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PRESIDENTIAL ADDRESS: CANADIAN MEDICAL ASSOCIATION.

BY H. H. CHOWN, M.D., WINNIPEG.

As this is the first time that the Canadian Medical Association has met in Manitoba I would like briefly to call attention to the future of the province. With less than 10 per cent. of the arable land under cultivation our farmers this year have a crop estimated to yield 85,000,000 bushels of grain. In the territories west of us only about one-tenth of one per cent. of the available crop area has as yet been touched by the plough. Between the Laurentian hills on the east and the Rocky Mountains on the west and north of the forty-ninth parallel it is possible to grow the total amount of the wheat now used in the whole world. We want population, and we hope to make each of you a willing immigration agent.

Winnipeg is a growing and vigorous infant, but I must not delay to point out its many interesting features. I have seen it almost from its birth onward, and would probably be paternal in my estimation of its charms. Babies have their moments of repulsiveness, and you will find many things to criticize in this growing city, but I trust you will

> Be to its faults a little kind,
> Be to its failings ever blind.

It is within the scope of an address to a medical association to refer to the work performed for the purpose of making the

city a healthy one. Notwithstanding the level nature of the land, an excellent system of sewers has been introduced through all the streets. Arrangements have been made for regular flushing by means of tilting basins at the upper end of each sewer. As we have two rivers at our doors the problem of removing sewage was easily and safely solved.

The water supplied to our people is as pure as can be found in the world. Vienna boasts of having water which contained only thirty-five colonies of bacteria to each cubic centimeter, and has, therefore, to all intents and purposes a sterile water. A similar examination of the city supply showed that there were in it only nine to thirty colonies. The water is taken from an artesian well seventeen feet in diameter and forty-eight feet deep, and, although they have been pumping for months a supply of from 2,000,000 to 3,000,000 gallons per day, there is not the slightest evidence of any diminution of the amount flowing in. The well is supposed to tap an underground passage which runs from Lake Manitoba, and, as this lake is 130 miles long, the supply is inexhaustible. The underlying rock formation in this section is magnesian limestone, and consequently the water contains a large amount of the carbonates of lime and of magnesia, and is too hard for satisfactory use in boilers and hot water appliances. This is overcome by using Clark's method of softening, by precipitation of these carbonates through the action of lime water. Seventy-five per cent. of the lime and 50 to 60 per cent. of the magnesia, or 68 per cent. of the total hardness is removed. The softening plant is unique on this side the Atlantic, and well deserves study at your hands. The water when taken from the taps in our homes is so cold that it requires no ice, and the danger of importing disease germs in the ice is thus eliminated. The citizens of Winnipeg, both those of to-day and those of the future, will ever owe a debt of gratitude to the engineer, Col. H. N. Ruttan, who discovered the source, inaugurated the system and carried it through to so successful an issue.

During the past year the subject of tuberculosis has held the paramount place in the interest of the profession. Congresses have convened at London, New York and Ottawa for the discussion of this white man's scourge, and for the formulation of means to overcome its sway. As Friday evening will be devoted to the full discussion of the subject, I shall only draw your attention to one point which, I believe, would well repay thorough investigation. Koch's tentative denial of the oneness of tuberculosis of man and tuberculosis of cattle still needs the proof of non-inoculability from cattle to man. In this new country

where our farmers, young and free from tuberculous taint, live in newly-built houses, which harbor no bacilli and are separated by long distances from their neighbors, tuberculosis constantly makes its appearance. We have here, unconsciously but no less disastrously, an experiment on a wide scale. If you can eliminate heredity, house infection and contagion from other cases, to what cause can you ascribe the origin of these outbreaks? Add to this that in every case where the farmer's cattle have been tested by tuberculin some of them have reacted strongly. The juxtaposition may not be proof positive, but its continuous recurrence certainly is suggestive. If our Government would back up financially a careful study of this one point, I believe that information of great value would be obtained. Indeed, without assistance from the ruling authorities the progress of stamping out this disease will be slow and disappointing. You can get money appropriated to suppress outbreaks of glanders or lumpy-jaw, but when you appeal for aid in lessening the greatest scourge of the human race you will find that the coffers are always empty.

Medical education continues, and will continue, to demand great attention at your hands. I commend very strongly to you the plan of Dominion Registration as introduced by Dr. Roddick. Why should each practitioner who desires for any reason to move from one province to another be compelled to pass examinations that will pluck 99 per cent. of the examiners? Why should our respected teachers, who were our fathers in the profession in Canada when we were in swaddling clothes, be made to submit to quizzing at the hands of those whom they instructed? The present system seems to be based on unnecessary self-appreciation on the part of some and base fear of competition in others. It is not the number of years given to study or the number and variety of lectures attended that make the competent practitioner. As an examiner and as a consultant I have often found the greatest failures among those who passed through the curricula that are most lauded and most strongly supported. I regret that in the higher standard now demanded for matriculation no place has been given to logic and metaphysics. Every workman who knows the nature of the tools he uses is more reliable and more proficient than his ignorant neighbor. Surely a clear knowledge of the mind and a thorough study of the laws of reasoning would form an invaluable addition to the equipment of the physician. The present mode of training our students makes keen their powers of observation, but leaves them without any conception of how to join together all the facts that have been noted into an accurate and full diagnosis. Want of clear reasoning is more frequently the cause of mistakes than

inability to gather together the symptoms of the case. Then how much more satisfactorily would cases of mental instability be dealt with if the physician understood the functional disturbances to which the mind is liable. Would there be the same field for Christian Science, hypnotism, telepathy, osteopathy, electrical treatment if we were well posted in the reciprocal influence of mind on matter? The almost universal habit of prescribing drugs for each one applying for relief from neurotic affections is the foundation on which is constructed the greater part of quack treatment. An honest acknowledgment of our inability to locate the cause of many pains and a strong demand for further opportunities of observation would ultimately redound to our credit, though for a moment a crude denunciation might follow us.

It would be the height of presumption for me to describe the status of medicine to-day, but it may be interesting to review the amount of our knowledge a hundred years ago. We all know the commanding sphere occupied by our science and art now, but few have taken the trouble to inquire into the real knowledge possessed by our predecessors at the beginning of the nineteenth century. Bichat, early in the century, announced the difference between pneumonia, pleurisy and bronchitis. This differentiation was made on constitutional symptoms, as the physical examination of the lungs was unknown. Although percussion was employed over a hundred years ago, mediate auscultation was first introduced by Laennec when one-fifth of the century had passed by. The description given by Watson of tubercle is worth comparing with our present knowledge. "Tubercles," he says, "are composed of unorganized matter, deposited from the blood, of a yellowish color, opaque and friable, and of about the consistence of cheese." This corresponds well with the process of caseation as we know it to-day. He also describes miliary tubercles very clearly. "The lungs are often studded with a number of small granules of firmer consistency, almost as hard as cartilage, and of a bluish-gray color. Whatever may be the true theory respecting these little gray bodies, it is certain that they acknowledge some intimate connection with the true cheese tubercle." How much clearer is our knowledge of this disease now, and how widened is our conception by the part played by the bacillus tuberculosis!

There was no distinction known between the varied forms of continued fever when the last century began. Typhus and typhoid fever were not distinguished the one from the other. Yellow fever was believed to be due to local insanitary conditions, and to be discriminated from other febrile disorders only

by its severity and by its limited locality. Rush writes: "To say that a febrile disorder is contagious is the same thing as to say that it is produced by an animal poison. These animal poisons affect changes in the blood whereby they are abundantly multiplied or reproduced. In order that a specific animal poison should affect its own reproduction in the blood it is requisite that a certain ingredient should be present. If this ingredient is exhausted the same disease cannot be again produced by the agency of that poison." This is really a very clear statement of our doctrine of contagion and immunity, requiring few changes to meet our present-day knowledge.

Malarial fever was supposed to be caused by "certain invisible effluvia or emanations from the surface of the earth." The role of the festive mosquito in spreading this disease as well as yellow fever was then undreamed of. They did not believe in the contagiousness of phthisis, but explained its prevalence by constitutional predisposition. Diathesis figured largely in their etiology. Watson states that tubercular diseases are liable to occur principally in the phlegmatic with pale complexions, narrow chests, flabby muscles and feeble circulation; in the sanguine with transparent, rosy skin, long silky eyelashes and unusual mental precocity, and in the bilious with dark, muddy complexion and mental and bodily sluggishness. Surely under these three heads all of mankind would be included, and the value of the explanation rendered useless.

The energetic agent of proprietary drugs was as active then as to-day, and found a too easy and credulous hearer among the doctors. I learn from a presidential address delivered before the Medical Society of the State of New York that "medicated gout water," the composition of which was unknown, was nevertheless fully approved by the faculty in London, Paris and New York. How many of us to-day succumb to the temptation of using some much-vaunted remedy of which our total knowledge is embraced in the puffing of some verbose commercial traveller! As a proof that there is nothing new under the sun I may mention that in 1810 the "gold cure" was recommended to the attention of every practitioner. This most valuable discovery was said to cure "syphilis, scrofula and scirrhus uterus," and more still, to have succeeded in nearly every trial. Credulity was rampant then as to-day, and the poor patients were compelled to swallow gallons of chemicals whose only potency lay in the assured promises of the prescriber. Palatability is much more sought after to-day, and the belief in the efficacy of a mixture as proportionate to its nauseousness has passed away. This is partly due to developments in chemical analysis, for a century

ago they had cinchona bark, but not quinine; opium, but not morphine; nux vomica, but not strychnine. Bleeding was in constant use, and the heroic way in which it was performed must evoke our admiration for the courageousness of both patient and physician. They counted blood not by ounces, but by pints. Even after this onslaught upon the life-giving fluid they did not hesitate to follow on with such doses of purgatives and emetics as would cause the ruin of professional standing in any one who ventured on such medication to-day. I can only explain the recovery of their patients by the surmise that they became so limp and helpless that the fair and honorable disease germ retired from the contest rather than gain a victory over so poor an antagonist.

In surgery greater progress has been made than in any other department of our art and science. Wounds in 1800 were supposed to require inflammation to produce union. *Pus bonum et laudible* accompanied benign forms of inflammation, and indicated that all was going regularly. As they had no anesthetics, they resorted to the use of infusions of tobacco, taken internally, to place their patients in the condition of the sea-sick passenger, who is so prostrate that he cares not what operation is performed so long as the end comes quickly. Too surely, indeed, did death follow the use of the knife, for those who survived the shock had to run the gauntlet of that list of wound infections which has now been almost banished by antiseptics. The appreciation of surgical cleanliness as taught by Lord Lister and his followers has enabled the surgeon to widen the field of his labors so that scarcely any part of the human body has, during the past twenty years, escaped the use of the knife. I have not heard of any one removing the pineal gland, and possibly this holds the proud position of being the only unassailable organ. But I warn it not to be too elated or some surgeon will snatch world-wide fame by removing it. The safety with which major operations can be performed, the slight amount of pain which follows and the rapidity with which the wounds heal make the practice of this branch of medicine an attractive and alluring occupation. It is unnecessary for me to enter into a detailed account of the newer operations now performed, the change has been too recent and too striking to have escaped the notice of every practitioner.

Anesthetics and antiseptics have played a benevolent role, not only in surgery but also in obstetrics. The expectant mother can await her approaching confinement without dread of agonizing pain, as the modern accoucheur will control with chloroform the most violent suffering. Puerperal fever has been largely suppressed by our recently acquired knowledge of its causes and

the application of the necessary means of prevention. Deaths from the sequelae of childbirth have been greatly reduced during the last quarter of a century.

What has the future in store for us ? I will not attempt to prophesy, as my qualifications are not well attested. We all know that there are large questions yet to be settled, and, therefore, the need for patient and persevering investigation is still paramount. Bacteriology and hematology are in their infancy, but have been so illuminating in their short development that we expect a flood of light yet to come from these sources. No one can sit down complacently and feel that the summit has been reached; rather should each of us resolve to work more faithfully in order in even a humble capacity to add to the sum of knowledge in our chosen profession. Cannot some one grasp the kernel of truth that underlies the fallacies of Christian Science, Dowieism, Faith-healing, *et hoc genus omne* ? Are we not too prone to rely on drugs and to forget the control of mind over body ? If many of the ailments brought to our notice are imaginary, why not treat them through the source of imagination rather than through the stomach ? I feel that a duty rests upon us to get at the true cause of all forms of disease, and rescue the public from the deceived fanatic and the ignorant pretender by doing not only all that these claim, but doing more and doing it better.

Let me conclude this address by quoting a layman's opinion of what a physician should be and do. The standard is a high one, and if we can measurably achieve success in the direction pointed out, we will do much to gain and hold the confidence of the public as the only true guides in matters of health and sickness. The Rev. J. M. Buckley, of New York, says: "An intelligent, educated, experienced and candid physician studies both the mind and body, relieves the sick man of the responsibility of treating himself, strengthens him by hope and encourages him by his personal presence and manner. He understands the mineral, plant and animal substances included in the materia medica, he knows that not medicines but inherited vital force is the primary cause of health and healing of the repair of injuries. He knows also by observation and experiment that nature can be assisted, but he interferes only when it is safe and necessary. Such a physician is too learned and too honest ever to do he knows not what, because he knows not what to do. He can relieve the pains of incurable diseases, smooth the pathway of sufferers to the inevitable end, and to convalescents he can give such hygienic hints as may prevent the recurrence of the malady or save them

from something worse. Certain that all men must die, and that all die of old age, disease, accident or intentional violence, he claims by hygiene, medicine and surgery to assist nature to delay the inevitable, and to render the journey to it more endurable."

PRESIDENTIAL ADDRESS.*

By W. T. Connell, M.D., M.R.C.S.(Eng.), Kingston, Ont.
Professor of Pathology and Hygiene, Queen's University.

Gentlemen,—The next item on the programme for this evening's session is the address of the President. Before entering upon the subject-matter of my address, I will take this occasion to thank the members of the Association for the very great honor they have conferred upon me in placing me in the chair to preside over the sessions of this important society. It is an honor any man might covet, and one that my work so far hardly merits, but I trust I may not be wholly unworthy of it. I shall always look upon it as a distinction to be proud of, and indeed as a proud position to be held by any sanitarian in the Province.

The President is given a wide choice of subjects on what to address the meeting—the whole realm of hygiene lies before him. I might have made use of this to read you a dissertation on the tetanus bacillus, or the streptothrix actinomyces as they affected the public health, but I fear you would find such subjects as dry as their names. Lately we have been quite overstocked with resumes of the work in medicine, and its allied sciences during the past century, and with prognostications of the advances in the sciences in the century upon which we have now entered. I will not give you a rehash of some of these subjects, but leaving histories and prophecies to others, will make some rambling remarks on our public health matters here in Ontario, particularly looking at some of the defects.

The most striking matter in public health affairs during the past year in our province has been the widespread outbreak of smallpox. Fortunately the type has been exceedingly mild, for of (roughly) 700 cases up to June 20th, there were only six deaths, a death-rate of 0.86 per cent. So mild, indeed, have been most of the outbreaks, that serious errors of diagnosis have oc-

* Read at meeting of Executive Health Officers' Association of Ontario, Brantford, June 25th, 26th, 1901.

curred, giving the disease a chance to become widespread through lack of early isolation and notification of the disease, with vaccination and quarantine of those exposed. Practically, our cases have come primarily from the United States, directly or indirectly, for though many cases trace their origin to the mining and lumber camps of Nipissing, etc., yet these were infected from the States. Smallpox is very widespread through the various states and every state bordering on Canada has the disease in mild form (Filipino measles). Owing to the widespread prevalence of smallpox in Ontario, vaccination has been very generally carried on all over the Province, particularly among the school children. I have had an opportunity of seeing a large number of vaccinations, and have obtained from the physicians of Kingston and vicinity, a history of upward of 5,000 vaccinations made with glycerinized bovine lymph, practically all furnished by two firms. In the case more particularly of one of these firms' lymph (though the other is not altogether blameless), the results have been exceedingly anomalous. The onset was much delayed, the first evidences of reaction rarely occurring before the eighth day, more often the tenth or twelfth day, and the "mark" not reaching its maximum till the twelfth, fourteenth, sixteenth day, or even later. Again, the course of the lesion was not at all that usually described in the text-books that I have noted, or in vaccinations seen both here and in England. Dr. Sheard said last year that he had never seen a typical vaccination course with bovine virus from any source. My own observations are limited compared to his, yet I have often seen absolutely typical results with such virus. Now, the anomalous results in the cases I have seen are not due to asepticism of the lymph, for I have seen lymph which was aseptic to ordinary culture give typical "arms" in the usual course of time. The atypical lesions noted in connection with these lymphs are to me an evidence not of asepticism, but of marked attenuation of virulence on the part of the vaccine (Is it vaccine at all?). It acts in the manner of an attenuated virus, *i.e.*, a delayed onset and an anomalous course. That it is attenuated (or is not vaccine at all) is borne out by the history of some cases within the last two years in Essex County, where smallpox was spreading among individuals vaccinated with lymph acting as I have outlined. A large number who had been so "vaccinated" were again operated on with other lymph, and practically all again took, and ran the usual course.

What, then, is the protective power of such lymph? Is it not greatly weakened? I have insufficient data at hand to answer positively, but the Essex County results show that there at least it was not protective against either fresh, active vaccine. or against

the smallpox. English authorities particularly insist on the high protective value of good active lymph, and multiple marks. What protection, then, is afforded by an attenuated lymph and a single insertion. Then, again, there is another very serious aspect of this question, *i.e.*, that we could not use such lymph on persons who had been exposed to smallpox infection, with the idea of developing in them some measure of immunity. As is well known, by vaccinating with active lymph immediately after exposure to smallpox, we have at least three full days' start of the smallpox—a valuable period. But with such lymph as has been so extensively furnished us in this province, we have no such time. The development of the vaccine would be at best synchronous with that of the smallpox, and would modify it in no way. At the May meeting of the Kingston Medical and Surgical Society, I read a paper on the subject of "Vaccination and Vaccines." The members, after a discussion of the subject, unanimously adopted the following resolution:

"That whereas there are now many cases of smallpox in Ontario, and in consequence vaccination has been very generally enforced, especially among the school children;

"And whereas, the vaccine now being supplied by various makers does not produce the results generally recognized as typical of successful vaccination. And again, much of the vaccine now supplied requires ten, twelve or more days to produce these atypical effects;

"Therefore, be it resolved, that in the opinion of this Society it is questionable if the vaccination so produced would, in case of an epidemic, be a safeguard against smallpox, for two reasons: (1) its atypical lesions, (2) the longer, *i.e.*, delayed course;

"And be it further resolved, that in a matter of such vital importance the character and quality of the vaccine supplied should be beyond doubt, and that therefore the Ontario Government, through the Provincial Board of Health, should devise some means to supervise the preparation of all vaccine supplied to physicians in the Province, and that the vaccine so guaranteed should be sold to the profession at a rate to cover the cost of its production."

I need not comment much further, but simply say with Dr. Bryce, "We want a vaccine that will protect against the smallpox."

At last year's meeting in Kingston a resolution was placed on the minutes pointing out the necessity for and the benefits that would accrue from the establishment gradually of branch laboratories throughout the Province. This resolution also advised that the first branches be assigned to London and Kingston, which are now the seats of colleges possessing laboratory facilities. So

far as I am aware, no steps have been taken to push this matter before the proper authorities. I think, perhaps selfishly, that something should be done at once in this direction. It is one step toward that very desirable ideal, the county laboratory and the county medical officer of health. The establishment of such laboratories would more rapidly serve the needs of the districts in which they are located, and would likewise have a great educative effect upon the medical men and the people themselves in the district—an educative effect that is very much needed. The value of such laboratories can hardly be open to question. In the early diagnosis of tuberculosis alone, laboratory methods are invaluable. The more I examine sputum, the more certain I am that the tubercle bacilli appear very early in the sputum in tuberculosis of the lungs, for I have demonstrated them repeatedly in the face of practically negative physical signs. Then such laboratories would do effective service in connection with diphtheria diagnosis and the serum diagnosis of typhoid fever, besides making examinations of the milk and water supplies and being a court of resort in questions relating to the quality of meat supplies. Certainly this work could all be done in the central laboratory, but it means, if the work is to increase, an increase of staff there, and a longer delay before answers can be submitted to distant correspondents. Again, the working expenses would be increased by the establishment of branches in those centres where laboratories already exist, as at London and Kingston.

It has always seemed to me that our present system of administering to the public health was, while democratic, exceedingly deficient. Our municipalities have control of their local health boards, and of course this means the boards are run mainly under the influence of local politics. The first demand in many places is for cheapness, while efficiency is not considered. The local boards so constituted are very spasmodic in their sanitary efforts. Their condition is generally one of apathy, too often tinged with ignorance. I know of one town that has appointed a medical officer of health of a type seldom seen nowadays. This man explains the prevalence of typhoid, scarlet fever, and measles, by an "epidemic constitution of the atmosphere," and of course thinks that individuals so affected (air-struck) cannot avoid infection. Isolation for him is only necessary because the law of the land says it must be carried out. Without doubt there is sufficient sanitary work in each county to engage all the time and attention of a qualified sanitarian. The great item is that of expense, but there can be no reasonable doubt that such a man would more than pay for himself by lessening the amount of sickness

and diminishing the death-rate from those causes that are avoidable.

I would like now, still perhaps in fault-finding mood, to point out a few matters that seem to me to demand more attention than they are receiving in many parts of our country. First, with regard to typhoid fever, we find only a few medical officers endeavoring to trace to its probable source a case of this fever. In consequence, no steps are taken to prevent further infection from such a source. Certainly, by obtaining a purer water supply in our cities, and by more care in our milk supplies, typhoid fever seldom occurs now in epidemic form. But if we ever wish to stamp out the scattering cases that do occur all over our province, some investigation should be made into every case, and of course the patients' excreta should be very carefully disinfected. Many cases of typhoid are not returned as such, but escape notification by being classed as continued fever, gastric fever, remittent fever, or typho-malaria (whatever this may be). The Widal test does fairly efficient work in clearing up these cases.

Again, we have in many localities great laxity in the matter of isolation of infectious cases, particularly of the milder types. Parents make differences between scarlatina and scarlet fever, and often do not call in a physician, and certainly do not notify the health officer in mild cases. Isolation in such cases is the exception. Owing mainly to laxity on the part of parents, mild scarlet fever has existed in Kingston for over two years, and I do not think it will be stamped out till all susceptible are attacked. A few severe cases would change the aspect of matters, while a little education on the dangers of mild cases leading to the more severe infection of others would do much good there and in many communities.

In our rural districts a very important and much-neglected matter is the sanitation of cheese factories. It is a fact that many cheese factories make known their presence by smell almost as soon as by sight. Food manufactured under such conditions certainly cannot be the best quality, and it would be to the financial interests of those engaged in the business to construct proper drains and keep their factory and its surroundings in as sweet and sanitary a condition as possible. I have frequent experience of the losses which cheese-makers and patrons are called upon to bear due to the development of bad flavors or other forms of taint in cheese. In my position as bacteriologist to the Eastern Dairy School, every season adds a series of such cases to my lists as due to lack of such sanitation. At the Dairy School and dairy conventions we all preach the necessity of cleanliness and better sani-

tation, but the seed seems so far to have fallen in great part on stony ground.

I must also comment on the remarkable absence in most of our towns and some of our cities of any means of disinfection on a large scale; in fact, an absence of any systematic method of disinfection. Very few communities have a steam disinfecting oven to take care of infected bedding and clothing. Sulphur gas, evolved by burning sulphur, is still in many places the official means of disinfection, often without any other treatment of room contents. Sulphur fumes are only useful when present with moisture, and in larger volumes than can be produced by burning in the air of a room. Even then it is but a surface disinfectant, and to be of any use must be combined with means to more thoroughly cleanse the room, clothing, etc. The neglect of regulations and appliances for disinfection is one of the most important defects at the present day in our sanitary system. Of course it is the local authorities that must provide the necessary appliances and the wherewithal to run them, but the central authority should formulate a code, and insist on the presence of the necessary disinfecting apparatus in all towns over a certain population. I have touched upon some, but by no means all, of the conditions which do not receive the attention they deserve from a sanitary standpoint, but I will desist from increasing their number.

During the past winter a conference of great hygienic importance to Canada was held at Ottawa—I refer to the Tuberculosis Conference in February, held under the patronage of His Excellency the Governor-General. This conference, with its organizations for diffusing a knowledge of this dread disease among the people, is a much-needed step in the proper direction. Tuberculosis carries off more than twice as many people here in Ontario as do all the other contagious diseases combined, so that active measures are necessary to check its spread. The necessity of some measure of isolation and of street disinfection of sputum, also the value of sanitaria for early cases, and of proper hospitals for advanced cases, cannot be too fully insisted on. We are advancing somewhat from the days when tuberculosis was looked upon as an hereditary disease mainly, and so thought it simply what was to be expected when one member after another in a family was stricken down. We now see it is not so much the hereditary taint as the house infection, and the constant exposure to the infection, that is the important factor in family tuberculosis.

At the last session of the Dominion Parliament a bill to amend the "Animal Contagious Diseases Act" was brought in, passed the House of Commons, but was held over by the Senate owing

mainly to the vigorous protest of Senator (Dr.) Sullivan. This bill conferred on the Minister of Agriculture authority to exempt from destruction in certain cases the skin, hoofs, and bones of an animal infected with a contagious disease where these could be used without spreading the infection, and it further provides for the amendment of the clause dealing with the use of the flesh of the animal itself. Now, no doubt, in some animal diseases parts of the animal are free from infection, and might be used or handled with impunity, but this bill confers too wide discretionary powers on the Minister. He cannot travel around and examine these cattle himself. We have no official inspectors, so the Act had better be left alone till there are in existence inspectors capable to pass judgment upon such points.

I note, too, that the cattle-breeders are making a great outcry against the tuberculin test, or perhaps it is against the method of using it. One thing is very certain, and that is that tuberculin in proper hands is a reliable test for tuberculosis, and it should not be dispensed with. It may be necessary to modify the regulations regarding its use, but there should be no idea entertained of dispensing with it. It sounds to an onlooker like a case of tuberculin finding out too many cases of tuberculosis for the good of the breeder.

And now, having touched in a cursory manner a number of items of variable interest and import, I will not delay you longer, but will bring my remarks to an end, and thank you for the attention you have given me.

PRACTICAL SOLUTION OF THE QUESTION OF DEALING WITH THE CONSUMPTIVE POOR.*

By E. J. Barrick, M.D., M.R.C.S., Eng., L.R.C.P. and S., London and Edinburgh.

The fight against tuberculosis is primarily a campaign of popular education.

Before entering upon a campaign there are at least four points that should be well considered:

1st. The numerical strength and destructive power of the enemy.

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*Contributed to the American Congress of Tuberculosis after the session of May 15th, 16th, 1901.

2nd. A comprehensive and well thought out plan of campaign.

3rd. The adoption of organized methods.

4th. Where the necessary funds are to come from to carry on the work.

With regard to the first, science tells us that the bacilli of tuberculosis, the enemy in this case, are legion; their power of reproduction is phenomenal—millions are produced and thrown off each day in the sputa of a single patient in the advanced stages of the disease.

Statistics tell us that so great is the destructive power of this enemy that it is responsible for one-seventh of the deaths of the human race; that it causes more than twice as many deaths as diphtheria, scarlet fever, measles, whooping cough, typhoid fever and smallpox put together; that of all people who die between the ages of 15 and 60 no less than thirty-seven out of every hundred deaths are due to tuberculosis; that of all deaths occurring between the ages of 25 and 35 nearly one-half are caused by this disease; that in industrial occupations it is the cause of nearly one-half of the mortality and more than half of the invalidism; that it kills each year in the Dominion of Canada about eight thousand of our people; and in your own country nearly 100,000.

Besides directly fighting this formidable enemy the apathy and indifference of the public has to be overcome and the following three popular errors reckoned with:

1. That consumption is hereditary and incurable.

2. That there is a mecca somewhere, which is only to be reached to effect a cure.

3. That there is some particular medicine which, if only taken, a sure cure will be guaranteed.

I need not tell you that these three errors are deeply rooted in the public mind, and that it will require an active campaign of education for years to explode them.

In the explosion of the first no one need necessarily be hurt. The second is fanned and kept alive by interested individuals and private corporations for selfish purposes, and the explosion of this error will interfere with vested rights and opposition and obstruction may be looked for. The third is kept very much alive by manufacturers and vendors of the so-called sure and positive cures, by advertisements in the public press, religious as well as secular, and persistent opposition and obstruction may be counted upon.

When, however, the public mind becomes fully seized of the following facts, viz., that consumption in the ordinary sense is not hereditary, is communicable, is preventible, is curable; that

the mecca cry is a myth; that the so-called positive cures are a delusion; that apart from suitable medication, the three chief factors of cure are sunlight, fresh air, and nourishing food; that general sanitary measures must be observed in relation to quarantine, expectoration, public conveyances, places of public resort, factories, shops, offices and houses; and that there is urgent need of bringing a rural sanitorium within easy reach of each municipality with a wide open door to consumptives in every condition of life, and in all stages of the disease—then we may confidently hope that the greatest enemy of the human race will be gradually overthrown, and consumption will soon become as rare as smallpox is to-day.

With these facts before us it would be utter folly to expect to defeat this enemy by any species of guerilla warfare, or by isolated efforts of individuals or private corporations. Nothing short of a comprehensive, well-considered plan of campaign and the adoption of organized methods, together with a well filled exchequer can satisfactorily arrest the ravages of this disease.

No plan of campaign is complete until ample provision is made for the care of the wounded, and in this case it is particularly so, because every wounded person in this fight becomes a factor in which the enemy is produced and turned out by the million each day.

I shall, therefore, confine my remarks to the practical solution of the question of caring for the consumptive poor in rural sanitoria.

To show that this question is capable of solution, and for the encouragement of other workers in this line, I shall give a brief outline of what has been done in the Province of Ontario and the City of Toronto. In a paper read before the Canada Medical Association, in 1899, entitled, "How to Deal with the Consumptive Poor," I advocated the erection and maintenance of a rural sanitorium in connection with each municipality or group of municipalities, with a wide open door to the consumptives of said municipality in all conditions of life, and in all stages of the disease—not a free sanitorium, as such would tend to pauperism, but a sanitorium where those who were able to pay, should pay; where those able to pay only in part should do so, and where the absolutely poor would find an open door.

In the Province of Ontario there are about 40 counties, one sanitorium in each would be 40 centres of education, and it must be remembered that suitable sanitoria are not only to be provided, but public opinion must be educated, so that the consumptives will be willing to avail themselves of such provision.

Education, not compulsion, will have to be the watchword for many years to come.

To provide funds to carry out the foregoing, I advocated in the paper referred to the co-operation of the Dominion Government, local Legislatures, municipalities, and philanthropic and charitable organizations and individuals, and submitted argument to show why each of these factors should contribute and co-operate.

This plan has been endorsed by the Ontario Medical Association, Ontario Medical Council, and the Canada Medical Association. The Toronto Anti-Consumption League, which is a branch of the Canadian Association of which His Excellency Lord Minto is honorable president, waited upon the Ontario Government on the 7th of March, last year, laid the plan before the members and asked their co-operation. Within one month a bill was framed, entitled an "Act respecting Municipal Sanitoria for Consumptives," which passed through all the stages, and became law without a single opposing voice in the Legislature, and the first step in the plan was secured.

This legislation practically secures under certain conditions $4,000 towards the erection of each municipal sanitorium, and $1.50 per week for each patient treated therein.

Last autumn the League submitted the plan to the City Council and the question was referred by that body to the Medical Health Officer, who recommended co-operation in the shape of a by-law for $50,000 to be submitted to the qualified ratepayers, for land and building, and a grant of $2.80 per week for each poor patient for maintenance. This recommendation was unanimously endorsed by the Local Board of Health, and the by-law will probably be submitted and carried at the municipal elections in January, 1902, and the second step in the plan completed. Local leagues have also been formed in four other county municipalities with the object of having by-laws submitted at an early date.

During the campaign necessary to accomplish the first two steps, the following facts should be made clear to the public:

1st. That no satisfactory progress can be made against the spread of consumption until adequate provision is made for the care of the poor suffering from this disease.

2nd. That the plan proposed rests upon an economically sound financial basis, and money expended in this direction will be a good investment to all concerned, a boon to the sick and protection from the disease to the well.

3rd. That the management and control being vested in a Board of Trustees, as provided by legislation, will be a guarantee

that all funds placed in their hands will be strictly accounted for, and used in a way to produce the best results.

4th. That this is a movement of the people for the people, and governed and controlled by the people through their representatives in the Municipal Council, free from any party, sect, clique or personal aggrandisement.

The following facts are applicable to the City of Toronto and in a modified form to every other city and municipality:

About 500 of our citizens die each year of consumption and other forms of tuberculosis. That is a large financial loss to the state, the municipality and the community, and entails a further annual expenditure in caring for the orphans, and dependent persons produced thereby.

This municipality expends annually towards the care of the above and other sick poor through the hospitals, orphanages, homes and other charitable organizations about $90,000.

Philanthropy and charity expend probably as much more, and the Provincial Government perhaps half as much.

It is a regrettable fact that while a very large proportion of this outlay is rendered necessary by the results of tuberculosis, little or none of it goes to care for the consumptive poor, as the hospital doors are closed to them, and practically nothing is being done to check the spread of the disease.

The plan proposed strikes directly at the root of the matter, by diverting the expenditures towards the prevention of the disease in providing rural municipal sanitoria for the care of the poor, and others suffering from consumption, and will work out practically as follows:

LAND AND BUILDINGS.

The fund for the purchase of lands and erection of buildings to be provided for—

1st. Government grant of $4,000.

2nd. By-law $50,000.

This latter amount to be placed in the hands of the city treasurer, $25,000 of which shall be available when a similar amount, has been procured from contributions, donations, bequests, legacies, etc. This will furnish accommodation for about 50 patients. Another $5,000 will be available when a similar amount has been received from the sources already mentioned, and further accommodation will be provided, and so on until provision is made for 100 patients.

MAINTENANCE.

The funds for maintenance will be drawn from the following sources :

1st. Government aid of a weekly allowance of $1.50 for each patient.

2nd. Municipal aid of a weekly allowance of $2.80 for each poor person.

3rd. Contributions, donations, bequests, legacies, etc., from the public generally.

4th. Contributions from patients.

5th. Contributions from churches, lodges, benefit, and benevolent organizations on behalf of their sick members, who are unable to pay, or are entitled to sick dues.

The foregoing should recommend itself to every thoughtful person, and be followed by a generous response from the philanthropic and charitably disposed, so that the Government and municipal aid may be supplemented both in the erection of buildings, and in the maintenance of the poor who seek relief.

What has been accomplished in Ontario may be done in every Province in the Dominion; and why, through the educating influence of this American Congress of Tuberculosis, should not the power of the public opinion be brought to bear upon your statesmen and Legislatures until you see State after State enacting similar legislation, and until a rural sanitorium is brought within reach of every consumptive in each municipality of this great nation, and the annual destroyer of 100,000 of your fair sons and daughters is vanquished and driven from your midst.

REDUPLICATION OF THE SECOND SOUND OF THE HEART.

C. C. Gibbes considers that reduplication of the second sound is present when the aortic and pulmonic portions of it are sufficiently asynchronous to permit of both being heard, the presence of an interval being an accident, not a necessity. Authorities, as a rule, agree that this reduplication is due to asynchronism of the aortic and pulmonary portions of the second sound, and the author holds that the side of the heart which has to cope with the greatest amount of abnormal intra-arterial pressure takes the longest time in getting up steam to overcome the said pressure and open the semilunar valves; it, therefore, begins its contraction before the other ventricle. The following points have a special bearing on the relative position of the pulmonary and aortic second sounds: (1) The point of maximum intensity of the first portion is, as a rule, in the pulmonary area. (2) The intensity of the second portion is greater in the aortic than in the pulmonary area. (3) There was increased intensity of the second portion to the left of the apex in the cases referred to by the writer.—*Medical Record.*

Reports of Societies

CANADIAN MEDICAL ASSOCIATION.

The 34th annual meeting of the Canadian Medical Association opened at Winnipeg, Manitoba, on the morning of the 28th of August, and continued for the two following days. There were in attendance over 175 members from all parts of the Dominion, the second largest gathering in the history of the Association ; and the meeting itself has been pronounced the most successful of any yet held under the auspices of this Association. There were several visiting doctors from the United States.

Dr. H. H. Chown, of Winnipeg, the President, occupied the chair, while Dr. F. N. G. Starr, of Toronto, discharged the duties of Secretary.

In the absence of Chief Justice Killam, Dr. J. H. O'Donnell, one of the oldest practitioners in the West, delivered the address of welcome. He referred to the conditions present in 1869, when Winnipeg was an outpost of civilization, and gave interesting references to Drs. Cowan, Curtis J. Bird, Dr. Beddom, and Dr. Bund, who were already in the West when Dr. O'Donnell moved there in 1869. His address was very much appreciated by the members of the Association.

Dr. R. W. Powell, of Ottawa, the past-president of the Association, then introduced Dr. H. H. Chown, the President-elect, to the Association.

Dr. Chown, on rising to reply, was received with hearty cheers, testifying to the high esteem in which he is held by his fellow-practitioners throughout the Dominion. He briefly thanked the Association for the honor they had conferred upon him at the meeting in Ottawa one year ago.

Dr. Starr, the Secretary, presented his annual report. It referred to the meeting at Ottawa last year, to the attendance of 153 members, which was an increase over former meeting in that city, to Dominion registration, and to the formation of a Physicians' Protective Association.

Dr. Edebohls, of New York, and Dr. Sutton, of Pittsburg, were welcomed to the convention, and requested to participate in the discussions.

THE QUESTION OF MEDICAL DEFENCE.

This was introduced by Dr. Russell Thomas, of Lennoxville, Que., who had been delegated by the St. Francis District Associ-

ation to present this subject to the Canadian Medical Association. He made a strong plea for the formation of a Medical Defence Union, and thought that all were agreed of the necessity for such. He supported his contentions by citing two or three cases already well known to medical practitioners in Canada, and, after showing that such defence unions were a success in England, he concluded by outlining the plan of medical defence already in vogue and supported by the St. Francis District Medical Association, which he was authorized and prepared to hand over entire to the Canadian Medical Association. The discussion of this important matter was deferred until later on in the session.

ADDRESS IN MEDICINE.

THE QUESTION OF MEDICAL EDUCATION.

Dr. J. R. Jones, of Winnipeg, delivered this address. In opening his remarks he referred to the unsolved problems of medical education, the importance of which were especially manifest in view of the establishment of a Dominion Medical Board. Uniform or equivalent curricula, he thought would greatly facilitate paving the way for the accomplishment of this object. He thought that the great aim of the Canadian Medical Association should be to create a Dominion Medical Board upon such a sound and enduring basis that the qualifications could be registered in every Province in the Dominion. They should not only be Canadian but Imperial, capable of registration in Great and Greater Britain. There should be no special education for the profession of medicine, and the defect in the preliminary education of medical students should be corrected. The standard is not high enough. Many students come into the medical college, their minds totally unprepared, undisciplined, not competent to engage in the different studies of a profession to advantage. Dr. Jones would not eliminate Latin, but would go a step further and advocate a more general knowledge of Greek, as Greek was *par-excellence* the language of science. He quoted from 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, and Professor Jebb, of Berlin. He referred to medical matriculation examinations, and deplored the lamentable defects in the English paper, the most neglected subject in our primary schools. From an experience of many years as an examiner at the University of Manitoba, Dr. Jones has concluded that the teaching of English takes a very subordinate position in our schools. The defect was a universal one, and it was obvious

that if English should become a prominent subject of the medical matriculation examination every student ought to be able to express his thoughts coherently and intelligently. The didactic lecture came in for adverse criticism, and defects and useless waste of time, which could be more profitably employed, were pointed out. Persistent work in the dissecting-room under the guidance of an experienced demonstrator, who will describe, discuss, and constantly orally examine the student is a rational and effective method of teaching anatomy. Medical jurisprudence and sanitary science were not properly taught. Dr. Jones supported the "case" method of teaching; and from personal experience he favors the English system of clinical clerkships and dresserships as the most feasible, practical, and thorough for the development of medical teaching. He referred to the question of Dominion Registration, and pointed out two serious objections to Dr. Roddick's bill—first, the great number of the representatives of the Council, entailing expenses beyond, at least, our immediate resources; and second, the fact that one of the contracting parties to Dominion Registration may secede, and the elaborate fabric, the work of many years, tumble to the ground. The able paper of Dr. Jones was received with much gratification by the Association.

Dr. R. P. Nevitt, Dean of the Woman's Medical College, Toronto, in moving a vote of thanks to Dr. Jones for his able paper, stated that he had placed his finger on the weak point of Medical Education.

Dr. S. J. Turnstall, of Vancouver, seconded the motion for the vote of thanks, and also congratulated Dr. Jones for the excellent manner in which he presented his subject.

DOMINION REGISTRATION.

Dr. T. G. Roddick, of Montreal, who has so long and so ably advocated this much-to-be-desired measure, delivered a stirring address on the subject, ably reviewing the subject of Inter-Provincial Registration from the time of its inception to the introduction of his Bill at the last session of the House of Commons. The Special Committee appointed on this subject had not yet reported, so the discussion was postponed until that committee had a chance to meet and report later on in the session. Dr. Roddick now seems to hold to the opinion that the suggestion of Dr. Britton, of Toronto, that representation by population, for Ontario at least, would be advisable.

INFECTIOUS PNEUMONIA.

Dr. W. S. Muir, Truro, Nova Scotia, read this paper. He reported four cases, all of which had occurred between the 1st

and the 13th of April of this year, in the same house and in the same family. The first occurred in a child of ten years, the disease terminating by crisis on the sixth day, the child making a good recovery. A sister, aged fourteen years, contracted the disease; terminated by crisis on the ninth day, but followed two days after by left-sided pleuro-pneumonia. This proved fatal. The third occurred in a sister of fifteen years of age, beginning with a pain on the left side, and terminating on the tenth day by crisis and recovery. Number four developed pneumonia, but recovery was quick, the patient being about in two weeks. There was no influenza in the town at the time. Dr. Muir spoke of the organism of pneumonia, its cultivation and its detection.

FIRST DAY—AFTERNOON SESSION.

PRESIDENT'S ADDRESS.

As this was the first time that the Canadian Medical Association had met in Manitoba, Dr. Chown referred briefly to the future of that important province. Although less than 10 per cent. of the arable land was under cultivation, Manitoba's farmers would this year have a crop estimated at 85,000,000 bushels of grain. He then referred to the work performed in Winnipeg for the purpose of making that city a healthy one, and in spite of the level nature of the land, an excellent system of sewers had been introduced through all the streets; and efficient arrangements had been made for the regular flushing of the sewers by means of tilting basins at the upper end of each main sewer. As Winnipeg has two rivers at her door the problem of removing sewage was easily and safely solved. Dr. Chown then referred to the water supply, and said that the people of Winnipeg enjoyed as pure water as could be found in the world. An examination of the city water would show that there were in it only nine to thirty colonies of bacteria. The water is taken from an artesian well seventeen feet in diameter and forty-eight feet deep, and although they have been pumping for months a supply of from two million to three million gallons per day there is not the slightest evidence of any diminution of the amount flowing in. The well is supposed to tap an under-ground passage which runs from Lake Manitoba, and as this lake is 130 miles long the supply is inexhaustible. The under-lying rock formation in that section of Manitoba is a magnesia limestone, and, consequently, the water contains a large amount of the carbonate of lime and of magnesia, and is too hard for satisfactory use in boilers and hot-water appliances. This is overcome by using Clarke's method of

softening by precipitation of these carbonates through the action of lime water; and the softening plant is unique on this side of the Atlantic. Dr. Chown then referred to the question of tuberculosis, and thought that Koch's tentative denial of the oneness of tuberculosis of man and tuberculosis of cattle still needs the proof of non-inoculability from cattle to man. He instanced cases of young farmers free from tuberculous taint living in newly-built houses harboring no bacilli, and separated by long distances from their neighbors, in whom tuberculosis constantly makes its appearance ; and we have here an experiment on a wide scale, and if you can eliminate heredity, house infection and contagion from other cases, to what cause can you ascribe the origin of these outbreaks ? Medical education, the plan of Dominion Registration as introduced by Dr. Roddick, Malarial Fever, Proprietary Drugs, the Progress in Surgery and the future of Bacteriology and Hematology were subjects ably dealt with; and in concluding, Dr. Chown felt that a duty rests upon the medical profession to get at the true cause of all forms of disease, and rescue the public from both the honest fanatic and the ignorant pretender by doing not only all what these claim, but doing more and doing it better.

Sir James Grant, of Ottawa, moved a vote of thanks to the President, and characterized the address as extremely interesting and instructive. Dr. J. L. Bray, of Chatham, seconded the motion.

EPIDEMIC CEREBRO-SPINAL MENINGITIS.

Dr. James McKenty, of Gretna, Manitoba, presented this paper, which gave an account of an epidemic occurring in North Dakota during the winter and spring of 1893. It occurred within an area extending fifty miles from east to west, and twenty miles from north to south, and was comparatively definitely limited. About seventy persons were seriously ill, and almost as many others suffered from mild manifestations of the disease. Of the seventy cases twenty-five ended fatally—a mortality of about 35 per cent. In the practice of Dr. McKenty there occurred some thirty cases, a brief record of twenty-two of these being kept. The average age was seventeen years ; the youngest, fifteen months; the oldest, thirty-eight years. The duration of the illness extended from twelve hours to fifteen weeks. No post-mortem was made in any case. Dr. McKenty then described in detail the clinical aspects of several cases.

SPLENIC ANEMIA, WITH CASE.

Dr. J. A. Macdonnell, Winnipeg, contributed this paper with history of the case. This was an exceedingly rare disease. In

1898 the number of cases recorded did not exceed thirty, but since that time there have been fifty additional cases reported. R. N., aged 27 years; born and lived all his life in Manitoba; family history good; environment good; has never had malaria; habits and mode of life good; positively never had syphilis. The present illness began in August, 1899. Felt heavy on the right side, with a feeling of fulness and weight. In January, 1900, gave up work on account of muscular weakness. There was no vomiting. The patient consulted Dr. Macdonnell in March, 1900, walking into his office with considerable difficulty. There was no enlargement of lymphatic glands. Enlargement of the stomach could never be percussed or palpated. Liver dulness was practically normal. There was no jaundice or pain in the liver region. The patient succumbed to the disease, but no post-mortem was held. Another case occurring in a patient, aged seventeen, was reported. Dr. Bell made a blood count in this case which at different times ranged 3,540,000, then 3,600,000, then 3,400,000, with 7,602 white blood cells. In this case all the other organs were normal, and there seemed to be no pre-disposing cause in this case. Dr. Macdonnell stated that only ten autopsies had been made on people dying from this disease. He referred to the conditions found post-mortem in these cases. The treatment for these cases was stated to be rest, diet and vigorous doses of arsenic. The mortality is set down at 20 per cent. As far as operation is concerned, physicians will not be satisfied until it is clear that the patient recovers from the operation, as well as from the disease. If we are sure of our diagnosis, then surgical intervention is deemed advisable.

PHYSICAL DEVELOPMENT.

Dr. J. N. Hutchison, of Winnipeg, read a carefully prepared paper on "Physical Development." The paper did not deal with anything new, but called attention to and emphasized certain facts of considerable importance. He considered that children were sent to school at too early an age, and as a result there was danger of brain over-work. He insisted upon the necessity of having healthy parents—and deplored the system of education which develops the mind at the expense of the body. He was an advocate of periodical lectures by duly qualified physicians to separate classes of boys and girls on the subject of sex; but the primary responsibility in this matter he placed upon the parents. There would be real progress in the prevention of tuberculosis when people, the subject of the disease, recognized that they should not marry. The paper, which was listened to with close attention, closed with a reference to the problems of those un-

fortunates who are neither mentally nor physically qualified for the duties of life.

REPORT OF CASES TREATED WITH SUPER-HEATED DRY AIR.

Dr. W. H. Pepler, of Toronto, introduced this subject in a paper which cited his experience and observations in the treatment of certain cases by this plan or process. He briefly described the apparatus and the method of treatment. It only takes twenty minutes to reach a heat of 300 degrees F. The average duration of the application of the heat is forty-five minutes. The physiological and therapeutical effects noticed were referred to, as dilatation of blood-vessels, etc. He administers the treatment one hour after meal-time with due regard that there shall be as little as possible of excitement and exertion. He has not seen any ill-effects from the treatment. He first gave notes of the case of a patient, a man aged thirty-five years, who had suffered for some time from varicose ulcer of the right leg, with considerable pain. This patient had a treatment of thirty-five minutes' duration, and was able to walk home with very little discomfort. After three times, in ten days, the ulcer was very much reduced in size. The second case was a patient twenty-two years of age, who had been troubled with rheumatism for two years past. A temperature of 320 degrees was employed with good satisfaction. Several other cases of rheumatism and eczema were reported. The treatment in each case proved highly satisfactory, patients never complaining of any discomfiture, and all expressing satisfaction with the treatment. Dr. Pepler subjects a considerable portion of the patient's body to a temperature of from 280 to 320 degrees F. The results are often not apparent for some time after treatment.

Dr. McAdam, of Battleford, asked Dr. Pepler if he had ever tried the treatment with high temperature, where he had any doubts of the condition of the heart.

Dr. McDonald, of Brandon, referred to a case which had come under his observation, in which there was heart trouble. Perspiration occurred freely, but with no effect in a depressing way upon the circulation. Treatment in this case was continued for two weeks, but he had never determined that there had been any effect upon the heart, although there was a small heart-lesion at the time.

Dr. Pepler, in reply, said he could not speak personally as to any deleterious results from weak heart. Of course there were many cases reported where heart trouble was present. He personally had never noticed any heart or head symptoms in his cases. He thought with care there would be no bad results.

ORTHOPEDIC TREATMENT OF DEFORMITIES AND DISABILITIES RESULTING FROM DISEASES OF THE NERVOUS SYSTEM—SPECIAL REFERENCE TO TENDON TRANSPOSITION.

Dr. B. E. McKenzie, of Toronto, spoke of disabilities and deformities resulting from paralysis, some of which were commonly regarded as hopeless; but the conditions of a great majority of them were remediable, and should receive a considerable amount of attention. He was at some pains to explain the respective motion of joints, particularly the ankle joint and knee joint, especially calling attention to the normal conditions of equilibrium, and then showed how the muscles of some of the groups at times became paralyzed and the balance and equilibrium thereby destroyed. Mechanical treatment was often necessary, and often efficacious as well; massage and electricity had their respective places, but he made particular reference to the method of treatment that had been in vogue for twenty years, and had been introduced on this continent by Dr. Parish, of Philadelphia. He went carefully into an explanation as to how muscles can be transferred from their usual point of action, and then he gave an account of several cases in which he had successfully accomplished this. In his opinion amputation of a limb because of apparent disability should seldom or never be resorted to.

In answer to Dr. McAdam, Dr. McKenzie disapproved of jackets in the treatment of curvature of the spine.

Dr. Clarence Starr, Toronto, stated the subject was of great interest to him, as he was interested pretty largely upon the same lines of surgery. Dr. McKenzie has indicated a large number of cases of paralyses which can be wonderfully helped by operative procedures.

Dr. Starr thought that Dr. Bowlby, of Boston, deserved a great deal of credit for the work he has performed in this connection.

Dr. H. B. Small, of Ottawa, referred to a case Dr. McKenzie had operated on. In this case, previous to operation, the boy had great difficulty in arising from the sitting posture, and when walking he had to rest every few yards. After the operation, he was very much improved, and when Dr. Small last saw him, about a week ago, he could walk very easily, and never had to support himself. The improvement during the last four or five weeks was especially very marked.

SECOND DAY—MORNING SESSION.

MILD SMALLPOX.

Dr. G. A. Kennedy, McLeod, Alberta, presented this paper. It dealt with the recent outbreak of the disease in the North-West Territory, an outbreak which was widespread, and which had existed for some time before its true nature was recognized. Dr. Patterson, Quarantine Officer for the Dominion Government, was satisfied that there had been 1,500 cases. A noteworthy fact was that the greatest number of cases occurred among the French halfbreeds, who had never been vaccinated; and further, Indians on reserves had not suffered to any great extent, as annual vaccination is the rule. Not one case was seen or heard of among Galicians, Doukhobors or Roumanians, which was due to the fact that compulsory vaccination was the rule in youth, and then they had been re-vaccinated on their recent passage across the Atlantic and at Halifax. Fifty per cent. of all cases were extremely mild in character ; 40 per cent. were cases of typical varioloid ; 10 per cent. were severe, almost confluent. The mortality was slight, only thirteen deaths occurring, and the disease prevailed fully as much amongst adults as amongst children.

Dr. Muir, Truro, Nova Scotia, discussed the merits of the different vaccines on the market, and the paper was further discussed by Dr. McDonald, of Brandon; Dr. Inglis, of Winnipeg; Dr. D. H. Wilson, of Vancouver, and Dr. Montizambert, of Ottawa. The latter considered it would be unfortunate if the impression went abroad that any doubt existed in the minds of the members of the Canadian Medical Association as to the true nature of the disease, which had been epidemic for some years. He considered the facts presented in Dr. Kennedy's paper relating to the Doukhobors and Galicians were perhaps the most valuable portion of it.

At the close of this discussion the following resolution was moved by Dr. R. S. Thornton, seconded by Dr. J. L. Bray, and unanimously adopted: "Resolved, that in view of the general prevalence of smallpox throughout the continent this Association desires to urge upon the profession and the public generally the necessity of vaccination and re-vaccination."

CHRONIC ULCERATION OF THE STOMACH SIMULATING CANCEROUS DISEASE. RELATION OF A CASE OF GASTRO-ENTEROSTOMY WITH MURPHY BUTTON.—RECOVERY.

Dr. J. F. W. Ross, Toronto. This occurred in a woman twenty years of age, the condition of whose stomach had been bad for

three years. She was a nurse in the training school of a hospital, and her gastric conditions grew gradually worse and worse. Dr. Ross was asked to see the patient by Dr. E. B. O'Reilly, of Hamilton, in December, 1899. He found her emaciated, with the opium habit already formed. In January, 1900, he again saw her with Dr. Griffin, of Hamilton. At this time rectal alimentation was being persevered in with considerable benefit. In March, 1900, she was discharged from the hospital, and remained well for two weeks. As soon as food passed into the stomach great rigidity of the right rectus muscle was noted. When the patient came under Dr. Ross's attention she weighed about seventy-five pounds. As malignant disease of the stomach is rare at this time of life it was difficult to diagnose the tumor as such, and the symptoms pointed to the pyloric end of the stomach. It was not possible to say whether it was cancerous or not. The symptoms pointed to the presence of ulcer; but the thickening, easily made out, led to the belief that malignant disease had been grafted on to the ulceration. Some dilatation also could be made out, but the rhythmic muscle waves, so characteristic of pyloric obstruction, could not be found; but a large growth was found at the pyloric end. The case was looked upon as hopeless, and the decision was arrived at not to remove the growth, but to give temporary relief by gastro-enterostomy. This was done, and the patient made an uninterrupted convalescence. Eleven months after the operation the patient weighed 140 lbs., and looked the picture of health. On examination of the abdomen no mass could be felt, and the patient was not suffering from any gastric symptoms at all. Dr. Ross then went into the literature on the subject, quoting Fagge, Sydney Martin, Moynihan and Mayor Robson.

Dr. Lapthorn Smith, Montreal, began the discussion by stating that the case was especially interesting to him, but rather from the general practitioner's point of view. He believes that no case of cancer of the stomach ever begins as cancer of the stomach. First there is some sort of irritation of the mucous membrane. This irritation finally becomes chronic ulcer, and upon this the germ of cancer is engrafted, or whatever it is which is the essential constituent of the cancerous process.

Dr. Martin, Montreal, discussed the importance of the examination of the stomach contents in these cases.

Dr. Bruce, Toronto, stated that he had an experience with a case a year ago which corresponded closely to the one Dr. Ross has reported. His patient was thirty-eight years old.

Dr. Gilbert Gordon, of Toronto, thought we should look at

these cases from the standpoint of the physician as well as from the standpoint of the surgeon.

Dr. Howitt, of Guelph, stated that the second case of ulceration of the stomach upon which he operated was one of acute perforation.

Dr. Ross thanked them for the reception they had given his paper.

SOME FORMS OF HYPERACIDITY AND THEIR TREATMENT.

Dr. C. F. Martin, of Montreal, presented notes of some interest, judging from the results of systematic examination of the gastric contents. The unfortunate general employment of the term dyspepsia is responsible for the disregard of this condition. In the case of organic disease producing excessive secretion the diagnosis is often difficult. He gave the history of two cases in illustration, the second being in an individual forty-five years of age, who gave the usual history of having been ill for six months. There was no obstruction of the pylorus, but simple dilatation, and the diagnosis was hyperchlorhydria, with simple dilatation of the stomach. He also referred to the medical treatment following gastro-enterostomy.

Dr. Macdonnell, of Winnipeg, discussed this paper.

MEDICAL DEFENCE.

The report of the Committee on Medical Defence was here presented by W. S. Muir, of Truro, Nova Scotia. It reported favorably on the formation of a Medical Union, and the organization thereof was immediately perfected. It will be known as the Physicians' Protective Association, will be incorporated, and will have for its object the protection of the character and interests of medical practitioners in Canada. It will further promote honorable practice, will aid in suppressing or persecuting unauthorized practitioners, and will seek to advise and defend or assist in defending members in cases where proceedings involving questions of professional principle or otherwise are brought against them, and other like matters. Dr. R. W. Powell, of Ottawa, was elected President ; Dr. McKinnon, of Ottawa, Secretary, and Dr. James Grant, Jr., of Ottawa, Treasurer.

REPORT OF COMMITTEE ON DOMINION REGISTRATION.

It is proposed to secure an amendment to the B.N.A. Act, or to take advantage of Section 91 of that Act, and under it obtain legislation from the Dominion Parliament, by which the profession in Canada might form a Dominion Council, which could be supplemented by legislation by the various provinces

recognizing any certificate of standing issued by the Dominion Council as entitling a holder to practise in such provinces. Dr. Muir approved of Dominion registration, and spoke for the Province of Nova Scotia. Dr. Jones voiced the sentiments of the profession for Manitoba. Drs. A. A. Macdonald and J. L. Bray endorsed the scheme for Ontario. Dr. Russell Thomas spoke for Quebec. Dr. Christie said that New Brunswick was in favor of Dominion registration. Dr. Lafferty said the North-West Territories were favorable.

SECOND DAY—EVENING SESSION.

CANCER OF THE UTERUS, WITH LANTERN DEMONSTRATIONS.

This was a very interesting and profitable demonstration, conducted by Dr. Thomas S. Cullen. In introducing Dr. Cullen Dr. Chown spoke of him as a young Canadian who had gone wrong in having removed to the United States and having never returned. Dr. Chown considered that the experimental work pursued by Dr. Cullen, if done in Canada, would meet with as signal success as that which attended his labors in the United States. For over an hour Dr. Cullen was engaged in showing a large number of excellent limelight views, the results of microscopic examinations of tissues. Each view was lucidly explained by the demonstrator. At the close of his excellent demonstration Dr. Cullen was accorded a hearty and unanimous vote of thanks, moved by Dr. Eccles, of London, and seconded by Dr. Gray, of Winnipeg, and carried amid great applause.

SKIN DISEASES, WITH LANTERN DEMONSTRATIONS.

This was another valuable demonstration, and was conducted by Dr. Francis Shepherd, of Montreal. He first exhibited and demonstrated cases of blastomycetic dermatitis, and further spoke of a few cases which he had of this disease. Views were given also of cases after treatment with iodide of potash. Some interesting views were those caused by drug eruptions, of which he showed two or three due to salicylate of soda. In one of these Dr. Shepherd said the lesions first came out with large welts like urticaria. This is rather a rare form of drug eruption. It appeared after two doses of ten grains each of the drug. One case almost died of acute laryngitis from the eruption in the throat. Amongst other views shown were papular purpura, which is generally associated with rheumatic attacks, psoriasis of the nails, X-ray burns as the result of one application, and most interesting were cases of smallpox, one showing pustules

upon the palm of the hand, particularly interesting, as in adults you never see chicken-pox upon the palm of the hand, but you invariably do in smallpox. Views of feigned eruptions were also shown. This demonstration proved so interesting to the members that Dr. Shepherd was frequently called upon to give more or go on.

THE VARIETIES AND DISTRIBUTION OF BACILLUS DIPHTHERIÆ AND THEIR CLINICAL SIGNIFICANCE.

Dr. F. F. Westbrook, of the University of Minnesota, presented a paper on this subject, primarily from the laboratory point of view. He exhibited a carefully prepared chart showing in tabulated form the results of numerous examinations in schools, and stated the conclusions which he deducted from these facts. Formerly it was believed that the bacillus remained localized at its point of entrance, but now within recent years, however, careful observations have shown that the toxins had been distributed throughout the body, and the bacillus itself found in organs far removed from the atrium. From evidences of 230 cases of diphtheria at autopsy observers had called attention to the frequency with which the bacillus of diphtheria was found in the organs of the body. The bacillus and its toxins have been shown to be capable of producing lesions which differ greatly from each other, as in ulcerative endocarditis, meningitis, etc. In summarizing Dr. Westbrook said where each school was reported and where great care was taken in the isolation of clinical cases with typical form the percentage was very small.

REMOVAL OF HAIRY TUMOR FROM THE STOMACH WEIGHING TWENTY-ONE OUNCES—SPECIMEN. RECOVERY.

The subject of this case was a woman aged twenty-six; she had been married six years, and had two children. A lump was noticed in the abdomen two months previous to the birth of the last child. Patient had no symptoms. The lump was about five inches in width, and it could be lifted forwards. It reached to within three inches below the umbilicus. It gave the patient no special discomfort, there being absolutely no symptoms present. Dr. Bruce advised exploratory incision. This was done on July 22nd last at St. John's Hospital, Toronto. On opening the abdomen in the middle line the spleen and kidneys were found in a normal condition, but there was a large mass in the neighborhood of the stomach. The surgeon could make out the mass lying free in the stomach, a portion extending through the pyloric end of the stomach. An incision was made into the stomach and the tumor removed. After removing the mass of hair the opening of the stomach was closed up in the usual way.

Hot salt solution was given for two hours and nutrient enemata for six hours. Twenty-three hours after the operation sips of hot water were given by the mouth. Forty-eight hours after the operation the patient was given one-half ounce of milk and lime water every hour. She left the hospital on the twentieth day. The tumor was entirely of hair, exactly the same color throughout, and the same color as the hair on her head. It was about twenty-four inches in length, being about two inches in diameter at one end and gradually tapering down to a point at the other. Dr. Bruce considered this case rare, and offered no solution as to how the hair got into the stomach. There were no evidences of hysteria present in the patient. There are some specimens of hairy tumor in the McGill Museum at Montreal.

THIRD DAY—MORNING SESSION.

A CASE OF TRANSPLANTATION OF THE URETER FOR CURE OF URETERO-VAGINAL FISTULA.

By Dr. A. Lapthorn-Smith, Montreal. This occurred in a married woman thirty-four years of age who came to Dr. Smith on the 1st of July, 1901. During parturition, forceps were employed and the vagina lacerated, and ever since there has been a constant flow of urine by the vagina. Operations for her relief had been performed in England without success. Dr. Smith had seen Sanger perform an operation of this character in Leipsic when he was there three years ago, namely, to open the peritoneum, running over the large vessels at the brim of the pelvis and to feel for the artery, see the vein and pick up the third tube, which was the ureter. The operation was done in the highest Trendelenburg posture. A very small incision was made in the peritoneum lining the pelvis in the line of the ureter, a silk ligature was passed around it, and then the ureter was severed a little above the ligature. The end of the ureter was split open to a distance of a third of an inch. A slit was then made obliquely into the right upper corner of the bladder and the ureter stitched into it, the mucous-membrane of the ureter to the mucous membrane of the bladder with very fine chromicised catgut. This is the first time this operation has been done in Canada, and Dr. Smith stated that not a drop of urine had passed through the fistula since.

SYPHILIS AS SEEN BY THE OPHTHALMIC SURGEON.

This paper was read by Dr. F. Buller, Montreal. In commencing his paper Dr. Buller expressed the hope that it would

elicit a little discussion. It often falls to the lot of the ophthalmic surgeon to discover the presence of active syphilitic virus where the disease had long been considered cured, or that the subject cherished the belief that there was no more to fear from it. The ophthalmic surgeon is scarcely, if ever, called upon to treat the disease in the primary stage. The largest share of his work is in connection with the tertiary period, and in this class of case the disease has been apparently cured for a long period of time. Dr. Buller considers that the time at which the syphilitic lesion makes its appearance is always a very important element in the diagnosis. Discussing medication, Dr. Buller does not believe that the protiodide of mercury, at least as ordinarily administered, is a reliable anti-syphilitic. He appears to favor the inunction method first and then gray powder. The following took part in the discussion of this paper: Dr. Lafferty, of Calgary; Dr. Muir, of Truro; Dr. Lapthorn-Smith and Dr. Shepherd, of Montreal, who also condemned the protiodide treatment.

THE PRESENT OUTBREAK OF SMALLPOX IN AMERICA.

This subject was presented by Dr. H. M. Bracken, Health Officer, Minnesota. He outlined the origin and traced the course of many outbreaks in various parts of the State of Minnesota. The case of a porter on the Great Northern Railway, who arrived in St. Paul in March, 1899, was mentioned as the source of the outbreak. He was supposed to have contracted the disease in Seattle, and when told that he had smallpox he said that if so there was plenty of the same disease where he came from. Other epidemics were spoken of in various parts of Minnesota with a total of 9,429 cases, and the disease has still many centres in that State. It is impossible to locate positively the source of the present widespread epidemic farther than that it spread from the southern and south-western States into North Dakota, Minnesota, Nebraska, Montana and Texas. Dr. Bracken showed that returning soldiers from the Philippines were not responsible for its introduction. He suggested that it was probably imported into the United States by Cuban refugees before war broke out between that country and Spain.

An interesting discussion took place on this paper. Dr. Russell Thomas wanted to know where the best vaccine was manufactured, a product that could be relied upon.

Dr. Inglis, formerly Medical Health Officer, Winnipeg, related his experience in the schools of Winnipeg, and spoke of some of the bad results resulting through impure vaccine.

Dr. Bracken in reply.—Vaccine was frequently spoilt by not

being kept in proper temperatures, as it was frequently being shipped in cans which were too hot, and subsequently kept in warm offices. The health commissioner of Minneapolis kept all his vaccine in an ice box, but, of course, not frozen, and had obtained good results. Replying to a question in regard to isolation, Dr. Bracken favored eighteen days' quarantine.

THE NECESSITY OF A RECOGNITION AND ISOLATION OF TRACHOMATOUS PATIENTS IN CANADA.

In the absence of Dr. W. Gordon M. Byers, Montreal, Dr. C. F. Martin, of the same city, read this paper. The paper recited the history of a young girl from Glengarry County, Ontario, who came to the clinic at the Royal Victoria Hospital, Montreal, with a most intense condition of granular lids. She had been unable to open her eyes properly for months past, and her vision was reduced to the counting of fingers. The seriousness of her disease had not been recognized at home as she mixed freely with other members of the community. Another case was referred to in the County of Leeds, and in this case as well no precautions had ever been taken to prevent the spread of the disease. Dr. Byers believes that there are many unrecognized and untreated cases scattered here and there throughout the Dominion. The disease is said to be prevalent in districts of Manitoba and certain centres in the eastern counties of Ontario and others in Quebec. The trachoma problem has had to be faced by one Government in Europe, and the matter has been brought to the attention of the Dominion Government, which has not yet taken any action in the matter. Dr. Montizambert stated that the question of exclusion of trachomatous immigrants had been under consideration by the Government for some time. He considered these people somewhat undesirable immigrants.

A FEW NOTES ON THE TREATMENT OF TYPHOID FEVER.

Dr. J. L. Bray, of Chatham, discussed this subject under medicinal, dietetic and hygienic headings. The first, he thought, might be eliminated except in cases where complications arise, and he thought a certain amount of medicinal treatment useful during the initiatory stages. He was in the habit of employing calomel. Tympanites could be avoided to a great extent by a proper diet. In feeding he now gives very little milk, but that little always peptonized. He believes in making the patient drink two or three quarts of pure water in the twenty-four hours. Albumen water with sugar may be given from the first; after the first two weeks he gives liquid peptonoids or some of the numerous preparations of beef, jellies, mutton broth or a soft-

boiled egg. As regards the hygienic treatment, the bedding and the night clothes should be changed daily. The room should be kept thoroughly ventilated, admitting plenty of fresh air and sunshine. The patient should be sponged frequently with tepid water; and you get just as good results from tepid water as from sponging with very cold water or the cold bath, and it is not so distasteful to most patients. In hospital practice Dr. Bray used the electric fan after using the tepid water. He has found this plan very satisfactory, especially in young and sensitive children.

Dr. Russell Thomas discussed the paper, and said that he had found the ice-cap beneficial, that it did not disturb the patient, and had a decided effect in reducing the temperature.

THIRD DAY—AFTERNOON SESSION.

ADDRESS IN SURGERY.

This was delivered by Dr. O. M. Jones, Victoria, B.C., and it proved a very able and masterful effort. He opened his address with a reference to surgical diseases in Western Canada as compared with those in the East, and stated that he had often found Western sufferers more impatient, which often demanded severer methods. He illustrated this by citing a humorous incident. A lodging-house keeper, on learning that one of her lodgers was to have an operation performed on a Wednesday, wrote to the surgeon asking that it might be postponed until Friday, as her daughter was to be married on Thursday, and they didn't want the corpse home until after the wedding. The address dealt mainly with surgery of the stomach, and related the deductions Dr. Jones has arrived at from his own experience of twenty-six cases. His first operation upon the stomach was in 1893—a case of pyloric obstruction in a wiry woman. Senn's plates were used. This patient died in three days, the result not being encouraging; and Dr. Jones attributed the failure to the use of catgut instead of silk sutures. The introduction of Senn's plates and the Murphy button gave a great interest to intestinal surgery, as before 1890 operations on the intestines were rare. He discussed the preparation for operation, and first spoke of gastrostomy, an operation which he had performed five times for ulcer of the esophagus. In four of the cases the operation was performed with very excellent results. He then discussed the class of cases in which pylorectomy is indicated, and said that rapidity of operation in these cases is the very important

factor; prolonged operation has generally proved fatal. A suitable case should be cancer of the pylorus. The time occupied in performing the operation is not great. In one of his cases he performed posterior gastro-enterostomy. This patient still lives, and it is now nearly three years since the operation. Gastro-enterostomy was next discussed. This Dr. Jones considered the most important and most interesting part of the whole subject. It is the most frequent, most useful and the simplest of all the operations performed upon the stomach. It is performed for pyloric cancer, ulcer and stenosis and for gastric ulcer, dilatation, etc. Nothing can be simpler than this operation performed with the Murphy button. Dr. Jones has used it in fourteen cases, and in only one case was there any trouble. In two of his cases, which died from shock, he examined one and found perfect union. He has found that the passage of the button has taken from fourteen days to four months; and in several cases he has not been able to obtain the button. A recital of several cases followed, which proved very interesting. Dr. Jones closed his paper with a few words on perforating duodenal ulcer.

Dr. F. J. Shepherd, of Montreal, proposed a vote of thanks. Dr. A. A. Macdonald, of Toronto, seconded this, and Sir James Grant, of Ottawa, supported the motion, which was unanimously passed by the Association.

A SURGICAL PROCEDURE FOR THE RELIEF OF OVARIAN-TENSION PAIN.

Dr. Henry Howitt, Guelph, Ont., read this paper. Is not pain frequently, if not usually, caused by tension on some nerve filament? In Dr. Howitt's opinion the answer should be in the affirmative. The operation Dr. Howitt employs is quite simple. The ovary is exposed, and then a number of cross-sections are quickly made through the tense capsule in such a manner as to divide it. Then the larger Graafian follicles are opened. These are merely touched with carbolic acid. If the capsule is thickened a portion should be removed. Hemorrhage has never been troublesome. Adhesions give rise to no complications. Dr. Howitt recited the histories of two or three cases in support of the operation.

Dr. Lapthorn Smith stated that he had never heard of this operation before, and considered that it was original with Dr. Howitt.

SYMPOSIUM ON TUBERCULOSIS.

Prof. Russell, of the University of Wisconsin, introduced this subject in a careful yet exhaustive paper on human and bovine tuberculosis and their inter-relation. The importance of any

phase of investigation relating to tuberculosis and its relation to milk is unquestioned in these latter days when the general public are beginning to appreciate, for the first time, the magnitude of the problem that confronts them in attempting to lessen the ravages of the "great white scourge" of the human race. In considering this subject it may be approached from two points of view: (1) From the standpoint of animal industry; (2) from that of public health.

Bovine Tuberculosis and Animal Industry.—The rapid extension of the disease among cattle within the last few decades has forced upon breeders and dairymen the necessity of considering this subject whether they desire it or not. It is customary in many quarters even yet to decry all consideration of this matter as unnecessary, inexpedient and harmful to the dairy interests. But as is too frequently the case, the motive for such action rests upon a financial foundation, and many breeders are averse to a calm, judicious discussion of the matter, simply because it may mean financial loss to them. Since the introduction of the tuberculin test as an aid in the diagnosis of the disease in cattle it has been positively determined that the malady, at least in its incipient form, is very much wider spread than was formerly supposed, but it by no means follows that all animals that react to the tuberculin test are actually in a condition in which they or their products are dangerous to man and beast. The slow, insidious nature of the disease that characterizes it in the human is also to be found in the cattle, and not infrequently an animal may be infected with the seeds of the disease for a considerable time—even a year or so—without showing in any degree physical symptoms that are manifest to even the animal expert. Such animals are not diseased in the ordinary meaning of the term; *i.e.*, they are not capable of transmitting the disease, either directly or indirectly, through their milk supply or meat. The affection in such cases is latent, generally confined to various lymphatic glands; but animals so affected are, however, potentially dangerous, for the latency of the disease may be overcome through the operation of various factors, and the chronic type may thus be awakened into an acute phase. It is in this way that the disease spreads slowly and unperceived through a herd. Before it has made such inroads as to cause actual death of any considerable number of animals many more have acquired the trouble, at least in the earlier phases. Necessity of controlling its spread and eradication is evident for the sake of the herd itself, if from no other point of view. Successful animal industry, especially with cattle, requires that herds shall be kept free from all taint of this disease. As to treating milk, Prof.

Russell said that pasteurization and sterilization were the two best forms of applying heat to destroy the organism. He recommended the rotatory pasteurizing machine, one of which has been used in Winnipeg for some years, as the best method of removing organisms from milk.

Dr. Good, of Winnipeg, in discussing the paper, said that it afforded him some relief to learn that milk is not so dangerous after all. He stated that he had been avoiding milk and all organic fluid for the past year or two, but he was glad to know that he could now go back to its use with the same freedom as in his younger days. He then moved a vote of thanks to Prof. Russell, seconded by Dr. McArthur, which was unanimously adopted.

Dr. A. J. Richer, of Montreal, contributed to the next paper on the "Sanitarium Treatment of Tuberculosis." This treatment had been introduced by Dr. Trudeau in America under great difficulties, and at the present time this distinguished scientist was able to house and treat over one hundred individuals in his institution. According to Dr. Richer, the treatment is made up of rest, outdoor life, over-feeding and medical supervision. This latter was described as the key-note to success in phthisical treatment. Over-feeding was also emphasized.

The last paper was contributed by Dr. Gilbert Gordon, of Toronto, and it referred to the etiology and the early diagnosis of pulmonary tuberculosis. He spoke of the early stages of the disease, and thought that we ought to be able to diagnose it before the appearance of the bacilli in the sputum. Direct inheritance he considers very rare. The inhalation of dried sputum is the most direct cause. Dr. Gordon considered that we are wofully behind in Canada in fighting this plague, and more money should be spent by Governments and philanthropic individuals in fighting this disease. He went carefully into the symptoms of the pre-tubercular stage, and considered that a persistent cough was a very dangerous symptom.

An important discussion took place upon this topic. Dr. Lafferty warned the profession in Ontario against sending advanced cases to the North-West Territories. Dr. Barrick, of Toronto, pointed out that Ontario was leading in regard to the treatment of tuberculosis, and he hoped to see the sanitarium brought with a wide open door to all conditions of life. Dr. Brett, of Banff, suggested that the Association should pass a resolution pointing out to the Parliament of Canada the necessity of providing for the establishment of sanitaria for the benefit of the community. This was subsequently carried out.

THE NEW OFFICERS.

The report of the Nominating Committee was presented by Dr. W. S. Muir, Truro, N.S., who expressed regret at having to accept the resignation of their General Secretary, Dr. F. N. G. Starr. Montreal was selected as the place of meeting in 1902, and a suggestion was left with the members of the Association that they meet in British Columbia in the following year. These officers were elected for the ensuing year:

President—F. J. Shepherd, Montreal.

Vice-Presidents: Prince Edward Island, S. R. Jenkins, Charlottetown; Nova Scotia, T. F. Macdonald, Hopewell; New Brunswick, Wm. Christie, St. John; Quebec, J. Alex. Hutchison, Montreal; Ontario, Bruce L. Riordon, Toronto; Manitoba, A. J. Macdonnell, Winnipeg; North-West Territories, H. G. McKidd, Calgary; British Columbia, J. M. Lefevre, Vancouver;

General Secretary, George Elliott, 129 John St., Toronto.

Secretaries: Prince Edward Island, H. D. Johnson, Charlottetown; Nova Scotia, J. W. McLean, North Sydney; New Brunswick, W. L. Ellis, St. John; Quebec, C. F. Martin, Montreal; Ontario, H. A. Bruce, Toronto; Manitoba, J. T. Lamont, Treherne; North-West Territories, G. A. Kennedy, Macleod; British Columbia, O. Morris, Vernon.

Treasurer, H. B. Small, Ottawa.

Executive Council, Jas. Stewart, T. G. Finley, J. M. Elder.

The Winnipeg meeting of the Canadian Medical Association will go down in the annals of the history of that Association as the best meeting ever held under its auspices. On the first day alone 130 members were registered, and the total number at any time present reached 177, a number considerably larger than that at Ottawa last year, and second to the meeting at Toronto in 1899. A large number of new members were elected, particularly from Ontario, Manitoba, the North-West Territories and British Columbia. Every province was represented at the Association meeting with the single exception of Prince Edward Island, one delegate coming as far as North Sydney, Cape Breton. The meeting was generally voted a pronounced success; and certainly the profession in Winnipeg and Manitoba and the citizens of Winnipeg more than eclipsed, in point of social functions, any previous meeting. The reception by the Board of Governors of the Winnipeg General Hospital, the reception by the ladies of Winnipeg at Wesley College, the special trip down to Lower Fort Garry, where Mr. and Mrs. Chipman extended their hospitality to the members and their wives and invited guests from Winnipeg, the visit to the Ogilvie mills, the reception at Government House by Lieu-

tenant-Governor and Mrs. McMillan and the special trip out to Brandon through the great wheat belt of Manitoba, through the courtesy of the C.P.R., with the entertainment provided by the ladies of Brandon—all will stand as a series of social functions which have never been surpassed, and will probably remain unsurpassed in the history of the Canadian Medical Association meetings. One of the best and most important discussions took place on the formation of a Medical Defence Union; and it is very gratifying to have to record that such an organization was unanimously supported by the Association. All the leading officers of this protective association are located in Ottawa, and Dr. Russell Thomas, of Lennoxville, P.Q., along with W. S. Muir, of Truro, N.S., is deserving of much praise for the great good work he has performed in this connection. Much regret was expressed at the resignation of the General Secretary, Dr. F. N. G. Starr, of Toronto, who has so long and so faithfully, so ably and so energetically discharged the responsible and important duties of this position. At a time when the Association is so prosperous it is due to the new General Secretary that a united and earnest effort be put forth by all the members of the Association to continue that prosperity.

ST. FRANCIS DISTRICT MEDICAL ASSOCIATION.

At Sherbrooke, September 13th, the regular meeting of the St. Francis Medical Association was held. Dr. Rioux presided, and there were present: Doctors Bowen, Thomas, Smith, McCabe, Banfil, Bachand, Lamy, Fregeau, Pelletier, Gadbois, Williams, C. L. Brown and Camirand.

Dr. Lynch, of Sherbrooke, was elected a member of the Association, and Dr. Forney, of Fitch Bay, was proposed for membership.

On motion of Dr. Rioux, seconded by Dr. Lamy, it was decided to recommend the appointment of Dr. McCabe, of Windsor Mills, as successor to the late Dr. McMorine, of Richmond, to the position of joint coroner of the district.

Resolutions of regret were passed in connection with the death of Dr. Chalmers, of Magog, and Dr. McMorine, of Richmond, both members of the Association.

Dr. P. Pelletier reported that it was the intention of the Provincial Board of Health to take steps to instruct the people in hygiene, and that a convention would be held at Sherbrooke in this connection. He asked the support of the Association for this movement.

The election of officers for the ensuing year resulted as follows: President, Dr. J. F. Rioux, Sherbrooke; 1st Vice-President, Dr.

W. D. Smith, Sherbrooke; 2nd Vice-President, Dr. McCabe, Windsor Mills; Honorary Secretary, Dr. Russell Thomas, Lennoxville; Council, Drs. Worthington, Pelletier and Williams.

It was decided regarding the case of Dr. Conerty, of Smith's Falls, to refer it to the council for a report.

Dr. Russell Thomas, delegate to the C.M.A. meeting at Winnipeg, gave an interesting report, and received the thanks of the Association for his work in connection with that meeting.

The meeting adjourned till the second Wednesday in November.

BRITISH COLUMBIA MEDICAL ASSOCIATION.

The second annual convention of the British Columbia Medical Association opened on the morning of the 5th of September and concluded the following day. There was a good attendance present. The quarantine steamer *Earle* took the delegates over to the William Head Quarantine Station, which was inspected. In the afternoon, Dr. John Dune, the President, delivered the annual presidential address, dwelling on the advances in medicine and surgery since his student days. Dr. R. E. McKechnie, of Nanaimo, read a paper on Midwifery, which provoked an interesting discussion. On assembling in the morning of the second day, an interesting paper was listened to on Tuberculosis, contributed by Dr. Fagan. The convention closed at noon, and in the afternoon the members made a trip to Darcy Island and inspected the lepers. In the evening the annual banquet was held at The Driad, where a pleasant time was spent. The following were the officers elected for the ensuing year: President, Dr. Walker, of New Westminster; Vice-President, Dr. McGuigan, Vancouver; Treasurer, Dr. Helmcken; Secretary, Dr. J. M. Pearson, Vancouver.

HURON MEDICAL ASSOCIATION.

A meeting of Huron Medical Association was held in the Council Chamber, Clinton, on Friday, Sept. 6th, 1901, at 1 o'clock.

PROGRAMME.

1. "Cases in Practice: (*a*) Lightning Stroke. (*b*) Three Cases of Nervous Disease in Children." By Dr. A. McKenzie, Monkton.

2. "A Difficulty in Diagnosis of Smallpox." By Dr. Dalton Smith, Mitchell.

3. "Diseases of the Prostate Gland." (*a*) History of the Treatment, (Paper) by Dr. Shaw. (*b*) Medical Treatment, by Dr. Graham. (*c*) Surgical Treatment, by Dr. Gunn. (*d*) Etiology, by Dr. MacKay, Seaforth.

4. "Compound Fracture of the Wrist." By Dr. Gunn.

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POPULATION AND THE CENSUS.

There can be no doubt that the small increase of population in this Province as shown by the recent census is by everyone regarded as distinctly disappointing. We all have been trained to regard increased population as one of the surest indications of national prosperity, and an increase of five thousand a year in a population as large as the population of this Province certainly is not encouraging to those who measure advancement by this standard.

It is an open question whether marked increase in numbers always adds to the material success or happiness of the whole people, because were this so we should have to regard China as the most blessed among nations. Nor is it clear to us what good it does an Ontario farmer to have two other farmers settle down beside him, although it seems of great importance in the eyes of the politicians; but if the failure to increase is dependent, not on emigration, but upon a lowered birthrate, the condition then becomes of supreme importance. The returns show a marked increase in the number of dwellings, without a corresponding increase in occupants; the explanation put forward is that in the previous census the number of people in the Province was purposely exaggerated. A much more probable explanation is that the individual family is smaller consequent upon a diminished birthrate.

For some years before the returns of the last census public discussion has been off and on indulged in in reference to the low birthrate of this Province as shown by the Registrar-General's returns. The showing was so very bad—our birthrate according to the published reports being the lowest in the world—that the accuracy of the returns was questioned by many on the ground that only a proportion of the births were registered. What proportion this was could, of course, only be speculated upon, but in the light of the census the proportion probably was much greater than generally supposed. We believe that to-day it is apparent to all who have given the subject thought that the number of children born annually in this Province is so small as to have a most disturbing effect upon all who have the welfare of the nation at heart.

Why should it be so? Disinclination of young people to marry is undoubtedly partly responsible. So also the fact that the emigration from this Province to the West and to the United States has been largely made up of young unmarried men, but in addition to these causes it is plain to the mind of every medical man that continence and improper practices upon the part of many married couples must play a great part in producing the conditions named. The moral tone of the whole community is distinctly low in reference to these offences. Married women regard it as no sin, nor even as an act to be ashamed of, that they use drugs or instruments for the production upon themselves of abortion. The act is held in such light regard that oftentimes the neighbors are in the most offhand manner acquainted with the state of affairs, and the whole block calmly discusses the success or want of success of their sister who is "in trouble." With the moral aspect of the subject medical men are perhaps not directly concerned; that part might be left to the teachers of morals whose words we are afraid in the past have fallen upon deaf ears. The fear of punishment in a future world having failed to act as a deterrent, perhaps the conviction that punishment would come in this if known and appreciated by the laity might have a better effect. The community should realize—which it does not—that nature sinned against, right here on this mundane sphere brings its own punishment, which, while sometimes swift, is always sure. We do not think we have overstated the case. It is not a subject which one cares particularly about discussing, but, as we have said before, it is of such supreme importance that some action should be taken. The churches and the medical profession should unite in pointing out the enormity of practices which by many are regarded as of trivial importance.

News Items

SMALLPOX is reported from Halifax, Winnipeg and at Templeton, near Ottawa.

DR. J. G. LAMONT, Brantford, Ont., has returned home after a month's holiday in the North-West.

AN epidemic of anthrax has broken out amongst sheep in certain districts of the Canadian North-West.

DR. LABERGE, Medical Health Officer of Montreal, has gone to Germany to attend a medical conference shortly to be held in that country.

THE retail druggists of Toronto are to have a general meeting shortly. It is understood that there are a good many who favor letting patent goods look out for themselves.

DR. H. R. DUNSTAN GRAY, late resident accoucheur of the Montreal Maternity, and late House Surgeon Montreal General Hospital, has commenced practice in that city.

DR. W. S. MUIR, Truro, N.S., after attending the annual meeting of the Canadian Medical Association, is making an extensive tour of the Canadian and American Pacific Coast.

THE Department of Inland Revenue has issued a bulletin on canned salmon, in which the question of illness arising from consumption of tinned or canned goods in general is discussed.

DR. W. H. P. HILL, who has just completed his term as House Surgeon at the Montreal General Hospital, has gone for a year's study abroad, after which he will commence practice in Montreal.

DR. CHARLES O'REILLY, Superintendent of the Toronto General Hospital, was elected Vice-President at the annual meeting held recently in New York of the Association of Medical Superintendents of Hospitals.

FROM an article in the *British Medical Journal* of July 20th it would appear that that periodical would like to see the various medical societies in the city of Toronto amalgamated into a strong branch of the British Medical Association. The idea probably needs consideration.

MUCH suffering is said to be prevalent in Labrador with a great deal of sickness. In certain sections no doctors are to be had amongst the Deep Sea Fisher Folk; and the Dominion Government has been urged to take prompt steps to remedy the existing evils. Some time ago Lord Strathcona presented to the mission the hospital ship *Strathcona*.

DR. J. H. MORRISON, oculist, of St. John, N.B., has suffered from nervous collapse through the strain of prosecuting a suit for damages he received two years ago in a street railway accident.

TWO Dowicites were arrested recently in British Columbia, one an elder and the other a disciple of that faith. A charge of manslaughter has been registered against them for refusing medical aid to the infant child of the latter.

DR. MONTIZAMBERT, the Director-General of Public Health, has handed in his report on the recent conference on tuberculosis held at London. It is understood that he combats Professor Koch's recently-enunciated theories.

THE Medical Defence Association has delegated Dr. J. H. Sangster to present the case of that body before the profession and general public. The Ontario Medical Council may expect to have a hot time of it for the next few months.

THE Medical Staff of the Montreal General Hospital for the ensuing year will be made up of the following: Superintendent, Dr. von Eberts; House Surgeons, Drs. Turner, Secord, Robertson, Campbell, Howard, Bruce, Brown, Rogers and Ker.

LIEUT.-COL. NEILSON, Director-General of the Army Medical Service, recently presented the Bearer Company in Montreal with a handsome trophy shield of bronze as a reward for the standing they had taken in the company examinations some time ago.

THERE is a falling off in the death rate from consumption in Ontario. There were only 184 reported for July last, when 91 per cent. of the population reported. One year ago there were 264 recorded, the percentage registering at that time being 97.

DR. H. C. DUMONT has been successful in his suit against the College of Physicians and Surgeons of Quebec. Although the doctor passed all the prescribed examinations, the College held that he had not fulfilled the required regulations, and, therefore, refused to license him. Some six cases were decided against the College last year in a similar manner, so now the College will make this a test case, and are appealing to higher courts.

PROFESSOR ADAMI, of McGill, claims that Drs. Martin and Higgins, of Montreal, have for over two years been working along the lines set forth in Dr. Koch's recent theory. Two years ago Dr. Adami read a paper at the Canadian Medical Association on this very question. The title of the paper was "Is Bovine Tuberculosis Infectious from Animal to Man?" The Canadian Government has been aware of the trend of this work for that period of time.

Obituaries

DR. R. F. McMORINE, RICHMOND, QUE.

On the evening of the 4th of September, Dr. McMorine died suddenly. He was a well-known physician, a graduate of McGill and at one time was connected with Bellevue Hospital, New York. He was coroner for the District of St. Francis.

DR. J. C. THORN, WOODBRIDGE.

Dr. Thorn died suddenly on the afternoon of Saturday, the 14th inst. He was sixty-four years of age, and death is said to have been due to heart failure.

Abstracts

TOTAL EXTIRPATION OF THE URETER.

The primary operation of removing the ureter (Willy Meyer, M.D., International Contributions to Medical Literature. Festschrift in honor of the seventieth anniversary of the birth of A. Jacobi, M.D.), simultaneously with the affected kidney is rarely performed, because of the serious addition to the risk connected with removal of the kidney. Secondary total ureterectomy is therefore more often performed than the primary operation.

Conservatism has taken a firm hold on the surgery of the kidney; the organ is removed at the first operation only in cases of malignant tumor, primary tuberculosis, and exceptionally severe cases of suppuration, and even in these affections some argue against sacrificing the entire organ.

In malignant tumor of the kidney, with total involvement of the ureter, the trouble will evidently be beyond the reach of the knife. Ureterectomy will therefore generally be a partial one. As much of the ureter as can be reached from the wound should be removed, without subjecting the patient to an additional operation.

In fourteen cases of renal tuberculosis in which Meyer performed nephrectomy, the ureter was not totally removed. When materially infiltrated, the proximal part of the ureter was resected as far as possible; if not especially affected by the tuberculous process the tube was simply cut off below the kidney and dropped back into the retroperitoneal space. This procedure has been modified within several years by cauterizing the lumen of the distal end with a Paquelin and then tying it with catgut, thus preventing urine from the healthy kidney from passing through the free end of the ureter.

In the majority of cases when the source of the trouble, viz., the primarily diseased tuberculous kidney has been removed, the continued re-infection of the ureter ceases, and the tuberculous process within the ureter heals. In the majority of cases of primary renal tuberculosis the cystoscope shows the corresponding ureteral opening ulcerated; and if the diagnosis be established *early*, and nephrectomy carried out promptly, these ulcerations around the vesical end of the ureter disappear, and the process within the ureter farther up also heals. The cystoscope might often furnish the best means for determining the indication for secondary ureterectomy in tuberculous cases. If these ulcerations of the ureteral mouth persist after an early nephrectomy on that

side, we may conclude that the tuberculous process within the ureter shows no tendency to heal. On pressing upon the hypochondriac region during cystoscopy, we should observe pus entering from the ureter into the bladder. These cystoscopic facts may be relied upon.

In not a single case of renal tuberculosis, when the patient died months or years after nephrectomy, could the cause of death be attributed to the fact that a probably diseased ureter had been left behind. We can therefore say that total extirpation of the ureter in combination with removal of a tuberculous kidney is indicated only if the tube is visibly enlarged and suppurating.

In performing a nephrotomy or nephrectomy, the patency of the ureter should be carefully tested. A stricture or a stone can thus be easily diagnosticated. If the stone can be reached from the lumbar wound it should be extracted. If it be in the lower end of the ureter, the organ should be exposed extraperitoneally at once, if the patient's condition permits. If it does not, it must be done later to avoid further trouble. If a ureter is filled with a great number of calculi it is best to excise the entire canal.

A stricture in the ureter without the presence of the stone whose passage originally caused the stricture, will not often necessitate the extirpation of the ureter after the kidney has been removed. It is rarely so tight as to prevent the small amount of mucus discharged above from passing into the bladder. If diagnosticated during nephrectomy the ureteral stump should not be cauterized and tied, but rather left open and stitched into the lumbar wound. With proper drainage of the upper part of the ureter into the lumbar wound and, if necessary, with irrigation and dilatation of the ureteral stricture from this wound, the ureter has a better chance to heal.—*Jour. of Cutaneous and Genito-Urinary Diseases.*

THE DIAGNOSIS AND TREATMENT OF TYPHOID FEVER.

Marsden (*The Lancet*) states that a certain diagnosis may be arrived at either by physical signs or specific tests. With regard to the physical signs it is stated that a recent acute illness commencing with lassitude, headache, chills, then pyrexia, enlargement of the spleen, a continuous pyrexia, rose spots appearing in successive crops for several days, and each lasting three or four days with an absence of leukocytosis, and terminating by a remittent temperature gradually subsiding after, say, seventeen or eighteen days, and accompanied by sudden profuse intestinal hemorrhage or undoubted symptoms of intestinal perforation, or further followed by a definite relapse, may with certainty be

diagnosed as typhoid fever. With regard to specific tests it is stated that the isolation of Eberth's bacillus from the stools or from the rose spots is as yet impracticable, whilst tapping the spleen is unjustifiable. Reference is made to the importance of the serum reaction, to the value of enlargement of the spleen in the early days of a suspected case of the disease, and to the importance of rose spots—"the only sign upon which absolute reliance can be placed." With regard to treatment, the usual hygienic measures are approved, and a plea is made for a diet more liberal than that usually employed. It is maintained that each patient should be dieted according to his condition, so that it may happen that one will receive a limited supply of solid food of a specified character almost throughout the attack, whilst another may not be able to resume solid food until convalescence is far advanced. In conjunction with altered dietary, regular immersion in a cold, or rather tepid bath, during the acute stage of the disease is of great value. Finally, the value of surgical intervention in the event of certain abdominal complications is pointed out.—*American Medicine.*

EVISCERATION WITHOUT THE NECESSITY OF WEARING ARTIFICIAL EYES.

Dr. J. G. Huizinger (*Annals of Ophthalmology,* April, 1901) experimented on dogs and his method was as follows:

"Having introduced a speculum and taken the ordinary precautions to guard against infection, the eye is drawn inwards and upwards as far as possible so as to expose the external inferior quadrant.

"With a small scapel the sclerotic is pierced about a quarter of an inch posterior to the sclero-corneal margin, and just below the insertion of the external rectus. This incision is carried backward meridianly up to the entrance of the optic nerve. The cornea is not amputated, but left intact. The contents of the eyeball are carefully removed, and its interior thoroughly cleansed. I find that an ordinary eye speculum introduced into this wound assists in keeping its edges apart and greatly facilitates the work. A circular section of the posterior portion of the sclerotic, just large enough to include the optic and ciliary nerves, is then removed through the opening in the globe and the ends of the nerves amputated. After all hemorrhage has ceased, a fenestrated metal ball, the largest that can possibly be accommodated, is introduced. The edges of the wound in the sclerotic are closed with catgut sutures, which are covered by the conjunctiva being drawn over them and sutured with black silk.

"The local reaction is comparatively slight. The cornea soon

loses its characteristics and becomes lustreless and opaque. In about six or eight weeks after the operation the cornea is tatooed so as to resemble as near as possible a normal eye:—*i.e.*, the centre of the cornea black to resemble a pupil, and around this of such color as may harmonize with that of the iris of the other eye.

"The results have been fairly satisfactory, and have encouraged the hope that it may be possible to remove as much as may be necessary in an offending organ, and yet retain a fairly presentable eye without the necessity or inconvenience of wearing an artificial shell. In size the globe decreases a little.

"The sclerotic remains slightly congested, for a time, giving the appearance of an inflamed eye."

The anesthetic used was cocaine dropped onto the eyeball, and cocaine injected deep into the orbit near the optic nerve entrance.

Conclusions.—1. Slight local reaction.

2. No danger from sympathetic inflammation.

3. Artificial eyes not necessary.

4. The maximum in results by the removal of the minimum of tissue.

5. Perfect movement of the organ in every direction.

6. An improved method of using local anesthetics for extensive operations in the orbit.—*Post-Graduate.*

SERO-FIBRINOUS PLEURISY OF TRAUMATIC ORIGIN.

Barjon and Lesieur (*Lyon Med.*, May 5th, 1901) report two interesting cases of pleurisy with sero-fibrinous exudation following injury, and ultimately being proved to be tuberculous. In the first case a man, aged 33, an alcoholic, without any family history of tuberculosis, fell and bruised the neck and shoulder. Twelve days afterward he complained of oppression on the least effort, and slight shivering, and two or three days later was found to have an effusion into the left pleura reaching to the spine of the scapula. Paracentesis was performed three times; after the third operation the effusion did not recur, and the patient rapidly improved. The fluid from the third tapping injected into the peritoneum of a guinea-pig caused death, with marked signs of tuberculosis, and about five weeks after the last tapping the blood serum of the patient agglutinated Koch's bacilli with one-fifth dilution. In the second case, a man, aged 53, an alcoholic, with good personal history otherwise, and with a very good family history, fell and contused his left side. For more than three months the pain in the side continued, and was increased by deep respiration, but during this time there was no cough nor shiv-

ering and no wasting. The patient applied for treatment on account of the persistent pain and was found to have a moderate pleuritic effusion which one paracentesis cured. He had no definite sign of phthisis. The pleuritic fluid caused marked tuberculosis when injected into a guinea-pig's peritoneum. About three months after his discharge from hospital the patient returned with definite signs of bilateral phthisis, most pronounced at the left apex. The authors consider that both were cases of latent tuberculosis, and that the injuries acted as exciting causes.—*British Medical Journal.*

SARCOMA AND THE SARCOID GROWTHS OF THE SKIN.

In a paper presented at the last meeting of the American Dermatological Association (reported in the *Journal of Cutaneous and Genito-Urinary Diseases,* July, 1901) James C. Johnston, M.D., instructor in pathology, Cornell University Medical College, says in conclusion that the processes of elimination and classification are going on in sarcoma cutis, as in other groups, such as eczema and the bullous affections, and is unquestionably a step in the right direction.

1. The group may be divided into three classes: Fibroblastic sarcoma, the lymphoid-celled class, and sarcoid growths.

2. The first class comprises spindle and round-celled tumors. True giant-celled sarcoma is not primary in the skin. The origin is the same for all types, from the fibroblast. Between the cells there is present invariably a delicate reticulum, probably composed of collagen, which does not occur in epithelial neoplasms. The tumors are all vascular.

3. The lymphoid-celled class should have a place to itself. In lymphatic leukemia, Hodgkin's disease, and lymphoma, the cells are all of one type, and the cases show transition states from one to the other. There is no intercellular substance present as a product of the new cells, there are no vessels ramifying between them, and the pre-existent tissue does not melt away before their advance. So far as the skin is concerned, these disorders give rise to true tumor formation, which may be asserted also of myelogenous leukemia. This class is not related histogenetically to either of the other two.

4. The sarcoid tumors are undoubtedly all fibroblastic in origin, but two of them are probably granulomas, whose organism has not been discovered—no reproach at present. They are granuloma fungoides and sarcomatosis; with them should be classed Boeck's sarcoid as a granuloma, certainly not with lymphodermia. Modern histologists regard idiopathic sarcoma as having

the same character, but it closely approaches sarcoma on one side and endothelioma on the other. The reticulum is present here, as in sarcoma and productive inflammations, but these neoplasms do not metastasize, and they are curable by arsenic, except granuloma fungoides. Perhaps the spindle-celled sarcoma, which disappears under the same treatment, is a near relative to Kaposi's sarcoma, so that a transition may be traced by easy and well-known steps from the most malignant of neoplasms to benign tumors, hardly distinguishable from granuloma, a class of infective, generally productive, neoplasms, as lymphoid tumors shade from lymphoma through lymphemia to inflammatory hyperplasia. It will be interesting to see whether an infectious agent is ever discovered for fibroblastic sarcoma, or whether a sharp line is to be drawn through the sarcoid group, between it and granuloma.—*Medical Age.*

A RARE CASE OF IMPERFORATE ANUS.

The patient, a man of twenty-four (Chas. B. Kelsey), *Phila. Med. Jour.*, fairly well nourished, though weighing only 107 pounds at time of operation, was born with an imperforate anus. The history beyond this is exceedingly meagre from the fact that both his parents died in his childhood, but he knows that the opening was made in the perineum during the first few days of life, and that there has always been a free communication between the bladder and the rectum by which urine escaped per rectum and feces per urethram. He states that he has frequently gone for three months without any fecal evacuation of any sort, and that after such a period it is not unusual for him to fill two chamber utensils full of solid matter. On examination there is found a deep anal depression ending in a narrow, firm undilatable slit running antero-posteriorly, which admits the index finger with pain. The slit is surrounded by and located in firm fibrous tissue. Through this slit the finger impinges upon an immense fecal impaction extending above the umbilicus and filling the entire lower abdomen. Any attempt to break up or loosen the impaction or to pass the finger around it causes intense pain and free bleeding, and the mass is so stony that hardly any impression can be made upon it with the finger. There is no sphincteric power (no sphincter), and the usual fluid discharge existing with impaction is caught in a large sponge which the patient has been always in the habit of wearing against the anus. Under ether it required the united efforts of two men and two nurses forty-five minutes to break up and wash out the fecal mass. No attempt was made to estimate its weight, its size being sufficient indication of the

amount, and its stony hardness of the time it must have been present. A sound passed into the urethra revealed an entire absence of corpus spongiosum for about an inch and a half in front of the triangular ligament, its place being taken by a thin membrane which separated the urethra from the rectum. This membrane was absent at one point for a space about one-third of an inch in diameter, through which communication with the rectum existed.

A colostomy incision was made on the left side and no descending colon was found. Instead of it there was an immense pouch with greatly thickened and muscular walls, reaching from anus to diaphragm. This was followed up to where it commenced to narrow, and an artificial anus established at this point.—*Medical Standard.*

ULCER OF THE STOMACH CAUSED BY THE DIPHTHERIA BACILLUS.

William R. Stokes (*Bulletin of the Johns Hopkins Hospital*) believes that in cases of widespread diphtheria, when the gastric juice is lessened in quantity, the large numbers of diphtheria bacilli swallowed are apt to cause local lesion of the gastric mucous membrane. He cites a case with fatal termination, in which the patient had complained of pain and hyperesthesia in the epigastric region. The patient, a young man, was found in the street, and it was impossible to ascertain the duration of the disease. Cultures from the throat taken on two occasions showed the bacilli. The antitoxin treatment was employed, and on the sixth day the temperature, which had been high, fell and the membrane had almost disappeared from the throat. Death occurred ten days after treatment was instituted. *Post-mortem* examination revealed an ulcer in the most dependent portion of the greater curvature of the stomach, near the pylorus. This ulcer consisted of a mass of coagulative necrosis extending into the submucosa and undermining the mucosa laterally. Bacteriological examination showed the diphtheria bacilli to be limited to the necrotic material, much more numerous on the surface. The author believes that stomach lesions produced by the diphtheria bacilli will, in time, be found to be more frequent than has been heretofore supposed.—*Medical Record.*

A NEW BACILLUS OF SYPHILIS.

J. de Lille and L. Jullien (*Deutcher Med. Wochenscrift*) describe an organism they have obtained from the alexinfree plasma and blister fluid of syphilitics. It is a polymorphous bacillus growing well on ordinary media, and after ten days assuming a granular form which, resown, gives rise again to the original type, but after

thirty days remains sterile. The organism is to be found in all patients in the florid stage of syphilis, and with their serum gives an agglutination-reaction which does not occur with the blood of non-luetics. Inoculation into animals produces symptoms comparable to those occuring in man, and the bacillus fixes the alexin of animals inoculated with syphilitic products. Syphilitic subjects do not react to infection with it, and in both animals and man it disappears after death, which perhaps accounts for the fact that no case of infection sustained in performing autopsies on luetic cadavers has ever been recorded.—*Medical Record.*

ON HEMORRHAGIC BULLA OF THE MOUTH AND PHARYNX.

J. Preston Maxwell (*The Journal of Tropical Medicine*) says that in the whole region of Fokien, Southern China, there exists a curious disease, consisting of a large bulla in the mouth, which bursts and discharges dark blood. The pathology is obscure. The Chinese universally attribute it to the web of a peculiar fly-catching spider. In several instances patients have affirmed that they saw the spider jump out from their basin of condiments, and, taking a piece from that place, have been immediately victimized. Unfortunately, the efforts of the writer to reproduce the condition artificially in animals and man has been a failure. The affection may come on while eating rice, sugar, soft biscuits, drinking tea, or merely lounging about. The prognosis is good, and the treatment is simple, as a tannic acid gargle quickly stops the bleeding.—*Medical Record.*

TRANSMISSION OF SYPHILIS TO THE THIRD GENERATION.

Troisfontaines (*Journ. des Mal. Cut. et Syph.*, April, 1901) describes a case of possible transmission of syphilis to the third generation. The father in 1876 had syphilis, and died of cerebral disease in 1885. His daughter was born in 1878, and suffered from nasal necrosis and gummata of the leg when nine years old. She was cured by iodides. The daughter of the last patient (third generation) suffered from typical hereditary syphilis—wasting, "old man" aspect, nasal coryza, and a papular syphilide of the face. The child was cured by specific treatment. The father and mother of the last child were examined by the writer, and no sign of syphilis found in either of them. Troisfontaines points out the only weak point in the case, namely, the possibility of the supposed father of the last child not being the real one. This objection is always possible, and the case, like most others, must be considered "non proven."—*British Medical Journal.*

PRURIGO GESTATIONIS.

The author, Dr. R. Gonliaieff (*Centralblatt fur die Grenzgebiete der Medizin und Chirurgie*), concludes as follows:

1. During the course of pregnancy a pruriginous affection may arise at the third month and disappear with delivery. The disease is characterized by a very severe itching and the formation of papules. In contradistinction to herpes gestationis this affection might be termed prurigo gestationis.

2. Prurigo gestationis is differentiated from herpes gestationis by the absence of vesicles, polymorphism, the resemblance to herpes and eosinophille; it is a pure prurigo, whereas herpes gestationis is a bullous disease.

3. It resembles herpes gestationis in that it occurs during pregnancy and disappears with delivery; that it recurs with almost every succeeding pregnancy, and that the urine shows certain characteristics—*i.e.*, diminution in quantity and in the amount of uric acid excretion.

4. The cause of prurigo gestationis is pregnancy; as predisposing factors auto-intoxication and previous infections, especially pregnancy and utero-ovarian diseases, are to be mentioned.

5. The lesions are in general those of prurigo.

6. The general outcome is recovery; still, occupation (washerwoman) and hygienic conditions as well as scratching may produce compiications.

7. Treatment consists of milk diet and absolute rest. These control pruritis. Local antipruritics are also indicated.—*The Post-Graduate.*

THE GENERAL PRINCIPLES OF INFANT-FEEDING AND THE HOME MODIFICATION OF MILK.

L. E. Holt (*Archives of Pediatrics*) opposes the addition of any foreign elements to the milk of healthy infants, arguing that the physician must be guided by the proportion of the different constituents which exist in good breast milk. He thinks the greatest mistake made is to start with too high percentages, especially of fat and proteids, but that it is equally undesirable to keep an infant for a long time upon very low percentages of proteids. Ordinarily the modifications required for healthy infants can be grouped into three classes of formulas:

1. A series in which the fat is three times the proteids, or about that existing in breast milk. Such formulas are adapted to the first period of infancy, extending from birth to about the end of the third month.

2. A series in which the fat is twice the proteids, which for-

mula is adapted to the middle period of infancy, that is, to the end of the tenth month.

3. Formulas in which the fat and proteids are nearly equal, adapted to infants over ten months old.

The above are sufficient for healthy infants. Those with feeble digestion or chronic indigestion require special study, and each case must be considered by itself.—*Maryland Med. Journal.*

A NEW PHYSICAL SIGN CHARACTERISTIC OF ALCHOLIC INTOXICATION: "THE SIGN OF QUINQUAD."

Ed. Aubry (*Archives de Neurologie*) reports this sign as described by Quinquad: The individual is ordered to separate his fingers, and while extending them, he presses them firmly in a perpendicular direction against the palm of the examiner's hand. During the first two or three seconds nothing particular is noticeable, but soon a series of slight shocks is felt, as if the bones of each finger struck each other successively, finally reaching the palm, against which the finger-tips are resting. The crepitation varies in intensity according to the nature of the individual. It is more marked in men than in women. The pressure of the fingers should be moderate. This sign has not been found in epileptics nor in general paralytics. It has been noted only in alcoholics. Although sufficient work has not been done on this subject to make possible very sweeping assertions as to its value, nevertheless, in all cases in which abstinence was indisputable, the sign has never been present. It cannot be yet absolutely affirmed that the sign is specific of alcoholism. At present it is difficult to elucidate its pathogeny. If its specific value can be demonstrated, it will afford a very useful means of diagnosis. It is not yet known to the public, and is easily applied.—*Medical Record.*

Physicians' Library

Diseases of the Intestines. By DR. I. BOAS, Specialist for Gastro-intestinal Diseases in Berlin. Authorized Translation from the First German Edition; with Special Additions by SEYMOUR BASCH, M.D., New York City. With 47 illustrations. New York: D. Appleton & Company. 1901.

We welcome the appearance of this work as we are satisfied that the author will give us the most recent advancements in diseases of the intestines. Doctor Boas is also the author of a recent book on gastric diseases and the subject-matter of this work may

be said to be treated according to the principles which are followed in his earlier treatise.

In the introductory chapter, in addition to a description of the anatomy and histology of the intestines, the physiological and chemical aspects of the subject are carefully described, and will be found interesting and instructive reading.

In the first part of the work the author describes methods of taking a history, and gives instructions to be followed in examining the patient, the feces and the urine. The chapter on examination of the feces is a particularly good one. Following this the general therapeutics of intestinal diseases is dealt with. Dietetics, massage, hydrotherapy, electrotheraphy, lavage, and medicinal treatment are all comprehensively considered.

The second part of the work is devoted to the description of the diseases of the intestines, and special prominence is given to these affections which the general practitioner is called upon to treat, such as chronic constipation, intestinal catarrhs, rectal diseases, intestinal neurosis, intestinal ulcers, appendicitis, etc. In the sections on appendicitis the translator has made several additions so as to bring the text in line with the views which are generally held in America.

The book is as scientific as the knowledge of the subject permits, and at the same time is a distinctly practical one. It is a work which it is a pleasure to commend.

The Hygiene of Transmissible Diseases: Their Causation, Modes of Dissemination and Methods of Prevention. By A. C. ABBOTT, M.D., Professor of Hygiene and Bacteriology, University of Pennsylvania. Second edition, revised and enlarged, with 46 illustrations and 20 charts. W. B. Saunders & Co., Philadelphia and London. Canadian agents, J. A. Carveth & Co. Price $2.50.

The recent investigations upon the modes of dissemination of certain of the specific infections by insects and rodents would in themselves compel a revision of this work. The author has not altered the original plan of the work though he has added numerous additions and modified many opinions so as to conform with the results of more recent observations. The sections especially on malaria, yellow fever, plague, filariasis dysentery and tuberculosis have been thoroughly revised.

The subject of hygiene of the preventable specific diseases is a most important one and we believe that the author has presented the subject in a clear and thorough manner. The work deserves to be studied by both student and practitioner.