercle bacillus. Made another examination as per vagina, and found mass had grown upwards, but not beyond middle line, uterus was free, but amenorrhea continued. Developed neuritis over left side. Suffered somewhat from gastric symptoms. No jaundice. Slight temperature; became emaciated and weakened. Made careful examination of abdomen from time to time,

and about three months after she returned I found that the pelvic mass had extended upwards to the base of the liver, and almost continuous with it. The urine up to this time was perfectly clear. I examined it when I found the mass extending up to liver, and there was slight amount of albumen; no casts. Lung had become consolidated from base to apex. She couldn't stoop without causing pain. Mass was nodular on surface, but in apex of the neck there was a few nodules and also nodules of a smaller size in the right side. Uterus remained clear. No symptoms of pain or distress on left side. No mass could be made out on left side; left lung remained sound until she died. It was eleven months from time she returned or the time when I found this mass in the pelvis until she died. Mass had practically become solid from right broad ligament up to the dome of the neck, including the apex of the lung.

Dr. Rorke—What is the condition of the right testicle in that case?

Dr. Lehmann—The right scrotum is enlarged from the pressure of the cord; I think it is simply edema.

Dr. Paterson—Is there anything peculiar about sarcoma that produces sciatic pains?

Dr. Lehman—There is a direct connection between sciatic and sarcoma; pressed on other structures to one side and if the sciatic nerves are exposed to pressure it will be sciatic pain, and the sarcoma does not break down and so the nerve pressure is a much more prominent symptom. The urine in this case is normal.

Dr. Nicholls—I don't think it is at all unsual for sciatica, in an elderly person, to be associated with a malignant growth.

Dr. Bond—Any narrowing of the bony growth through which the nerve passes will cause a sciatic condition.

Dr. Dorman—This child was brought to Children's Hospital this morning, female, aged 4½, Hebrew parentage, healthy until 18 months' old. Was beginning to walk and talk and could feed itself, and would ask when its bowels or bladded required attention. At 18 months, had an abscess of the jaw, which was lanced. After this, child began to get dull and required attention. Sometimes the eyes would squint and child lost flesh, and at present is more backward than when eighteen months of age. It doesn't talk or walk, and will not masticate its food. Pupils do not re-act well. Its father thinks it can see, because it will not burn itself on the stove, etc. The fundus was examined. The veins are dilated and tortuous, the arteries are normal. No atrophy. Reaction to light is sluggish, but the conditions were not good for examination. Kneejerks are present, but hard to get as the child holds itself in a rigid position. Has althetoid movements when awake. Child is unclean in its habits, makes no attempt to masticate its food but bolts whole. I would dagnose it as amyotrophic congenital idiocy. No history of convulsions. No Babinski's sign. Fingers seem to be twisted to the outer side of the hand. Muscles are very much wasted. This is the first child of the second wife. All the members of large family are healthy and the younger children are much more advanced than this. Dr. Oppenheimer of Berlin examined her, but the child being only a week there he couldn't do anything. The symptoms of holding her head back and closing her eyes is fairly constant.

Dr. Paterson—In connection with these cases, how is thyroid extract treatment?

Dr. Dorman—The case I showed here some time ago of Mongolian idiocy has been treated with thyroid since, and it has improved remarkably.

Dr. Bercovitch—As to thyroid treatment, I had a case under observation for seven or eight months and saw the child in much the same condition as this. It couldn't talk or walk or see, and I tried thyroid for about six months with no improvement.

Dr. Bond—There must have been some absorption of pus, owing to this dating back to the time of the abscess under the chin, or a mild meningitis type.

Dr. Nicholls—I understand these cases are very common to the Hebrew race.

Dr. Rorke—I think there are four cases reported outside of the Hebrew race; 17 cases occurred in 14 families, showing the family tendency.

Dr. Milroy—I think it is complicated by that abscess in the neck and there might have been acute symptoms present at that time. You cannot rely on the eye symptoms, which point to pressure, as still there is the absence of paralytic symptoms. The atrophic symptoms indicate a degeneration which is occurring in the cortex.

In these cases there is an inflammatory condition which is present in the early stages usually with a high temperature. Dr. Hunter says that this degeneration generally occurs without any inflammatory condition. I was under the impression that there was some exciting cause such as an inflammatory condition.

Dr. Kenny—I had a child a short time ago in which there was great difficulty in delivering the head; it was caught by the coccyx; there was abduction of the arms and hands, markedly at the wrist, and the hand would remain in the extended position and there was a hematoma over the bone. The child has recovered.

Dr. Dorman—This child's skull is very small and I would like to know if there is anything could be done as to operative treatment.

Dr. Lehmann—That stage is past where the idiotic children are operated on.

Dr. Hunter—I see that Cushing, in cases of paralysis following meningeal hemorrhage at or just after delivery, is operating on the newly born child and removing the clot and thereby attempting to present the following Heine or paraplegia.

Dr. Musgrove presented a slide with the Spirillum of Vincents Angina and demonstrated the differential diagnosis.

Dr. Raymond Brown—This case was kindly referred to me by Dr. Bercovitch. This child had the eye cut by a broken pop bottle and cut the sclera wide open; it was a stellate shape, and about half or one-third of the vitreous had escaped. The ciliary body was showing and sutures had to be made into the conjunctiva and into the sclera but not through the sclera. They held beautifully for about thirty-six hours, then they came away and the wound gaped open and then we lost about one-third of the vitreous again, and then we repeated the sutures, but they only held 24 hours. Then we had to make another suture through the sclera. Now the boy has vision of over half through his lense. He has a great deal of astigmatism, but the recovery is good considering it is only two or three weeks.

Dr. MacKay's case—Steamfitter, age 23, family history negative, no past illness. I first saw this case March 2nd. There was swelling in neck. On February 23 it was first noticed a slight swelling on his neck and his mate spoke to him about it and asked what it was. Up to that time he hadn't noticed it. Never had sore throat or any other symptoms. Swelling gradually increased till March 2nd, when he came to see me. It was then about the size it is at present. I wasn't sure whether it was of inflammatory or specific or malignant nature, but I

kept him under observation. I applied counter irritation in form of iodin, and I didn't see him again until March 6th. During that time swelling had increased to one third larger. I examined tonsil on first occasion and superior part on left side showed a slight ulceration and a certain blackish tint to it. Absolutely denies any history of a venerial condition, and practically any other illness. He thinks he had measles and mumps.

Dr. Lehmann saw the case with me. Last night I saw him again and found in the meantime the mass had subsided to a large degree. The only thing he had during the time was a gargle containing peroxide and listerine, equal parts. Only got temperature once, 99 1-5; pulse 80, and I never got it higher. My diagnosis is inflammatory condition coming from the ulceration of the tonsil, infecting the gland and my prognosis is good, and the treatment palliative, giving him a gargle.

Dr. Brown—I agree that it is a case of infection of the neck secondary to a tonsilliary infection, but the tonisl should be removed, I think, after the infection quiets down and I would like to emphasize that this infection started in the tonsil and lobe up in the upper section originally and if this tonsil isn't enucliated, this trouble is certain to recur.

Dr. Lehman—There is another possibility, and that is that the enlargement is due to syphilitic infection in the region of the mouth. The facts which would tend to indicate that are, in the first place, the man has no temperature. He had an ulcer which might and might not be specific. The glands are very prominent for an acute infection, and are distinctly lobulated, each gland can be felt, and that is a condition very rare in acute infection. There is a distinct doubt whether it is an acute infection and the case would have to be watched with the idea of secondaries appearing. In this case the maxilliary glands are enlarged, and I think there is a distinct possibility of lues.

Dr. Brown—I think these glands are tubercular. As to use of X-ray I have had several cases clear up under this treatment, but I think if this patient could get away into the primeval forest the cure would be much better, more rapid and more satisfactory.

Dr. Trick presented a male, age 60, with gangrenous toe. History says he felt a tingling in the leg about two months ago and it worked into the toe. When I saw him six weeks ago it looked like a frost bite and a week later, there was a blister present. I opened it, letting out some perulent material. Then the nail was loosening and I removed it two weeks ago. The skin became very dry and dark and discolored, and I used a solution of salicylic acid and tried to get that sloughing down. Urine is negative, no sugar, no albumen, and arterial sclerosis. There is a lot of burning. He cannot sleep at night, without opiates. About a year ago he had weakness in the muscle of the leg, not very much pain, but there was a soreness in muscles when he would walk. Pupils react. Bowels work well.

Dr. Hunter—The arteries of the upper extremity are very much thickened. One in such a case would think of diabetes but the urine is normal. There might be some form of infection in an older mon that would give some similar facts.

Dr. Lehmann—It is not uncommon to find these cases of arterial gangrene in oldish men. In many cases the other limb becomes involved. It is a difficult case to say what should be done. Amputation, of course, is the thing indicated, but as I happen to have experience with similar cases where amputation was performed, high up, in a short time the other foot commenced to go the same way and the

man was left with two high amputations, and it is a question whether we wouldn't have been better left alone.

Dr. Nicholls—Isn't there a chance of frost bite occurring more easily in people with the sclerosed condition?

Dr. Raymond Brown presented a case. Married man, wife well, age 32, no children. Wife had one miscarriage. He is nearly blind. In the right eye vision is 10-200, and in the left eye 10-70th. Never had syphilis; had gonorrhoea at the age of 22. Was treated at the Royal Infirmary for his eyes, three years ago, at which time his eyes were in about the condition they are now. The left eye improved slightly under treatment, not sure of nature but thinks same as I am following. Examining the fundus it is a case of choreo retinitis. Nothing in the urine. I am giving him iodides and I also gave mercury; he is complaining that his teeth were getting sore so I had to stop it. He is getting 15 grains of iodid. The left eye has come up from 10-70ths to 10-40ths,, and I don't know whether we will get much more or not. The treatment in these cases, whether they are specific or not, Fuchs' says to give them iodides and mercury. We have in this man beautiful large flakes of opacities in the vitreous, which is nearly always associated with chorovites. No nervous symptoms.

Dr. Bercovitch presented a case. Female, aged 35, married. At present not much to be seen but is pregnant. It was very interesting during its acute state, but at that time it was impossible to shew her before the society. There was a very acute skin condition present here, which apparently followed the taking of sardines and possibly ptomain poisoning. She is married eight years, had three children, one died recently, and two miscarriages. Husband is first cousin. Menstruation normal. Twelve years ago had a form of paralysis and for three days couldn't talk, this followed the news of her mother's death. Father died at 42 with tubercle. Mother was five or six weeks ill and same cause of death is suspected. One brother died of tuberculosis. No sisters dead. Her present illness followed ten weeks after being confined and she complained at the time of severe pain in the epigastric region. Temperature 102, and very much depressed. Two days following this there were a few red blotches appeared on the face which were very red and painful. About two or three days following on these red blotches devoloped what looked like pustules about the size of a bean, and when you looked at them they were typical pustules but on pricking them I was surprised to find that instead of pus coming out there was a little clear serum and on pressing some blood, but no pus. These blebbs or pustules or vesicles came out in groups for about two or three weeks following this and the serum became thick but no pus, some slightly turbid. Pain was very great and no itching at any time. Temperature for three weeks elevated in the evening and in the morning would come down to 99½. The distribution of these spots was on the legs, a few on the chest, and a few on the upper part of the back and several on the face. This condition persisted until Jan. 9th. Today she is fairly well, only that she says that she cannot walk any now and on walking about five minutes her legs become very tired necessitating her sitting down. What I wanted to show is the pigmentation that has remained following this condition. The skin condition is possibly a form of pemphigus due to the ptomain poisoning, or was a nervous condition started by the sardines—it happened to be the first time she ate sardines—and the condition following eating of the sardines being thss caused, it is hard to say.

Dr. Hughes—Dr. Bercovitch gave me the opportunity of seeing this case when at its height, and I must say he has given a very good de-

scription of the clinical picture then presented. The lateness of the hour makes it difficult to discuss the case fully. But I may say when I first glanced at the case it made me think of an artificial dermatitis and more so since the patient was a nervous woman desiring sympathy. Then we have to consider erytnema multiformi, specific, dermatitis herpitiformis, and pemphigus hystericus which I consider it was.

PROVISIONAL PROGRAMME.

Brandon, June 22 and 23.

C. Eugene Riggs, St. Paul, Minnesota, subject to be chosen; H. H. Chown, Winnipeg, "When to Operate in Appendicitis"; B. J. Brandson, Winnipeg, "Hydatids with Analysis of Cases in the Winnipeg General Hospital"; D. S. MacKay, Winnipeg, "Some Observations on Pain in Appendicitis"; J. O. Todd, Winnipeg, "The Surgical Treatment of Goitre"; W. Chestnut, Winnipeg, "The Physicians Duty in Tuberculosis"; J. E. Lehmann, Winnipeg, "More Recent Methods in Diagnosing Surgical Kidney Lesions"; J. A. McArthur, Winnipeg, "Tuberculosis in Children"; Robt. D. Fletcher, Winnipeg, "The Present Status in the Treatment of Urethral Discharges-"; W. Harvey Smith, Winnipeg, "The Tonsils and Their Treatment"; E. S. Popham. Winnipeg, "Some Phases of Life Insurance Examination"; Raymond Brown, Winnipeg, "Headache"; D. A. Stewart, Ninette, "The Sanitorium"; H. M. Speechly, Pilot Mound, "Country Practice and Some of Its Difficulties"; J. D. Lafferty, Calgary, "The Necessity for More Advanced Legislation Providing for the Protection of Public Health"; William Biglow, Brandon, "Syphilis of the Small Intestine," case report; Thomas R. Ponton, Macgregor, "Obstetrical Complications in Farm Houses"; F. D. McKenty, Gretna, "An Unusual Hernial Accident," case report; John A. Gunn, Winnipeg, "The Treatment of Typhoid Fever"; J. G. Munro, Winnipeg, "The Artificial Feeding of Infants and Its Relation to Summer Diarrhoeas"; John A. Macdonald, Winnipeg, subject to be chosen; Chas. Hunter, Winnipeg, "The Differential Diagnosis in Functional and Organic Diseases of the Gastro-Intestinal Tract"; Robert F. Rorke, Winnipeg, "Religion as a Psycho-Therapeutic Agent"; Max S. Inglis, Winnipeg, exhibition of X-Ray work; John H. R. Bond, Winnipeg, exhibition of X-Ray work; F. S. Keele, Portage la Prairie, "The Present Status in the Treatment of Acute and Chronic Otitis Media"; Neil J. McLean, Winnipeg, "The Diagnosis and Treatment of Gall Stones"; Herbert P. H. Galloway, Winnipeg, "The Surgical Treatment of Polio-Myelitis"; Arthur J. Burridge, Winnipeg, "Abdominal vs Vaginal Diagnosis in Obstetrical Cases"; F. Lachance, Winnipeg, "Currettage of the Uterus"; William Webster, Winnipeg, "Ethyl Chloride Anaesthesia with Resume of Cases"; D. H. McCalman, Winnipeg, "Pyelitis in Pregnancy," chemical reports; George O. Hughes, Winnipeg, "The Relation Between Skin and Systemic Diseases."

GENERAL MEDICAL NEWS

VITAL STATISTICS

Winnipeg, March:—

Typhoid, 6; scarlet fever, 13; cerebro-meningitis, 1; diphtheria, 15; measles, 45; tuberculosis, 6; mumps, 7; scabies, 12; erysipelas, 5; whooping cough, 7; chicken-pox, 1; total, 118.

Vaccinations, 118.

British Columbia, 1908.

Cause	Deaths
Diseases of Digestive Organs	280
Heart Disease	369
Lung Diseases (Pneumonia, etc.)	415
Tuberculosis	180
Typhoic	70
Diptheria	29
Alcholism	15
Bright's Disease and Diabetes	53
Nephritis	56
Paralysis and Apoplexy	57
Violent Deaths	430

(Drowning, 75; suicides, 24; murders, 8; official executions, 5.

British Columbia, 1908:

British Columbia, 1908:

Total—Deaths, 2,537; births, 3,684; marriages, 2,142.

For 1907—Deaths, 2,396; births, 3,047; marriages, 2,052.

MEDICAL NEWS

Saskatoon's new municipal hospital—a fine building costing over $60,000—was formally opened April 5th.

The hospital at Nokomis, Sask., will be opened May 1st.

Saskatoon is to have the Saskatchewan university.

The city of Moose Jaw has been asked by the citizens to build an isolation hospital on the hospital site, the board to deed over sufficient land for the purpose. The report shows

that the Moose Jaw hospital has had a very good financial year thanks to the efforts of those connected with it. During the year a Nurses' Home was purchased and the debt of the hospital reduced by $2,500. The upper flat has been turned into Maternity Wards and Nursery. The Ladies' Aid furnished the Nurses' Home, the Maternity Wards, gave the linen for the hospital and a grant of $500 to the Hospital Parks committee.

A Juvenile Commission has been appointed in Hartford, Connecticut, consisting of six citizens in conjunction with the mayor, the superintendent of schools, a member of the Parks' Board, a member of the Charity Commission, a member of the Health Commission and the judges of the Police Court. This ensures that every agency working for the betterment of children in education, health, recreation, poor relief, is properly co-related with all others. One of the first questions to be considered is compulsory attendance in the playgrounds.

Five years ago the Paris Sanitary Convention urged the governments to establish an International Board of Public Health. Nine countries have now agreed to do so, viz.: Great Britain, France, Russia, the United States, Spain, Belgium, Italy, Switzerland, Brazil, Holland, Portugal, Egypt, are to join later. For the present $30,000 a year is to be allotted for the work of the organization, each state contributing.

The Manitoba Sanatarium is to be at Ninette. Dr. Stewart has been appointed superintendent.

Dr. T. G. Roddick, formerly dean of the Medical Faculty of McGill University, at a recent banquet referred to his efforts to secure Dominion Registration. Six of the provinces have now stated that they are ready to avail themselves of the privileges of the Act.

The Boston Association for the Relief and Control of Tuberculosis conducts a school of Outdoor Life for Tuberculous Children during the summer months the results of which have been very satisfactory. The establishment of these schools has done immense good not only to the children, but in educating the teachers and the general public to an appreciation of the

value necessity of fresh air. A description of such schools is given in "School Hygiene" for March, publishers, Heath & Co., Boston.

Tubercular and subnormal children in the public schools of Chicago are to be segregated and provided with a special mental and physical training institute to be founded on a 240 acre tract of land.

Lessons in School Hygiene have been introduced into Great Britain.

Dr. D. J. Bechtel, of Lille, Alta., has succeeded in his appeal against the decision of the Medical Council of Alberta ordering his name to be removed from the Register. Last August as a result of an investigation held at Blairmore to consider charges against Dr. Bechtel by Dr. Westwood, of Lille, the discipline committee of the council recommended that his name be erased from the Register. The case was argued before Chief Justice Sifton and he has ordered Dr. Bechtel's name to be again placed on the Register. The costs of the proceedings are to be paid by the respondents.

A Society for Sanitary and Moral Prophylaxis has been formed in Calgary.

PERSONALS

Dr. Aylen, of Fort Saskatchewan, has gone to Ottawa owing to the serious illness of his mother.

Dr. Shepley, who has been in practice in North Battleford has settled at Raddisson.

Dr. Hasell, the house physician of the Royal Jubilee Hospital, has gone for a holiday trip up the E. & N. railway.

Dr. Lawson, who has been in Lille, Alta. with Dr. Malcolmson, is leaving and Dr. Snyder is taking his place.

Dr. McLean, of Winnipeg, has returned from a three-months visit to England where he has been taking post graduate work.

Dr. H. G. Mackid, of Ca'gary, has been appointed medical superintendent of the western division of the C.P.R. extending west from Broadview, Sask. to Field, B. C., and including all the branch lines in that territory.

Dr. Blow, of Calgary, has been appointed Eye and Ear specialist for the western division of the C.P.R.

DOCTORS WANTED—Doctor and Druggist, Elsbery, Sask.; Doctor and Druggist, Kinley, Sask.; Doctor and Druggist, Waseca, Sask.; Doctor, Fenwood, Sask.; Doctor, Denholm, Sask.

BORN

MACMILLAN—The wife of Dr. Lachlan MacMillan, Vancouver, of a daughter, February 16.

OBITUARY

Dr. J. Knox Niven, son of Dr. Jas. S. Niven, died March 31 after 3 years illness. He was 30 years of age and practiced for some years in Manitoba and British Columbia and served in the Boer war.

CORRESPONDENCE

To the Editor of the Western Canada Medical Journal

Sir,—I have followed with much interest the propaganda in your editorial and correspondence columns re forming a Western Canada Medical Association and so-called Reciprocity, and would like to add a word.

We have special western needs that can be best served, or served only, by a Western Association. and the early promotion of this should have the hearty and active support of every medical man in the West and the goodwill of all in the Dominion. The earlier we start right, the better, and there are certain things medical to be put in order before we will be going right yet in the West. The power of an organization is many times that of its component individuals, and a W.C.M.A. can do some things which perhaps no other agency can. Let me indicate a few:—

1. We should have **one registration examination** for the two,, three or four Western Provinces that have in them enough big-minded men to do something for the future welfare of the profession here in the West. Such an examination would certainly have a higher standard than any one of those provincial licensing bodies. Is there anything to prevent our medical councils joining hands at once and conducting their next examination under a joint board of examiners, at the usual centres? Anyone passing the examination could take out a license for any of the participating provinces. (As a suggested detail: The exam. fee might be $50 and the license fee $50, or some other figures, but there should be two fees). This is not reciprocity—**it is UNION and strength.**

2. As it is an anomaly to have the qualification of our medical men limited by artificial (provincial boundary) lines, which have nothing to do with the science and art of the treatment and prevention of disease, let us have **Reciprocity for existing registrants,** and so get a united profession for the future. Reciprocity seems to me the lesser evil. It will certainly not increase the actual number of incompetents in any part or the whole of Western Canada at present. There would be little shifting about. Reciprocity would strengthen union, but is a distinct and separate issue and the two must not be confused. As another suggested detail: Let the "Reciprocity" license fee be double that for the license under union examination or, as before, have a reciprocity registration fee and a license fee.

3. The Medical Act, Public Health Act and regulations of the Provincial Board are the statutory provisions governing medical work and they should be uniform for all these provinces whether we have union and reciprocity or neither of these. A W.C.M.A. could successfully urge upon the appropriate legislative bodies the wisdom of this arrangement and in the revision to get uniformity many improvements would very likely be secured, too.

Now, some of these suggestions are not new, but have already been advanced and ably advocated in your columns and elsewhere by Drs. Kennedy, Patterson, Speechly, Brett and others. I have re-

stated some to bring them together. To summarize: I believe we should work for the following and in this order:—

1. A Western Canada Medical Association. It would be an instrument through which to work for 2, 3 and 4 below, as well as other desirable objects.

2. Unification of medical legislation—medical acts, public health acts, etc.

3. A Western Canada ("Central Canada" or "Prairie Province," if British Columbia won't join in) registration with one examination conferring the right to practice in any of the party provinces on taking out the license for it.

4. Reciprocity and a united west. I would like to see a proposed constitution and bylaws for a W.C.M.A. adopted at the earliest possible opportunity, which seems to be the Brandon meeting in June. It could then be submitted to the other Provincial Associations at their regular meetings this summer. One final suggestion: Have the first meeting of the W.C.M.A. at Banff—that's meeting British Columbia more than half way. Yours faithfully, D. G. REVELL.

Edmonton.

BOOK REVIEW.

Text Book—Diseases of the Nose, Throat and Ear, by Francis R. Packard, professor of diseases of the nose and throat in the Philadelphia Polyclinic and Aurist to the Out Patient Department of the Pennsylvania Hospital. It has 350 pages with some 150 cuts and illustrations. Published by Lippincott Co., Montreal, 1909. Price $3.50.

This work is a practical and up-to-date hand book for student and general practitioner. Especially commendable is the chapter on "Instruments and Methods," which is given in such form as to be easily grasped by the beginner. The chapter on "Hay Fever" and also the one on Cephalic Manifestation of "La Grippe" contain much of the thereputic value not found in most works of this kind. The author's individuality comes out all through the book, but especially in the chapter on "Reflex Disturbances of Nasal Origin." More than the usual number of useful prescriptions are given in connection with treatment.—Raymond Brown, M.D..

International Clinics. 4th. Quarterly Volume, edited by W. T. Longcope, M.D., Philadelphia. Published by J. B. Lippincott Co., Montreal. Contains a very valuable "Personal observations of Biers Hyperaemia," by George Ely, M.D., of Pittsburg. It is a good synopsis of the subject pointing out that many of the modes of treatment in vogue for centuries are nothing but the production of hyperaemia in circuitous fashion. He somewhat enlarges on the technique, which is of the very first importance, and explains many of the failures reported to the non observance of the right methods. Great stress is laid on the perseverance necessary to acquire a correct technique.

He reports a few cases and gives some plates. The whole article is a strong plea for more universal use of this method of treatment.

Dr. J. Pratt gives a useful paper entitled "Advance of Physical Therapeutics," "Psychotherapeutics with special reference to the influence of the Mind upon the Body," by Dr. C. D. Palmer of Cincinnati, is a very useful article both for the physician and surgeon; it recalls many old truths that are too often neglected

Splachnoptosis Enteroptosis, by Dr. Brown, of Baltimore, is an article that everyone should read. The author takes a wide view of the

field and consequently avoids the too prevalent fads on this subject.—J. E. Lehmann, M.D.

Minor Medicine, by Waller Essex Wynter, M.D., B.S. (Lond), F.R.C.P., F.R.C.S., Physician to Middlesex Hospital and Lecturer on Medicine in the Medical School. Published by Appleton & Co., London. Agent, D. T. McAinsh & Co., Toronto; 275 pages; cloth $1.75.

Dr. Wynter has given the country physician a book that will help him in the treatment of those minor ailments which he is called upon to treat every day. Such diseases as Biliousness, Nervous Headache, etc., which are not taught in our medical course, are well dealt with It is a book that should find a place on every medical man's table.

Practical Dietetics by Alida Pattee. (Publisher, A. F. Pattee, Mount Vernon, New York.)

A fifth edition has been issued of Miss Pattee's "Practical Dietetics," so great has been its success. Many educational and other authorities have adopted it as a text book, and it is used by various state boards of examiners of nurses, and has also been adopted by the military authorities in Canada for the permanent schools of instruction for the militia, and is now on the list of authorized text books in use in the public schools of New York City, Boston and Milwaukee. Every nurse and housekeeper should have this useful book on the preparation of food, in her library.

A System of Diet and Dietetics, edited by G. A. Sutherland, M.D., F.R.C.P. McAinsh & Co., Toronto. Price $9.

The above has been added to the series of Oxford medical publications under the editorship of Dr. Sutherland, who has had the assistance of the following distinguished physicians as collaborators: Noel Bardswell, Francis Boyd, Rose Bradford, Lauder Brunton, Harry Campbell, Edmund Cautley, J. Ellis Chapman, Jno. Cowan, Chas. Wilberforce, I. Colcott Fox, Wilfred Hadley, Herbert Hawkins, Claude Ker, Arthur Luff, Patrick Manson, Edmund Spriggs, Jas. Taylor, W. Hale White. Each of the above writes on the disease he has specially studied.

The physiology of digestion and the result of experimental dietaries in man and animals are considered. The diseases of the different organs and tissues are taken separately, and the appropriate diet for each disease is fully described. When he has made his diagnosis of an illness the practitioner can well find, by reference to this volume, what diet is considered the best in that disease. Special attention is given to diet in diseases of childhood and old age.

There is a most interesting chapter by Dr. Campbell in which he traces the evolution of diet from the time when our ancestors lived on fruits, roots, insects, etc., to the present, which he calls the "Age of Pap." Dr. Spriggs gives tables of the composition and heat value of different articles of food compiled from Atwater & Bryant. The various dietetics cures are discussed by Dr. Cautley. Artificial feeding is taken up by Dr. Boyd and the diet in tuberculosis is minutely gone into by Drs. Bardswell and Chapman. Dr. Luff has an interesting chapter on gout and rheumatism in which he recommends Chittenden's dietetic principles and does not consider meat harmful. The diet in nervous diseases is discussed by Dr. Taylor, and so on. In fact, without doubt, this most valuable book should be on the shelf of every practitioner.

NOTICE

ODD-NUMBERED SECTIONS

As already publicly announced, odd numbered sections remaining vacant and undisposed of will become available for homestead entry on the coming into force of the Dominion Lands Act on Sept. 1, next.

As the records of only the even numbered sections have hitherto been kept in the books of the various land agencies in the western provinces and the time having been very limited since the passing of the act within which to transfer the records of all odd numbered sections from the head office at Ottawa to the local offices, it is possible that the transfer of records in some cases may not have been absolutely completed by the 1st September. In any case where the record of any quarter section has not been transferred, application will be accepted but will have to be forwarded to head office to be dealt with.

As it has been found impossible as yet to furnish sub-agencies with copies of the records of the odd numbered sections and in view of the large probable demand for entries, all applicants for entry upon odd numbered sections are strongly advised to make their applications in person at the office of the Dominion Lands Agent and not through a Sub Land Agent. Applications for even numbered sections may be dealt with through the Sub-Land Agent as before if desired.

J. W. GREENWAY,

Commissioner of Dominion Lands.

Winnipeg, August 22, 1908.

Synopsis of Canadian North-West Homestead Regulations

Any even numbered section of Dominion lands in Manitoba, Saskatchewan and Alberta, excepting 8 and 2 not reserved, may be homesteaded by any person who is the sole head of a family, or any male over 18 years of age, to the extent of one-quarter section of 160 acres more or less.

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

DUTIES:

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

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

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

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

W. W. CORY,

Deputy of the Minister of the Interior.

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

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