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ORIGINAL ARTICLES.

FILARIAE AND FILARIASIS.*

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The subject of filariæ and filariasis is of great interest, as well as of importance to a practitioner in the tropics. In the more temperate lands it is perhaps of only passing interest as cases are rarely seen, and then only in those who have lived for some years in an endemic area.

Although of so frequent occurrence in the tropics, our knowledge of the human filariæ is still rather fragmentary, and much work still remains to be done. With the exception of one species, *F. nocturna*, the pathological significance of those inhabiting the blood and lymph channels is quite unknown.

Under the term *Filaria sanguinis hominis* are included three, possibly four or five, species of nematode worms.

1. *Filaria Bancrofti*—the embryos of which are known as *Filaria nocturna*.

2. *Filaria perstans*.

3. *Filaria Ozzardi* (provisional) Manson.

Others which have been described are known only in the adult or embryo condition. Their life history in the human being still remains to be worked out. These include *F. diurna* and *F. Demarquain*.

Filaria Bancrofti has a very wide distribution, being found in almost all tropical countries. In America it is found as far north as Charleston. It is found in Southern Europe, Tropical Africa, India, China and Australia.

The embryo form, *filaria nocturna*, was discovered by Demarquay at Paris in 1863, in the fluid from a case of chylous dropsy of the tunica vaginalis. Later it was found in chylous urine by Wucherer at Bahia in 1866. Lewis in India first described them in the circulating blood.

The parent filariæ are hair-like, opalescent nematodes, about three to four inches long. They are usually found male and female together. Their habitat is some part of the lymph system, either in the distal lymphatics, a lymphatic varix, or the larger vessels between the glands. If

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in a varix they are free to move about, but when in the distal lymphatics it is more usual to find them coiled up in small cyst-like dilatations. When set free, and placed in water or salt solution they move about very freely, coiling and uncoiling themselves very rapidly, often apparently getting themselves into an inextricable tangle.

The adult male is about 70 m.m. long, very slender, and shows a greater tendency than the female to curl when in water or salt solution. The oral end is slightly tapered and club shaped. The tail end also tapers, the tip being rounded off abruptly.

The female filaria is the larger, both in diameter and length. The anterior and posterior extremities are similar to the male. The two uterine tubes occupy the greater part of the whole length of the body, and are seen to contain numberless ova in various stages of development while near the external opening the embryos can be seen in the fresh condition, actually moving about.

The embryos which are found in the circulating blood are minute, colorless, snake-like worms, about 1-80 inch in length, 1-3200 inch in diameter. Each is enclosed in an exceedingly delicate sheath considerably longer than the worm it encloses. It moves freely backwards and forwards in this, the part not occupied collapsing, and trailing about after the head or tail as the case may be. The head end is abruptly rounded; under a high power there can be seen, when the movements of the animal have about ceased, a six lipped, prepuce-like structure which is constantly covering and uncovering the end of the worm. Occasionally a short, sharp, fang-like projection is momentarily shot out, and quickly retracted.

In fresh drawn blood the movements of the worm are very rapid, and it is impossible to make out any structure beyond the sheath. The little animal is constantly moving backwards and forwards within its sheath, and violently lashing about. The corpuscles near it are much agitated by the continual movements of the embryo. Wriggling about so actively the embryo does not as a rule move very far from the one place, and soon has a place about it quite clear of corpuscles; but occasionally it will insinuate itself amongst the corpuscles and move away from the field.

All that are seen are of the same size; they undergo no further development until they are taken up by their intermediate host, the mosquito. The number of embryos found in a drop of blood will vary according to the time of day the examination is made. As a rule a preparation made during the day will give a negative result, or not more than an occasional specimen. As evening approaches the embryos begin to enter the peripheral circulation, and their numbers gradually increase until midnight, after which they gradually decrease until seven or eight o'clock, after which none are to be found until evening again.

The number found in each drop at midnight will vary from ten to twelve to as many as five or six hundred, depending no doubt on the number of females, and upon whether they are reproducing at that time. Assuming that the parasites are equally distributed throughout the circulation there may be as many as forty or fifty millions circulating at one time.

This phenomenon of diurnal periodicity is maintained for years with the utmost regularity. It may be disturbed by causing the patient to sleep during the day, and remain awake during the night, when the embryos will be found in the peripheral circulation during the day, and absent during the night.

When absent from the peripheral circulation they are to be found principally in the lungs and larger arteries. At a post mortem examination made by Manson on a case dying suddenly in the morning from poison, and in which the filariae were always absent from the peripheral circulation during the day, he found that while blood from the liver and spleen showed an average of only one embryo to each drop, preparations from the lung and carotid artery showed over six hundred to each.

No satisfactory explanation of this phenomenon of "periodicity" is as yet forthcoming; possibly it is an adaptation to the nocturnal habits of the mosquito, but even if so why should they retire into the larger vessels and lungs during the day? What the average length of life of each embryo in the blood stream may be, or what finally becomes of the millions which are constantly being produced we do not know. Only a very small portion of them are taken up by suctorial insects, the rest must necessarily be disposed of within the human host.

The intermediate host of the *Filaria Bancrofti* is the mosquito; both *Culex* and *Anopheles* have been shown to be favorable to the further development of the embryos. It cannot yet be said that all mosquitos may act as intermediate hosts although members of each genus have been used in experimental work with successful results.

If the stomach contents of a mosquito be examined after feeding on a filaria infested patient, the embryo will be found in greater numbers than an examination of the patient's blood would lead one to expect. Apparently the mosquito or the embryo has a selective action—there is an affinity somewhere, possibly exerted by the filaria on the proboscis of the insect within the vessels.

Within the insect's stomach the movements of the young filaria become very active. It soon leaves the stomach, and finds its way amongst the thoracic muscles where it moves about slowly.

If one mosquito be dissected daily from a hatch which were fed simultaneously on a patient the further development can be satisfactorily studied. The metamorphosis is completed in a period varying from fifteen to thirty or more days. At the end of this time a mouth is formed, the alimentary canal may be distinguished, and the young parasite has grown from 1-80 inch to 1-16 or even 1-4 inch in length. At this stage they may be found crowded forward at the base of the proboscis, and underneath the cephalic ganglia. From here they push forward along the proboscis, and may be found lying free amongst the stiletts.

How the parasite regains its human host is again undecided. From the fact that at the completion of its metamorphosis in the mosquito it passes out along the proboscis, is strongly suggestive that it is carried to the human being when the insect next takes a feed of blood, but this is only conjecture. Manson's first theory was that the parasites are set free in water upon the death of the mosquito, and that they reach the stom-

ach in drinking water, and nothing has yet been adduced to prove that this may not be so.

However the filariae may be introduced into man, they finally reach the lymphatics, attain sexual maturity, and after fecundation a new generation of embryos is set free, which again appear in the circulation.

The degree of prevalence of filariasis varies a great deal in the different endemic areas. In British Guiana and some of the islands of the West Indies from five to twenty-five per cent. of the native population show filariæ in the blood. In some of the islands of the South Pacific nearly 40 per cent. show infection, while in parts of West Africa, twenty-five to fifty per cent. of the adult male population carry the parasites, though here *F. diurna* and *F. perstans* are also found, and account for a large proportion of these cases.

By far the greater portion of those who harbor the parasites do so without any inconvenience, and without any symptoms arising from their presence. The young filariæ circulating in the blood apparently set up no trouble whatever, any pathological conditions which develop are always traceable to either the parent worm, or to the ova prematurely discharged. The ova are much larger in diameter than the free embryos, and if set free in large numbers will very effectually block the lymphatics.

Broadly speaking there are two varieties of disease brought about by the filaria—the one in which there is a marked varicosity of the lymphatics, the other characterized by an œdematous condition which tends to become to a certain extent organized and solid resulting in elephantiasis.

As a result of a lymphatic vessel becoming blocked by one or more worms or a number of ova, a thrombus may be formed, or an inflammation set up in the walls of the vessel with subsequent thickening. From this occlusion, partial or complete, there is a resulting varicosity of the vessels towards the area drained with or without œdema. With inflammation recurring in this area of lymphatic congestion there is produced a thickening of the tissues, and sooner or later a condition of elephantiasis results.

When the thoracic duct is the seat of obstruction there is as a consequence an enormous dilatation of the abdominal, and pelvic lymphatics, and a huge varix from 8 to 10 inches in diameter, and several inches thick may be found, behind which the kidneys and bladder are effectually concealed.

If the lymphatics of the bladder or kidney rupture, chyluria supervenes. If the lymphatics of the scrotum are involved lymph scrotum results.

Acute attacks of lymphangitis are very common in filarial disease. There is a painful swelling of the vessels or glands affected, with as a rule a red line on the skin over the affected area, this inflammation spreads, may become erysipelatoid in character, and a rigor followed by a high fever supervenes. The attack may continue for two or three days with headache, vomiting and even delirium. Finally a general diaphoresis sets in, and the swelling gradually subsides, leaving some

permanent thickening. These attacks may recur at varying intervals of weeks, months or years, and are often mistaken for malarial fever, occurring as they do in districts where malaria is almost always prevalent.

Elephantiasis is perhaps the most frequent pathological condition set up by filarial infection. In Samoa over 50 per cent. of the adult male population is affected. In most tropical countries it is not of so frequent occurrence, but is fairly common in all parts where the filaria *Bancrofti* is found.

In over 90 per cent. of the cases the lower limbs are involved, either one or both, or in conjunction with some other portion of the body. The scrotum is frequently involved, less often the mammae, vulva or localized portions of the arms, body or neck.

Chyluria, the result of the rupture of a varix on the walls of the bladder or about the kidneys is not a very serious condition, though it as a rule causes the patient a great deal of mental worry. It very frequently appears without any warning, though it may have been preceded by pain or aching in the loins and pelvis from the distension of the varix. The urine may be white, pink or even red, during a part of the day it may be quite normal; it coagulates or stands. The general health of the patient is not affected, and about the only inconvenience is the pain attendant upon the passage of clots which may form in the bladder. Occasionally these may cause retention.

Other forms of disease associated with this filaria are varicose glands of the groin and axilla, lymph scrotum, orchitis, chylous ascites, and chylous diarrhoea.

F. perstans.—This parasite has so far been found principally on the West Coast of Africa from Lagos to the Congo, and in Demerara. As the name indicates it has not a periodicity as has *F. nocturna*, but may be found in the blood at any time.

The infection is not as great as in *F. nocturna*, the average drop of blood not showing more than perhaps one to ten embryos. Indeed in some cases several drops may be examined before one is found.

The embryos are much smaller than *F. nocturna*, measuring only $\frac{1}{125}$ inch in length. The worm narrows gradually from the anterior third to the tail, ending abruptly in a rounded, not pointed, extremity. It is devoid of a sheath. The head end, too, is distinctive; there is no hooked cephalic prepuce to be seen, but a retractile fang is easily observable, and is shot out and retracted at shorter intervals than the corresponding structure in *F. nocturna*. The movements of the embryo on the slide are very active, moving very rapidly across the field with a quick, snake-like movement, and travelling freely all through the preparation.

The parental forms were discovered by Daniels. They are slightly shorter than *F. Bancrofti*. The tail is distinctive, being incurvated with a slight notch in the chitinous covered tip.

Only a few adults have as yet been found. Their habitat has been the connective tissues at the root of the mesentery, behind the abdominal aorta, and beneath the pericardium.

No definite pathological lesions have been found associated with this parasite. Manson has conjectured it is the cause of the sleeping sickness

of the Congo natives, partly from its presence in three cases of the disease, which he has seen in England, and the fact that the geographical distribution of the parasite and the disease are somewhat similar.

Against this is the epidemic character of the disease, and the fact that *F. perstans* is present in a large percentage of the population in districts—*e. g.*, the Niger Delta and the Oil Rivers—where the sleeping sickness is unknown.

F. Ozzardi.—This is the name given provisionally by Manson to a filaria occurring in the aboriginal Carib Indians of the hinterland of British Guiana, it is often associated with *F. perstans*. The embryos are similar to *F. perstans* in size and movement, but possess a pointed tail.

The adult worms in size and structure closely resemble *F. Bancrofti* except as regards the tail which is bulbous.

F. diurna.—The parental form of this species has not as yet been described. The embryos to which this name has been given are not to be distinguished morphologically either in fresh or permanent preparations from *F. nocturna*.

The distinction is in their periodicity. Instead of at night, it is during the day with a maximum about eleven to one o'clock that they are found in the peripheral blood. Their distribution is limited to certain parts of the West Coast of Africa.

Whether they are identical with *F. nocturna*, and the variation in periodicity is due to some influence acting on the embryo, can only be satisfactorily settled by the discovery of the parent worm. We know from the experiments of Stephen Mackenzie that the periodicity of *F. nocturna* may be changed by causing the patient to be up at night, and to sleep in the day time. The average West African native is so prone to sleep during the hot part of the day, and to be up doing his canoeing during the night or to be dancing until the morning, especially at the full of the moon, that it would be very easy to reconcile the facts and explain them on this basis.

The observations made by "The Liverpool Malaria Expedition to Nigeria" upon an extensive series of cases will soon be published. As a member of that expedition I had the opportunity of seeing a great many cases of *F. nocturna*, *F. diurna* and *F. perstans*. In many of the natives there was double infection, and in a few cases the three forms were present.

The table of periodicity of *F. nocturna* and *F. diurna* does not show the restriction to the fixed hours which is usually supposed to exist. In some cases it was difficult to say whether the embryos found should be called *diurna* or *nocturna*. From clinical observation we were much inclined to regard them as identical but on attempting to study their metamorphosis in *Anopheles claviger* we were unable on two different occasions to find any of the *F. diurna* within the body of the mosquito; all were apparently excreted with the undigested food, while *F. nocturna* underwent the usual changes, and was found in the proboscis on the 15th day. On account of our work on malaria we were compelled to drop the subject at this interesting point and were unable to return to it.

Unfortunately we had no opportunity of a post mortem examination

on any of the cases, and consequently were unable to compare the parent forms.

F. Magalhãesi.—This name has been applied to two adult worms, male and female, described by Prof. Magalhães, found in the left ventricle of the heart of a child that died in Rio de Janeiro.

The female measured 155 m.m. in length by 0.7 m.m. in diameter; both were cylindrical, and of uniform thickness with exception of the club shaped anterior extremity, and the tapering tail.

No other similar worms have been described, and nothing is known of the life history, or of the pathology.

Filariae inhabiting the connective tissue.

F. Medinensis, the guinea worm, plays a rather important part in tropical pathology. It occurs in Persia, Arabia, parts of India, and in tropical Africa. In certain parts of the West Coast it is very prevalent, especially so among the Yoruba tribes, where nearly half the inhabitants in many of their villages are afflicted with the parasite. It is not unusual to find several guinea worms in the same individual. I have seen a boy of ten, the son of a Yoruba soldier, with two in each foot, and another patient with two in each foot and one in the buttock. As many as thirty have been reported in one person.

Only the female is known. The length varies from one to four feet, the average being 30 to 36 inches. The diameter is about 1-10 inch. The body is opalescent, almost milky white, devoid of markings, ending abruptly in a sharp pointed tail which is bent at an angle to the body. The mouth is surrounded by six papillæ, two large and four small. There is no opening at the posterior end of the alimentary canal. The enormously distended uterus with its millions of ova and embryos is also cæcal, the vagina being entirely obliterated, probably from pressure.

This immense worm inhabits the subcutaneous and intermuscular connective tissues. When mature she moves towards the lower extremities, pushing forward until she is underneath the epidermis; soon after she reaches here a small bulla forms over her head, and on the rupture of this, an ulcer is seen, in the centre of which is a small opening. On the first occasion that the ulcer comes in contact with water, either by the patient wading a stream, or by the application of water to the ulcer, the uterus is prolapsed through the mouth, is extended beyond the ulcer, and ruptures setting free a milky fluid which is found to contain myriads of embryos.

The embryos are about 1-30 inch in length. The head is somewhat tapered, and abruptly rounded; the tail is long and pointed; the body is striated transversely. They will live in clear water for a week, and in the water of a wayside pool two or three weeks.

The fact that the worm when ready to discharge her young travels as a rule to the leg, or foot, and that the embryos are expelled the moment there is contact with water, required for some time an explanation. This was afforded by the observations of Fedschenko in Turkestan, who found that the intermediate host was a small crustacean, *Cyclops quadricornis*, and we now see that the appearance of the worm in the foot and leg is but instinct for the preservation of her species, it being necessary that

she deposit her young in some pool which is the habitat of the cyclops, as her host is walking through it. No doubt the parasite is again conveyed to the human body through drinking the water containing the wected cyclops.

The treatment consists in tying a small piece of wood to the worm when extended, and winding out one to three or four inches daily. Care must be taken, as the breaking of the worm within the body is usually followed by inflammation, a cellulitis, and at times abscess and sloughing.

By frequent douching all the embryos will be extended in from 15 to 20 days, and then the worm may be more easily extracted, or is at times absorbed.

More recently a 1 in 1,000 solution of perchloride of mercury has been injected into the worm causing its death.

Filaria Loa.—This parasite is only known on the West Coast of Africa where in certain parts it is very common. It wanders about the connective tissues of the body. When in the subcutaneous tissue it causes itching and pricking sensations. Its course can be followed readily as it traverses the tissues near the surface. It is seen more often in the conjunctival tissues, and in the neighborhood of the eyes than elsewhere. Its length of life must be great as it has been seen in patients who have been at least ten years away from the West Coast.

The male is about 28 m. m. in length, by 0.3 m. m. in breadth; the female about 35 m. m. in length by 0.5 m. m. in breadth. Both are cylindrical, tapering at both ends, more marked at the tail.

The embryos have not been found in the body, unless, as has been thought, *F. diurna* is the embryo of this species. Those studied in utero, or which have been expelled after the removal of a loa from the eye are sheathed, and very similar in size to *F. diurna*. However this may be decided in the future the fact remains that the great majority of cases of *F. Loa*, though occurring in the same district in which *F. diurna* is found, do not show the latter in the blood. In Southern Nigeria where we found 20 to 25 per cent. of the adults infected with *F. diurna* we saw but one case of *F. Loa*.

The treatment is removal when the worm is seen under the skin. It must be grasped by a pair of forceps, and held until an incision is made over it. The negroes usually place a small pinch of salt into the eye which successfully drives the parasite away or remove it with a sharp thorn.

DYSMENORRHOEA.*

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Some of the most satisfactory moments that come to a physician in his professional life are those in which he has been able to relieve great pain; and on the other hand few bring to him more disappointment than when, after repeated effort, he fails so to do.

The suffering endured by woman during the performance of the function of menstruation is so general that we are all constantly meeting it. The temptation to prescribe such remedies as whiskey or morphine for this particular kind of pain is so strong that against our better judgment we allow their continued use. I do not desire to treat dysmenorrhœa as if it were a disease, for it is not; it is a symptom, and the causes of this symptom and its relief are the points to which I wish to direct the attention of this society. There has been much discussion both in the journals and in medical associations as to the classification of dysmenorrhœa. In speaking of the classification of a symptom it must almost necessarily mean the classifying the causes of the symptom, and on this account therefore there has been so much disagreement. Dr. Johnston, for example, claims that the classification should be entirely etiological, and in this while he is quite logical he is led into an evident error in his classification. He would divide dysmenorrhœa into two classes, viz., one due to infection (inflammatory) and one due to structural changes. He distinctly states, and is supported by many, that there is no such thing as neurotic or neuralgic dysmenorrhœa, no such conditions as obstructive or membranous dysmenorrhœa. Now in this he has gone too far, for I am sure you will all agree with me that there are cases where there is no infection and no structural change and yet where there is intense dysmenorrhœa. There is such a condition as neuralgic dysmenorrhœa. We have all seen patients in whom the pain would completely disappear on an entire change of environment, perhaps to recur on a return to the old surroundings. What seems to me the most satisfactory classification is the old one taught by Thomas and Goodell and still adhered to by most of the American gynæcologists and obstetricians, viz.: (a) Neuralgic, (b) Inflammatory, (c) Obstructive, (d) Membranous.

It is not to be expected that these can be clearly defined, in fact, they run together and overlap. For example a neuralgic condition will lead to menstrual disorders, and in time structural changes in the endometrium will take place when we have inflammatory or congestive causes of pain. While my experience leads me to believe that dysmenorrhœa due to mechanical causes, yet these causes may produce congestive changes certainly occurs. Just as an obstruction in the larynx would be followed by an inflammatory condition and the production of pain, so might obstruction in the cervix produce similar results. The

* Read before Toronto Medical Society.

etiology therefore is very complex. The treatment to be successful must be the treatment of the cause.

1. *Neuralgic dysmenorrhœa*.—While it is true that neuralgia is often a cloak to hide ignorance, and while it is easy to make this class a dumping ground for those cases which we are unable to explain, yet there are some that belong here. A woman may menstruate painlessly for a number of years, until perhaps she is over-worked or over-worried, may not be able to get her usual amount of outdoor exercise, and she begins to have pains during her periods, which gets worse and worse as time goes by. The pain comes on shortly before the flow and probably lasts for about twenty-four hours. If this woman is sent away for a holiday, she will probably be free from pain and remain free while she is away, and if she stays away a few months she will likely be free for some periods after her return. The results are different in the inflammatory variety. In this neuralgic type tonic treatment, good fresh air with exercise and good food will probably effect a cure. I wish to recommend in these cases, and in fact in most women's diseases, the wise use of the bicycle. I think the bicycle has done more to lessen the amount of fees paid to gynæcologists than all drugs on the market put together. I would like to deprecate most strongly in these and similar cases of dysmenorrhœa the use of alcohol and sedatives, also the making vaginal examinations in the unmarried. It would be a most unfortunate thing if any patient suffering simply from neuralgic dysmenorrhœa were subjected to local treatment.

Inflammatory dysmenorrhœa.—Here as a rule a most careful physical examination will have to be made to ascertain exactly the condition of the parts. The inflammatory condition of diseased parts, those concerned in menstruation is the cause of the pain and the treatment must be directed to such. These cases are for the most part infective. The inflammatory condition may be secondary even though causing the pain. The removal of a submucous fibroid may completely cure the pain. The rectifying of a utero-displacement may produce a like effect. The treatment that will in most cases be required and which if carefully and thoroughly done will give most satisfactory results is a dilatation of the cervix, preferably under an anæsthetic, then a curettage followed by a packing with iodoform gauze. The packing should not be repeated but should be allowed to remain in place for three days.

If it is not considered advisable to do an operation, the use of the warm douche, the boroglyceride tampon, and the application to the endometrium of Churchhill's iodine or carbolic acid will often produce a cure although longer in bringing it about. My experience has been that dilatation as practised by Goodell or splitting or nicking the cervix as recommended by Marion Sims are very unsatisfactory by themselves, they furnish only a temporary relief.

The real cause of the pain may be in the ovary; here the results are much more unsatisfactory. The application of blisters or painting the vaginal vault with iodine or the use of hot douches may give relief. Of these I have found the hot douche used twice daily for half

an hour by far the most satisfactory. The water should not be used so warm as to be uncomfortable. These cases are generally sterile. If so and if it can be ascertained that one ovary is healthy, I would recommend the removal of the diseased ovary. This will probably cure both conditions. Should pregnancy occur in these conditions with or without a partial oophorectomy it will probably result in cure. I would not, however, recommend marriage as a means of curing a patient a martyr to dysmenorrhœa of the inflammatory type, for I have found that the pain is much greater after marriage and often results in sorrow to both contracting parties.

Obstructive dysmenorrhœa.—I am inclined to think that the pain in menstruation due to this cause must exist very seldom. A deformed uterus may, however, produce inflammatory changes and this condition produce pain.

Membranous dysmenorrhœa.—This most interesting and rare condition I know nothing of personally for I have never seen a case. During the function of menstruation the mucous membrane of the uterus is stimulated and prepared to receive the fertilized ovum which is thrown upon its surface. Should, however, the ovum remain unfertilized the mucous membrane degenerates and is thrown off in shreds causing little or no pain. If this degeneration does not take place as is claimed by Dr. Williams, of London, then probably a degeneration takes place in the deeper tissues and the membrane *in toto* is exfoliated and the expulsion causes extreme pain. It seems to me likely that in this case too the pain is partly of inflammatory origin and not due entirely to the expulsion. That a great part of the pain is mechanical is made clear by the fact that the pain ends abruptly when the membrane is expelled. The picture of the membrane cast off as pointed out by Dr. Cook, of Washington, shows the whole membrane to have undergone certain changes, *e. g.*, multiplication of the glandular structure, a large increase of polynuclear leucocytes, in fact signs of greatly increased inflammatory reaction. This entire exfoliation of the membrane as claimed by Dr. Williams is due to an excess of fibrous tissue in the wall of the uterus. This excess being due to a failure in evolution at the time of puberty, or a failure of involution after child birth or abortion. The theory held by many, *viz.*, that it is due to an acute inflammation of the deeper tissues at each period seems to me to be the most reasonable one. The treatment of these cases on the whole is most unsatisfactory. Dr. Johnstone claims to cure 9 out of 10 of his cases by thorough curettage and packing, putting them through an artificial labor, as he styles it. If his claim is true, it is really most remarkable and furnishes better results than most men can. Many claim to have effected cures by the application to the endometrium, some days before the expected period, of iodine or carbolic acid. Galvanization is also extolled by some, but on the whole the treatment is unsatisfactory as far as a permanent cure is concerned. Allow me to give very shortly the histories of a few illustrative cases which have come under my notice. Miss A., aged 21, had been suffering for some years with dysmenorrhœa of a rather peculiar type, inasmuch as severe pain was experienced only at every alternate period. For the first two or three years of her men-

strual life she suffered but little. The best of care and tonic treatment had no beneficial effect. A trip to the continent was advised, and during her first period after leaving home, which took place on board ship, she suffered none, and during a stay of three months on the continent she was free from pain though travelling considerably. She remained free likewise for some months after her return. A summer in Muskoka had a like beneficial effect, and the trouble has not returned in anything like its original severity for now more than a year.

Mrs. P., aged 34, had two children and one miscarriage. Suffered greatly during menstruation, also had dragging and bearing down pains, menorrhagia, etc. A dilatation with curettage and packing completely relieved the symptom.

Mrs. J., aged 27, suffered greatly, more since marriage. Examination revealed a latero-anteverted, undeveloped uterus. Marked tenderness on examination. Left ovary tender to touch. A thorough dilatation with curettage and packing relieved somewhat the pain for about three months. A year afterward I removed the left ovary. This resulted in a partial cure of the pain. The woman is still sterile.

Mrs. G., aged 22. Suffered from dysmenorrhœa. Was sterile. Had a retro displacement. Right ovary tender, enlarged and displaced. Two years ago I removed this ovary, pain was relieved. She has now a son eight months old.

A CASE OF MULTIPLE NEURITIS SUCCEEDING TYPHOID FEVER WITH PERMANENT PARALYSIS.

Reported by MESSRS. R. PARSONS and CHAS. P. LUSK,
Final year students at Trinity Medical College.

The writers venture to present this paper for publication because of the exceedingly interesting clinical history which it reveals, rather than from any wish to discuss the subject of Multiple Neuritis. The patient came under the care of Dr. Allan Baines at the Toronto General Hospital and through his kindness and that of Dr. Bingham who operated at a later date performing a radical cure for a condition of floating kidney, we are enabled to place the history before you.

Clinical History.—Mrs. O., aged 26, married 6 years.

Family History.—Mother died at 38 of consumption and heart disease. Her mother's three sisters and one brother also died of consumption and a fourth sister living at the present time has the same disease.

Paternal history, is negative.

Personal History.—Had measles when sixteen; no other children's diseases. She was married in 1894. One year later when in Toronto she was taken sick with what she calls dysentery, after a period of general malaise. After being sick for three weeks, during which time the motions of the bowel numbered eight to twelve a day, she sought medical advice. A day or two afterwards, after a sleep of a couple of hours' duration, she awoke to find both lower limbs completely paralyzed. The next day she was taken to the Burnside Lying-in Hospital and was delivered of an eight months foetus Oct. 17th, 1895. The same day she practically lost the use of arms and hands. There was an intense pain in both temples which radiated backwards to the occiput, and thence down the back of the trunk and legs to the feet. During November, she was transferred to the medical wards of the hospital. There the paralysis of the hands and arms began to improve, although generally before going to sleep there was severe twitching of the muscles of the extremities, and also great pain in the supra-scapular fossae, and thickened speech existed for some time. Her vision was dimmed for a while and the muscles of the left hip, thigh and calf, and of the left thenar eminence were markedly shrunken. She went home and about June 30th, '96, was sufficiently improved to attempt standing on her feet, but could not walk and had to be wheeled in a wheel chair for the rest of the year. Then for some months she was able to get about with the aid of crutches. Her condition gradually improved until she was able to do light house work, and could walk as much as half a mile. The left leg and foot would swell at times as far as the knee, and when tired her legs would give way under her completely letting her fall to the ground. During '96 she had herself noticed that the left kidney was movable, and would descend as far as the left iliac region. She has been a continual sufferer from indigestion, and also complains of having had occasional attacks of suppression of

urin, more especially in the winter time. On using the sitz bath a few teaspoonfuls of urine would pass away and sometimes, what seemed to be, pure blood. At times three days would pass without voiding urine. During this time there would be a constant, agonizing pain which she referred to the neck of the bladder, and a more or less constant desire to evacuate the bowel.

Present Illness.—During September, 1900, while in the city, she over-exerted herself and has not been well since. She suffered from palpitation of the heart to such a degree that she was unable to keep the recumbent position. On returning to her home in the country she had occasional attacks or a sensation of distention about the stomach and heart, also she complains of severe pain extending from the ensiform cartilage to the umbilicus, and a constant craving for food which would be relieved by the taking of the smallest quantity. She was admitted to the hospital Oct. 25th.

EXAMINATION.

Temperature, normal. Pulse, 90, normal in character. Respirations, 18, normal in character. Stools, constipation unless using laxatives. Urine. Color, pale straw; odor, faintly urinous; sp. gr., 10.30; albumen, none; sugar, none; urea, 10 grains to the ounce; microscopically, oxalate of lime crystals; epithelial cells; many pus cells.

Digestion is poor; tongue, deep red and slight central fissure.

General symptoms. Palpitation of the heart, constipation, dryness of mouth and throat.

SPECIAL EXAMINATION.

Skin. Moist and cool, but patient complains of cold feet and hands. Chest and neck. Thyroid gland is enlarged, more marked in right half. This has occurred two or three times previously, but has yielded to applications of tincture of iodine.

The chest on inspection shews the right sub-clavicular fossa more flattened than the left. Other signs normal.

Heart. Slight increase of lateral dulness extending 1.25 c.m. to left of nipple line; apex beat, fifth intercostal space, nipple line; auscultation reveals nothing abnormal.

Abdomen. Somewhat distended; soreness in epigastrium; on left side we find a movable kidney, which descends as far as the level of iliac crest.

GENITO URINARY SYSTEM,

Right ovary, slightly tender; neither enlarged. *Body of uterus* is normal. *Cervix.* Cleft on right side to vaginal vault; slightly cleft on left side; external os, everted and admits finger; the endometrium is eroded; a mucous discharge which is foul, but the menstrual period just two days past; menstruation is regular, but the flow is profuse.

Bones, Joints, Muscles, etc. Partial paralysis of the left lower limb and of left shoulder, also of right lower limb, but not nearly so marked. The muscles of the calf of left leg are shrunken and flaccid. Anterior muscles seem normal. The muscles of left thigh are atrophied somewhat

and are soft even when the leg is flexed. This limit is 2.5 c.m. less in circumference at lower and middle thirds than the right. The glutei are markedly atrophied on this side. Knee jerk is present, and ankle clonus is absent. The left arm cannot be lifted above a right angle with the body. The thenar muscles of left hand are flattened and she experiences some difficulty in making the finer movements. The muscles of the right side are but little impaired. In walking, however, the right foot is not lifted so readily as the left nor can the right leg be extended as readily. On attempting to sit up in bed she first turns upon her side, supports herself upon the elbow and then with the aid of the other arm lifts the trunk into the erect position. When prone upon the floor, in order to rise she elevates the hips until the legs are extended, then with the hands she lifts herself into the standing position.

In November Dr. Bingham, with the assistance of Drs. Baines and Powell, performed a nephrorrhaphy for the relief of the floating kidney. He used the operation which is recommended by Jacobson, in which after making the initial incision and removing the intervening perinephric fat, he incised the capsule of the kidney along the upper and outer border, stripping it from the lateral surfaces, and then suturing the flaps to the edges of the muscular wound. The operation was markedly successful and the patient at the time of writing (three weeks later) has had a good recovery, is experiencing no discomfort whatever, and is ready to return to her home.

DIAGNOSIS.

The atrophy with the absence of all sensory symptoms suggests a condition of muscular dystrophy, though the sudden paralysis with complete absence of hereditary history will hardly bear this out.

The history of the so-called attack of dysentery, which appears rather to have been an attack of enteric fever, and the succeeding paralysis, with pain, etc., suggest a multiple neuritis complicating typhoid. If this be so, the case is worthy of remembrance, in that multiple neuritis complicating typhoid fever according to Osler and other authors is generally recovered from, but in this the paralysis and atrophy of the muscles have been permanent

THE PREVENTION OF TUBERCULOSIS.*

By J. E. ELLIOTT, M.D., Toronto.

In calling this meeting to order, I feel that it is unnecessary to explain its purpose, but I think I should make some explanation why it is under the auspices of the Young Men's Liberal Club. One of the objects of the Club is to discuss questions for the good of the people, and as president I felt that there was no question of so much importance to the people at the present time as how to prevent consumption. I gave notice of motion some two weeks ago, which I shall presently read, to be discussed at the next regular meeting, but the Executive Committee thought that the question was of such public importance that the discussion should not be confined to the members of the Club; so to lift it as far as possible from the realm of politics, this special open meeting was called, and I am glad to know our efforts to bring the important question before the public has not been in vain.

The notice of motion is as follows :

"In view of the fact that one-fifth of all deaths is due to tuberculosis, and that tuberculosis is a contagious and infectious disease, consequently preventible; resolved, that in the opinion of this meeting the present is an opportune time for all legislative bodies to at once enact laws for the prevention of this dread disease."

I should, I feel, explain that the statistics given in the preamble do not refer to our country but to general statistics. The death rate from tuberculosis in Canada is probably nearer 1 in 7 or 8 than 1 in 5. It may also be of interest to you to know that one-fourth of the deaths between the ages of 15 and 55 are due to tuberculosis. When you begin to realize the magnitude of this fact you can well understand the necessity of every one assisting to improve the conditions which are responsible for these facts.

It is now accepted by everybody that tuberculosis is contagious or infectious, and not hereditary as was believed until recently, in fact, is still the belief of many. I shall not say that it is not hereditary in some isolated cases, but the number of hereditary cases is so few as to not require much notice. A good soil for the germ to grow in, is where the hereditary tendency comes in.

If the disease is infectious, how is it so? Tapiner succeeded in infecting all his experimental animals shut up in a chamber into which large quantities of tuberculous sputa were discharged in the form of spray, and his servant, a robust man, in perfect health, persisted in a spirit of bravado in entering the inhalation chamber and acquired an acute attack of tuberculosis which proved fatal in 14 weeks.

You all know that the lungs are the organs most frequently affected and that the germs are carried from the lungs in the expectoration in great numbers. One expectoration may have as many as two million

* Read before the Young Men's Liberal Club, Toronto.

germs and a person with acute tuberculosis of the lungs may expectorate as many as two or three billion bacilli in 24 hours. These germs are deposited in every place where consumptives go—on the street, in the bedroom, in the street car, in the railroad train. The expectoration soon dries up and the germs are blown into the air and inhaled into the lungs. All the germs do not produce the disease when inhaled into the lungs. This depends upon the susceptibility of the individual who inhales them. Some are inhaled by individuals who are able to resist the attack of the germs and they "fall by the wayside." Others are inhaled by persons who have not the same resistance and the germs get a lodging, "fall in stony places," remain dormant for a long time and when the system is run down from an attack of bronchitis, pneumonia, or pleurisy, or any debilitating cause, they then get their work in and the person becomes a consumptive. Statistics from *post mortem* examinations show that 25 to 50 per cent. of people who die from other causes than tuberculosis have the disease in a dormant state.

Again, there is another class of individuals who inhale the germs into the lungs, where they find a good soil to start in and they develop consumption which runs a rapid course.

Another common source of infection is from taking into the stomach foods containing the tubercular germs. The most common foods containing tuberculous germs are meat and milk. Meat, I may say, is not nearly so dangerous as milk, and as children are the ones who mostly drink milk, they are the most frequently infected with tuberculosis from this source. The fact that milk carries tuberculosis has been proved over and over again. Many instances might be cited in proof of the fact if time permitted. Prof. Kanthack, in 1898, in examining milk from the 16 different dairies supplying the University of Cambridge, found that nine of the samples infected guinea pigs with tuberculosis.

Owing to improved sanitary conditions in the larger European cities, the death rate from tuberculosis has been gradually diminishing, but the mortality of children suffering from intestinal tuberculosis has not diminished owing to the increased consumption of cow's milk. Another strong proof that tuberculosis may be traced to milk, is the fact that calves are free from tuberculosis at birth, and that before the end of two years 50 per cent. of some herds are tuberculous. Statistics collected from abroad of the post mortem examination of 610,000 calves showed that only 12 of them had tuberculosis. This shows conclusively that consumption is not a hereditary disease but an acquired one. It is not necessary to use any further examples to convince you that the germs of consumption are carried into the system through the lungs and stomach by inhaling the germ-laden dust and the eating of contaminated foods. Our duty in future is how to prevent this.

I may here quote from the *British Medical Journal* of May 20th, 1899, over two years ago, the opinion of its Ontario correspondent at that time, of the state of the work of preventing tuberculosis. He says: "We are making some progress in the right direction in Canada, but our municipal bodies are moving somewhat slowly. The Council of Toronto has been urged by the profession of the city to take certain steps towards the

establishment of a sanatorium for our sick poor, but is slow in responding in a satisfactory manner." What was true of Toronto two years ago is true to-day, in fact I regret to say that the sick poor consumptive is in a worse condition to day in Toronto than he was in 1899. To-day we have not a hospital or institution where the consumptive can go for treatment, with the possible exception of a small ward in the Home for Incurables, where only the incurable in the last stages of the disease may go to be cared for.

The question of sanitariums has been discussed in the city from time to time, but it has not been taken up by the Council, who, I consider, are the responsible body to provide for the care of the poor consumptive. Heretofore those interested in the question of the prevention of consumption have taken the broom by the wrong end—only the question of sanitariums has been discussed. This is all very well for those infected, but what is being done to prevent fresh infection? The greatest source of infection, as we have said before, is the expectoration. This should be prohibited in all public places.

If consumptives are allowed about, they should be compelled to carry some receptacle to expectorate in and afterwards destroyed. Notification of all consumptives should be required, not necessarily that they should be confined in sanitariums, like smallpox or diphtheria patients, but those in the acute stages should at least be isolated. This may appear a very stringent rule but the time has arrived when public opinion is ripe for it. You will remember when first the law was formed to placard diphtheria, scarlet fever, etc., there was a great hue and cry; it was not long until the few objectors accepted the situation and now all quietly submit to the regulations. The same would be the case with compulsory notification of tuberculosis. At first we would no doubt have a few objectors, but in time I believe all would willingly submit to the law for the public good.

Another source of danger which might be prevented and guarded against is the milk supply. Statistics show that very few herds of cattle are free from tuberculosis. I am glad to say that the action of both the Dominion and Ontario Governments, has done much to reduce tuberculosis among the cattle of this country. But until we are able to get milk without being contaminated with tuberculosis, it will be necessary to take most stringent means to prevent infection of our children. The only way that I can see in which we can guard the health of the people from infection by milk is to make it compulsory that all milk should be sterilized. We have ample proof that by the sterilizing or boiling of milk, the death rate of children is greatly reduced. In Fecamp in Normandy, the infant mortality was reduced 50 per cent. by the use of sterilized milk, and the deaths from enteritis reduced from 30 per cent. to 16. In another town the mortality from intestinal troubles during the months of July, August and September was on an average 69 per cent., but when fed on sterilized milk the death rate fell to 27 per cent. It has been estimated that 30,000 infants could be saved annually if sterilized milk were used in Great Britain alone. I fully believe much has been done by our City Health Department to improve the sanitary condition of our dairies, but there is much still to be done.

The question of sanitariums is a very important subject; from my point of view I believe we require two kinds. One for the acute cases, and the other for the incipient and curable cases. It should be impressed on the public, that at least 75 per cent. of consumptives are curable if taken in the incipient stage.

The Provincial Legislature has made ample provision in its Act respecting the municipal Sanatoria for consumptives to permit all municipalities to erect and equip sanatoria to which they will contribute the sum of \$4,000 to a building, \$1.50 a week for each patient.

I am strongly of the opinion that all municipalities should control their own sanatariums for the poor consumptive. They should be conducted under the supervision of the Medical Health Officer of the municipality as the Isolation Hospital in Toronto is.

A CASE OF AINHUM

By H. B. ANDERSON, M.D., Toronto.

The specimen which I present to you was sent me by Dr. Harry Johnston, of BalACLava, Jamaica. It is the little toe of a Negro that was only attached by a thin pedicle which Dr. Johnston snipped off. The term *Ainhum*—derived from the Nagos word meaning to saw—is applied to a peculiar disease, which is found among certain dark-skinned races on the Pacific islands, in North and South America, and according to Manson, in India. Dr. Johnston tells me that it is quite common among the Negroes of Jamaica. The condition begins by the formation of a constriction at the base of the toes, especially the little toe—which continues to deepen until the digit is attached only by a narrow stalk. The toe then either falls off or is snipped off. The process is usually a very slow one, sometimes taking years to produce amputation. It does not affect the general health, and little discomfort is caused except when the freely moveable toe gets in the way or when ulceration occurs, which is rare. The disease is more frequent in males than in females, and usually occurs in adults, but has been present in infants a few weeks old. It tends to run in certain families, many members sometimes being affected.

As the constriction at the base of the toe deepens, the distal end of the toe becomes enlarged and bulbous. The various tissues atrophy. In the toe which I show you the bone is soft and cuts with little resistance. The constricting band appears to be thickened structures of the derma. According to Unna the disease is a kind of ring-formed scleroderma. This constricting band really causes strangulation of the structures distal to the band like the snaring of a tumor. Manson thinks the condition is due to the ulceration beginning at the digito-plantar fold from irritation, with contraction of the hyperplastic tissues. The lodgement of dirt, etc., in this region would keep up the process until final amputation occurs. Some have described the condition as a trophoneurosis, something of the nature of Raynaud's disease, but on no good reason, which may also be said of the idea that the disease is a form of leprosy.

SELECTED ARTICLES.

ASTHMA.

By R. ALEXANDER BATE, A. B., M. D., of Louisville, Ky.

Assistant to the Chair of the Principles and Practice of Medicine and Clinical Medicine, Hospital College of Medicine, Louisville, Kentucky.

Asthma is a disorder of nutrition, dependent upon the arthritic diathesis, and is characterized by paroxysmal dyspnoea due to spasmodic contraction of the bronchial tubes.

The spasmodic contractions, according to Loomis, are due to a neurosis, which depends upon the existence of a peculiar diathesis. Trousseau, Salter and others, likewise speak of asthma as a diathetic neurosis.

Haig attributes asthma to the effect of uric acid upon the circulation in the thorax, and shows that the paroxysms correspond to the natural fluctuations in the excretion of uric acid.

Modern opinion seems to consider asthma a neurosis of the branches of the pulmonary plexus due to arthritism.

In nasal or hay asthma, it is believed, uric-acidæmia so alters the nutrition of the sphenopalatine branches as to cause temporary paralysis, thus inducing hyperæsthesia and turgescence of the nasal mucosa.

In bronchial asthma, uric acid in the blood so alters nutrition as to cause a neurosis of the branches of the pulmonary plexus, thus inducing hyperæsthesia and engorgement of the bronchial mucosa, the spasmodic contraction of the muscular fibers, and various manifestations of deranged katabolism.

The manifestations of functional derangements are the diminished quantity of oxygen and water, excreted by the lungs, also the fatty acids, the octahedral crystals of Leyden, and the spirals of Curschmann found in the expectoration.

Loomis found the oxygen of the expired air was almost entirely replaced by carbonic acid. The exact pathology of the gravel-like bodies and mucous pearls of the sputum is not clear.

Asthma frequently alternates with neuralgia, migraine, angina and cardialgia—all diseases due to uric-acidæmia.

The famous case of Peter the Great, and many others, have been cited where the asthmatic manifestations gave place to gout. The asthma became relieved as the blood was freed of uric acid. Gout developed because the uric acid was precipitated from the blood into the tissues.

The protean manifestations of arthritism can be understood if we regard the entire vascular system as one organ, upon which the perfect nutrition of every other tissue in the body is dependent.

If the blood when most alkaline becomes loaded with uric acid, the size and relative nutritional capacity of this vascular organ is greatly diminished. Thus the nutrition of every structure in the body may be modified.

However, some tissue, either by inheritance or acquisition, is weaker than the rest, and first makes manifest the deranged nutrition. Molecular starvation causes loss of function of the cells in all diseases of uricæmia.

The other class of arthritic disorders occur when, from lessened alkalinity of the blood, uric acid is precipitated into any of the numerous adjacent tissues.

Heredity, anatomical and physical causes especially determine the site of the precipitation. This second class of diseases are characterized by the manifestations of an actual irritant instead of being merely functional disturbances, as in the first class.

Asthma belongs to the first class. Pulmonary weakness being the predisposing cause, any age may be afflicted; but the greater proportion of cases occur during adult life. Males are affected twice as often as females, and the disease is transmitted along the male line. Heredity can be traced in 50 per cent. of the cases. Arthritism in some form, perhaps, could be traced in every instance.

Attacks come on most frequently at the beginning of the alkaline tide, which is from two to four o'clock in the morning, when the blood is surcharged with uric acid.

Bronchitis is present in eighty per cent. of the cases; intestinal indigestion, characterized by flatus, and skin diseases also occur.

The causes of asthma may be divided into two classes:

First.—The systemic or essential cause, the arthritic diathesis.

Second.—The local or exciting cause of the attack.

The first of these is, perhaps, present in every case. Loomis says: "Unquestionably, the primary cause of asthma is some constitutional idiosyncrasy."

Aneurisms of the aorta and other mediastinal tumors, in certain instances, have produced asthma. These tumors press constantly upon the pneumogastric nerve, yet the asthmatic paroxysms agree with the alkaline tide. Instances of this kind seem to emphasize the necessity of both diathesis and neurosis. The pressure explains the neurosis, and the paroxysms occurring only during the alkaline tides show the arthritism.

The second class of causes—the local or exciting causes—can only act when the first exists. That is, the condition essential to the paroxysm, as turgescence, hyperæsthesia and spasmodic contractions of the muscles, can only occur when the nutritional disorder has resulted in a neurosis of the pulmonary plexus.

Among the exciting causes may be mentioned: irritating inhalations—dust, smoke, chemical vapors, fumes of sulphur, burning sealing-wax; vegetable irritants, odors of ipecacuanha, roses, hay, rag weed, and emanations from animals. Also emotional disturbances, sudden chilling, and climatic influences, all of which affect the relative alkalinity of the blood. Among the reflex causes may be mentioned an overloaded stomach or rectum, and uterine disturbances.

Chronic inflammations and diseases of the nasal mucous membrane, cardiac disease, and emphysema may likewise produce asthma. Too sudden arrest of chronic discharges, retrocedent gout, syphilis, skin diseases, and renal diseases are classed as excitants.

The relation of phthisis to asthma seems an unsettled question. Some regard pulmonary tuberculosis as "an antecedent disease having a casual relation to asthma." Others regard asthma as antagonistic to phthisis, and believe an arrest of the tubercular trouble occurs with the onset of asthma. The anatomical changes observable in asthma only occur when the disease has become chronic. They are products of inflammation incident to chronic bronchitis, and the emphysematous condition resulting from habitual overdistention of the air cells.

The asthmatic syndrome is a classical portrayal of uric-acidæmia. As observed in most uric acid disorders, a prodroma buoyance gives place to corresponding languor and depression of spirits.

Ingestion of any of the xanthin group clears the blood of uric acid and causes this exhilaration only to be followed by an increased uric acidæmia when the alkaline tide begins.

Sleeplessness, pruritus, and headache are marked.

At first there is voided large quantities of limpid urine, in which the uric acid is diminished. This soon gives place to scanty high-colored urine loaded with urates. The paroxysm comes on usually during the alkaline tide, in the small hours of the morning; after a meal that raises alkalinity, or during the afternoon alkaline tide—from three to six o'clock. The capillaries are obstructed, the veins distended, the surface temperature below normal, and the extremities cold, blue and shrunken.

The pulse is "small and thready." The sufferer rushes to the window for oxygen, regardless of the outside temperature. The high arterial tension thus manifested explains the frequent presence of bronchitis, acid dyspepsia, renal and skin diseases.

The physical signs, together with the history, make it impossible to confuse asthma with any other disease.

The attacks may last from a few hours to several days, and have a great tendency to become chronic.

Emphysema and dilatation of the right heart usually are found in those having suffered for years.

Modern treatment has not only been able to cut short the attacks in most instances, but to prevent a return, as well.

A cure, in the sense of immunity, as results when cured of certain microbic diseases, of course never occurs in a disorder of nutrition. The same nutritional disturbance, which primarily existed, will cause a return of the disease.

Since arthritism is the essential cause of asthma, prophylactic treatment should be begun in the children of all lithemic individuals, especially the sons of asthmatics.

Prophylactic treatment embraces proper hygiene and diet. The environment should be changed where several generations have been reared upon the same soil under identical conditions.

Oxidation should be promoted by an out-of-door life, mountain-climbing, sea voyages, bathing, massage, or other means. Warm, dry climates are to be preferred, and flannel should be continuously worn.

The diet should be as nutritious as possible, and free of the uric acid group. No tea, coffee, chocolate, alcohol, red meats, bananas, strawberries or tomatoes should be used.

The lentils and articles of diet containing salicylates and phosphates in other than nuclenic form) are serviceable.

Since a deficiency of oxygenation is the cause of the products of incomplete metabolism, that class of food that carries with it most oxygen, the carbohydrates, should constitute the greater part of the diet.

As expressed by Stewart: "With a diet containing less proteid and fat and more carbohydrate the oxygen deficit would be less."

The medicinal treatment embraces the management of the attack and the limitation of the diathesis. For the control of the attack the exciting cause must be removed and the uric-acidæmia must be overcome. The exciting cause should be ascertained, and if it be irritating inhalation, reflex or mechanical, atmospheric or emotional, auto-intoxicant or extraneous cause, it should, if possible, be removed.

Freeing the blood of uric acid re-establishes the circulation, opens the obstructed capillaries, empties the engorged veins, overcomes the cyanosis, and permits relaxation.

The therapeutic measures overcoming uric-acidæmia are the hypodermic injection of morphine and atropine sulphates, hydrochlorate of apiomorphine, bisulphate of quinine and acid salts of similar alkaloids. Oxygen and the nitrites may be used by inhalation.

The nitrites both free the blood of uric acid and dilate the capillaries.

The drugs most popular for internal administration—the iodides, the acid phosphates, the coal-tar derivatives and such depressants as lobelia and tobacco—have also been shown by Haig to raise the acidity of the blood.

The diathetic or curative treatment (to be administered during the interval) consists in removing the uric acid from the system and in permanently keeping down arterial tension by a diet free of the xanthin group.

The mendicaments eliminating uric acid from the system are the salts of lithia, the salicylates, piperazine, and other uric acid solvents. Acid salts of arsenic and quinine are supposed to lessen its production in the system.

The suprarenal extract is indicated for its tonic action on the cardiovascular apparatus, aside from any action it may have upon retrograde metamorphosis.

Cholagogues and laxatives to unload the liver and intestines are both necessary during the attack and the interval.

Holding in view the principles laid down by the school regarding asthma as a diathetic neurosis, together with the treatment elucidated by Alexander Haig, has undoubtedly been the most satisfactory in my hands.—*Interstate Medical Journal*.

OVARIAN GRAFTING.

Dr. Robert T. Morris in an interesting article in the *Medical Record* reviews a number of his own cases of ovarian grafting together with a résumé of the literature up to date. His first notes upon cases treated in this manner appeared in 1895 and it would seem that to him belongs the credit of the idea, subsequently developed by others at considerable length, particularly in experiments upon animals. The two facts that led to the writer's own experiments were the continuance of function displayed by thyroid glands grafted upon cases of thyroidectomy and the occurrence of menstruation and even pregnancy in cases of double ovariectomy; the reason for the latter he thinks is explained by a case in which he had occasion to open the abdomen some months after a double pyosalpinx operation and found that a small portion of the ovary, distal to the ligature and of course deprived of its original circulation by way of the broad ligament, had retained its vitality, instead of being absorbed as is usually supposed in such cases. It therefore occurred to him that a piece of ovary might be deliberately transplanted with as good results as when accidentally done; that thus the menopause might be averted and pregnancy become a possibility; also that such experiments if successful would afford an argument against the removal of supposedly useless uteri in cases whose adnexa had been extirpated.

His first case was a woman, two years married but never pregnant, from whom both tubes and ovaries were removed for septic trouble of long standing. A small piece of one ovary was transferred to the interior of the stump of the right oviduct. The patient became pregnant soon after leaving the hospital but aborted at three months, probably on account of persistent adhesions; she continued to menstruate for about four years. The second case was a girl of twenty years with infantile uterus and rudimentary adnexa, who had never menstruated. A portion of ovary from a woman thirty years old was grafted into the fundus of her uterus. Beginning eight weeks later she has continued to menstruate with some irregularity but in a fairly normal way, has improved much in personal appearance and is relieved of the symptoms of suppressed menstruation from which she formerly suffered. In the interests of science, no effort should be spared to induce this young woman to marry.

Of the writer's remaining cases, six have been lost sight of too soon to allow conclusions to be formed, though they continued to menstruate so long as they were under observation. Four other cases are reported, though two of these are of recent date. Case III, twenty-two years old, had ovarian cysts removed successively from both sides, and at the second operation a portion of another patient's ovary was grafted into the left broad ligament. She was heard from a year later and during that time had menstruated regularly and early. Case IV., thirty years old, had suffered from very painful menstruation accompanied by much reflex

disturbance. A diagnosis of ovarian sclerosis (afterwards confirmed) was made and both ovaries were removed. With the exception of two months some time later, when she appeared to have a pelvic thrombophlebitis, she has menstruated regularly and painlessly, the freedom from pain being due doubtless to the removal of the ovaries but the continuance of menstruation to the grafting operation. Case V., similar to the preceding, had an apparently normal portion of one ovary transferred to the left broad ligament; menstruation was deferred for some months but has now returned and is less painful than formerly. In Case VI., a similar operation was performed; for four years she has menstruated regularly, though sometimes scantily and, while she has some pain due probably to the reformation of adhesions, she suffers much less than before. This case is a married woman but has not become pregnant.

The writer now chooses a point of the broad ligament as near as possible to the normal site of the ovary, slitting the ligament and suturing to the raw surface thus formed the raw surface of the ovarian fragment, leaving the latter uncut surface to project into the peritoneal cavity. As untoward results he mentions the case of supposed thrombophlebitis, a case (V.?) in which the patient's own ovary, already degenerate, continued to undergo degeneration, and a third, that was thought to have an extra-uterine pregnancy but disappeared from observation. Such a pregnancy is liable to occur unless the oviducts with their fimbriae be left (as is often possible) intact.

From these cases and from experiments upon animals it is evident that ovarian tissue may be transplanted with continuance of its function and even with the possibility of future pregnancy. Even more interesting is the case of the young woman with undeveloped uterus and adnexa who after the introduction of normal ovarian tissue began to menstruate. As the writer suggests it is important now to learn what would be the effect of ovarian grafting upon patients whose ovaries have been removed some time previously. Doubtless many of these cases might have been spared a premature menopause and its various accompanying disturbances, could ovarian grafting have been done originally. But would the operation, even now, prevent further degeneration or undo such as has already occurred? At all events the experiments are sufficient to show the possibilities of work along these lines and, as the author insists, constitute a reasonable argument for leaving the uterus whenever possible. Should some of these experiments result in pregnancy we should fancy certain not uninteresting medico-legal questions might arise but we suppose this is one of the objections that Dr. Morris classifies as "fanciful"; and when at last a real baby is produced from such a dual league it will be time enough to decide whether the infant belongs to the woman whose tissues, though cast upon a foreign shore, really sent it forth or to the woman whose uterus took the wanderer in and harbored it for nine weary months; and whether the second woman would be justified in a suit to recover rental; or, failing in that, in ejecting the tenant before the lease should have expired.—*Amer. Gyn. and Obs. Jour.*—A. D. C.

ROUTINE DOUCHING IN OBSTETRICS.

Since Semmelweis showed how greatly the mortality from puerperal infection might be reduced by simply washing the operator's hands before delivery, much attention has been devoted to methods for still further diminishing the number of infected cases. With this object in view routine vaginal douching before labor has been advocated by many obstetricians. In the year 1887 Gönner announced that the vaginal secretion of pregnant women examined by him did not contain the pathogenic bacteria which were usually found in puerperal infections, and that for this reason the use of vaginal douches before labor for the prevention of auto-infection was unnecessary. Since that time the advisability of routine douching before and after delivery has been frequently discussed.

The statistics advanced by those in favor of routine douching, as well as those presented by the opponents of this procedure, are of uncertain value. This is due largely to the diminution of the number of cases of infection in the maternity hospitals, by reason of the many improvements in aseptic technic, such as the restriction of frequent internal examinations, and careful disinfection of the hands. This small proportion of infected cases affords poor grounds for estimation of the results of antepartum douching, as some of the cases infected are doubtless due to individual errors in technic and so prove nothing in regard to the value of douches.

Certain observers have discovered pathogenic micro-organisms in the normal vagina and for this reason advocate prophylactic douching. Others hold that the vaginal secretion possesses bactericidal qualities. These are attributed by Döderlein to its acid reaction produced by the vaginal bacillus which bears his name. The experiments of Krönig show that the vagina takes longer to eliminate pathogenic bacteria artificially introduced, when douches are employed; and other investigators have found that douching, with or without antiseptic solutions, usually fails to remove such organisms.

The recent bacteriological researches of A. Wadsworth (*American Journal of Obstetrics*, April) have led him to condemn routine antepartum or postpartum douching. His technic was such as to exclude all possibility of contamination of the uterine and vaginal secretions, and both cultures and staining methods were employed. He found that it was exceptional that pathological bacteria persisted in the vaginal secretion through pregnancy and labor, but that if they were present the lochia favored their growth, and energetic antiseptics after labor was necessary. Cultures from several cases in one of the best of New York's maternity hospitals demonstrated the persistence of streptococci in the vagina after repeated douching with a 1-5,000 solution of bichloride. He considers as requisite points that the disinfecting solution be brought into contact with all bacteria by distending the folds of the vagina, and that it be of sufficient strength to kill the micro-organisms without, however, injuring

the vaginal wall. The douche, as ordinarily given, merely removes the protective resources of the vagina. Wadsworth's cultures confirmed the statement that the uterine cavity is usually germ-free. He emphasizes the necessity of differential diagnosis between sapremia and septic conditions, since intra-uterine douching after labor is strongly indicated for the removal of the abnormal contents of the uterus in the former class, while in septic conditions it is likely to aid in disseminating the process unless the uterine sinuses have been closed by granulation tissue. The rule which he lays down is that bacteriological examination of the cavity of the uterus should always precede an intra-uterine douche and such an examination should be made early, since, if a radical operation is required, an early determination of this point is of great importance in regard to its prognosis.

Reviewing the results of Wadsworth's observations as well as those of others, one cannot fail to note that antepartum douches frequently fail to remove pathogenic bacteria when they are present: but they destroy the natural protection of the vagina, whether this be its secretion as a whole or the vaginal bacillus; that they are liable to cause slight injuries to the vaginal wall and so furnish points for the entrance of infection, or at least by removing the lubricant of the vagina to make labor more difficult and thus favor such vaginal traumatism; and, finally, that pathogenic bacteria may be introduced by these manipulations. For these reasons, and on account of the danger of dissemination of sepsis by intra-uterine douching while the uterine sinuses are closed only by infected blood-clots, one must in general agree with Wadsworth's conclusion; that "the routine management of cases should be freed as far as possible from all procedures which interfere with the natural resources of the body: for these, in the vast majority of cases, are sufficient protection against the invasion of pathogenic bacteria. In the few exceptional cases requiring interference this should be determined and directed by the bacterial examination."

This statement seems open, however, to slight modification. No one will deny that after manipulations which require the intimate contact of the hand with the interior surface of the uterus, as in manual extraction of retained secundines, it is wise to give immediately a bichloride douche for the purpose of flushing out any pathogenic bacteria which may have been introduced, before they have an opportunity to become attached to the uterine wall. Such a bacteriological examination as Wadsworth advises is obviously beyond the reach of the attending physician in a large proportion of cases in private practice, and in these the indication for douching must necessarily be derived from careful exclusion of all other causes of fever, with the presence of local symptoms. Whether the uterine condition is one of sapremia or of sepsis must, in such a case be determined by the judgment of the physician, aided by the history of the labor and the probability of the infection before or during labor as opposed to retention of secundines. As a general rule avoid douching in obstetrics unless it is particularly indicated.—*Med. News.*

SOCIETY REPORTS.

TORONTO CLINICAL SOCIETY.

Stated Meeting April 3rd, 1901.

The president, Dr. W. H. B. Aikins, in the chair.

Notice of Motion—Dr. Meyers—To amend Sec. 2, Article IX, of the constitution that the nomination of officers shall be held at the April meeting of each year.

Papilloma of Larynx.—Dr. G. Poyd read clinical notes of this case, occurring in a child 6½ years of age. First came under his notice in November, 1898, with loss of voice. Measles at 4 years and history of several attacks of croup. In spring after measles became hoarse; since that time voice gradually lost. Physical examination showed respiration etc., normal. Papillomatous patches on both cords; tonsils hypertrophied. Three weeks after operation symptoms of whooping cough set in. Membrane appeared and antitoxin and calomel fumigations employed. Intubation performed, tube for a four year old child being used. The tube was expelled in a few days but as there was no dyspnoea present it was not replaced. Two days after a severe laryngeal spasm occurred and the tube was reinserted. Post mortem examination showed usual signs of asphyxia.

Dr. Ryerson and Anderson discussed the case.

Multiple Neuritis.—Dr. D. C. Meyers exhibited patient and described the conditions present in this case. This man during the latter part of January was exposed to a severe cold and following that paralysis set in in both hands and feet, beginning simultaneously in all four extremities. Dr. Meyers had been unable to trace the cause to any other source than a severe cold.

Drs. Anderson and Rudolf discussed the case, the latter stating he had seen the patient in the hospital and thought he had had from him a history of using white arsenic in connection with his work.

Internal Hydrocephalus.—Dr. H. C. Parsons described this case which had occurred in a child of 12 years. At the age of seven the child was quite well, going to school and quite bright. A full description of the case has already been reported.

Stated meeting, May 1st, 1901.

The president, Dr. W. H. B. Aikins, in the chair.

Visitors present :—Drs. D. M. Anderson and Howland.

Tempero - Sphnoidal Abscess, Operation, Recovery - Exhibition of Patient.

Dr. Herbert A. Bruce presented this patient and recited history of the condition. It occurred in a young man of twenty-four years. When

he was a small boy about five or six years of age he had ear trouble,—otitis media in the right ear and was treated in Toronto by two or three ear specialists for a period of five or six months. He was taken home then apparently cured, continuing to have a little boracic acid dusted in to his ear, and the discharge ceased in a few months. Up to the 1st of March of this present year had no trouble apparently at all except occasionally a little discharge at times when he got a cold; but it was nothing to speak of at any time,—only a few drops and then it would cease. He was on the ice playing a wind instrument, a trombone in the band of a country town, and the next day he was taken seriously ill. He said he felt as though he had blown a hole through his ear. His temperature was 101 and pulse increased to 100. Headache, pain in the side of the head and sickness of the stomach were present. The local doctor was called in and prescribed for him and he lay in bed for two weeks. He had very few symptoms when seen by Dr. Bruce. He was lying in bed, quite rational, with a temperature of 97.4-5 and a pulse rate of 66, with pain in the side of his head and sickness at times. The history was that he was sick every day three or four times without any apparent cause, which had no relationship to the ingestion of food. He had not been out of bed then for two weeks and inquiry about dizziness or giddiness showed that none had been present. Dr. Bruce got him up to walk a little through the room when he felt a little light headed, but not more than one would expect after lying in bed that length of time, so that was not looked upon as a symptom of importance. He had much exaggerated knee jerks and ankle clonus on both sides, particularly well marked on the right side. Drowsiness was another condition present. He slept a great deal and seemed drowsy and willing to go to sleep almost any time. He took nourishment fairly well. These were the only symptoms present. There were no eye symptoms. Dr. Bruce found a slight discharge on examination of the ear very slight, with perforation of the drum. Over the mastoid there was a slight amount of swelling. He came to the conclusion that there was certainly mastoid disease and probably also cerebral abscess. He advised his removal to Toronto General Hospital, where he was taken immediately and after two days in bed he was operated on. The condition found was briefly as follows:—An incision was made in the usual position down over the mastoid from the base to the tip, one half inch behind the ear and the antrum was opened. Pus was found here and then on passing a probe down into the cells, these were found filled with cholesteatomatous material. A portion of the squamous bone was then chiselled away thus exposing the temporo-sphenoidal lobe of the brain. A grooved trocar was passed in and pus was seen oozing along the groove. A considerable quantity of pus was then evacuated, between three and four ounces and there was a cavity as large as a tangerine orange. The ossicles were then removed from the ear and a portion of the posterior wall of the meatus removed. A drainage tube was placed in the cavity and dressings applied, the whole wound being left open. This operation was performed on the 14th of March last, about seven weeks ago; and the result is very satisfactory. The cavity drained nice-

ly and Dr. Bruce thinks it entirely filled in, but a little opening remains and syringing is still done through the opening and out at the external auditory meatus. During the first week after the operation there was considerable delirium, the patient being noisy and restless, but that disappeared and he made a satisfactory recovery. One peculiar feature of the pus was the extreme offensiveness of the odor. The roof of the middle ear had been completely destroyed.

Dr. Hamilton asked Dr. Bruce the condition of the reflexes, which were much increased before the operation. Dr. Bruce then examined these and found them still slightly exaggerated. Ankle clonus was also still slightly present.

Dr. Orr thought that chronic suppuration had been going on in the middle ear for many years and that it was extraordinary that there should be such extensive lesion of the bone with so few symptoms.

Dr. Ross referred to the case of a boy who was shot in the temporo-sphenoidal region. A probe demonstrated that the bullet had gone through the bone. He was perfectly conscious; no symptoms at all, until gradually and slowly he began to get weaker and weaker until he finally died and on post-mortem examination one half of the brain was a great amount of pus.

Tumor of Thigh,—Clinical Notes.

Duodenal Ulcer,—Specimens.

Dr. F. LeM. Grasett reported these cases and presented the specimens. The second was a case of ulcer of the duodenum with rupture into the peritoneal cavity, and death following somewhere within forty-eight hours. It occurred in a domestic servant. The case was first seen by Dr. A. A. Small and when seen by Dr. Small indicated that there was some trouble in the neighborhood of the appendix. There was dullness in the right flank, and the diagnosis was confirmed a few hours later by Dr. Nevitt. The woman was rapidly approaching a moribund condition, and if something were not done immediately death would intervene. Dr. Grasett then operated and found everything in the right region normal. There was, however, a collection of fluid like thin green mucilage, the like of which Dr. Grasett had never seen before. He considered there must be a rupture somewhere; and if he had prolonged the incision upwards he thinks he would have found the rupture without any difficulty; but the anesthetist said the patient was collapsing, so Dr. Grasett desisted. The patient died one to one and a half hours afterwards. It was found post mortem that rupture had taken place in the duodenum from an old ulcer, probably the day before. Everything she had been taking the way of food went into the stomach and then into the peritoneal cavity. By external palpation nothing could be felt she was in such a tympanic state.

The tumor of the thigh was a fatty tumor. The specimen shows that it is broken down forming a large cyst in the centre and a number of smaller cysts. It produced a large tumor in the back of a woman's thigh a little above the popliteal region. It had existed there for eight

years. Six months before she was seen by Dr. Grasett, a doctor attended her in confinement and during the confinement he noticed this tumor. Six months after this the tumor had grown enormously and there was great pain in the sciatic nerve and the woman was rapidly becoming a cripple. Dr. Grasett then operated and had no trouble in enucleating it. A large part of the tumor had lifted up the sciatic nerve and it took considerable time separating the nerve and tumor. The wound healed by first intention from end to end. Gradually power came back into the limb and the woman got perfectly well. She sat up in the hospital and got an attack of the grippe followed by trouble in the middle ear. From this she recovered. Examination of the tumor was made by Dr. Anderson and pronounced a lipoma. An interesting feature of the case was the manner in which the tumor was hugged by the sciatic nerve.

Dr. A. A. Small enlarging on the case of duodenal ulcer said the patient, a very healthy looking young girl of seventeen years, came to him complaining of nausea and only nausea, for which he prescribed a mild stomachic. He was called to see her early the following morning, when he found her complaining of very severe abdominal pain, which pain was confined to the right inguinal region. She was sent at once to the hospital; and it was thought that it might be copro-stasis, a high enema was given with very slight result. Section was then advised, and the results found as given by Dr. Grasett.

Dr. George A. Bingham spoke in reference to the lipomatous mass. There is danger in connection with these tumors and mentioned a case of a woman of 60 years, who had had for twenty years a small mass situated over the anterior crural nerve. Ulceration occurred from irritation of underclothing and there was general breaking down of the whole mass. The temperature rose to 101 or 102 and there was a slight cardiac murmur, also prior to operation. The growth was removed and for some time after the operation this cardiac murmur persisted. It was probably due to septic endocarditis as a result of absorption owing to broken down tissue, from a simple fatty tumor. This gradually got well and the patient left the hospital recovered.

Dr. Ross referred to a case of duodenal ulcer occurring in his practice. Patient was taken suddenly with pain, with severe hemorrhage from the stomach and died. Post mortem showed old duodenal ulcer, which had suddenly perforated into a vessel resulting in death. Also spoke of a case in consultation, a man, who for years, had very severe hemorrhage from the intestine at long intervals. This case was jocularly referred to as "onionitis" from pieces of green onion being found in stomach when operated on. From this the man made a good recovery, but some months after came back to the hospital. He died and on post mortem found old ulcer.

Operations for Deformities With Photographs.

Dr. George A. Bingham presented photographs and recited the history of this case. A cripple, a young lad of 14 years, although he looked 17, came to the Children's Hospital, having heard of the wonderful sur- •

gical operations done at this institution. From his head to his knees his physical condition was normal, but from his knees down he was not so. This lad had a dog and sleigh, to which he harnessed the dog and drove down in winter time to the Children's Hospital, not having other means of getting there and being bound to get there somehow. The right leg below the knee was rudimentary, eight inches in length. There was but one bone in the leg—the tibia. There were only four metatarsal bones and four toes. The foot was turned looking directly upward in the direction of the knee. The toes were also webbed. Dr. Bingham amputated at once and procured an excellent stump. The bones of the left leg were twisted inward. The internal malleolus was lower than the external; as a matter of fact he walked on the internal malleolus. The metatarsal bones were turned inward toward the toe. This leg was perfectly useless and the problem was what to do with it. Dr. Bingham chiselled the bones and broke them down in order to bring the foot back into proper relation with the leg. There was great difficulty in getting the bones to co-apt properly.

Dr. Meyers motion to elucidate the meaning of clause 2, Article IX of the constitution fixing the April meeting of each year for the nomination of officers was carried.

Dr. Pepler as treasurer was authorized to remit \$25 to Dr. Conerty, of Smith's Falls, and also to open a subscription list towards a fund for Dr. Conerty from members of the Clinical Society.

GEORGE ELLIOTT,
Recording Secretary.

MISCELLANEOUS.

Gonorrhœa and its Treatment from the Present Standpoint.

Henry J. Scherck, of St. Louis, after briefly considering the anatomic features of the urethra enters into an account of his routine treatment. In acute specific anterior urethritis, the canal is first washed with lukewarm water, then injected by means of three-ounce, blunt-pointed syringe with a solution of either 2 per cent. mercuriol, 5 per cent protargol, or 1 per cent Crede's silver. The solution is retained for five minutes after which irrigation from a two-gallon vessel filled with 1-10 per cent solution of potassium permanganate at 120 degrees F., is practiced at a pressure sufficient to distend the urethra without overcoming the sphincter muscle. This local treatment is practiced every day or twice a day, the strength of the permanganate solution being gradually increased to twice the original. Internally, diluents and capsules containing cystogen (ammonio-formaldehyde) gr. v. with ten minims of santal oil, are administered. The same treatment is likewise pursued in chronic urethritis, except that the glands must first be emptied by stretching with straight or curved Oberlaender dilators. In case of prostatic gonorrhœa, the gland is emptied by rectal massage and the solutions of mercury salts injected directly into the prostatic portion by means of a deep urethral syringe. — *St. Louis Med. Review.*

The Treatment of Chronic Rheumatism by Spinal Counter Irritation.

In a paper on the treatment of chronic rheumatism, Dr. A. C. Latham calls attention to the benefit to be derived in certain cases of chronic articular rheumatism from counter-irritation applied over the spine. He relates two cases in which the greatest relief followed the application of blisters over the cervico-dorsal and dorso-lumbar regions of the spinal column. Not only did the joints recover more or less mobility, but the structural changes in the effected joints also underwent improvement. This method would seem to be equally applicable to advanced cases of chronic arthritis with eburnation of the articular surfaces, by checking the evolution of the painful manifestations, even arresting the further progress of the disease.—*The Medical Press and Circular.*

Bronchitis (subacute)

R.	Strych. sulphat	gr. ss
	Codeinæ	gr. ij.
	Terpin. hydrat.	gr. xxiv.
	Guaiacol carbon	gr. xl.

M. ft. caps. No. xii. S. One every three hours.

Fetid Breath.

R. Thymol	gr. viij.
Spir. vini rect	i
Glycerini	ss.
Formol.....	gtt. viij.
Aquæ	q. s. ad $\frac{3}{4}$ viij.

M. S. Use as mouth wash, especially when fetor is due to decaying teeth.—*Medical Times and Hospital Gazette.*

Ichthyol in Erythema Nodosum.

In a letter from London, by Dr. Raymond Crawford, published in the *Therapeutic Gazette* for March, Dr. Brownlie is cited as recommending the following formula:

R. Ichthyol	2 drachms;
Alcohol, }	
Ether, } each.....	3 “

M. The alcohol and ether are first mixed, and then the ichthyol added; else an insoluble deposit is formed. Painted on, it is said to relieve the burning pain speedily. Dr. Crawford himself recommends a paint consisting of a drachm of ichthyol in an ounce of collodion.

An Ointment for Intertrigo.

We find the following formula in Reed's *Textbook of Gynecology*:

R. Zinc oxide,	} each.....	30 grains;
Bismuth subcarbonate,		
Carbolic acid		10 drops;
Vaseline		1 ounce.

M. To be smeared on the affected surface.—*Philadelphia Med. Jour.*

Treatment of Obesity.

A treatment which has of late found much favour on the Continent for the purpose of reducing obesity without the production of any inconvenience or injury to health, consists in giving very small doses of thyroid extract on an empty stomach, followed by Marienbad water and the administration of quinine and theobromin. If all the favourable results ascribed to this procedure are truly reported, then it would appear that the difficult problem of the treatment of obesity had been satisfactorily solved—but this remains to be seen.—*The Medical Press.*

Instant Relief of Pains.

According to Winterburn, in the *Journal of Obstetrics*, in many cases a nice warm meal is better than any medicine; “still, where the pains are exhaustive and severe, I turn to amyl nitrite. This potent drug is a very effective controller of after-pains, and used cautiously I see no reason to apprehend harm from it. A neat way of using it is to saturate a

small piece of tissue paper with five or six drops, stuff this into a 2-drachm vial and request the patient to draw the cork and inhale the odor when she feels the pains coming on. It acts with magical celerity.—*Med. Progress.*

Manganese dioxide, combined with ferrous carbonate, is effective in amenorrhœa with anemia.—*Med. Summary.*

Chronic Bronchitis.

Eucalyptol	1 dr.
Camph. tinct. opium	4 dr.
Syrup tolu	1 oz.
Simple syrup	to make 4 oz.

Teaspoonful every four hours.

Oil turpentine	
Tar	aa 20 min.
Oil eucalyptus.....	50 min.
Balsam tolu.....	1½ dr.
Benzosol	4 dr.

Make into 60 capsules. One four or five times a day.—*Merck's Archives.*

The Canada Lancet

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EDITORIAL.

EAR COMPLICATIONS OF LA GRIPPE.

The late severe epidemic of la grippe has been attended by an unusual number of cases of inflammation of the ear, in most instances fortunately of one ear only, but in a good percentage, of inflammation of both ears. These have been divided again into at least three classes, viz.,—catarrhal, suppurative, and those accompanied by mastoidal inflammation more or less severe.

The first of these classes has yielded to applications of ear drops containing 10 per cent. of cocaine, with 1 per cent. of atropine and morphia, combined with carbolic acid and glycerine, warmed and used very frequently according to the persistence of the pain. When these have proven insufficient to allay the inflammation, the use of two or more leeches in front of the ear has relieved the congestion and allowed Nature to have her way.

In the second group the cases which have given most trouble have been those where the perforation of the drum membrane has been too small, or situated too high up to allow of free drainage. Here we have

found that a slight enlargement of the perforation, made by a blunt pointed Graefe knife, under cocaine anaesthesia, and followed up by measures designed to evacuate the middle ear, have been most useful. The evacuation may be secured by the use of the Valsalvan or Politzer methods of inflation through the nose, or what is simple and less apt to produce passive congestion, by means of suction through a flexible rubber tube which will fit the external meatus, or by Seigel's suction speculum. This evacuation requires to be made frequently enough to prevent the collection causing pain, and gently enough to avoid passive congestion, or the forcing of pus into the antrum. In many cases also the perforation has required to be enlarged more than once.

In the third class of cases, leeches vigorously applied and followed by heat to stimulate the flow of blood from the leech wounds, and to promote the discharge of pus, have proved useful. In many cases, however the mastoid has required to be opened and thoroughly evacuated. It is unfortunate that so many mastoidal cases have been permitted to go so far without surgical interference, and that a number of deaths have resulted from meningitis and blood poisoning which might have been saved perhaps, had early incision been made. Where the invasion of the mastoid was marked at the visit by redness behind the ear and puffiness of the coverings of the bone, the indications were decided, but it often occurred that pain was the prominent symptom, and time was lost in relieving this without operation, when in fact the strength of the inflammatory process tended inwards and upwards rather than outwards. When an opening was finally made in these cases, the whole of the mastoid cells were found invaded, and the sigmoid sinus laid bare, while the poisoning process had invaded the blood stream through one of the avenues with which the ear abounds.

The whole course of these cases has given a fresh demonstration, which should not be needed in these days, of the absolute necessity for thorough and watchful care in the disinfection of the naso pharynx in all cases of la grippe to prevent the closure of the Eustachian tube, and the spread of the inflammatory process to a mucous membrane which is as vulnerable in the tube as in the nose and its accessory sinuses. If the physician would accustom himself to observe the condition of the drum membrane with the same care as he takes the pulse and the temperature, early congestion would be noted and precautionary measures taken, but unfortunately the physician neglects the ear clinic in his student days, and in the press of his work thereafter has few opportunities to acquire the needful technique.

D. J. G. W.

FILTHY BANK BILLS.

The present outbreak of smallpox has caused some of our lay contemporaries to speculate on the chances of infection being carried by means of bank bills that are continually passing from hand to hand. That the danger is a very real one requires no argument to convince any one who has even the most limited knowledge of the spread of infection, though there is no means of estimating how often infectious diseases are actually disseminated in this way. The occurrence of isolated cases of smallpox in districts where the patient can trace no other means of exposure, often suggests infected bills as the means of infection. These bills remain in circulation until they are often in a most filthy condition, a fact that is more quickly noticed by visitors from countries where a paper currency is not in use. While it is no doubt in the interests of the banks to use a paper currency still it is only right that they should take all reasonable precautions to minimize the dangers from such a system. The matter should receive the attention of the health authorities, who have now a very opportune time on account of the prevalence of small-pox to arouse the public to a proper appreciation of the dangers to which they are exposed.

ASEPSIS IN BARBER SHOPS.

Is it not about time the crusade in favor of ordinary cleanliness, not to mention asepsis, was carried into the barber shops? True, in some centres an agitation in the matter has taken place and some medical journals have called attention to the necessity for a change, but in most places there has been absolutely no improvement in the methods employed to prevent infections that are well known to be carried through carelessness in these places. The same brushes, combs, and various solutions are used indiscriminately; and often the same razors, straps, shaving brushes and soap, with the least pretence at disinfection. The ordinary barber probably never dreams of the necessity of sterilizing his hands after attending each customer. It is interesting while in the barber's chair to speculate on one's chances of escaping sycosis, seborrhoea or tinea, though, of course, those who are aware of the dangers expose themselves to them as seldom as possible. In these days of public interest in microbic diseases and knowledge of the dangers of infection it would be to the advantage of their trade if barbers learned something of aseptic methods and could make their customers feel assured that they carried them out.

THE SPITTING NUISANCE.

At a recent meeting of the Young Men's Liberal Club of Toronto, called by the President, Dr. J. E. Elliott, to discuss the subject of the Prevention of Tuberculosis, among other resolutions, one was introduced to ask the civic authorities to introduce regulations in order to attempt to control this disgusting habit. The great American Republic has gained the unenviable notoriety of being a nation of "spitters," so much so that in New York, Boston, and other cities, placards are posted in prominent places warning the people of the penalties for indulging in the habit. Large fines, from \$10 to \$500, and even imprisonment may be meted out to offenders, and police officers in plain clothes go out to watch for violation of the law in this matter.

Unfortunately a proportion of the Canadian populace appears somewhat given to the same filthy practice which the resolution wishes controlled by law.

That the habit is odious, disgusting, and at times dangerous to the public health, no one will deny, and as such should be discouraged in every way possible. It is quite probable at the same time, that the danger of the spread of infection by spitting on the streets has been overrated, as the drying and exposure to the sunlight of the organisms expectorated readily destroy them in most cases. The wisdom of the provision of such severe penalties as mentioned above is a questionable interference with the personal liberty of the subject and one can readily conceive of instances where it might be a genuine hardship.

The spitting nuisance is one of those things better dealt with by educating the public than by attempting to enforce abstinence by legal enactment.

PRACTICAL SYMPATHY FOR DR. CONERTY.

We have on several former occasions referred to the hardship inflicted upon Dr. J. M. Conerty, of Smiths Falls, in the prolonged defence of a suit for malpractice in which his brother practitioners best acquainted with the case consider him innocent of blame. We learn that a compromise has been made in the matter, the doctor paying \$600 in settlement of the claim. This is a most regrettable feature of the case but no blame can be attached to Dr. Conerty as he has defended his reputation and honor and that of the profession to the full limit of his resources. It merely illustrates the well known fact that, considering the financial loss, the injury to one's reputation and the annoyance connected with the

defence of actions of this sort, it is much cheaper to compromise, regardless of the merits of the case than to defend. Unfortunately every case thus settled is an incentive to further litigation, for there are always ungrateful and unscrupulous patients, usually paupers, urged on by even more unscrupulous and rapacious lawyers, of the shyster variety, who are anxious to extort blackmail. A Medical Defence Union that would ensure every action of this kind being fought to a fair finish would do more than anything else to discourage such litigation. We hope that some of our large medical associations will take the matter up at an early date, as a Medical Defence Union is one of the urgent needs of the profession in this country. We are pleased to state that at the last meeting of the Toronto Clinical Society, Dr. Conerty's case was brought before the notice of the Fellows by Dr. Wm. Britton, President of the College of Physicians and Surgeons of Ontario. The members were unanimous in their expressions of regret and sympathy and on motion of Drs. Hamilton and Anderson, a sum of \$25.00 was voted from the funds of the society and the treasurer was instructed to open a list to receive individual subscriptions to assist the doctor in defraying the expenses in connection with the defense of his case. It is to be hoped that the appeal in Dr. Conerty's behalf will meet with a hearty response from the profession in all parts of Canada.

NOTE.—Since the above was written we are gratified to learn from Dr. Conerty that no compromise has been made. He is determined to continue the fight and it remains to be seen if his professional brethren will stand by him. The question is one involving the interests of the profession at large, and as such is deserving of their serious consideration.

EDITORIAL NOTES.

Canadian Red Cross Representative in South Africa—

The following appreciative letters refer to Col. Ryerson's services in South Africa as Red Cross Commissioner.

LOCKINGE HOUSE, WANTAGE BERKS,
March 7th, 1901.

Dear COLONEL RYERSON,

I am very much pleased with the very ample and interesting report that you have furnished to the Red Cross Society. I look forward with great pleasure to the time when, owing to your successful operations on the staff of Lord Roberts and representing the British Red Cross Society, great harmony will exist between England and the Dominion. Lord Roberts speaks in the highest terms of your services and I, as chairman of the Red Cross Society, desire to add my testimony to that of the Commander in Chief.

I must also add my thanks for the deeply interesting pamphlet of your "experiences" during the war, kindly sent to me.

With kind regards, believe me

Yours very truly,

(Signed) WANTAGE.

P.S.—I am about to send you a proof copy of a photogravure of myself which has been reproduced at the wish of some of my friends from a portrait by Sir William Richmond. I shall be very pleased if you will accept it with my best wishes as a "souvenir".

Copy.

PRETORIA, 27th February, 1901.

My dear COLONEL RYERSON,

I trust you will pardon me for not writing and thanking you long before this for your very great assistance to us in our difficulties.

I have often intended to write but I could never secure a time when I could quietly sit down and say to you what was in my mind.

To others who have assisted me I could write appropriate letters of thanks, but you seemed to have placed on me a debt so large that I am unable to repay. I do, however, acknowledge it and I thank you sincerely in the name of the service to which I belong. You came to this country with most useful stores. You placed them at the disposal of the sick and wounded when and where most needed. Your work was most

untiring and unselfish and I fear will never be appreciated as it should be. I doubt, however, if this last will trouble you much,
If I ever visit Canada I will avail myself of the honour and pleasure of calling on you and I will I trust then have a talk over past events.

Believe me, yours sincerely,

(Signed) W. D. WILSON,

Surgeon Gen'l.,
Principal Medical Officer of
the Army in South Africa.

American Academy of Medicine.

The 26th annual meeting of the American Academy of Medicine will be held at the Hotel Aberdeen, St. Paul, Minn., on Saturday, June 1st, 1901, at 11 a.m. (Executive session: the open session beginning at 12 a.m.), and continuing through Monday, June 3rd.

The principal features of the meeting will be a symposium on "Institutionalism;" and another on "Reciprocity in Medical Licensure." Series of valuable papers on both topics have been promised, as well as interesting papers on some other subjects. The president's address (Dr. S. D. Risley, of Philadelphia) will be delivered on Saturday evening, June 1st, and the annual social session held on Monday evening, June 3rd.

Members of the profession are always welcomed to the open sessions of the Academy. The secretary (Dr. Charles McIntire, Easton, Pa.) will be pleased to send the programme, when issued, blank applications for fellowship, etc., when requested to do so.

A Substantial Medical Fee.

The daily press is authority for the statement that Dr. Walter C. Browning, of Philadelphia, rendered a bill for \$190,000 to the estate of Senator Magee of Pittsburg for medical services during the latter's illness. It is gratifying to note that our medical brethren in the great Republic are attempting to keep up the pace in the financial transactions in their country that are attracting so much attention of late.

Toronto Clinical Society Dinner.

About forty members of the Toronto Clinical Society dined at the Albany Club on Tuesday evening, April 22nd. Dr. W. H. B. Aikins occupied the chair and a most enjoyable evening was spent.

Article on Smallpox.

The article on Smallpox published in the last number of THE LANCET was kindly furnished us by Dr. W. B. Geikie, who should have been credited with the same.

The New York State Pathological Institute.

The State Lunacy Commission, it is said, has asked for the resignation of Dr. Ira Van Gieson, the well-known pathologist and head of the Institute. The commission claim that while research work of much scientific value has been carried on by Dr. Van Gieson and his associates, it has been of little practical value to the State hospitals. It will strike most sensible men that the Lunacy Commission is somewhat impatient in the matter of the results of scientific research, which certainly cannot be weighed out or measured off in definite quantities each year.

The Cause of Cancer.

According to statements appearing in the lay press, Dr. H. R. Gaylord, of the University of Buffalo, claims to have discovered the cause of cancer. At variance with the opinions of the Italian school, that cancer is due to vegetable parasites, blastomycetes, Dr. Gaylord says the parasite is a minute form of animal life—a protozoon. It is stated that his observations and experiments prove beyond doubt the reliability of the discovery. The profession would have received the news with more confidence had it appeared in a less sensational way; nevertheless the appearance of an account of Dr. Gaylord's investigations in the medical press will be awaited with much interest.

The Peterboro Grave Robbing Case.

The case of William Patterson, a third year student of medicine in Queen's University, charged with opening the grave of a Mrs. Sheehan in the Peterboro cemetery and unlawfully, wilfully and indecently interfering with the dead body, in having it packed in a trunk and forwarded to Kingston for dissecting purpose, was disposed of by his Honor Judge Weller on April 22nd. The prosecution failed to prove that Patterson opened the grave, on which charge he was consequently discharged. On the other charge of indecently interfering with the dead body, Patterson was fined \$200, or in default, one year in gaol. The judge, in passing sentence, stated the law provided a sentence of five years in the penitentiary or a fine, at the discretion of the judge. Considering Patterson's previous good character and antecedents, he inflicted the lighter sentence.

The case is interesting as being the first of the kind to come before the courts of Ontario.

Counter Prescribing Druggists.

The appeal of the druggists fined at the Toronto Police Court for violation of the Ontario Medical Act by counter prescribing, was allowed by Judge Macdougall on purely technical grounds. The decision in no way establishes the right of druggists however, to practice in future.

Christian Scientists and Smallpox.

A person in Berlin, Ont., suffering from smallpox, according to recent statements in the public press, was for some ten days under the care of Christian Scientists before the health authorities were aware of the case. No doubt the disciples of Mrs. Eddy will consider absent treatment sufficiently efficacious henceforth with this patient.

Toronto Pathological Society.

At the last meeting of the Toronto Pathological Society the following officers were elected for the coming year:—

President, R. D. Rudolf; Vice-President, H. C. Parsons; council J. T. Fotheringham, W. H. Pepler and Wm. Goldie.

Toronto Clinical Society.

This society closed a very satisfactory year's work at the regular meeting on May 2nd, when the election of officers for the coming year took place, as follows:—

President, J. F. W. Ross; Vice-President, E. E. King; Corresponding Secretary, Arthur Small; Recording Secretary, Geo. Elliott; Treasurer, W. H. Pepler; Executive Committee, H. J. Hamilton, H. B. Anderson, H. A. Bruce, Geo. A. Bingham and W. B. Thistle.

Defaulting Practitioners.

Some 700 practitioners resident in different parts of Ontario who have neglected or refused to pay the \$2 annual fees levied on all Provincial licentiates, were recently notified by the Council of the College of Physicians and Surgeons that if they failed to pay up before April 19th their licenses would be suspended and they would then be proceeded against for continuing to practice without the proper qualification. A considerable number settled in order to avoid further trouble, but many who refused to do so have sent a deputation to wait on the Provincial Government. Precisely what they are after is not known. It is stated that the Government will ask the Medical Council to defer action until the misunderstanding is settled.

The Ontario Medical Association.

We would again direct the attention of our readers to the coming meeting of our Provincial Medical Association in the Normal School building, Toronto, on June 19th and 20th next.

Dr. Charles P. Noble of Philadelphia will read a paper on Complications and Degenerations of Fibroid Tumors with reference to Treatment.

There will be a discussion on Gastric Ulcer introduced by Dr. J. W. Edgar of Hamilton; a discussion on Empyema, introduced by Dr. Turnbull of Goderich and Dr. Ferguson of London; and a discussion on Extra uterine Pregnancy, introduced by Dr. Garratt of Kingston.

Dr. J. H. Elliott, of the Muskoka Sanitarium will read a paper on the treatment of Tuberculosis; Dr. Prevost of Ottawa one on Intraspinal Cocainization, and Dr. Osborne of Hamilton will speak of Field Service during the South African war.

The Committee on Papers will be glad to receive at an early date the titles of short papers on subjects of interest to the profession.

British Columbia Medical Association.

The next meeting of the above named Association will be held in Victoria during the second week in August and a cordial invitation is extended to any medical brethren from the east who may be visiting the Coast at that time to attend the meeting.

PERSONAL.

Dr. W. T. Yeo, Trin. '98, has opened an office in Parkdale, Toronto.

Dr. J. O. Orr sails for England shortly, where he will spend three or four months.

Dr. A. McPhedran attended the meeting of the Association of American Physicians last week.

Dr. J. J. Mackenzie has sailed for Europe where he will spend the summer doing pathological work.

Dr. Jas. Third, of Kingston, who has been ill for some time, we are pleased to learn, is gradually recovering.

We are pleased to report that Dr. E. E. King, who has been confined to the house for some time has quite recovered.

Dr. H. J. Way, of Chicago, a member of the resident medical staff, Toronto General Hospital 1892-3, was in Toronto, recently, attending his father's funeral.

Dr. Lelia Davis, Demonstrator in Histology, Woman's Medical College, leaves shortly to spend a few months in medical research work in Boston and Baltimore.

Dr. J. A. Couch (Trinity '87) who practiced for several years at Warsaw, Peterborough County, has taken up his residence in Toronto, opening an office on Sherbourne St.

Dr. J. A. McWillie and Dr. E. H. Stafford, of Toronto, who accompanied a sealing fleet to Newfoundland, have safely returned. They report a great catch and an exciting time.

Dr. Chas. M. Stewart, Trin. '99, a former member of the resident medical staff of the Toronto General Hospital, has been appointed Medical Superintendent of the Ottawa Protestant Hospital.

We are glad to learn that Dr. J. A. Temple, of Simcoe street, and Mrs. Temple, who received a severe shaking up from their horse running away, are both able to be about again.

Dr. H. A. Bruce's many friends in the profession will be pleased to know that he has quite recovered from his recent infection in the finger, received while operating on a case of appendicitis.

Dr. Leonard Vaux (Trinity '97) has accompanied the Canadian contingent to the South African Constabulary as surgeon. Dr. Vaux was surgeon to the Royal Canadian Artillery in South Africa a year ago.

We are pleased to note that Dr. H. E. M. Douglas, A.M.C., a graduate of Queen's University, Kingston, has been awarded the Victoria Cross for conspicuous courage in attending the wounded at the battle of Magersfontein.

Dr. McNicholl of Cobourg has been appointed medical superintendent of the new asylum for the insane in Cobourg, with Dr. Harriet Cockburn of Toronto as assistant physician. Dr. Cockburn is to be congratulated on being the first lady graduate in medicine to receive such an appointment in Ontario.

Among the recipients of honors for services in South Africa we notice the name of Lieut. L. E. W. Irving, son of Amelius Irving, Esq., K.C., of Toronto. Dr. Irving is a graduate in medicine of Trinity College, and on the outbreak of the war volunteered his services and accompanied the Royal Canadian Artillery. His conspicuous fitness as an officer and his excellent record were brought to the notice of the authorities with the result that he has received the Distinguished Service Order.

OBITUARY.

Dr. T. H. Little.

The peculiarly sad circumstances connected with the death of Dr. T. H. Little, of Spadina Ave., from smallpox, acquired while in the discharge of his professional duties, has called forth expressions of the deepest regret from all classes of the community. The doctor, who had not been successfully vaccinated, contracted the disease from a patient whom he was attending, and the attack developed into one of the confluent hæmorrhagic type, ending fatally in a week's time on April 24th.

Dr. Little was born in Owen Sound thirty-nine years ago, where he received his early education. He was a graduate in arts of Victoria University and in medicine of the University of Toronto, graduating in 1887.

Some years ago he was married to Miss Cooper, of Port Hope, who survives him. After graduation Dr. Little opened an office in Toronto, where he succeeded in establishing a large practice. He possessed in a high degree the confidence of his clients and the esteem of his brother practitioners.

Dr. Little was an Anglican in religion, and a prominent member of the Masonic fraternity.

Dr. Charles William Covernton.

One of the last of the physicians of the old school, men whose careers have reflected so much honor on the profession of this Province, and whose lives have been examples worthy in all respects of the emulation of future generations of physicians, passed away on April 17th in the person of Dr. Charles William Covernton.

Dr. Covernton was born in England in 1813, being the son of James Covernton, Esq., of Seven Oaks, Kent Co. He began the study of medicine in London, afterwards continuing it in Edinburgh University and St. Andrews, where he received his M.D. in 1835.

In 1836 Dr. Covernton came to Canada and shortly after took up the practice of his profession in the town of Simcoe. The Mackenzie Rebellion breaking out soon after his arrival, he offered his services as surgeon with the Loyalists. In 1869 Dr. Covernton was elected territorial representative of the Gore and Thames Division of the Council of the College of Physicians and Surgeons of Ontario, and in 1870 he became vice-president and in 1871 president of the same body.

He removed to Toronto about this time and was appointed to the professorship of Medical Jurisprudence in Trinity Medical College on its re-organization, which position he retained until a few years ago, when, owing to advancing years, he retired from active work, remaining, however, Emeritus Professor until the time of his death. Dr. Covernton took a keen interest in all matters pertaining to his profession, especially to public health. He held the position of president of the Provincial Board of Health and at various times represented the profession of the Province at foreign congresses.

In 1840 he married Frances Elizabeth, daughter of Hutchins W. Williams, banker, of Dublin, by whom he had nine children. Three sons, William Hutchins, Charles McKenzie and Theodore Selby, all deceased, entered the medical profession, the latter at one time being professor of Sanitary Science in Trinity College.

The funeral was largely attended by prominent members of the Toronto profession by whom he was held in the highest esteem.

Among Dr. Covernton's students in Simcoe was Dr. Charles O'Reilly, Superintendent of the Toronto General Hospital, who pays the kindest tribute to the memory of his old preceptor.

A gentleman of the highest honor, courtly in bearing, of polished manners, free from envy and petty jealousy and devoted to his calling, his career has shed lustre on the profession of Ontario and his memory will long be cherished.

Dr. John Wanless.

Dr. John Wanless, one of the oldest physicians in Toronto, died at his residence, 594 Huron street, on Sunday, in his 88th year. Deceased was born in Dundee, Scotland, and came to Canada in 1813, settling on a farm in Huron county. He practised in London, Montreal and Toronto. Two sons and two daughters survive him.

Dr. J. Archer Watson.

The lamentable accidental death of Dr. J. Archer Watson of Toronto on April 11th, came as a great shock to his many friends and acquaintances in the medical profession. He was riding out to Islington on a restive young horse that was just being broken, and on reaching the C. P. R. crossing at Dundas St., the animal became frightened and ran in front of a passing engine, throwing the rider to the ground. The base of the skull was fractured, producing instantaneous death.

Dr. Watson was born at Emery, Ontario, in 1856, his father being the late William Watson, Esq., superintendent of schools for west York.

He received his early education at Weston High School and afterwards at Jarvis street Collegiate Institute, Toronto. The deceased entered Trinity Medical College in 1881, graduating in 1885, after which he opened an office on Sherbourne St., where he resided at the time of his death. In 1889 he was appointed a demonstrator of anatomy in Trinity Medical College, a position which he held for some years. Dr. Watson was also one of the promoters and a member of the staff of the Toronto Western Hospital.

He was an enthusiastic lover of sports being a member of the Toronto Athletic Club, Ontario Jockey Club, Hunt Club etc.

The deceased was an Independent Conservative in politics, a Methodist in religion and a prominent member of the Sons of England and the Orange Order.

The funeral to Riverside cemetery, Weston, was largely attended by his friends and professional brethren, evincing the high esteem in which he was held and the deep sympathy felt in his sad taking off.

BOOK REVIEWS.

THE AMERICAN YEAR-BOOK OF MEDICINE AND SURGERY.

Being a yearly digest of scientific progress and authoritative opinion in all branches of Medicine and Surgery, drawn from Journals, Monographs and Text-Books of the leading American and Foreign Authors and Investigators, collected and arranged with critical editorial comments by a staff of eminent American Specialists and under the general editorial charge of George M. Gould M. D. In two volumes treating of Medicine and Surgery respectively. Price \$6.00 cloth. Philadelphia and London. W. B. Sanders & Co 1901. Canadian Agents J. A. Carveth & Co., Toronto, Ont.

The preface of this work states that the innovation introduced last year of issuing the publication in two volumes, one treating of Surgery, the other of Medicine, was so generally regarded as an improvement, that the same plan has been adopted this year; the staff of editors of Departments remains the same, with the exception of the Association of Dr. Aloysius O. J. Kelly, (the well-known Philadelphia Pathologist,) with Dr. Riesman. The profession accordingly is offered as the 1901 issue, two handsome volumes of excellent typographical work, in good binding and of convenient size, the volume on Medicine containing 681 pages, and that on Surgery 610, with a comprehensive and convenient index, appended to each, while in foot-note reference is given the short title of the publication in which may be found the particular article reviewed.

The reception accorded the Year-Book in the past is sufficient proof of the value of such a collaboration, giving as it does a selection by competent authorities of subjects of importance, both to the general practitioner and to the specialist. Every year the profession is provided with an enormous array of medical literature in the form of text-book, monograph, journal and advertisement, much of which is merely speculative or knowledge ill-digested and statements unsupported and misleading, but much too is valuable were not the ordinary practitioner, either too busy or insufficiently equipped in scientific training to sift the good from the bad. This services the editor of the Year-Book undertake and they have done their work on the whole ably, choosing what is useful and practical on matters of general import and including too, much that is suggestive and interesting from the stand-point of scientific research.

The work is necessarily largely an index for reference, giving the subject and particular phases treated but on topics of general interest and importance the treatment is fuller. Where views not generally accepted or in the experimental or controversial stage are mentioned, the editor guards the reader by appending a critical note. The ordinary reader is thus kept in touch with the wealth of information which is constantly

accumulating from the labors of students in all parts of the world, but guarded from adopting immature suggestions as facts.

In the volume on Surgery, mention must be made of the references to articles treating of bullet wounds and of cocaine anaesthesia—subjects of special interest at present. The departments of obstetrics and gynecology are possibly the most valuable in this volume, especially the articles on the Pathology of Pregnancy. The volume on Medicine under the heading of typhoid contains a great deal of value on the Widal reaction, but readers in this country would like to have heard something with regard to the South African epidemic. The chapter on Pathology contains many new suggestions on neoplasms and that on therapeutics will be carefully read by the physicians bewildered by the claims of manufacturers of new preparations and specifics. The great majority of the references on Surgical subjects are to American Journals while on Medicine those of foreign extraction preponderate. Canadian Journals furnish but half a dozen references, a fact explainable partly by the comparatively insignificant amount of research work done here; but one cannot help suggesting that a better system of Hospital Records would assist in making the work done here available to our students and practitioners. A.J.M.

A SYSTEM OF PRACTICAL THERAPEUTICS.

Edited by Hobart Amory Hare M.D. Professor of Therapeutics and Materia Medica in The Jefferson Medical College, Philadelphia. Physician to The Jefferson Medical College Hospital. Second edition—revised and largely rewritten, Volume III, with illustrations. Lea Bros. & Co., Philadelphia and New York, 1901.

This volume deals especially with surgical therapeutics. The first chapter—on Anaesthesia and Anaesthetics, is contributed by Dr. Charles Lester Leonard. The article is a full and thoroughly practical guide to the administration of anaesthetics and should be of great value to the practitioner. Dr. Charles H. Frazier writes a most complete chapter on Surgical Technique, dealing with surgical bacteriology, sterilization and disinfection, preparation for operation, preparation of ligatures, sutures, dressings, and the details of operative technique.

He also takes up the treatment of aseptic and septic wounds.

Fractures and dislocations are dealt with by Dr. Henry R. Wharton in an exhaustive article in which the latest and most approved methods are described. This article is very fully illustrated.

A very practical chapter and one that will appeal particularly to the general practitioner is that devoted to minor surgery and bandaging by Dr. Geo. W. Spencer.

Cerebral concussion and shock are discussed by Joseph Ransohoff F. R. C.S.

Surgical treatment in diseases of the respiratory organs is dealt with by Dr. A. J. McCosh, while Dr. Geo. Ryerson Fowler contributes a beautifully illustrated article on the surgical treatment of appendicitis, also other forms of peritonitis and strangulated hernia. As an illustration of

female development or of the nude in art, plate V may be very excellent but most observers will be puzzled at the necessity for so much display, and of the particular pose of a handsome figure to illustrate the site of the primary incision in appendicitis.

The treatment of obstruction of the intestines from various causes, haemorrhoids, fistula in ano etc., are fully discussed by Dr. Edward Martin.

Most useful and complete articles are those by Dr. Wm. T. Belfield on therapeutics of the male genito-urinary tract and by Ed. E. Montgomery on therapeutics of the genito-urinary diseases of women.

Diseases of the eye, ear, nose and throat and their treatment by the general practitioner will prove particularly valuable articles to those for whom they are specially written. These are dealt with by Drs. Casey Wood, S. MacCuen Smith, E. Fletcher Ingals, and A. Braden Kyle. The large number of formulae given in connection with these articles will prove especially helpful.

Altogether we take pleasure in repeating the high commendation of this volume which we have previously expressed in reference to former ones. The work cannot fail to prove of great use and is worthy of the most cordial reception by the profession.

H. B. A.

OBSTETRIC CLINIC.

By Denslow Lewis, Ph. C., M.D., Professor of Gynecology in the Chicago Policlinic; President of the Attending Staff of Cook County Hospital, Chicago; President of the Chicago Medical Examiners' Association; Vice-President of the Illinois State Medical Society; Ex-President of the Physicians' Club of Chicago; Consulting Obstetrician to the Florence Nightingale Home; Senior Gynecologist and Obstetrician to the Lakeside Hospital, Chicago; Late Special Commissioner from the Illinois State Board of Health and the Health Department of Chicago for the Investigation of Municipal Sanitation in European Cities. A series of thirty-nine Clinical Lectures on Practical Obstetrics delivered to students and practitioners in Cook County Hospital, Chicago. Together with remarks on criminal abortion, infanticide, illegitimacy, the restriction of venereal diseases, the regulation of prostitution and other medico-sociologic topics. Octavo, 640 pages. Price, \$3.00. Chicago: E. H. Colegrove, 65 Randolph Street.

These lectures make extremely interesting and profitable reading. They are essentially practical, and though lectures delivered by the bedside or in the operating room to a class, upon material much of which must have come to hand simply in the ordinary course of hospital work, and without any possibility of arrangement, the author has succeeded in covering very thoroughly the vast majority of those accidents and conditions met with in the course of obstetric practice.

He might be properly classed as a Liberal-Conservative, who, while he is progressive and ever ready to avail himself of all that science and art may provide, does not allow himself to be carried away by fads.—

F. F.

Text Book of Histology, including Microscopic Technique, by A. A. Bohm, M.D., and M. Von Davidoff, M.D., of the Anatomical Institute in Munich. Edited by G. Carl Huber, M.D., Junior Professor of Anatomy and Director of the Histological Laboratory, University of Michigan. Authorized translation from Second German Edition by Herbert H. Cushing, M.D. Jefferson Medical College, Philadelphia. W. B. Saunders & Co., Philadelphia and London. A. J. Carveth & Co., Canadian Agents.

The volume opens with a chapter devoted to histological technique, the more useful and modern methods are emphasized, formulæ for stains and solutions are complete, directions for fixing, sectioning, cutting and staining are clear and concise.

The structure of the cell in which the subject of Karyokinesis is embodied is set forth in a manner very pleasing to read and is followed by a description of the various elementary tissues with special methods of preparation applicable to each.

The nervous system usually demands considerable space in a work of this character. Here, however, the space is surprisingly small, but equally surprising is the effective manner in which the subject is handled and the clearness with which it is set before us.

Professor Mall's observations on the splenic lobule constitute something new in the histology of this organ.

Following the section on the blood and blood forming organs, valuable hints are given in the way of technique in their study.

The sections on the alimentary canal and genito-urinary tract are clearly put and well illustrated, the description of the supra renal capsules is perhaps particularly worthy of mention.

The work closes with extensive references to literature. The essentials of a work on histology are clearness of description and illustration, with well directed instructions to the students as to how to proceed in his investigations, and equally clear directions as to what to use, exact formulæ, and how to use them.

This volume embodies these points and should render much assistance to those engaged in the study of histology.—H. C. P.

DAVIS'S OBSTETRIC AND GYNECOLOGIC NURSING.

By E. P. Davis, A.M., M.D., Professor of Obstetrics in Jefferson Medical College and Philadelphia Polyclinic. 12mo. volume of 402 pages, fully illustrated. Philadelphia and London: W. B. Saunders & Co., 1901. Canadian agents: J. A. Carveth & Co., Toronto. Price \$1.75 net.

As a text book for nurses this work is admirable, giving all that a nurse should know, at the same time avoiding those things which concern the physician alone, and in connection with which a little knowledge is more apt to be dangerous than useful.

The first half of the work is devoted to obstetrics, and its perusal cannot fail to be of interest and value to anyone assisting at a confinement or having the care of a pregnant or puerperal woman.

The cuts are mostly found in this part of the work, and have been carefully chosen and well executed.

The second division of the book is devoted to gynaecology, and is in no way inferior to the first.

The publishers' work is throughout excellent.

F. F.

· A TEXT BOOK OF GYNAECOLOGY.

Edited by Charles A. L. Reed, A.M., M.D., Gynaecologist and Clinical Lecturer on Surgical Diseases of Women at the Cincinnati Hospital, President American Medical Association, Etc., Etc. Illustrated by R. J. Hopkins. New York: D. Appleton & Co. 1901.

This work is a strictly up-to-date volume, and reflects much credit upon the author.

In its preparation the efforts of some thirty contributors, comprising many of the best known writers and teachers of the subject in Great Britain, United States and Canada, have been utilized in such a way as to produce a complete text book, and not simply a collection of monographs.

There are three hundred and fifty-six illustrations which, with very rare exceptions, are new. The paper is good and print clear; in fact, the whole work is creditable alike to contributors, editor and publisher.—

F. F.

Surgical Pathology and Therapeutics, by John Collins Warren, M.D., LL.D., Professor of Surgery in the Massachusetts General Hospital. The second edition with an appendix, containing an enumeration of the scientific aids to surgical diagnosis, with a series of sections on Regional Bacteriology. Published by W. B. Saunders & Co., Philadelphia. Canadian Agents, J. A. Carveth & Co., Toronto.

The second edition is indeed welcome, as it brings up to the present all new facts and many suggestions on the pathology and therapeutics of surgery. Every one should possess a work so carefully prepared as the one by the eminent author. The association of the pathological conditions present in each case, with the symptoms and the indications for treatment must of necessity be of great value to the student of surgery. The opening chapter on Bacteriology, with the excellent plates prepared by Wm. J. Kaula is to a good introduction to the chapters on inflammation and its sequelae, tuberculosis, diseases of bone, tumors, malignant and benign, and each receives its due share of attention. The appendix is most valuable, as it deals with the scientific examinations of the blood and the various excretions and secretions of the body and other methods of precision which give exact data to arrive at diagnosis, prognosis and rational treatment. Such a work is especially valuable to the practitioner.—C. A. T.

FISCHER - INFANT-FEEDING IN HEALTH AND DISEASE.

A Modern Book on all Methods of Feeding. For Students, Practitioners and Nurses. By Louis Fischer, M.D., Attending Physician to the Children's Service of the New York German Poliklinik; Bacteriologist to St. Mark's Hospital; Professor of Diseases of Children in the New York School of Clinical Medicine; Attending Physician to the Children's Department of the West-side German Dispensary; Fellow of the New York Academy of Medicine, etc. Containing 52 Illustrations, with 16 Charts and Tables, mostly Original. 368 pages, 5¼ x 8 inches. Neatly Bound in Extra Cloth. Price, \$1.50, net. Delivered. F. A. Davis Company, Publishers, 1914-16 Cherry St., Philadelphia, Pa.

This little book devotes the first few chapters to a consideration of the anatomy and physiology of the digestive organs in the infant and to the various constituents of foods. A useful chapter on the bacteria associated with diseases due to digestive troubles in the infant comes next.

The subjects of mothers' milk, wet nursing, weaning the infant, cow's milk and its modification, management of the nipples and breast, substitute foods for milk, sterilization and pasteurization of milk, etc., are fully discussed. Dietetic management of colic, constipation, rickets, etc., is also considered, with directions for preparation, suited to different conditions, is furnished. Altogether, the book contains a vast amount of exceedingly valuable information in a concise form that will be very readable.

PUBLISHERS' DEPARTMENT.**Ptomaines.**

One of the leading specialists of the South, Dr. W. L. Bullard of Columbus, Ga., concludes a highly interesting and instructive article on Ptomaines in the following manner:—"In all my twenty years' experience at special work, where the quick and safe relief of pain is the object of treatment, I have found nothing to equal five-grain antikamnia tablets. This remedy is not only a foe to ptomaines and their absorption, but is also a corrective in cases of poisoning by food-decomposition. As purely pain relievers, these tablets of course are recognized the world over as non-cardiac depressants, and free from any tendency to produce habit. I would also call the attention of the profession to those instances wherein it is strongly advisable to rid the system of the offending materies morbi as well as to correct their harmful influences whether it be in the poisons of food decomposition or the absorption of ptomaines. In such cases I know of nothing better than Laxative Antikamnia Tablets. These tablets judiciously administered, rid the system in a perfectly natural manner of the offending material and lessen therefore, the quantity of medicine necessary to be taken by the patient, and produce no disturbing influences on the delicate molecular interplay of the nervous structure."