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Original Communications.

THE PRACTICE OF MEDICINE IN CHINA.

By WM. YOUNG, C.M., M.D., late of Hong Kong, China.

The practice of medicine is more or less empirical, that is, founded upon experience. We might, therefore, reasonably expect many substantial additions to our means of combating disease from the accumulated experiences of ages, recorded in Chinese books. To say that any one coming to China with such expectations would be disappointed, is putting the case very mildly; we would rather say, he will turn from the study with pity or contempt, if not with loathing and disgust.

Did we not know it to be true, it would surpass belief, that the physicians of a nation so old, so distinguished for her literary men, and so practical in some departments, should receive with unquestioning submission the falsehoods of their predecessors, and that so many ages have rolled away without the most distant approach to truth in the systems taught concerning the structure and functions of the human body. In any of the book stores in China, a diagram issued by the authority of the Imperial College at Peking can be bought, which gives an outline of what is known and taught in China regarding the anatomy of the human body. In this diagram the œsophagus is rightly made to enter the stomach. The trachea goes through the lungs into the heart, and three tubes, passing posteriorly from the heart, connect it with the spleen, the liver, and kidneys. The kidneys are shown to be connected with the spinal column, and from them originates a subtle influence, which passes upward into the brain, and downward to the spermatic cords. The kidneys have thus a place of the first importance in the animal economy, as the Chinese locate between them the Ming Mün or gate of life. These notions be it remembered are not the aberrations of irresponsible pretenders, but the undisputed teachings of the Imperial College, handed down without questioning through many generations, carrying with them the authority of deified sages, and having all the sanctity which religion and antiquity can give. In successfully dealing with a machine, the mechanic must be familiar with the structure of its parts, and the action of the whole when put together. But in China we have the human body, the most wonderful and complicated machine in existence, treated by ignorant quacks, who, taking advantage of the self-renovating powers of the human body, assume to heal its maladies, correct its irregularities, and make it work harmoniously. It is quite unnecessary to add that surgery as an art has no existence amongst the Chinese. Nature must effect her cures unaided by science, and her efforts in

this direction are often thwarted, or totally obstructed, by the most ignorant and unwarrantable interference with her functions, the simplest appliance in the department of surgery being quite unknown. The Chinese, however, are beginning to appreciate the skill of Western surgeons, as they come from all parts of the country to the many hospitals which have been established by missionaries and by the enterprise of the physicians attached to the European department of the Chinese Customs service. It is one of the hopeful signs of China to see the readiness with which they consult foreign surgeons, and to note the wonder at the result, and the respect inspired by their skill and attention. No one would ever forget the look of alarm and abject fear with which a Chinaman surveys the approach of a knife to an abscess, and how that look changes into one of unbounded pleasure and implicit trust, as the matter wells out of the opening. These labors are doing much and will yet do more to break down the barriers of prejudice and seclusion which have been reared by centuries.

That surgery was practiced amongst them at a remote period admits of no manner of doubt, as many allusions are made to the art, in some of their old books, and according to M. Stanislaus Julien it appears as far back as the third century of our era, the Chinese were in possession of an anæsthetic agent, which they employed in the same manner as we use chloroform and ether for producing insensibility during operations. M. Julien discovered a description of this in a work called "Kow-King-i-tong," In a biographical notice of Hoa-tho, who flourished under the dynasty of Wei, between the years 220 and 230 of our era. It is stated that he gave the sick a preparation of Ma-yo, who in a few minutes became as insensible as one plunged in drunkenness or deprived of life. He then made incisions, etc. After a number of days the patient found himself restored, without having experienced during the operation the slightest pain. It appears from the biography of Hoa that this Ma-yo was prepared by boiling and distillation. This, like the art of which it was the handmaid, is entirely lost, and Chinamen wondered as much as foreigners to find that in the forgotten past they possessed what is now prized by surgeons as the greatest triumphs of chemical skill, and by many a suffering patient as the greatest blessing of the healing art. At the corners of the streets in any Chinese city may be witnessed the native dentist extracting teeth by what is said to be a painless method. The patient is made to sit down, a white powder ($Hg\ Cl_2$) is rubbed on the gum, the patient is then directed to wait a little; after a few minutes the process is repeated, and the dentist then introducing his thumb and fore-finger, with apparently very little violence the tooth is pulled out. I have never been able to trace whether any deleterious effects were produced by the action of the mercury on the jaw, or to learn what was its specific action on the gum, further than to notice that after the first rubbing it assumed a blanched appearance. The patients all winced under the operation, but it seemed harmless compared with the anguish-inflicting forceps or key.

The Chinese physician largely practices counter irritation. A favorite method which is commonly adopted in rheumatism and inflammatory pains is for the doctor to close his fist firmly, and using the index and middle fingers as forceps, to seize the skin over the part, draw it forcibly outwards, letting it free with a snap into its place. It is quite common to see coolies, that is the working classes (whose bodies are usually uncovered), with long, dark, bruised lines on their persons caused by this barbarous system of torture. A more painful though not so common method is the application of moxa, often causing large and gangrenous wounds by the application of fire near important and sensitive organs. But the favorite application to all parts is an adhesive plaster. It is a matter of sublime indifference to a Chinese practitioner whether the patient is suffering from an abscess or a wound, an abrasion, or merely a numbness from cold, the same plaster is applied, It matters not whether the wound be recent or of long standing, or whether it be clean or foul with corruption, the same disgusting materials are applied. If in spite of such treatment a cure is effected the praise of the remedy is vaunted abroad, but if, and what is usually the case, bad becomes worse, they assume that some evil influence has been at work to counteract the efficacy of the drug.

The fact that the blood circulated through the body seems to have been known to the Chinese in ancient times. But no true notion of arteries and veins as distributing and returning the blood has ever been developed. They supposed that both air and blood permeated the body in tubes, which have only an imaginary existence.

The study of the pulse has been a favorite one

for the Chinese physician in all ages. It is marvellous with what eyes a Chinese doctor can look into his patient through the pulse; he can not only tell the disease, the exact seat, but even decide the age and sex of the undeveloped fœtus. Western physicians are often placed at a discount among the Chinese on account of their supposed ignorance in not being able to diagnose a case from merely feeling the pulse of a patient, sometimes they are not even allowed to see the sufferer, a hand merely being thrust out between curtains, and often the most misleading answers are given to simple questions, the more certain to test the skill or puzzle the ingenuity of the doctor. The Chinese physician sublimely soars above all such difficulties, and finds in the realms of imagination easy solutions, which, if they do not lead him to cure the patient, shamefully imposes on the innocent and unsuspecting. The Chinese have accomplished this blissful and wonderful state by the invention of the theory of the Yin and Yang, which in their speculations are two principles or powers in nature, the male and female, ever active in producing the physical, chemical and vital phenomena which occur within and around us. Not only are all the obscure phenomena of inorganic change accounted for by the action and reaction of those powers, but the occult powers of living bodies in all the complicated action of their organs in health and disease are explained by calling in the aid of these imaginary principles. When these are equalized there is health; when the male principle is in the ascendant there is disease, and it is of an inflammatory type. If the female principle predominates the disease is of a low or typhoid character. The reaction of these principles make up an amount of absurdity truly wonderful, but venerable for its antiquity. Most of the medicines in use among the Chinese are absolutely inert, and to some of which such virtues are attached as to be sold for many times their weight in silver. The native Gensing, though entirely rejected in western medicine, is very highly prized amongst the Chinese, so much so that it enters as an essential ingredient into numerous native preparations. The high value attached to it, is because its roots bear a real or fanciful resemblance to the form of the human body. The same fanciful relations guide them in the application of all medicines to the cure of disease, for medicines are never applied by them according to their known therapeutical properties, but according to some supposed relationship between the organs of the body on the one hand, and the elements, earth, wood, metal, water and fire, on the other. Thus they fancy that the liver is related to the element wood, and as metal has control over wood, medicines related to the element metal are those which for this reason are applicable to the cure of diseases of the liver; so with regard to all their medicines and all the organs of the body. A round of imaginary relationships is established, the actual virtues of the medicines are overlooked, active and inert substances are employed with the same confidence, thus exhibiting an amount of ignorance and absurdity in dealing with the lives and health of men which is absolutely inconceivable.

But one of the most melancholy chapters of Chinese medicine is the superstitious and idolatrous practices connected with guarding the sick from the destructive spirit of disease. This is accomplished by various incantations, and by the exhibition on the bed and walls of the room, of hideous pictures to frighten away the genii of evil. Sometimes the patient's face is painted in the most grotesque manner, in fantastic shapes and colors, giving the whole scene, were not the life or health of the patient at stake, a most ludicrous aspect.

The choice of a physician is also decided by lot and not from any well-known skill or ability of the doctor, or if the patient or friends decided upon a certain practitioner, they endeavor to find evidence that their selection has been fortunate. The Chinese are, however, in all these matters thoroughly practical. The physician undertakes to cure for so much and within a certain time, and should the first dose of the medicine not produce the desired effect, the oracle is again consulted and another physician is again called in. The moment, however, a Chinese doctor perceives that the patient is sinking he at once abandons the case, leaving the poor sufferer to linger without aid, or do anything to smooth the way of the last and closing scene. This moment is the opportunity of Western Physicians, often, however, too late to be of any use to the sufferer. The Chinese have a thorough contempt for their doctors unless they are certain he is doing them good, or he succeeds in gaining their implicit confidence by bold and reckless assertion. His nostrums are invariably looked upon with suspicion, for even in the much vaunted Tung Wah Hospital of Hong Kong,

which is under the management of native doctors, on a settle behind the building may be seen ranged under the name of the patient, or number of his bed duplicates of the medicine given, or the exhausted matrix of decoctions, so that, should the patient die with symptoms not understood, the medicine or detritus may be examined, to see that it contained no deleterious or poisonous ingredients.

Happily for the Chinese nearly all their medicines are inert—as pearls, tiger's bones, rhinocerus horns, fossil bones and numerous other articles as inert are used, which are absolutely without any medicinal virtue. Were it otherwise it would require no gift of prophecy to predict that the whole land would soon be a graveyard, and its teeming cities would be turned into desolation. Of obstetrics as a science they are entirely ignorant, wearying and exhausting the patient by absurd and ridiculous positions, often risking the mother's life by giving her disgusting draughts, and at last abandoning the case, rendering many a home desolate or marring the maternal prospects, when the most elementary knowledge of the subject would have overcome all difficulties and saved the life of one or both. In this department also prejudice is fast breaking down, and in cases of difficulty a European surgeon will be sent for. It is then, when they see how simply, and without exposure, the case is dealt with that their admiration for the foreign doctor is shown, and they make no scruple to speak of their own in terms far from complimentary.

Incredible as it may seem, this state of matters has existed for ages, and considering the state of personal filth and the unhygienic conditions in which they live, so far as can be gathered from their own authorities or from personal observation, the rates of mortality in China will bear favorable comparison with Western nations.

This in a great measure is to be accounted for by the simple manner in which they live, their diet being chiefly vegetable combined with fats, the absence of spirituous liquors, and their places of business having only three walls, the fourth side being only a temporary structure, which can be taken away or replaced at pleasure.

It has often been remarked by European practitioners the absence of acute inflammatory diseases amongst the Chinese, and many profound speculations have been offered to account for this fact, many attributing it to their mode of living, their abstemious habits, their vegetable diet carefully prepared, and to their never drinking cold liquids all their drink being tea, the national beverage freshly made and carefully decanted. Perhaps the whole of these, added to their sanguine temperament, renders them almost free from those acute inflammatory disorders which swell the rate of mortality in Western cities.

The principal diseases from which they suffer are intermittent and remittent fevers, congestions of liver and spleen, chronic rheumatism—their cities are never entirely free from small-pox. Skin diseases may be studied at the corner of every street, and few homes are without the necessity of employing an oculist. Vesical calculi are very common. Elephantiasis Arabum is found in some districts, and leprosy is sometimes met with. That the minds of men whose calling is to relieve sufferings so great and diseases so formidable should have been satisfied to grope so long in darkness is indeed wonderful. Age after age the process of the deception has gone on, one generation after another has followed in the abyss of mental delusion, and never yet has there been found a mind among all the myriads of physicians which could break through the trammels of venerable ignorance, in order to strike out a new path towards scientific and rational medicine as it has been developed by the labors of physicians in the West. Why is this? The answer is to be found in the teaching of their religion, and in the prejudices of the literati or governing classes against the innovations of foreigners. Their religion may be briefly defined as ancestral worship. A Chinaman can never be wiser or better than his forefathers and it is wickedness and presumption for him to improve on their methods or alter their decisions and when he is asked why he does such a thing, or does it in such a way he will not show that it is the best way in which the thing could be done, but will at once find refuge in their oft-repeated phrase "old custom." To introduce new ways would be for him irreverence, and new modes of thought high treason to the dead. The teachings of the literati have also engendered amongst the Chinese an intense horror of touching a corpse and a great reverence for the person of the dead. He believes as he is buried so he exists in the spirit world, and to mutilate the body, or even desecrate the grave, is to disturb all the sacred relationships that exist between the world of spirits and this mundane sphere. The body if defaced the

spirit knows no rest. This doctrine has a firm hold on the minds of the people, and by it the literati maintain a cruel tyranny over the minds of their degraded fellow countrymen. It has also been the means of excluding from the country railways and telegraphs, as the noise of the one and the wires of the other would disturb the fung shuey or repose of the dead. Two years ago, at the provincial examination held in Canton, most of the candidates from a certain district of the city failed to pass; their failure was attributed to the presence of the spires of the Roman Catholic Cathedral, which disturbed the fung shuey. This was the cause of a serious riot, the presence of an imposing military force being necessary to save the building from destruction. Need it be wondered, then, that the study of Anatomy, which is the basis of any rational system of medicine, is altogether unknown, and the poor Chinaman continues to have his ailments treated by ignorant pretenders, who, shielding themselves behind superstitious and idolatrous customs, attribute their failures to the preponderating principle of evil. But however dark this picture may seem, rifts in the gloom are constantly appearing, clearly showing that the Chinese are beginning to appreciate and realize the fact that a better system of medicine than their own is understood and practiced by the hated barbarians, and many tempted by avarice and the national love of learning are travelling to other lands, attending foreign universities, even obtaining degrees, who when returning to their native land will sow precious seeds of thought, which falling into verdant soil, will yet germinate in improved modes of teaching, and a more just, because a more correct, system of medicine, founded upon research and patient investigation, instead of the vagaries of diseasedi maginations, thus bringing untold blessings to that benighted and downtrodden people.

Montreal, 17th August, 1882.

VITAL STATISTICS.*

By W. B. Carpenter, M.A., .LLD., F.R.S.

Owing to the peculiar circumstances of Canada, its great extent of territory, its numerous provinces and its scattered population, the problem of vital statistics is somewhat difficult. The best results would be obtained from a uniform system of registering vital statistics, carried out at first in the great centres of population only. A uniform system enforced by the authority of the Dominion Government would be far more valuable than separate provincial systems carried out by local legislation, whose variations would seriously diminish their value. England, Scotland and Ireland possess a perfectly uniform system, thanks to the untiring efforts of Dr. Farr, whose services to vital statistics can hardly be overestimated. Although to him we owe the term *zymotic*, the principle of zymosis was long ago enunciated. In a work on the Diseases of the Army, by Sir John Pringle, published some 140 years ago, the following important principles are laid down :—

1. That certain diseases are due to a species of fermentation of the blood produced by ferments introduced into it.

2. That certain forms of zymotic disease may be converted into other forms, which are usually regarded as of different type. In other words, certain zymotic diseases are convertible the one into the other.

Sir John states that in 1743 a number of soldiers, some of whom were suffering from the mild autumnal remittent fever of the country, were shipped from the Low Countries to Scotland in little brigs at the end of the season. The voyage occupied six weeks, and the sea was so rough that the men had to be kept under hatches the greater part of the time. The result of the foul air and overcrowding was that the type of fever entirely changed, and the mild autumnal remittent became a malignant typhus, which spread rapidly through the seaport towns where the sick soldiers disembarked.

A very striking case came under personal observation. The Eclaire, a troop-ship serving on the west coast of Africa, was ordered home to England. Many of the men on board were suffering from the malarial fever of the country. There was a good deal of foul bilge water in the vessel with decaying vegetable matter, and the result was that the simple malarial fever developed into true yellow fever. When the vessel touched at the Cape Verd Islands, the yellow fever, which had hitherto been unknown in the islands, broke out among the inhabitants, and raged with such intensity that the Portuguese Government applied to the British Government for compensation.

It is my own belief, supported by the authority

* Abstract of Address delivered at Toronto before the Canada Medical Association, Sept. 6, 1882.

of Sydenham, McWilliam, Christison and many others, that the media in which germs are developed have a most important effect upon the character of fever produced. Germs which under ordinary circumstances would produce malarial fever, produce a more malignant type of disease when developed in blood rendered unhealthy by bad ventilation or other causes. There is a wide range of variation in natural history quite irrespective of Darwin's views. Sharply marked classifications and distinctions may hold good for some times and some places, but not for all times and all places.

A fact of great importance has been clearly demonstrated by Dr. Farr's system of vital statistics. When different towns or different country districts are compared with each other, or when town districts are compared with country districts, it is found that the rate of mortality from *non-zymotic* disease is practically the same in town and country. The amount of *non-zymotic* disease is a tolerably uniform quantity all over, and the doubling or even trebling of the death rate which occurs in some of the worst town districts is entirely attributable to *zymotic* disease. When sanitary reformers got hold of this great fact, that a large or small death rate in any community practically depends upon the amount of preventable zymotic disease which exists in that community, they impressed it strongly upon the Government to secure sanitary reforms. But the great obstacle which had to be encountered in England, and which will no doubt have to be encountered in Canada, was the want of a strong public opinion. Governments generally strive to carry out the wishes of the people as far as possible; no Government can carry out a scheme of sanitary reform in the face of an unwilling people, nor would the Government dare to refuse such reforms if demanded by the people. In Montreal, when compulsory vaccination was attempted to stamp out small-pox, it was found impossible to force it upon the people owing to the strong prejudice against it among certain sections of the community. Medical men especially should be fully impressed with the necessity of creating a healthy public opinion on sanitary matters. In England, public opinion is now decidedly in favor of the promotion of these objects; and I do not hesitate to say that the dread of the loss of the Prince of Wales' life has had more to do with this change of public opinion than any other single event. There is now comparatively little difficulty in carrying forward any plan of sanitary improvement which is well considered, and obviously for the public benefit.

I would take this opportunity of saying something about small-pox and vaccination, a subject in which I am most interested, and to which I have recently devoted considerable attention. The epidemic of small-pox which swept over Europe and America in 1871, and subsequently, was remarkable from the fact that its type (malignant purpuric) had not been seen in Europe since the middle of last century. As the result of my investigations, I am led to attribute the sudden reappearance of this malignant form to the overcrowding of the French army in Paris during the siege, and the confinement in unhealthy quarters of the French prisoners taken by the Germans. The mild type of small-pox which existed around Paris was developed by unsanitary conditions into the malignant variety, which spread with amazing rapidity throughout Europe and America, and was very destructive of human life. It has been proved beyond doubt, that thorough vaccination and proper sanitary measures are the best possible means of protection against a malignant type of small-pox. No child that has been properly vaccinated has ever been afflicted with anything more severe than the milder type of the disease. A matter of great importance, however, is the use of pure vaccine. Vaccine virus undoubtedly deteriorates after long-continued transmission through the human body, and then has less protective power against small-pox. The use of animal vaccine in all cases is safer and better. In modern times no better example of the protective power of vaccination can be found than the case of San Francisco. When small-pox broke out in the filthy overcrowded Chinese quarter, the people became thoroughly alarmed. Prompt measures were at once adopted, and all the school children, 60,000 in number, were vaccinated. The disease was confined to the Chinese, none of whom would submit to vaccination; in the other parts of the city the only cases which occurred were among adults who had neglected to be re-vaccinated, the children entirely escaped.

Dr. Carpenter then referred to the cholera epidemic of 1849. In Baltimore, the authorities took great pains to put the city in a good sanitary condition, and the cholera passed them by. But in the Baltimore poor-house, situated outside of the city, there was a dreadful outbreak, 40 or 50 cases a

day out of a population of 800. The place had been thoroughly cleaned and whitewashed, there was no overcrowding, and the drainage was thought to be good. On investigation it was found that behind the walls was a marsh covered with rank grass into which the sewage was discharged. The marsh was drained and disinfected, and the cholera immediately ceased.

Progress of Medical Science.

ON INFANTILE DIARRHEA.

By Douglas Morton, A.M., M.D.*

* * * * * * The fact that such drugs as opium and the vegetable astringents are this day given indiscriminately, without regard to the stage of the disease or condition of the patient; and that beef tea is highly recommended by some as a food, and water given sparingly by others, constitute sufficient proof that this already much-discussed subject may yet undergo profitable discussion.

Some authors have, I think, unnecessarily complicated the subject by discussing the different degrees of severity of the disease and its distinct stages in distinct chapters and under distinct heads. The terms summer diarrhea and chlorea infantum mean pathologically the same thing. The latter simply represents a severe type of the former, and entero-colitis is merely a stage of either.

The idea of all others that should never be lost sight of in the treatment of any stage of the disease is that failure of digestion, however brought about, is an essential factor. This point I wish to make emphatic, for I do not believe that any one duly impressed with the truth of it will ever prescribe opium or tannin in any of its forms in the early stage.

In an analysis of the post-mortem appearance in eighty-two cases of intestinal inflammation in children Dr. J. Lewis Smith found the upper part of the small intestine inflamed in only twelve cases, the ilium in forty-nine cases, and the colon in eighty-one out of the eighty-two cases. The inferences obviously to be drawn from Dr. Smith's analysis are these: That food having passed the pylorus undigested acts as an irritant on the intestinal canal, and that as it passes on it undergoes decomposition, giving rise to products more and more irritant the further it goes until it gets to the colon, which is the seat of lesion in every case which reaches the inflammatory stage.

To treat this disease successfully an intelligent idea on its causation is indispensable, for in few diseases are their causes more susceptible of removal, or at least of restraint, than in this.

At all seasons of the year children live under bad hygienic conditions, cut teeth, and eat indigestible food; but it is only in the hottest part of the summer that they are peculiarly subject to diseases of the alimentary canal. In cities where these diseases prevail about one hundred times as many children die of them in July as in January. As a factor in causation heat is therefore of paramount importance. Upon the other hand it must not be forgotten that among children who do not happen to cut teeth in the hottest months, and who get their food from their mothers' breast, the mortality is comparatively small—a fact going to show the importance also of dentition and improper food as causes.

The most satisfactory explanation of the action of heat in causing infantile diarrhea is that based upon a relation existing between the skin, or rather its nerve terminals, and the vasomotor centers which control the visceral blood-supply, in accordance with which the tone of the arterioles is maintained by the tonic effect of cold air, and depressed, on the other hand, by long continued heat.* This depression by heat places the vascular caliber in what may be called a state of unstable equilibrium, which is readily destroyed by the ingestion of difficultly-digested food, especially so if the irritation connected with teething is superadded. The congestion following may vary from a degree sufficient simply to bring about a mild diarrhea to that severe enough to cause the garvest cholera infantum.

Since heat plays so important a part in the production of infantile diarrhea, our first step in treatment must be to meet its effects as directly as possible. Its immediate effects are loss of tone of the muscular coats of the visceral anterioles, and their consequent dilatation. In most cases the application of cold will be our most efficient remedy, not as an antipyretic so much as a vasomotor stimulant. Cold suddenly applied to the body of a woman with postpartum hemorrhage will excite the flaccid womb and cause it to contract. We know the same effect is produced on unstriated muscle throughout the body. This idea should guide us in our mode of application of cold. The child should be subjected to frequent bathings in water of lower temperature than that of the body. But since it is possible to produce too great a shock, the water should at first be only a few degrees lower, and gradually cooled down during the progress of the bath. To prevent recurrence of vasomotor depression the patient should be kept comfortably cool during the intervals between the

*Read before the Louisville Medico-Chirurgical Society, September 2, 1881.

* It is not improbable that this depression of vasomotor tone is general, and the predominant congestion which occurs in the internal organs, and in the splanchnic area especially, is due to the physical law necessitating the flow of flood to the area of least resistance. A close analogy, if not identity, thus appears to exist between the essential conditions in cholera infantum and sunstroke.

baths by sponging and fanning, and he should lie upon a cot rather than a bed or the nurse's lap.

The subject of diet for infants has been so fully and satisfactorily discussed that I do not feel I have occasion to enter upon it here further than to call attention to one or two points which I consider of great importance. It can not be too carefully borne in mind that the administration of food improper in kind or quantity may produce fatal injury; and it often happens that the question must important to be settled is not as to what kind of food, but whether any food at all should be given (Jacobi). If the only evil result of giving improper food were that it failed to be digested and passed through the alimentary canal without adding any material to the organism it would be a matter of slight importance; but this is far from being all. Undigested food undergoes chemical changes which bring into existence substances that act as irritant poisons upon the surface over which they pass, not only sitting up inflammation, but causing copious transudation of material which the patient can ill afford to lose. By withholding food for six or eight hours at a time not only is the patient saved from this loss, but most salutary rest is afforded to the digestive apparatus. It is very difficult to enforce this practice, for it is hard for a mother to resist the crying of her child for food, and it will be very certain to run counter to the convictions of the sympathetic friends who may know of the child's illness, and who watch with critical eye the doctor's whole course of procedure. The child cries rather on account of thirst, however, than for food, and it is eminently proper to give water to the fullest extent that the stomach will retain it. It will be found advantageous to give it in small quantities at short intervals. But there are cases in which the stomach will not tolerate even small quantities of cold water, and in these it will generally be found that water as hot as can be borne, in tablespoonful doses frequently given, will readily be retained.

In a paper on Infantile Diarrhea by Dr. Jacobi, that appeared two years ago, attention is directed to the importance of excluding oleaginous matters from the diet as far as possible, as these are liable to undergo chemical changes, giving rise to fatty acids which are peculiarly irritant to the intestinal mucous membrane. The fact of this liability makes the question of alimentation in this disease an especially difficult one. Oil enters largely into the normal food of the child and can not be left out without serious injury. The rapid emaciation to be seen in intestinal diseases of children is undoubtedly due largely to the failure of assimilating oil. Fortunately we are not without a resource by which this difficulty may be met with a fair degree of success. It was long ago established by an experiment of Schreger that oil is rapidly absorbed by the skin of young animals, and we have abundant clinical evidence of the value of inunction in treating diseases of children.* It is peculiarly indicated in the disease under present consideration. Further on I will refer more particularly to this point.

There is no disease in which the appropriate administration of drugs is followed by more definitely favorable results, and none on the other hand in which their misapplication is capable of more injury than summer diarrhea of infants. A few doses given during one day may correct some fault of digestion and materially set forward the patient toward recovery; but a few doses, or even one, may also increase the disturbance already existing and bring down the delicately adjusted balances upon the side of death. There is therefore no disease in prescribing medicines for which greater circumspection is needed. In casting about, however, for a remedy in a given case we have, I think, a crucial test for any medicine that may occur to our mind. It is the question, Is there danger of its interfering with digestion? Under this test tannin in all its vegetable combinations must be condemned—certainly in every case in which there is gastric irritability and probably in the initial stage of every other case.

In a large proportion of the cases of infantile diarrhea we meet, especially in those more properly termed cholera infantum, nausea and vomiting are the symptoms with which we have first to deal; for until the patient is relieved of these little can be done in the way of administering either food or medicine. For several years it has been my practice to prescribe for these symptoms hot water to be given at short intervals. It will be found, too, an excellent plan to give it just before food and as a vehicle for medicine. It serves the double purpose of quieting gastric irritability and satisfying the great demand of the organism for water, though it may not give immediate relief to thirst. Hot water is *facile princeps* among the remedies I use for nausea and vomiting. I usually prescribe at the same time from an eighth to quarter of a drop of creosote and a grain of potassium chlorate dissolved in peppermint water, to be taken in hot water as occasion requires. This also acts in a two-fold way—as a sedative on the mucous membrane of the stomach and as a destroyer of the organisms involved in fermentation. I find it rarely necessary, if I see a case from the beginning, to prescribe any thing further for these special symptoms. Occasionally I get good results from small doses of calomel—a twelfth to a sixth of a grain. The cases in which this remedy has seemed to me particularly applicable are those in which dentition plays an especially important

*I know of two instances which prove distinctly that the scalp is especially capable of absorbing substances applied to it. One is the case of a young lady who passed quite profoundly under the influence of alcohol applied quite thoroughly to the head (not to the hair only), and the other occurred in my own experience. At a time when I had used very little quinine, and was peculiarly liable to its physiological action I used a hair-tonic containing the drug in considerable quantity. I do not know that I ever felt quinine more decidedly than on this occasion.

role. There is no theory that I know of to explain the efficacy of non-purgative doses of calomel as a sedative except that which supposes a small part of the salt is changed in the stomach to the bichloride, which is also a powerful antiferment. If these remedies fail I conclude the symptoms depend on some other cause than simple hyperemia of the lining of the stomach—that the pathological process has advanced a step further, and gastritis is present. For this I continue the use of hot water, and use in lieu of other remedies nitrate of silver—a grain dissolved in four or five ounces of distilled water, which is given in teaspoonful doses every two or three hours.

The next symptom to be considered is diarrhea. I am confident that for this the routine practice of giving astringents so often carried out is thoroughly bad. I know that patients often get well under the use of kino, catechu, and krameria, and the various mixtures in which one or the other is the principle agent; but if they are at all severe I believe the recovery would be more properly called a survival than a cure. Of all remedies bismuth is perhaps the one most frequently prescribed, and in many cases it no doubt acts satisfactorily, but because it has often disappointed me I rarely prescribe it. In many cases, the majority perhaps, I do not find it necessary to prescribe anything especially for this symptom. The proper application of cold, the use of the measures laid down above for gastric irritability, and a suitable diet will generally be found sufficient to accomplish a cure. But if the diarrhea persists I give hydrochloric acid, to a child one year old, in one drop doses, largely diluted with sweetened water. If this does not give quite prompt relief, opium in proper doses may be added, I know of no remedy more efficacious in a large number of cases of diarrhea, both in children and in adults, than hydrochloric acid. The only circumstance I am aware of that contraindicates it is the existence of nausea. This symptom must first be controlled, otherwise it will not be retained. Hydrochloric acid acts not only as an antiferment and a direct aid to digestion, but very favorably upon inflamed mucous membrane, as is shown, for instance, in its local application in cystitis.

In a considerable proportion of cases, after the severer diarrhea has been controlled a certain degree of looseness of the bowels continues, which keeps the patient weak and fretful. This state of things, particularly in one of delicate constitution and who has passed though protracted dentition, may last for weeks or even months, and is due to enfeeblement of digestive power and the impaired tone of the intestinal blood-vessels. This condition might be properly called subacute or chronic follicular enteritis, for the intestinal glands are especially involved. In these cases vegetable and mineral astringents are usually pushed indefinitely; and though I believe these agents are better adapted to this stage than any other, I think we have a far better remedy. This is nux vomica. I give the tincture in from one to three drop doses to a child one year old, and generally in connection with hydrochloric acid. Nux vomica being one of the very best stomachic tonics, and an excellent vasomotor tonic, also combines properties exceedingly well adapted to this state of things.

Very frequently in infantile diarrhea the stools are observed to be whitish from absence of biliary coloring-matter. You are all aware that this condition has often been explained by that extremely indefinite term, "torpor of the liver," and that calomel has been given in cases innumerable "to stimulate" and "stir up" the delinquent organ. This much-abused viscus is utterly innocent of any such charge. The true explanation is this: That the mucous membrane of the duodenum is congested and swollen, and that lining the common duct often partakes of the same condition, which results in obstruction to the flow of bile, and, further that the quantity which finds its way to the intestine is so greatly diluted by the large amount of fluid discharged from the bowels that very little color may be imparted to the stools. No jaundice generally results from the obstruction in these cases, because, owing to the large amount of food assimilated and the great loss of material involved in the disease, secretion of bile is greatly diminished; calomel is therefore clearly not the remedy. It is a fact, however, that an increased discharge of bile may follow the administration of purgative doses of calomel under these circumstances, and it is probably explained in the following way: That the peristaltic action of the small intestine is vigorously stimulated by this drug and the anatomical relation of the bile-ducts with the duodenum is such that a strong peristaltic wave may, by pressing upon the distended ducts, force the bile through the partially obstructed common duct; and, further, it is supposed that the stimulation exerted by calomel upon the muscular coat of the small intestine is felt also by that of the bile-ducts. Under this view colorless stools present no special indications.

I will close with a few remarks upon the manifestations which arise from brain and nerve disturbance in this disease. The restlessness and the tendency to convulsions which appear early in infantile diarrhea are almost invariably associated with teething, and the most efficient of all remedies is to scarify the inflamed and swollen gums. This will often not only relieve the brain-symptoms, but put a stop to all others. If any additional sedative is needed, bromide of potassium and chloral may be given with advantage. But a tendency to convulsions comes on late in the disease which is of an entirely different significance and requires entirely different treatment. To administer the bromides or chloral at this time would be a blunder that might prove fatal. Stimulants, when they can be given, defer nerve-storm for a while, but the preeminent need of the organism is for food. You have all perhaps

noticed the appearance of the little sufferer in this condition. His features are emaciated to the last degree and pinched. His eyes are stretched wide open and he lies sleepless for many hours. He follows the movements of those about him with wide open eyes lit up with a strangly premature intelligence. A little later his eyes are seen to be slightly crossed; a little later still there are twitchings of the facial muscles. Then come general convulsions, then coma, then death. The child dies of starvation. The eager, wistful expression of his face tells that every tissue, every cell, and, more than all the rest, those of the brain and nerves are begging to be fed.

But, though it may be impossible to feed a patient in this state either by the mouth or the rectum death is not inevitable. There remains still an important resource: the patient may be fed through the skin. I have seen children who had reached the state I have described pass into a natural, tranquil sleep after the inunction of cod-liver oil or cocoa butter, and awake with renewed strength and able now to retain food taken into the stomach. This striking result is easily understood. From the time the tissues cease to get adequate nourishment from ingested food the brain and nerve-tissue feed upon the fat stored up throughout the body, and no profound nervous disturbance occurs. This, however, at length becomes exhausted and nervous manifestations begin at once; but the happy circumstance that oil is readily absorbed by the skin puts it in our power at this supreme moment to satisfy the pressing demand for the kind of food now needed above all other. As soon as this is supplied the brain and nerve return to their normal functions. It is in this connection a very significant truth that about two thirds of the solid organic matter of brain-substance is made up of fat.—*Med. News.*

LOSS OF MOTION IN CHILDREN.

This is an affection which occurs often. I will illustrate a case or two, of which I can find no mention in any book.

A child is pulled, dragged or lifted by the arm in a quick manner, for example, over a gutter. The child cries aloud, drops his arm down after it is released, and has lost completely the motion of that arm for the time being.

The parents becoming alarmed, send for a doctor to ascertain what is the matter. He examines it all around, and, like many others, concludes because there is a loss of motion, "there must be a fracture, though he is not sure, because it is a child, and it is hard to tell what the real trouble is in a child." I have been sent for more than once under such circumstances to set a broken arm, but could not find the fracture; a simple loss of motion comprehends the whole of the affliction.

A second case, a child falls, the nurse jumps and runs to pick up the poor darling, in most cases by one hand, with a quick motion, a little anger probably mingled with it, "of course it is always the nurse, mothers never commit such blunders!" The child screams bitterly, his arm drops down, it cannot move it; follows excitement in the previous peaceful household. I have been sent for frequently in such cases, either by parents or by request of the family physician, to reduce a supposed dislocation; but no dislocation is to be found, simply loss of motion. Fractures and dislocations of course can and are produced in such manner, and sometimes separation of the epiphysis. But it is to the loss of motion to which I call your attention; it is fortunate, however, for the little patient and fortunate for those concerned, that you can console them with the assurance that the limb will be restored to its proper position in time, almost without any treatment, except rest and some mild embrocation, providing you find sensation unimpaired; one should carefully examine and satisfy himself of this, else the case may then assume a more grave aspect.—*St. Louis M. and S. Journal.*

CODEIA BETTER THAN MORPHIA.

Dr. Garrison (*Western Med. Reporter*) claims that numerous comparative therapeutic tests in this practice with morphia and codeia warrant the following conclusions:

1. That codeia is a greater cardiac stimulant than morphia, is indicated by the greater force and volume of the pulse following the administration of the former.

2. It is a more powerful diffusible stimulant, elevating the temperature and exciting the capillaries. Large doses produce an intense itching, with an erythematous redness of the skin, thereby indicating its use in all internal congestions, save perhaps those of cerebral or spinal origin.

3. It does not check the secretion to such an extent as morphia. It is therefore indicated when it is desired to avoid locking up the liver, constipating the bowels, or lessening expectoration.

4. It is greatly less dangerous than morphia, no lethal dose having been recorded, yet so potent an agent should necessarily be exhibited with due caution. Its comparative safety recommends its use in infantile therapeutics where morphia is so rarely tolerated.

5. It is never followed by the intense nausea which so often contraindicates the use of morphia, and frequently no unpleasant after-effects are noticed referable to its exhibition.

6. There is less danger from the induction of the opium-habit from repeated doses than is the case with morphia, which should be a matter of serious consideration in making a choice between the two.

The sulphate is the form to be preferred, because of its ready solubility. The dose is about double that of the sulphate of morphia, but it may be in-

creased with safety to a much greater extent than the latter; the objection to large doses being the excessive itching which is produced, together with the intense erythema, both of which disappear coincident with the elimination of medicine.

It is an excellent adjuvant in combination with other anodynes, such as chloral, the bromides, hyoscyamus and Jamaica dog-wood, adding to their efficacy and modifying their action desirably.

TREATMENT OF THE PLACENTA AFTER ABORTION.

Dr. Stanley P. Warren, of Portland, presented a practical paper on this subject at the late meeting of the Maine Medical Association, in which he classified abortions under four heads, advocating primary extraction of the placenta without leaving the result to nature, observing, of course, all proper precautions with reference to shcok, and hemorrhage.

Class 1.—Sudden flooding, cervix open, severe shock, and it is unknown whether the placenta has been expelled or not.

Class 2.—Moderate hemorrhage; the fetus has recently been expelled; the cervix open and the placenta within reach; general conditions good.

Class 3.—The fetus has been expelled for some days; the secundines are retained; the lochiæ are fetid, and some form of septic inflammation is present in the pelvic cavity.

Class 4.—There has been more or less flooding; fetus has been expelled; cervix is closed, and the placenta cannot be reached by the finger, general condition good.

Cases were cited illustrating each of these divisions, and facts presented as to the subsequent condition and labors of these patients.

For the first class the recommended procedures which should relieve shock and check hemorrhage, and as soon as reaction was well established, the contents of the uterus, if any, should be removed.

In the second class these seems to be no question as to the propriety of immediately evacuating the uterus, if the placenta is free and can be removed *without preliminary dilatation of the cervix.* It is to be regarded as simply a foreign body. There is less danger of injury to the tissues with the finger than with the curette; it also has the advantage of the sense of touch. The curette, on the other hand, causes less pain, and may be used with or without the speculum; has not found the ovum forceps as safe as the curette, still less than the finger, and ought to be used very cautiously in the uterine cavity.

In the third class, where we have present or impending some metritis, no good reason obtains why the uterus should not be within 24 hours, relieved of its contents and thoroughly cleaned; the cervix is usually patent and requires no dilation a dull curette, followed by intra-uterine, not carbolized, injections, will accomplish every desired object in the way of removal. The quicker the focus of infection is taken away, the less is reparative action delayed and septicemia to be expected.

In dealing with class third, when the fetus is expelled, but the placenta shut up in the uterine cavity, obstetricians must choose whether they will "do nothing," relying upon rest and opiates, or mechanically dilate the cervix, perhaps, with a sponge tent, and, as they say, "let nature take its course," or they *may remove* the placenta within twenty-four hours after the expulsion of the embryo, using dilators for some hours before operating, or dilating with the finger and immediately extracting.

On these points of procedure the most distinguished obstetricians and gynecologists in the country differ.

It has been urged in objection—

1. It is unnecessary, since the vast majority of patients do well if let alone.

2. It is the finger, curette, or forceps that does the damage, rather than the retained placenta.

3. It is very difficult, perhaps impossible, to remove an adherent placenta, and septicemia can be caused by a placental tuft as surely as by the entire organ.

To these objections the Doctor replied:

1. These tonic contractions are essential to the arrest of hemorrhage; there cannot be tonic contractions until the placenta is expelled, and the less will be the hemorrhage existing or possible.

2. Anxiety in both patient and physician will be prevented by early completion of the abortion.

3. Time is gained in uterine involution.

4. Absorption of putrilage from retained secundines is unquestionably the most frequent sequel in abortion; when the uterus is thoroughly disinfected, septicemia is evidently imaginary. Possible accidents from manipulation are not a sufficient reason for permitting a placenta to be removed by decomposition, ignoring the fact that self-imprisonment must be imminent; by early removal, therefore, of the placenta, septicemia is prevented.

5. Clinically, after abortion, metritis can rarely be traced to direct mechanical violence. If lesions have occurred in the process of extraction, infection in any empty uterus must be slight when compared with one in which the entire obsorbing surface is exposed and covered by a decomposing placenta.—*Phil. Med. News.*

TONGA.

Dr. Edward C. Mann (*Ther. Gazette*), in speaking of the efficacy of tonga in an inveterate case of neuralgia appearing after sunstroke, says: "All remedies had been tried, including hypodermics of morphia and atropia, when I happened to think of a sample of tonga sent me. I administered half a teaspoonful, and in half an hour the patient experienced a sense of general warmth diffusing

itself over the body, with some slight alleviation of the excruciating pain. After a second dose of half a teaspoonful a sense of drowsiness came on, and sleep with entire relief from pain; the paroxysms decreased in frequency, and are cut short in the manner described. I have put my patient on a constitutional treatment of cod-liver oil and arsenic, with instructions to take up tonga when needed." Dr. Mann adds that he has thus used tonga in this one case, but adds that it was a typical one of great severity. — *American Medical Digest*, June, 1882.

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CANADA MEDICAL ASSOCIATION.

The fifteenth annual meeting of the Canada Medical Association was held in the City Council Chambers, Toronto, on the 6th, 7th and 8th September. There was an unusually large attendance of members, and great interest was manifested in the proceedings. The reports and papers read before the Association were very creditable; they were carefully prepared and well received, the discussions which they evoked being general and animated. The chair was ably filled by Dr. Fenwick of Montreal, whose genial manner did much to promote the good feeling and harmony of the meetings. The forenoon sessions were devoted to the reception and discussion of reports and the transaction of general business; the afternoon and evening sessions to special work in sections. Some interesting pathological specimens were on exhibition, the most noteworthy were a series of Aneurisms shown by Dr. Sutherland, specimens of Echinococcus Disease by Drs. Osler, Black and Metcalf, and microscopical demonstrations of Tubercle Bacilli and Anthrax Bacilli by Dr. Osler. Dr. O'Reilly, Medical Superintendent of the Toronto General Hospital, exhibited a new ambulance waggon, constructed for the conveyance of accidents and surgical cases to the Hospital; it is complete in its arrangements, tasteful in appearance, rides comfortably, is light enough to be drawn by one horse, and always available at a few minutes' notice. The members of the Association were invited to visit the Hospital and were shown every courtesy by Dr. O' Reilly. The Local Committee, with Dr. Canniff as chairman, did all in their power to make the visit to Toronto a pleasant one. An invitation was extended to the Association to be present at the formal opening of the Toronto Provincial Exhibition on the afternoon of the 6th. On the evening of the 7th a most enjoyable conversazione was held in Normal School buildings. The grounds were illuminated by Chinese lanterns, and the theatre, library and museum were lighted up and thrown open for promenade. During the evening addresses were given by Drs. Canniff, Workman, Fenwick and W. B. Carpenter, and an excellent musical programme rendered. While supper was being served, the band of the 10th Grenadiers played a selection of music. On the 8th the regular business was concluded, and the Association adjourned to meet next year in Kingston under the presidency of Dr. Mullin of Hamilton. The members were entertained at luncheon by Dr. D. Clark, superintendent of the Toronto Asylum for the Insane, and then separated, declaring the meeting of 1882 to have been "a grand success."

THE VITAL STATISTICS SCHEME.

At the last meeting of the Montreal Board of Health, Dr. LaRocque, the Medical Health Officer, made the following report:

"The Federal Government having voted $10,000 for the collection of vital statistics throughout the Dominion, and as several schemes were proposed to attain the object in view, the opinion of a few medical men was asked in reference to the matter, and it was resolved to refer the subject to the Canada Medical Association, which held its Convention on the 6th, 7th and 8th instant. The committee appointed on vital statistics met and discussed the question with great earnestness, and brought a resolution before the Association, recommending the Government to collect vital statistics from the principal cities of the Dominion, and especially from cities in which Boards of Health were established, and also that a commission composed of at least ten medical men, with a legal adviser, be appointed to study the question of public health in all its bearings, and report to

Government. I have much pleasure in reporting that Montreal is recognized as the most advanced city in sanitary matters, being the only one where a regular Board of Health is organized. It would be very important that your Board should consider this question of public health, as Montreal and even the whole of the Province of Quebec are greatly interested in the matter."

DEATH OF DR. MAJOR HIRAM MILLS.

Many of our readers will recall the fact that some few years ago mention was made in these pages of the effort then being made in Montreal to establish "*The Western Hospital*," and of the handsome donation of $12,000 towards the erection of a Mills' Wing by Major H. Mills. The ground was purchased and the building erected, and it is now in successful operation as the Woman's Department of the Western Hospital. This alone would have induced us to record the death of Major Mills, which took place on the 4th of August last at an advanced age, but the fact that he was a physician, which was known only to a few, gives him an additional claim. Dr. Mills first settled at Lennoxville, in the Eastern Townships, about the year 1867. About 1870 he removed to Montreal, and at once identified himself with philanthropic work, interesting himself a good deal in the Montreal General Hospital, becoming one of its Governors. It was the short-sighted policy of that Institution towards the Bishop's College Faculty of Medicine, which aroused the ire of Dr. Mills, and led him to offer $12,000 towards an hospital in the west end. No one in Canada knows much of the early history of Dr. Mills beyond the fact that for years he practised as a physician in one of the Southern States. He left almost his entire fortune to McGill University and to the Church of England. He was possessed of many good qualities, but was somewhat pronounced and eccentric in his views. A singular outcome of the latter being the fact that the Institution in which he seemed, so long as reason remained with him, to take a warm and anxious interest was entirely forgotten in his donations. It would be interesting to ascertain how this came about.

FIFTEENTH ANNUAL MEETING OF THE CANADA MEDICAL ASSOCIATION.

The Association met on the 6th, 7th and 8th September in the City Council Chambers, Toronto, the President, Dr. Fenwick, in the chair. The session opened at 10.30 a. m. After the transaction of routine business,

Dr. FULTON, Toronto, read the report on Necrology; the following physicians, practising in the Dominion, have died during the past year:—Dr. Berryman, Toronto; Dr. T. Mack, St. Catharines; Hon. D. Brouse, Ottawa; Dr N. Fleming, Mildmay; Dr. H. Parsley, Thornbury; Dr. J. A. Purney, Shelburne, N.S.; Dr. A Robertson, Liverpool, N.S.; Dr. W. G. Middleton, Stella; Dr. N. Munro, Brucefield; Dr. Mc Michael, Gorrie; Dr. G. Cook, Norwich; Dr J. Allen, Adolphustown; Dr. J. B. Smith, Jerseyville; Dr. G. Lount, Norwich; Dr. A. J. Whitehead, Toronto; Dr. W. Philp, Manilla; Dr. H. H. Boulter, New Hamburg; Dr. W. Wilson, Dorchester, N.B.; Dr. J. P. Lynn, Toronto; Dr. C. W. Heltz, Chester, N.S.; Dr. A. R. Lander, Frankville; Dr. W. Weir, Merrickville; Dr. H. Yates, Kingston; Dr. H. Orton, Ancaster; Dr. McCay, Blairton; Dr. Munro, Montreal; Dr. F. H. Wright, Toronto; Dr. H. Bingham, Manilla; Dr. A. McKay, Beaverton; Dr. G. W. Campbell, Montreal; Dr. Maxwell, Bear River; Dr. McIlmurray, Toronto; Dr. H. H. W. Lloyd, Coldstream; Dr. H. E. Bisset, Hawkesbury; Dr. T. Blackwood, Pakenham; Dr. J. Salmon, Simcoe; Dr. A. Greenlees, Toronto; Dr. R. H. Wright, St. Johns, Que.

Dr. GRAHAM, Toronto, read the report on PRACTICE OF MEDICINE. He said that from a medical point of view the two most remarkable events during the past year were the International Medical Congress at London, and Koch's experiments on Tubercle Bacilli. He then discussed the etiology and morbid anatomy of tubercular disease, and described Koch's experiments and deductions. He supported Koch's views, and believed that a great advance had been made towards the prevention of disease. He believed that many cases of tuberculosis were set down as typhoid fever. In adults, tubercular disease generally appears in the lungs, the germs being inhaled in the breath; in children the germs seem to enter the stomach with the food and passing along into the intestines develop there.

Dr. W. B. CARPENTER of London, England, well

known to the profession as the author of a standard work on physiology, was elected an honorary member of the Association, and invited to give his views upon Vital Statistics. His address will be found in another column. In the afternoon the Association broke up into sections.

THE MEDICAL SECTION.

Dr. McDONALD of Hamilton was elected Chairman, and Dr. STEWART of Brucefield secretary.

Dr. OSLER, Montreal, read a paper on *Echinococcus Disease in America*. The introduction into the human system of the ova of the *taenia echinococcus* of the dog undoubtedly produces a disease of the most serious character. All the internal organs become disordered and hydatid cysts form in the liver, spleen, lung and kidney. Cases are reported in Iceland and some parts of Europe and America. On the whole the disease is very uncommon in America. In Canada he had been able to collect notes of only 9 cases; in the United States the disease is quite as uncommon, 52 cases being all that he could find recorded, making 61 cases altogether in America. Only a few specimens are to be found in the museums; Cobbold says that the only specimens exhibited in the museums of Great Britain have been reared artificially. Its infrequency in the human subject in America is attributable to its infrequency among the dogs. In Iceland fully one-sixth of the dogs suffer from it, hence the disease is very common among the Icelanders. It is calculated that fully one-third of the cases in America have occurred among emigrants and have probably been imported. The ova are introduced into the system chiefly by means of drinking water, which has become contaminated with the excreta of dogs suffering from the disease. The treatment adopted in Iceland and Australia is either tapping or incision. Sometimes the disease is cured spontaneously, either by the bursting of the cyst and discharge of its contents through the bowels or lungs, or by the hardening of the walls of the cyst and the consequent death of its inhabitants.

Drs. GRAHAM and TEMPLE related cases of echinococcus disease which had come under their observation.

EVENING SESSION.

At 7.30 p.m. the President, Dr. Fenwick, read his address. He sketched the history of the Canada Medical Association, and dwelt upon the great importance of such Associations to the medical profession and the public at large. He spoke of the important functions of the British Medical Association, and pointed to it as a model of what the Canadian Association might be and do. He said that the Canadian Association might now be celebrating its jubilee as the British Medical Association had just done, had it not been for the unfortunate disagreement which had occurred among those who originally met to organize it. He wished to place the facts of this disagreement on record, as the witnesses of it were fast passing away. He hoped that harmony would now exist, and that the work of the Association would improve the status of the profession in Canada. He then dwelt at some length on the importance of sanitary legislation, a subject which is now attracting so much attention in Great Britain. He hoped that the same attention would be shewn it at Ottawa. A sum of $10,000 had been placed at the disposal of the Minister of Agriculture for the collection of statistics, but unless the scheme adopted met with the approval and support of the medical profession throughout the Dominion, that sum of money would do very little towards obtaining reliable information. He thought that in order to prevent failure they should commence the collection of statistics in the large cities only, the area of work being expanded as means and opportunity permitted. He recommended that a committee be appointed to confer with the authorities at Ottawa, and suggested the re-appointment of the old Committee.

Dr. BOTSFORD, New Brunswick, said that the subject of public health should be again pressed upon the Government. The Government looked to the Canada Medical Association to formulate some system, and he was strongly in favor of carrying out the President's suggestion to appoint a committee for that purpose. He moved a vote of thanks to the President.

Dr. GRANT, Ottawa, said that the Ottawa Government was willing to co-operate with the Association in anything that would tend to ameliorate the public health, and was prepared to give them substantial assistance in the collection of vital statistics. He seconded the vote of thanks to the President, which was duly put and carried.

The members then divided into sections.

MEDICAL SECTION.

Dr. MACDONALD, Hamilton, chairman of the

Section delivered his address, briefly reviewing the work done by the Association.

Dr. CAMERON, Montreal, read a paper on *Axis-traction*. He criticised the pelvic axis as ordinarily figured and described in text-books, and supported the views advanced by Dr. Studley of New York in the *American Journal of the Medical Sciences* (January, 1882). He maintained that in vertex presentations the head descends in the axis of the brim till it reaches the floor of the pelvis, which checks its progress and directs it forward under the pubic arch in the movement of extension. In forceps delivery traction should be made as nearly as possible in the line of the pelvic axis; consequently in high operations, the traction should be made backwards in the direction of the axis of the brim, until the head comes well down upon the floor of the pelvis; then, and not till then, should traction be commenced anteriorly. He exhibited models of the straight, double-curved, and Tarnier's axis-traction forceps, and discussed the relative advantages and disadvantages of these different varieties in high operations. The *straight* forceps are correct in principle, for the axis of the *handle* corresponds to the axis of the blades, hence traction can be made in the pelvic axis. Their great disadvantages are difficulty of application and liability to slip. The *double-curved* forceps are contrived to overcome the disadvantages of the straight instrument. They give a firmer grasp of the head, are less liable to slip, are easier of application and more powerful. But their great disadvantage is that the axis of the handles does not correspond to the axis of the blades, hence traction cannot be made directly in the line of the pelvic axis. They gain in strength but lose in axis-traction, and hence require the use of extra force, which is expended upon the fœtal head and maternal soft parts.

The *axis-traction* forceps of Tarnier combine the advantages of the straight and double-curved forceps without their disadvantages. The instrument is powerful, and gives a firm grasp of the head, while by means of the sharp perineal curve on the traction rods, the axis of the traction handle is made to coincide with the axis of the blades. Hence the line of traction can always be in the line of pelvic axis, without pressing back or injuring the perineum. The other advantages of the Tarnier forceps were described; the objections which have been urged against them were stated and criticised. Tarnier's forceps are most suitable for high operations; Drs. Simpson, Thomas, Lusk, Fordyce Barker and others use them only to bring the head down through the brim and well into the cavity; they then remove the Tarnier, and complete delivery with the ordinary double-curved instrument. The method advocated by Dr. Albert Smith and taught by the Philadelphia School was described and criticised. Tarnier's latest model of *forceps* and his *cephalotribe*, both exemplifying axis-traction, were exhibited and explained.

Dr. ALLOWAY, Montreal, read a paper on the *treatment* of abortion, severely criticising the teachings of the ordinary text-books. He considered the tampon inefficient, ergot positively injurious, the finger insufficient, and the placental forceps dangerous. By allowing a putrid mass to lie enclosed in uterine cavity, great risk was run of septic poisoning. He exhibited a uterine scoop of his own invention which he considered most effectual, and related a number of cases in which it had been used with success. He also exhibited a new vaginal speculum, a modification of Neugebauer's, which he claimed to be base-expanding and self-retaining, and well adapted for minor gynecological work.

Dr. HOLMES, Chatham, was accustomed to use the forceps in the way recommended by Albert Smith, namely, as a lever and tractor combined. He had no experience of Tarnier's forceps, but thought their principle a good one. He dwelt upon the necessity of guarding against cervical and perineal lacerations; for this purpose he recommended the use of chloroform in the latter stages of labor, and preventing the patient from bearing down when the head is about passing through the fully-dilated os uteri or over the distended perineum.

DR. TEMPLE, Toronto, could not see the advantage of the Tarnier forceps over the ordinary models. He had no experience in its use, but could speak from experience in praise of other forms of forceps, particularly the straight forceps. He thought that no instrument was so suitable in occipito-posterior presentations as the straight forceps. He thought Tarnier's forceps too complicated, and believed that the simpler the instrument the greater would be the facility in using it. He also believed that the pelvic axis, as ordinarily figured in books, does not exist; such teaching is very fallacious.

DR. TYE, Chatham, said he really thought that we were passing through an *iron age* in the matter

of obstetrics and gynecology. After seeing all the forceps, scoops and other instruments which had been exhibited he really congratulated himself that he was not a woman. In his practice he relied chiefly on the instruments provided him by nature, and found them to be very suitable. He wanted no better scoop than his finger.

DR. CAMPBELL, Seaforth, said that he had heard Professor Simpson of Edinburgh, whose opinion is of great weight in such matters, express himself decidedly in favor of Tarnier's forceps. In fact, Professor Simpson rarely uses any other form of forceps.

DR. RODGER, Montreal, said that while he disapproved of undue multiplicity and complication of instruments, he felt that the valuable assistance rendered by them should not be overlooked. He did not approve of the placental scoop which had been exhibited, and considered it dangerous and altogether unnecessary. He spoke in favor of the tampon and placental forceps in the treatment of abortion, and held that improper application of the tampon accounted for its frequent failure.

DRS. CAMERON and ALLOWAY having spoken in reply, the Section then adjourned.

SURGICAL SECTION.

The Surgical Section met in the afternoon, and elected DR. GRANT of Ottawa, chairman, and DR. ROSS, Jr., of Toronto, secretary. The Section then adjourned till evening.

On resuming,

DR. RODDICK, Montreal, exhibited a patient who had suffered for many months from a very painful spasmodic contraction of the muscles of one side of the neck. The man was obliged to hold his head between his hands constantly. Dr. Roddick divided the muscles, but with only temporary effect; he then applied the actual cautery frequently to the back of neck with most satisfactory result, as the man is now perfectly well.

DR. MAJOR, Montreal, read a paper on REST AND TRACHEOTOMY. He urged the importance of rest in all cases of disease of the larynx and throat, and condemned the use of gargles. He called attention to some points in the early diagnosis of laryngeal cancer heretofore unnoticed, and suggested the use of gold instead of silver or any other metal or material for the tubes. As far as he knew he was the first to recommend its use.

DR. RYERSON, Toronto, agreed with Dr. Major as to the value of rest in laryngeal troubles, and described a case in which he had performed tracheotomy successfully.

DR. ELSBERG, New York, said that he held it to be the duty of those who had devoted themselves to special subjects to give the results of their experience to their professional brethren. Some years ago his attention had been drawn to the fact that the principle of rest in cases of inflammation applied to the throat as well as to any other part of the body. Under the influence of rest inflammatory conditions subsided, and perhaps gave way to a renewed action. The larynx was moved in three functions, viz., in the production of voice, in breathing and in swallowing. The first is a voluntary action, consequently it is possible in this respect to secure complete rest. Breathing, though absolutely necessary for life, might be made easier, and by tracheotomy the larynx might be relieved from active participation in respiration. Is it advisable to practice tracheotomy for this purpose? He did not share the opinion that it is a simple or harmless operation, but he regarded it as very valuable in appropriate cases such as stenosis. With regard to the third function, swallowing, tracheotomy does not afford complete rest, but other means might be used to give partial rest.

DR. HINGSTON, Montreal, asked Drs. Major and Elsberg to state in what cases they would or would not recommend tracheotomy. While rest might alleviate he did not believe that it could ever cure malignant disease.

DR. ELSBERG, in reply, stated that he would recommend tracheotomy in all cases where stenosis called for it. With regard to the other point raised by Dr. Hingston, he wished to make it clear that he had not enunciated the opinion that rest could cure malignant disease, but that it might arrest its progress for a time.

DR. FENWICK, Montreal, considered that rest retarded the progress of malignant disease.

DR. SHEPHERD, Montreal, read a paper on *Cervical Ribs*, which gave rise to some discussion. He also exemplified an appliance for "*caked breast*."

DR. GRANT, Ottawa, read a paper on *Cancer of the Breast in its Relation to Disease of the Nipples*. The discussion which ensued was participated in by Drs. Hingston, Fenwick and Ross, jr.

The Section then adjourned.

THURSDAY, SEPTEMBER 7th.

The Association re-assembled at 10 o'clock, Dr. Fenwick in the chair. After routine business,

Dr. SHEPHERD, Montreal, read the report on Surgery. He referred to the great advances made in the treatment of wounds, and said that all surgeons are not antiseptic surgeons, and Listerism is only a phase of antisepticism. He considered that, in the treatment of wounds, cleanliness and antiseptic precautions are of the greatest importance. His own experience was that the healing process goes on more satisfactorily under dry than under moist dressings. Moisture only tends to favor the putrefactive process. He described minutely his own method of dressing wounds with iodoform and boracic cotton. He then touched on the different theories as to the causes of inflammation, and urged the necessity of antiseptic treatment. He gave an account of Dr. Hamilton's experiments with sponge grafting, which was found to be particularly useful in ulcers, and where the formation of new tissue was required. Dr. McEwan of Glasgow, and Dr. McManus of London, had succeeded, by means of sponge-grafting, in effecting the formation of new bone. He remarked that no organ is now considered sacred by the surgeon, and spoke of the wonderful success that has recently attended the operations of Nephrotomy and Nephrectomy. The treatment of clubfoot was then glanced at, and the opinion of the members asked as to advisability of the early division of the Tendo-Achillis. Personally he believed that this tendon should be spared until it had been found that the division of the other tendons was not sufficient to effect a reduction of the deformity. He thought that the great use of sparing this tendon was to give a *point d'appui* for manipulation. Dr. Shepherd concluded his very able report with an account of the late improvements in the surgery of the joints, and discussed the question of the excision of joints for joint disease.

Dr. BRODIE, Detroit, a delegate from the American Medical Association, was here introduced by Dr. Canniff. Dr. Brodie, on behalf of the American Association, expressed good wishes for the success of the Canadian Association. He said that next year the American Association would meet at Cleveland, which was very convenient and accessible to Canada, and he hoped to have the pleasure of seeing many of the members of the Canadian Association present on that occasion.

Dr. CANNIFF, Toronto, moved a vote of thanks to Dr. Shepherd.

Dr. GRANT, Ottawa, seconded the motion, complimenting Dr. Shepherd upon his admirable *resumé*. He referred to the valuable researches and discoveries of Pasteur, and emphasised the importance of antisepticism in medicine and surgery.

Dr. RODDICK, Montreal, while congratulating Dr. Shepherd on his admirable report, disagreed with him as to the relative value of dry and moist dressing. From his hospital experience he was not favorably impressed with dry dressings. Moist antiseptic dressings are superior to the dry in major operations where drainage is necessary. Lister's method, when properly carried out, is of the greatest importance. His own results and those of Dr. Fenwick have been remarkably improved since adopting the Listerian method, and they now confidently undertake operations which they would have considered impossible with the old methods. In the Montreal General Hospital they almost outlister Lister; the more he sees of the method and its results, the more he recognizes the necessity of carrying it out faithfully in its smallest details. In the treatment of clubfoot he differs from Dr. Shepherd; he believes in dividing the tendo-achillis at once, and he rarely finds it necessary to divide any of the other tendons.

Dr. HINGSTON, Montreal, remarked that antisepticism and Listerism are not convertible terms. There is no surgeon now-a-days who does not believe in antisepticism, by which he understands complete cleanliness in the treatment of wounds. Suppuration may be prevented by scrupulous cleanliness, without the employment of Lister's method. Some years ago he saw the late Sir James Simpson of Edinburgh amputate a breast, the most scrupulous attention was given to cleanliness, and dry dressings were applied. Simpson predicted that no suppuration would take place, and sure enough not a drop of pus formed. From his own experience he was not quite satisfied as to the safety and value of the carbolic spray, especially in abdominal surgery. He does not use the spray in ovariotomy. With regard to the treatment of club-foot, he agreed with Dr. Shepherd in condemning the early division of the tendo-achillis; in the majority of cases he did not consider this tendon to be at fault.

Dr. MACKAY, Woodstock, had succeeded in curing club-foot without performing tenotomy.

Dr. SLOANE, Blythe, considered the introduc-

tion of the antiseptic method of dressing of wounds to be a great improvement. The country practitioner can now undertake operations he would not formerly have dared to attempt.

Dr. WORKMAN, Toronto, referred to a reported case of the successful use of whiskey dressings.

Dr. FERGUSON, Toronto, made a statement as to the strength of spray used by Dr. Keith in his later ovariotomies. He had employed a spray of 1 x 30, or even stronger, instead of 1 x 60 as recommended by Lister for cases of ovariotomy. Had he adhered to the weaker spray he would probably not have had evil results from it.

Dr. STEWART, Brucefield, mentioned that a well-known surgeon was obliged to give up the use of spray on account of its invariably causing him to suffer from hæmaturia.

Dr. HARRISON, Selkirk, did not understand the separation of antisepticism from Listerism. In a very humorous speech he described the trials and troubles of inventors. He was very thankful that in the country districts they had never invented or discovered anything.

Dr. CANNIFF, Toronto, did not think that the whole credit of antiseptic surgery was due to Lister. M. Pasteur, and Dr. Samson Gamgee of Birmingham had rendered important services in this matter.

Dr. CAMPBELL, Seaforth, asked the President to define Listerism.

Dr. FENWICK, the President, said that would be an arduous task. His own practice is to cleanse the wounds thoroughly, and then apply the spray. He considered the use of the spray advantageous, and meant to continue its use till something better was introduced. Even with the use of antiseptics he had not found it possible always to prevent suppuration, and he was aware that others had a similar experience. He did not believe Gamgee's method of dry dressing to be in any way superior to the moist.

Dr. SHEPHERD, Montreal, in reply said that Dr. Roddick considered moist dressings better for major operations than dry dressings, because the moist gave better opportunity for drainage. In answer to this he would say that dry dressings did not require such elaborate provisions for drainage, as there was nothing to drain. The presence of the tube or other appliances for drainage only causes irritation, promotes suppuration, and prevents union; without the drainage-tube suppuration is less likely to occur, and consequently the necessity for drainage is less. In support of the utility of dressings in major operations, he quoted the statistics read before the International Medical Congress at London. Dry dressings have been used by several eminent German surgeons in a large number of amputations, excisions, etc., with great success. In the dry method antisepticism is secured by the use of iodoform. In wet dressing the stench is sometimes intolerable; in dry dressing this is almost wholly avoided.

Dr. TYE, Thamesville, read the report on *Therapeutics*. He referred to the dangers of hasty generalisations in therapeutics as well as surgery. The power of medicine is to increase or diminish the functions of tissues or organs, not to change the character of those functions. He dwelt on the use of electricity in anæsthesia, asthenia, and suppressed menstruation, and described the effects of the different currents, the magneto-electric, galvanic, and frictional, in the treatment of different diseases. The therapeutical effects of some newly-introduced drugs were considered, nitro-glycerine among others. He remarked that although a large number of new pharmaceutical preparations had been introduced, it was questionable whether some of them were not more advantageous to the manufacturer than the patient.

Dr. CAMPBELL moved a vote of thanks to Dr. Tye, which was seconded by Dr. Stewart and carried.

Dr. CANNIFF, Chairman of the Special Committee appointed to seek from the Dominion Government improved legislation in respect to Sanitation and Vital Statistics, submitted the report of the Committee, which contained the views of Drs. Hill and Grant, of Ottawa; Hon. Dr. Parker, of Halifax; Dr. Botsford, of St. John's; Dr. Atherton, of Fredericton; Dr. Macdonald, of Londonderry; Dr. Fenwick, of Montreal; Dr. LaRocque, Health Officer of Montreal; Dr. Orton, M.P., and Dr. Oldright. A number of these views were embodied in a communication to the Premier. It was decided that the Committee should meet and consider the report, and that it should be discussed by the Association on Friday.

The Association then adjourned.

MEDICAL SECTION.

Dr. HARRISON, Selkirk, read a paper on *A Peculiar Form of Fever*, which had come under his notice, describing minutely the symptoms, progress and treatment. The fever was sometimes

remittent, subsiding occasionally for a few days, and then commencing again. He had prescribed quinine as he would do in intermittent fever, but without any beneficial result. He then changed the treatment to iodine, maltopepsin and carbolic acid. In two cases the patients died in the thirteenth and fourteenth weeks of pure exhaustion. In another case recovery took place after the eighth week. The peculiarities of this fever were its tendency to change from one type of fever to another, and its long duration.

Dr. RIDDELL, Toronto, thought these were cases of a kind of malarial fever peculiar to this part of the world, partaking of the characters of cerebro-spinal meningitis.

Dr. ROSS, Montreal, thought that from the description of these cases as submitted by Dr. Harrison the members were not in a position to discuss them. There might have been suppuration of some internal organ, such as the kidney, which could only have been ascertained by an examination of the urine. It was not impossible that there might have been ulcerative endocarditis.

Dr. TYE, Chatham, stated that some time ago a large number of cases of the kind so graphically described by Dr. Harrison had come under his observation, indeed at one time it had been almost epidemic.

Dr. HOLMES, Chatham, had had similar cases under his care. He did not agree with Dr. Riddell in the view that they were of malarial origin.

Dr. HARRISON, in reply, stated that he had examined the urine, and had not discovered anything abnormal. He had not had an opportunity of making a post-mortem examination; at any rate there was so little left of the patients by the time they died, that there would have been hardly anything to examine post-mortem.

Dr. MULLIN, Hamilton, read a paper on *Diphtheria*. He said that there were various forms of diphtheria, and in some cases other ailments were set down as diphtheria. The severity of the attack depends greatly upon the constitution of the patient and surrounding conditions. He described a case of diphtheritic croup which he had treated. He prescribed an emetic of ipecac and steamed the throat. In a few days the symptoms became unfavorable, and tracheotomy had to be resorted to. An attack of ague supervened, but at last the patient recovered. He described a number of other cases, showing that the symptoms varied according to the age of the patient, and the local and constitutional conditions. He said that the low forms of animal growth that invaded the fauces and tonsils of those suffering from diphtheria were extremely tenacious of life, and he considered it advisable to destroy the bacilli or bacteria, which were undoubtedly present, by cauterization or otherwise. Opinions differed widely as to the value of treatment in diphtheria. Some held that a certain proportion of cases would recover by the unaided *vis medicatrix naturæ*, and that others would not recover under any treatment, and consequently they had little faith in any treatment.

Dr. HOLMES, Chatham, read a paper on *Cholera Infantum*. Since so many children die every year of this disease, its treatment is a matter of great importance. The chief causes are hot weather, damp atmosphere, defective nourishment, bad ventilation and drainage, unsuitable clothing and indigestible food. The symptoms are, elevation of temperature, abnormal character of stools, thirst, pain, and vomiting. To prevent the disease, proper alimentation, ventilation and clothing are essential. The air should be pure, and the clothing in hot weather slight. Artificial feeding of young infants should be avoided if possible; but where resorted to, the milk or other food should be perfectly pure and fresh. Cleanliness is a matter of great importance. The treatment must aim at reducing the temperature and restoring the normal character of the stools; if this cannot be done the patient will surely die. To reduce the temperature, cold sponging with or without spirits. He condemned the use of opiates either for their sedative or astringent effect, as he invariably found that they did harm. He recommended the use of castor oil in suitable cases, and minute doses of hydrargyrum.

Dr. MCDONALD, Hamilton, said that the disease is not now as virulent as it used to be, and better modes of treatment are adopted. He advocated change of air, and was in the habit of sending his patients for a long trip upon the lake or river.

Dr. Ross said that he had considerable experience in the treatment of cases of cholera infantum. He found bromide of potassium very useful.

Dr. STEWART, Brucefield, read a paper on *Three Cases of Sciatica and one of Painful Stump treated by stretching the Sciatic Nerve.* In each case he used antiseptic precautions. Nerve stretching is now recognised as an important means of curing neuralgia, but it is a practice not unaccom-

panied with danger. In some cases where the operation proved fatal, death was distinctly attributable to the use of chloroform. Ether should always be administered in these cases instead of chloroform. The statistics of the operation are very favorable: 97 per cent. of all cases so treated are either entirely cured or else greatly relieved.

Dr. Ross said that they were very much indebted to Dr. Stewart for bringing under their notice this form of treatment, which he believed Dr. Stewart was the first to use in this kind of disease. He had himself tried it unsuccessfully in a case of tetanus.

Dr. STEWART, in reply to Dr. Workman, stated that the value of nerve-stretching had been accidentally discovered by a medical man who had cured a patient suffering intense neuralgia by accidentally stretching the nerve.

Dr. PREVOST, Ottawa, read a paper on *Tumor of Bones of Skull Pressing on Brain.* There was an aperture in the frontal bone. The skin covering the tumor was of normal color. The patient's intellect did not appear to be much affeeted, but he seemed drowsy and dull. He walked slowly, and his memory was impaired. After entering hospital he gradually fell into a state of indifference, which was followed by coma and death. The autopsy shewed that the tumor originated in the bone. He exhibited the specimen.

Dr. CAMERON, Toronto, exhibited a boy who was being treated for pseudo-hypertrophic muscular paralysis. The treatment consisted of cod liver oil, syr. fer. iodid. arsenic and galvanism. The boy shewed the peculiarity of his movements in going up-stairs, and in rising off his back. He was stripped and examined by several of the members.

Dr. Ross said that such cases are rare, and are to be found chiefly among boys.

Dr. CAMERON agreed with the views of Bristowe and Charcot as to the origin and nature of the disease.

Dr. SHEARD believed that in these cases the lesion originated in the anterior or motor nerves issuing from the spinal cord.

Dr. BLACK submitted notes of an autopsy on a case of echinococcus disease of the liver, exhibited the preparation in alcohol, and read the notes of the case.

Dr. OSLER, believed that the fatal termination in this case was due to suppuration of the cyst, which is one of the great dangers of the disease. He took out the specimen and demonstrated the ravages of the disease. There had been a cyst in the spleen the size of a child's head, besides an enormous cyst in the liver.

Dr. H. P. Wright, Ottawa, read a paper on *Phantom Pregnancy.* In the case reported the tumor was situated on the left side, and developed in such a way as to produce in the mind of the patient the idea of pregnancy. The movements of the tumor closely resembled those of a living fœtus in utero. Chloroform was administered and the tumor disappeared, and the patient is now quite well, able to attend to her ordinary duties. Such cases are found chiefly among women subject to undue exertion, spinal irritability and menstrual irregularities.

Dr. SLOANE narrated a similar case.

Dr. Ross stated that a case had come under his observation where a woman was convinced that she was carrying within her a dead extra-uterine fœtus, and it was with great difficulty that she was persuaded to the contrary.

Dr. ELLIS described the chemical composition of milk of cows fed on distillery refuse. He had made an analysis of the milk of cows fed on different kinds of food. The mean of the solids in the milk of distillery cows he had found to be 14.64; of other cows 12.82. The amount of fat in distillery cow's milk is greater than in others, the minimum of the former being equal to the average of the latter. The caseine, sugar and ash ingredients are much the same in both. The principal difference is in the greater amount of fat in the milk of distillery cows. The distillery refuse on examination was found to consist of grain with the saccharine matter removed. The fat and albumen remained, together with a small quantity of alcohol, as small as distillers can make it. He could not say whether this food produced any morbid condition in the cows.

Dr. WORKMAN had heard that cows could not be kept long on this kind of food without degeneration.

Dr. SLAYTER, Halifax, communicated through the Secretary a paper on the *Advantages of Halifax as a Health Resort during the Summer Months.*

This concluded the business of the Section.

SURGICAL SECTION.

Dr. HINGSTON, Montreal, read a paper on *Certain Obstructions in the Air-passages.* This paper will be published in full in the next issue of the RECORD.

The paper was discussed by Drs. Major, Harrison, Fulton, Roddick and Wright.

Dr. FULTON, Toronto, read a paper on *Polypoid Fibroma of the Bladder in a Child.* He said that Cystotomy is the only rational mode of treating these growths, though a double-eyed catheter might be used in the case of small polypoid growths. A lengthy discussion ensued, which was participated in by Dr. Hingston and others.

Dr. RYERSON, Toronto, read a paper on *Polypus-Nasi.* He described the various modes of treatment, giving it as his opinion that removal by means of the snare is the most efficacious.

Dr. WALKER, Detroit, spoke on *Modern Lithotrity*, describing some cases in which he had used Bigelow's instrument with success.

Drs. HINGSTON and RODDICK took part in the discussion.

Dr. CAMERON, Toronto, exhibited a woman whose face was disfigured by an enormous tumor. When it first appeared, it was mistaken for an ordinary gum-boil. Her health does not seem to be much impaired.

Dr. FERGUSON, Toronto, reported three cases of *Eczema*, which he had treated successfully with *viola tricolor* internally and *quinine baths* locally.

Dr. REEVE, Toronto, read a paper on *Orbital Diseases*, dwelling specially upon the importance of an early recognition of such affections, and prompt operation for their removal. He exhibited specimens of tumors removed and photographs of cases.

Dr. GOODWILLIE, New York, read a paper on a *New Operation for Closure of Hare-lip and the Hard Palate immediately after Birth.* All that has been usually attempted in such cases has been to close the cleft lip only in childhood. His method is to operate immediately at birth, and close the cleft of the hard palate by forcing together the side bones of the mouth, saving all the hard and soft tissues, thus restoring the natural appearance. The nose, which is turned to one side in the disease, is straightened and the harelip closed. When the operation is completed, the external appearance of the nose, lip and mouth is natural.

Dr. FENWICK, Montreal, read a *Report on Additional Cases of Excision of the Knee.* He said that in excision of the knee in children, it is desirable to preserve the growing power of the limb. If the parts from which the bone grows could be preserved, the operation could be performed in young children with every prospect of a useful limb. He wished to call attention particularly to the possibility of forming a good union between the epiphyses of the bones. By rounding off the bones in sawing, future displacement is prevented. This method also produced the least possible amount of shortening. He shewed a specimen taken from a girl of 11 years whose knee joint he had excised, in which good bony union existed between the epiphyses of the bones. In his hospital practice he had had 26 cases; of these 22 recovered with useful limbs; in only 2 cases was subsequent amputation necessary. Two cases died subsequently, one on the 18th day after operation from pyæmia, the other died eleven months after operation from heart disease following an attack of acute rheumatism. After some discussion, the Section adjourned.

SEPTEMBER 8TH.

The Association reassembled at 10 A. M. Dr. Fenwick in the chair. After routine business,

Dr. WORTHINGTON, Clinton, read the report on *Climatology and Malarial Disease.* The Committee sent out a series of questions to medical men in various parts of the country, with the request that the answers be returned to the Committee to form the basis of their report. Thirty-seven circulars were sent to seventeen counties, and replies received from twelve medical men residing in ten different counties. In four of these no malaria was reported to have existed for many years, but in the remaining six it was said to be prevalent. In the malarial districts the answer was that it prevailed to an unlimited extent, and was termed the curse of the country. In the districts referred to the country around was reported to be flat, with sluggish streams whose beds and banks consisted of alluvium. The first effect of drainage and cultivation was to increase the evil, but it afterwards became the true remedy. Malarial poisoning seemed to be more active after the month of July until the cold weather. In the Lake Scugog district malaria prevailed to such an extent as to cause the people to request the attention of the Government to the matter. He described the different kinds of disease attributable to the malarial poison. To remedy the widespread evils of malaria he recommended thorough drainage of all swamps and receptacles of impurities. The cultivation of the soil does much to improve the sanitary condition of the country, and the growth of

the eucalyptus globulus has been found of great advantage in the marshy districts of the Southern States. He said that the subject deserved the consideration of the Provincial Board of Health, and it was a question whether the Government should not take action in cases where intervention was necessary on sanitary grounds.

Dr. McDONALD spoke of the eucalyptus globulus, and the merits and demerits of tree cultivation.

DR. OSLER said that reports from the United States shewed malaria to be on the increase. In Montreal cases of ague have become more frequent.

DR. FERGUSON referred to a case where the removal of a strip of woodland had been followed by the appearance of malaria where none had previously existed. In the County of Grey a tract of 200 acres of swampy land which had caused a great deal of malaria was cleared and put in grass. For ten years no ague was reported. The land was again broken up, and immediately after five cases of ague were reported.

DR. RIDDEL said that forty or fifty years ago ague was prevalent in Toronto all along the front of the city. Wherever there were swamps, marshy lands, and rich grass there ague would be found. The products of decayed vegetation often ascended in the form of gas, and this created a new danger. In Toronto ague seemed to have been replaced by typhoid and other fevers.

Dr. OLDRIGHT was glad to see that this important matter was receiving so much attention. The Ontario Government had requested the Board of Health to enquire into the cause of malarial disease in certain districts. There was no doubt that these diseases were increasing in some districts, where dams and collections of decomposing sawdust were common. The disease was also on the increase in certain of the States, and commissions of enquiry were being instituted. In some of even the most elevated districts the disease was very rife.

Dr. WORKMAN enquired whether the malarial influences of the Don had received the consideration of the Board of Health, and whether the increase of disease there was due to the closing of the Lying-in Hospital.

Dr. OLDRIGHT said the closing of the hospital was a matter for which the Government was responsible, and the Board did not feel it their duty to interfere unasked.

Dr. WORTHINGTON stated that malaria was found in high as well as in low grounds, but the cause, if traced, would always be found to be the decomposition of vegetable debris.

SANITARY STATISTICS.

Dr. CANNIFF submitted the following resolution from the Sanitary Committee :—That for the present the collection of sanitary statistics shall be confined to the cities and large towns of the Dominion, the results to be published monthly, and the deductions drawn therefrom to be circulated in the various centres specified. That a commission be appointed by the Dominion Government in order that by consultation and co-operation of the Local Government a common basis may be arrived at for carrying out such sanitary measures as may be necessary for the consent of the Dominion Government. The commission to consist of two or more medical men with a legal adviser.

Dr. FENWICK said it was important that there should be a committee in communication with the Government on the subject. He had spoken to Dr. Carpenter in regard to this matter, and had asked him if there were any means of getting statistics in England. Dr. Carpenter said there was not, the health and disease tables being based upon the mortuary returns. To get full statistics of disease was an undertaking that no Government in the world would attempt. He wished to bring out this point, and he hoped that the substance of the report would be sent to the Government as the official report emanating from the Association. (Applause.)

Dr. OLDRIGHT said the subject of the collection of statistics on disease was a new one. In their desire to get these statistics they had the strong support of the evidence of Dr. Lyon Playfair, who said that while the death statistics showed the wrecks which had been cast upon the shore, the statistics of disease served to give warning of impending storms. Disease statistics would show when a certain disease was threatening a district. Death statistics often gave the information too late. He would regret any resolution of the kind recommended by the committee. In Ontario the medical men applied to for these statistics had none of them made the excuse that they were too busy to get the information. There were many diseases which stopped short of death which it was desirable to check. In order to put restrictive regulations into force it would be necessary to get information at the time the disease was raging.

and not when it was too late to be remedied. He moved in amendment that the statistics be not confined to the towns and cities.

Dr. GRANT said that the Dominion Government had only granted $10,000 for the whole of Canada, and it would be impossible to do more with that sum than was suggested by the committee. To pass the amendment would be to neutralize the whole action of the committee. The Government were anxious to do something, and what was proposed was merely an initiatory step. They could do no better for the present than collect the statistics from the older towns and cities. The system could be subsequently extended if found to work well.

Dr. FERGUSON said that there was no reason why the rural districts should be left out when Dominion money was to be spent. The cases in the country were just as interesting as those in the cities and towns. The scheme would never be a success except by taking in the whole Dominion and securing the sympathy of the whole profession.

Dr. FENWICK said that it would take $5,000,000 to collect the statistics of the Dominion. If they thought the Government would appropriate such a sum they might pass the amendment. It was not that the country districts should be thrown out, but that they might have an opportunity of making a beginning.

Dr. GRANT pointed out that the rural districts had all towns in their midst, so that their interests would not be neglected. No slur was thrown upon the country practitioners.

The amendment was then put and lost by twelve to seven.

The motion was carried by fourteen to two.

On motion of Dr. CANNIFF, it was resolved that a copy of the report be transmitted to the Premier of the Dominion.

ELECTION OF OFFICERS.

The nominating Committee brought in a report recommending the election of the following officers for the ensuing year:—

President—Dr. Mullen, Hamilton.

Vice-Presidents for Ontario, Dr. Tye, Chatham; for Quebec, Dr. Gibson, Cowansville; for New Brunswick, Dr. Atherton, Fredericton; for Nova Scotia, Dr. Jennings, Halifax; for Manitoba, Dr. Kerr, Winnipeg.

General Secretary—Dr. Osler, Montreal.

Treasurer—Dr. Robillard, of Montreal.

Local Secretaries—For Ontario, Dr. Saunders, Kingston; for Quebec, Dr. Brunelle, Montreal: for New Brunswick, Dr. Coleman; for Nova Scotia, Dr. Almon, jr.; for Manitoba, Dr. Whiteford.

Committees—On Publication, Dr. Ross, Montreal; Dr. J. H. Cameron, Dr. Fuller, of Toronto, the general secretary and the treasurer. On Therapeutics—Chairman, Dr. H. Punget. On Medicine—Chairman, Dr. Stewart, Brucefield. On Surgery—Dr. Gracett, Toronto; Dr. Brunelle, Montreal. On Obstetrics—Chairman, Dr. Kennedy, Montreal. On Necrology—Dr. Fulton, Toronto; Dr. Atherton, New Brunswick; Dr. La Chappel, Montreal. On Climatology—Dr. Laroque, Dr. Botsford, St. John; Dr. Worthington, Clinton; Dr. Playter, Toronto. On Ethics—Drs. Gardner, Montreal; Mawsden, Quebec; Bayard, St. John; Parker, Halifax; W. J. Almon, Halifax; Steenes, St. John; Beaudry, Montreal; Chas. Morrison, London. On Arrangements—Drs. Sullivan, Saunders, Fenwick, Metcalf, and Sweetland. This portion of the report was adopted, and the elections confirmed by the Association.

The clause fixing the

NEXT PLACE OF MEETING

at Kingston gave rise to considerable discussion.

Dr. RODDICK moved, in amendment, that the next place of meeting be Montreal. He thought there should be a larger representation from Kingston before a meeting should be held there.

Dr. ADAM WRIGHT seconded the motion.

Dr. MACDONALD, in explanation of the finding of the Committee, said that their reason for choosing Kington was to incite an interest in the Association among the medical profession there.

Dr. OSLER thought the place of meeting should be chosen quite independently of the number of members who happened to live there. He strongly approved of holding the meeting in Kingston.

The finding of the Committee was sustained by a vote of 18 to 15.

Resolutions were passed, tendering thanks to the Mayor and corporation of Toronto for the use of the City hall, to the medical profession of Toronto for their generous and hospitable reception of the members of the Association, to the managers and proprietors of railroads and steamboats for favors granted, and to Dr. Canniff for his exertions as chairman of the Committee of Arrangements.

On motion, the President left the chair, and Dr.

Mullen, of Hamilton, the newly-elected president, took the chair, and returned thanks for his election—an honor which he attributed rather to the desire of the Association to give all parts of the Dominion a fair share of the offices of the Association than to any personal merit.

Dr. GRANT, of Ottawa, moved a vote of thanks to the retiring President, which was seconded by Dr. Workman, and carried amid loud applause. Dr. Fenwick made an appropriate reply.

This closed a most successful meeting of the association. After the adjournment the members were entertained at the Asylum by Dr. Clark, the Medical Superintendent.

EXHIBIT OF MEDICINES AND INSTRUMENTS.

During the meetings of the Association the representatives of medicine manufacturers have displayed an excellent assortment of preparations, and have shown great willingness to submit them to the tests of the profession. Mr. H. P. Gisborne, of Toronto, exhibited specimens of lactopeptine and a large number of different preparations of maltine. Maltopepsyn was exhibited by H. Morse & Co.; and a very attractive display of surgical instruments was made by Messrs. Stevens & Sons, of Gower street, London, England.

PERSONAL.

Dr. William Young (C.M., M.D., Bishop's, 1878), who has been practicing in Hong Kong, China, has, owing to the climate not agreeing with him, returned to Canada and commenced practice in Montreal.

Dr. J. Leslie Foley (C.M., M.D., Bishop's College, 1880), having recovered from his severe illness, has resumed practice in Montreal.

Dr. Louis Ellsburg, of New York, who was in Montreal attending the meeting of the American Association for the Advancement of Science, favored us with a call.

Dr. Balcom (C.M., M.D., Bishop's, 1882) has settled in Moncton, N.B.

Dr. Morrell Mackenzie, of London, Eng., was in Montreal for a few days in August.

Dr. Bowdwitch, of Boston, was in Montreal attending the Science meeting.

Dr. J. G. Kittson (M.D., McGill, 1876,) lately surgeon in the North West Mounted Police, has settled in St. Pauls, Minn., U.S.

Dr. R. J. B. Howard, B.A. (M.D., McGill, 1880) has passed his examination for the Licentiateship of the Royal College of Physicians, London, and the Membership of the Royal College of Surgeons, England.

Dr. J. A. Grant, of Ottawa, was elected a Fellow of the Royal College of Physicians of London, on the 27th July.

Dr. Rottot, of Montreal, went to Europe the first week in September.

Dr. Fenwick, of Montreal, went to Europe by the Allan *S.S. Polynesian*, September 17th, in charge of one of his patients. He will return the end of October.

Dr. J. Leslie Foley, C.M., M.D. Bishop's, 1880, has been elected an Attending Physician to the Montreal Dispensary, in place of Dr. O. C. Edwards resigned.

MORTALITY OF MONTREAL FOR AUGUST.

Males	190
Females	208
Total	398
Stillbirths	10
Mortality under 5 years of age	240

Deaths from zymotic diseases were as follows:—

Small pox	0
Measles	0
Scarlatina	1
Diphtheria	3
Croup	5
Pertussis	1
Typhoid Fever	15
Other Fevers	1
Dysentery	9
Diarrhœa	65
Cholera Infantum	39
Other zymotic diseases	8
	147

The diarrhœal diseases have decreased; typhoid fever seems to be on the increase.