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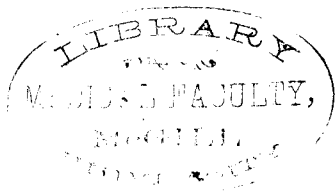
POINTS IN THE DIAGNOSIS AND TREATMENT OF SYPHILIS*

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At the outset permit me to thank your Association for the honor of addressing you to-night. In casting about for a subject which might be of interest to you as practitioners, along the lines of my experience as a pathologist and afterwards as a clinician, I have selected Syphilis, and this for several reasons. In the first place the important discoveries of recent years—that of the spirochete pallida by Schaudinn, the complement deviation test by Wassermann, and the therapeutic value of arseno-benzol by Ehrlich—have awakened a worldwide interest and stimulated an amount of investigation that have not only been fruitful of great practical results, but have revolutionized our conception of certain phases of the disease. In the second place the medical profession in all parts of the world is taking hold of syphilis as a serious public health problem. At the recent meeting of the International Congress in London, Ehrlich was undoubtedly the outstanding figure, and the attitude toward syphilis was the outstanding feature of the Congress. As a result of the interest awakened by the Congress a Royal Commission has been appointed to consider the problem of syphilis and to suggest means of abating what is generally recognized to be a menace to the national welfare. We may therefore, expect to see a campaign inaugurated similar to those against tuberculosis and cancer, and with even greater possibilities of success.

To us as Canadians the subject is becoming daily of more importance, especially in the large cities, owing to the influx from

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the syphilis-scourged cities of the Old World of scores of immigrants who never should have been allowed entrance into the country. These people are crowding our hospitals and asylums, and thus have become not alone a serious charge to the community, but from the standpoint of Eugenics should furnish a subject for grave consideration. The results of an investigation recently made by my assistant, Dr. R. W. Mann, of 198 consecutive admissions into my service at St. Michael's Hospital, 128 males and 70 females, will illustrate what I mean. Routine Wassermann tests gave a positive reaction in 46.1 per cent. of the men and 61.4 per cent. of the women. The large proportion of these cases, of course, entered the hospital for treatment of acute conditions other than syphilis, and in most of the cases evidences of syphilitic infection were discovered only in course of the routine clinical examinations.

While one is prepared to admit that these statistics probably represent an uncommon condition, yet general experience since the introduction of the Wassermann test points to a much greater frequency of syphilitic infection than has heretofore been believed.

It is high time that we as a profession were alive to the seriousness of the problem which is being produced by lack of efficient inspection of immigrants, and that we should begin to make our influence felt, and initiate a campaign to educate the public to the danger to our national welfare arising from the ignorance or carelessness of officials or the cupidity of those who profit by the admission to our country of the mentally and physically unfit.

There is every reason to believe that before long the more efficient control of venereal diseases will be taken up as a public health problem. This will involve some form of notification and provision for the proper supervision and treatment of cases, as is now required in Queensland and other places.

Lastly, as a reason for bringing this subject before you, my experience has led me to believe that syphilis is frequently overlooked, and at times by experienced practitioners and clinicians, either as the primary cause of trouble or as an accompanying factor. Those of us who have followed the autopsies and clinics, especially the Dermatological Clinics in London, Vienna, New York, or other great cities, have, I am sure, all been impressed with the alertness of clinicians for possible manifestations of syphilis, and the readiness and assurance with which they recognize them. There is no practitioner of wide experience who does not know how prone we all are to overlook very common clinical

conditions, even in the presence of outstanding and definite signs, until our attention has been specially directed to them, and then, behold! they appear to be of comparatively frequent occurrence. As examples we may cite Graves' disease, appendix dyspepsia and duodenal ulceration.

While one is prepared to recognize the tendency for a clinician, following the hospital practice of a large city, to overestimate the frequency of syphilis in private practice in the smaller centres or in the rural communities, yet it is difficult for one to accept the frequent assurances of his professional colleagues that they seldom encounter cases in their districts. I beg leave humbly to express the opinion that they see cases oftener than they are aware of.

To bear out my meaning I should like to refer to a case coming under my observation a couple of months ago. A prominent doctor from a western town consulted me, giving the following history: In October, 1913, he developed an infection beneath the nail of the index finger of the left hand. The infection spread to the adjacent soft parts, and an incision was made by a colleague in the town, a small amount of pus being evacuated. The infection, however, spread upward, involving the epitrochlear and axillary glands. Antistreptococcic serum was administered, but the condition did not improve. There was never a high temperature. The patient next consulted a prominent surgeon in an adjacent city, who thought there was necrosis of the terminal phalanx and advised amputation, which was accordingly done at the metacarpophalangeal joint. He returned home, and for a time felt somewhat better, but developed so-called "grippy" symptoms and a "serum rash." Not feeling able to resume practice he decided on a holiday, and, accompanied by his brother, also a physician, went to Chicago. He consulted a well-known clinician, who thought he was neurasthenic and run down from his infection and the worries incident thereto. By some strange lapse, this physician, an exceedingly careful and competent man, did not strip the patient for examination. Had he done so he would have found a generalized macular eruption, the left epitrochlear and axillary glands much enlarged and very hard, and a generalized glandular enlargement to a lesser degree. In the light of this examination the whole case would have become perfectly clear. A Wassermann test confirmed the diagnosis, and arseno-benzol was used intravenously with a rapid clearing up of the symptoms.

The patient was unaware of having been in attendance on a case of syphilis. The case undoubtedly presented some puzzling

features, but a consideration of the unusual course of the infection and a careful physical examination, *if not absolutely convincing*, should at least have suggested a Wassermann test. All of the doctors concerned I know to be not only competent, but each in his own more particular sphere an excellent man, but not sufficiently alert to this particular form of infection. There is a special liability to mistake infections associated with extra-genital sores.

I have recently seen two cases of primary infection in the tongue of young married women of good social position, and one on the lower lip of a middle-aged man. In none of the cases could I trace the source of the infection, though in one of them I suspected an accidental infection, possibly from a cup or spoon, as I was attending the patient's cousin for secondary syphilis at the time, and he was a frequent visitor at the young lady's home.

Extra-genital chancres are more frequent than is generally recognized, Sequeira placing the incidence at probably one in ten, but he says that in Russia they are one to four. In some districts in Russia, from ignorance and bad hygienic conditions, Tarnovsky (quoted by Osler) says that 70 per cent. of infections are extra-genital. The examination of the serous fluid from a suspected sore for spirochete is a valuable and easy method for one accustomed to it.

I believe that if we dropped, or perhaps relegated to a very secondary place, Ricord's conception of syphilis as a disease characterized by a *primary sore*, and followed, in more or less orderly sequence, by secondary and tertiary phenomena, and considered the disease purely from the viewpoint of an infection, it would make for clearness of thinking. As with other infections, there is usually a single port of entry, where, after a period of incubation, the characteristic hard sore usually develops. At times, however, a number of points are infected simultaneously, and then multiple sores appear. A generalized infection, however, may occur without the development of a local lesion.

A few years ago I reported the case of a physician who, in removing some venereal warts, allowed the knife to slip, and inflicted a slight wound on the ball of his thumb. He immediately sucked the bleeding wound, and applied pure carbolic acid. Notwithstanding his prompt treatment a very intense general infection developed without the appearance of any sore at the point of inoculation. The frequency of a general infection without a local lesion is difficult to estimate, but it probably occurs oftener than has heretofore been believed. Sequeira says that in fully

20 per cent. of all cases, and in most women, there is no history of a sore.

It is well known that a mixed infection may occur, so that the appearance of a soft sore or a gonorrhoea does not preclude the possibility of the spirochete having gained entrance at the same time. It is remarkable how frequently we find evidences of syphilis in patients who give only a history of gonorrhoea. Soon after the appearance of the sore the nearest lymph glands become infected, and next the organisms gain entrance to the blood stream, and are distributed to all the organs and tissues, producing the general symptoms and symmetrical lesions characteristic of the septicemic stage of the disease. After a time the organisms disappear from the circulation and are deposited in different parts, where they may afterwards give rise to the *asymmetrical* lesions—the nodes, gummata, or vascular manifestations of the so-called tertiary stage. Recent investigations have shown that the central nervous system is invaded at a much earlier period of the disease than was formerly believed to be the case, though so far as symptoms are concerned the infection of the nervous system may remain latent for years. P. Ravaut (*Ann. d. Med.*, Paris, 1914) says that there is a *preclinical* involvement of the nervous system in 65 per cent. of cases in the secondary stage of syphilis. The discovery of the spirochete in tabes and general paralysis has proved that these lesions are due directly to the spirochete, so that the term *parasyphilitic* must disappear from the medical vocabulary.

The failure to recognize secondary syphilis is frequently due to an imperfect practical acquaintance with other skin diseases, from which it must be differentiated, but a *generalized eruption without itching*, and *associated with enlargement and hardness of the lymph nodes, especially the epitrochlears, sore throat, falling of the hair*, etc., is very characteristic. An experienced observer will often detect a slight enlargement and increased consistency of these nodes after all other signs of the infection have disappeared. This is important clinically.

It is well known that a high fever, with chills and other febrile symptoms, may be present during the secondary period. In the two cases of accidental infection in physicians, before referred to, the patients mistook these symptoms for an attack of la grippe. Typhoid fever and miliary tuberculosis are also at times erroneously diagnosed as the cause of the trouble.

It is not, however, the primary infection nor the secondary manifestations that are most frequently overlooked or wrongly

diagnosed, but rather the irregular manifestations of tertiary syphilis. The patient may have sought relief for conditions resulting directly from the old syphilitic infection, though in many cases he is suffering from some other illness, and the syphilis is merely a contributory or accompanying factor.

Mistakes in the diagnosis at this period are usually due to being off one's guard from a failure to recognize the frequency of syphilis, and consequently to make a careful routine examination for its signs.

As before mentioned, the history of the case is often uncertain and misleading, so much so that it is our custom to make the diagnosis by a thorough physical examination, and to enquire into the history and Wassermann test only for confirmatory purposes. In no case should we allow the history to discredit the data elicited by clinical examination.

Of especial importance is a thorough search for and a careful interpretation of the significance of scars. Scars about the glans penis or prepuce, owing to the looseness and wrinkling in the tissues, are often difficult to find or to feel assured of.

There is no readily accessible, definite and valuable feature of a routine clinical examination which is so often neglected as that of looking for scars. There are relatively few pathological conditions resulting in scar-formation, and if we consider them it will appear how readily, by a little practice, they may be differentiated. One may enumerate such causes as injuries, burns, scalds, in which cases, not only the appearances presented, but the history, will direct one to the diagnosis. The scars on the backs of the hands and arms of cooks, and those on the thighs and legs of blacksmiths or workers with molten metal, are very characteristic. We must not forget, however, that trauma may not infrequently be *merely the localizing cause of a syphilitic lesion.* A few years ago I was consulted by a woman who had been stung in the forehead by a bee. A lump developed, and when I saw her she had an ulcerated area the size of a fifty-cent piece. The case cleared up rapidly under mercurial treatment. Such cases point to the wisdom of arriving at a diagnosis before inquiring into the history, which might readily have tended to mislead.

Of other common causes of scar formation, smallpox, acne vulgaris, furunculosis, lupus erythematosus, varicose ulcer, each gives its own characteristic features, distribution or history. Tuberculous scars are mostly on the neck or overlying lymph glands. Favus, tinea barbæ, acne varioliformis, rhino-scleroma,

and a few other rare conditions, are not of great practical importance in this connection as causes of scar formation. Leprosy also is infrequent in this country, but two cases in Chinamen, which I have seen during the past two years, suggest that in Orientals at least this disease should be kept in view. Both cases, however, had the characteristic facies and anesthetic areas of leprosy. The danger of a mistaken diagnosis is increased by the fact that leprosy often gives a positive Wassermann reaction. In one of these Chinamen the physician diagnosed syphilis, and proceeded to give him an intravenous injection of Neosalvarsan. By mistake a tube of Salvarsan was mixed with the distilled water, and given him without neutralization. The Oriental turned up a few days later saying he felt "velly well," and presented no ill effects from the procedure.

If, therefore, we consider all the different conditions producing irregularly distributed scar-formation it will be readily seen that, apart from trauma, syphilis is by far the most frequent cause. If we further consider such characteristic features of syphilitic scars as the punched-out appearance, especially in miliary scars, the surrounding pigmentation when recent, the "tissue paper" or "silky" surface when larger and older, the scalloped or serpiginous outline, their asymmetrical distribution, often on the sides or behind the legs or thighs, on the flanks, abdomen, sides of the chest, or areas inaccessible to injury, or unusual for other lesions causing scar-formation, the diagnosis is usually not difficult. Confirmatory evidence may at times be obtained from the deeply fissured sclerosed tongue of syphilitic interstitial glossitis, from the persistence of slight enlargement and hardening of the lymph glands, especially the epitrochlears, and lastly from the history of the case and the Wassermann and luetin tests.

Just here may I refer to the value of careful routine examinations in training the fingers to recognize slight degrees of enlargement and hardening of the lymph glands.

One need scarcely refer to looking at the angles of the mouth, or about the anus, for linear scars, as an evidence of hereditary syphilis.

In fully 90 per cent. of our cases we have been able, by a careful routine examination, to find evidences of the previous syphilitic infection, which were afterwards confirmed by the Wassermann test.

Of the great value of the Wassermann test there can be no question. But like other laboratory procedures it has its limitations, and if considered apart from other clinical findings it may

be misleading. It is not a specific test for syphilis, as it has been found positive in malaria, leprosy, yaws, trypanosomiasis, after scarlet fever, etc., but these diseases are not likely to be a source of difficulty with us.

It must not be forgotten that all cases of even frankly active syphilis do not give the Wassermann test, but authorities still differ as to the frequency of failures. Pusey (*Amer. J. of Med. Sci.*, Oct., 1913) says that 40 per cent. give positive reactions at the time of appearance of the initial lesion; six weeks later 75 per cent. react; at the time of appearance of the cutaneous eruption 80 per cent., and in late cases 50 per cent. A larger proportion, probably 90 per cent. of congenital syphilitics, give a positive reaction. The value of repeated tests to check technical errors, and the importance of testing the cerebro-spinal fluid, should be kept in mind. It must not be forgotten that a patient with syphilis may suffer from measles, eczema, pneumonia, or a broken leg, so that a positive reaction does not necessarily indicate that the cause of his disability is syphilis. This only emphasizes the danger of accepting a laboratory diagnosis, apart from other clinical data.

The technique of the Wassermann test is difficult, so that the test is not to be relied upon unless carried out by one skilled in serological work. The test is also of value, though not conclusive, as a check on therapeutic results.

Of other recently introduced methods of diagnosis, the cell count, the globulin test and the Wassermann test of the cerebro-spinal fluid in suspected cases of tabes, general paralysis and cerebro-spinal syphilis, are of special value, and are now well recognized routine procedures. The luetin test is also being found of clinical value. There may be a negative blood-Wassermann and a positive cerebro-spinal fluid reaction. All cerebro-spinal cases do not give positive test with the cerebro-spinal fluid.

Time will not permit of more than mentioning a few clinical conditions due to syphilis that are especially important for the practitioner to keep in view.

Syphilitic aortitis and its relation to aortic insufficiency and aneurism is well known. In cases of aortic insufficiency, developing in younger patients, in the absence of a history of rheumatism, or in older patients, evidences of syphilis should be carefully looked for.

Epileptiform convulsions, beginning in adults, are often due to cerebral syphilis, or may be an early sign of general paresis. They are often accompanied by a dizziness, mental disturbance, and intense headache, usually worse at night. Two such cases are at

present under my care in St. Michael's Hospital. Some of these cases are so resistant to mercury and iodide as often to make one doubt their real cause, but these cases may yield in time to persistent treatment to the limit of tolerance. Fordyce insists on the value of Salvarsan in these resistant nervous cases.

In no condition, apart from tumor, does one see such intense headache as in cerebral syphilis. Examination of the eye grounds should of course always be made.

Hemiplegia, occurring in persons under forty, in the absence of a cause for embolism, should arouse suspicion. Facial diplegia, unexplained paralysis of the facial and ocular muscles in adults, or Hutchison's triad of keratitis, deafness and notched or pegged incisor teeth in congenital syphilis, should be borne in mind. A patient came into my wards in St. Michael's Hospital a year ago, partially conscious and with paralysis of one side of the face. He had fallen in the street in a convulsion. An interesting fact in this case was that he had only been infected a few months previously, and some six weeks before entering the hospital he had received an injection of Salvarsan.

The relation of a previous syphilitic infection to some intense forms of anemia, often approaching the pernicious in type, is now generally recognized. It is not surprising that such cases respond extremely well to Salvarsan.

To the treatment of syphilis I shall only refer briefly. As with other infections, it is well to remember that the disease exhibits varying degrees of virulency, some cases being so light that there is possibly a natural tendency to a cure. Recent investigations all go to show that individualism is as necessary in the treatment of syphilis as in any other disease—perhaps more so. The treatment, to be effective, must be systematic, thorough, and the results controlled by carefully following the clinical course and by the Wassermann test. The importance of general care, good habits, hygiene of the mouth, etc., are so obvious as to require no emphasis.

In spite of the brilliant results already obtained by the use of arseno-benzol, mercury and to a lesser extent the iodides, still hold an important place in the therapy of syphilis. Many good authorities believe that the latter are still sufficient in many cases, and even the strongest advocates of Salvarsan, including Ehrlich himself and Wechselmann, advocate the use of mercury before and after a course of Salvarsan. Neisser, Fordyce and other authorities also recommend a similar procedure.

There is much difference of opinion as to the best preparation of mercury to use and the most efficient method in which to use it.

The essential point, as Fordyce points out, is to get mercury into the system. All are agreed that oral administration, injections and inunctions, are efficient means, and each has its advantages in a general way, and its peculiar adaptation to particular cases or phases of the disease.

Oral administration is the most readily carried out, but more easily produces digestive disturbances, and more readily permits the patient to escape the close personal attention which is so necessary for success.

Inunctions are especially valuable in children, and to supplement mercury by the mouth. They can readily be carried out, especially in institutional treatment. It is, however, a disagreeable method to the patient, and usually unsuited, for obvious reasons, for home or ambulatory treatment.

Mercurial injections rapidly bring the patient under the influence of the drug, necessitate his being under the physician's control, and shorten the course of treatment. They are somewhat painful, however, and at times may be dangerous from injection into a vein, and in case of idiosyncrasy the dose has passed beyond the physician's control. These risks are largely avoidable, however, by careful technique. American and continental physicians are partial to this form of treatment.

Considering everything, the best results are to be obtained by the use of the preparation and method with which one is most familiar, and in which the physician has most carefully perfected his technique. Personally, for routine cases, I prefer hydrarg. cum creta with pulv. ipecac. co., as recommended by Hutchinson, because I have found it efficient, and from experience know best how to use it.

Salvarsan is especially useful in the earliest period of syphilis, before general infection, and in the secondary stage of the disease, and in later cases that have not responded satisfactorily to mercury and iodides. I have used it in many cases without ever having had any bad results, and often the effect has been so brilliant as to surpass anything I have seen from any form of therapy. I have had a number of cases that were resistant to mercury, clear up in the most astonishing manner. Numerous fatal results have been reported, but I believe many of these may be attributed to a lack of proper discrimination in the selection of cases, and to faulty technique in the preparation of the solution.

Notwithstanding the general consensus of opinion as to the undoubted value of Salvarsan, increasing experience has not established the hope once entertained of a *Therapia sterilizans magna*.

Most authorities are now agreed that complete cure from it can be hoped for only in the early period of infection and when the treatment is systematically carried out in combination with mercury, the latter preferably by intramuscular injection.

Relapses after Salvarsan, especially the neuro-recurrences, are common, though some believe that this is due to faults in carrying out the treatment.

Neosalvarsan, in the larger doses in which it is used, is regarded by many as equally effective with the old preparation, but I believe that the majority of those who have used it have found the results less satisfactory, and with their experience my own coincides.

Whichever preparation is used, it is certain that good results may be hoped for only after patient, systematic and properly controlled treatment, and anyone who is not prepared to undertake the management in this way assumes a grave responsibility in attempting to treat so serious an infection.

Iodides are especially valuable in the tertiary lesions, and in syphilis of the vascular system, and at times in cerebral or cerebro-spinal syphilis.

The recent discovery of the presence of spirochete in tabes and general paralysis has given a more hopeful outlook to the possibilities of medication in these diseases. The cerebro-spinal axis has proved less accessible to the influence of medication than other tissues, owing chiefly to peculiarities of blood supply. It is believed by good authorities that a complete cure in cerebro-spinal syphilis is impossible when gross lesions or degenerative changes sufficient to produce symptoms have set in. Hence the importance of early diagnosis by examination of the cerebro-spinal fluid and early and thorough treatment.

The plan of attack attempted by Swift and Ellis, of the Rockefeller Institute, of injecting a quantity of the patient's own serum (obtained an hour after an intravenous injection of Salvarsan) into the spinal canal, judging from their report of cases, has given encouraging results in tabes, and to a lesser degree in general paresis. This method, however, has not been sufficiently tested out by other observers to enable a judgment to be formed as to its merits. We have used it in only a few cases. Ravaut advises 3 to 12 mg. Neosalvarsan in a sterile 6 per cent. solution, 1 to 4 drops of which are injected weekly.

As before mentioned, the results of treatment should be checked as far as possible by the Wassermann test and cell count of the cerebro-spinal fluid. While not conclusive, they are probably our best index to the effectiveness of treatment.

For the prophylaxis of syphilitic infection, the plan recommended in 1906 by Metchnikoff and Roux has been tried in the United States army and navy with good results. It consists in the inunction of a 33 per cent. calomel ointment, rubbed on the suspected area for five minutes *within eight hours*, or *at most eighteen hours*, after exposure. It is a simple, practical method, and well worthy of trial.

In conclusion, I wish to say that I have not essayed the impossible task of covering the ground suggested by the subject of my paper, but have attempted to bring forward some points for the consideration and discussion of a disease which demands the most careful study of the profession, not alone from its importance to us as practitioners, but to the community at large.

PNEUMOTHORAX AND REST TREATMENT IN THE MANAGEMENT OF PULMONARY TUBERCULOSIS

BY JOHN B. MURPHY, M.D., AND PHILIP H. KREUSCHER, M.D.,
CHICAGO.

Murphy's technique is described in this paper, contributed to the March Special Tuberculosis Number of the *Interstate Medical Journal*, as follows: The patient is placed in a comfortable sitting position and the chest is bared over the side to be injected. The point of insertion of the needle varies somewhat in individual cases. If the apex of the lung be the site of the lesion, the needle should be inserted in the fifth or sixth interspace between the anterior and midaxillary line. The best point is the fifth interspace at or near the anterior axillary line. If it be a middle or lower lobe tuberculosis, the injection should be made over the upper lobe, preferably in the fourth interspace just outside the mammary line. Ethyl chloride may be used for local anesthesia, though we have recently infiltrated the injection zone with a novocaine solution and have found it most satisfactory, for in this way the skin and tissues down to the pleura may be thoroughly anesthetized. A tenotome puncture should always be made through the skin to permit of easy insertion of the needle, to prevent the introduction of septic fragments into the pleura. It is important after the needle is inserted

and before the tube is attached to assure oneself that the point of the needle is in the pleural cavity, and this is done by instructing the patient to take a series of deep inspirations. If the needle is within the pleural cavity there will be a current during both phases of respiration. The opening of the needle should be covered with cotton for the purpose of filtering the air that is admitted and thus diminish the likelihood of infection of the pleura. Sometimes, even though the point of the needle be within the pleural cavity, it is found that the current of gas meets with considerable resistance. This is undoubtedly due to the fact that the current of gas, unless some pressure be used, impinges on a small area of lung tissue, and that it is not sufficient to overcome the cohesion that exists between the two layers of the pleura, which cohesion Lempke said had been estimated at $12\frac{1}{2}$ mm. Hg. To determine that the tip of the needle is in the pleural cavity, a manometer may be used after the manner of Gray, which will indicate the negative pressure by a sudden rise in the near column of the instrument, provided that there is no adhesion between the leaves of the pleura at the point of puncture.

We always use a blunt needle, aspirating size, with an additional opening on the side of the needle near its tip. This opening permits the gas to pass into the pleural cavity should the tip of the needle be plugged by a bit of tissue. After the needle has been introduced, it is attached to the tubing leading to the cylinder which contains the nitrogen gas. The quantity of gas to be injected varies considerably and should range from 50 to 200 c. m., the amount to be given in each case being best regulated by the symptoms of distress, dyspnea, and the displacement of the mediastinal contents and diaphragm. When the proper amount of gas has been injected, the needle is withdrawn, the wound sealed with collodion, and a small firm compress is placed over the puncture. This compress prevents the escape of gas from the pleura into the subcutaneous cellular tissue. The patient is then placed in bed in a comfortable position. If the cough or dyspnea become annoying, a small hypodermic of heroin may be given.

Skiagrams should be made before and after the injections to determine the progress of the disease, to watch the extent of the lung collapse, and to note the pressure on the heart and mediastinum.

THE THERAPEUTIC VALUE OF THE POTATO

By HEATON C. HOWARD, L.R.C.P. (LOND.), M.R.C.S. (ENG.).

For several years Heaton C. Howard (*The Lancet*, April 11th, 1914) has been studying the therapeutic uses of the potato. He mentions two facts which stand out prominently from his results. The first is the prompt relief of pain, acute or subacute; the second is the rapid absorption of fluid in cases of synovitis where this remedy has been employed. His results have been constant and thoroughly tested.

Upon investigation no alkaloid has been found in the potato, its chief ingredient being potash salts. The basis of all the pharmacological preparations is the liquid extract—*extractum solani liquidum*. The method of preparation is thus described: The raw potatoes are put into a hydraulic press and the liquid is squeezed out. One-half the weight of the tuber comes away as fluid. From this fluid the starch and nitrogenous matter is removed, leaving the juice with the salts in it. With heat it is concentrated and some glycerine added to preserve it, until it is five times the strength of the juice, i.e., ten times the strength of the potato itself. The ointment is made the same strength as the extract, being prepared chiefly with lard. With equal parts of the extract and lin. saponis co., or two of extract and one of soap liniment, a liniment is made. The plaster is made as ordinary plaster, strength ten to one. All these preparations are now on the market in England and sold at a moderate price.

The action of the liquid extract on synovitis with effusion into the knee-joint, whether traumatic or gouty, speedily relieves pain which does not recur. Absorption of the fluid takes place in four to six days. At the end of a week the patient is up, using the knee slightly. In fourteen to sixteen days he can resume employment.

In acute cases it is applied as a fomentation or poultice, one part of extract to three or four parts of hot water on three or four layers of lint, covered with protective, then cotton wool and a bandage. This should be renewed every two, three or four hours, according to the severity of the case, until the fluid is absorbed. No splint is required, but the patient must be kept in bed. Several cases are cited.

In gout the local treatment relieves the pain more quickly than any other treatment at present used. It is applied, one part of extract to three or four parts of hot water, the same as in synovitis, until the pain and swelling are relieved. One typical and several other cases are recorded.

In lumbago, subacute rheumatism, muscular rheumatism or fibrositis and bruises considerable relief is given.

In lumbago, foment the back well with hot water, and whilst the skin is red have the ointment well rubbed on three or four times a day, the patient being in bed a day or two to give the part rest.

In the various forms of subacute, chronic, muscular rheumatism, a liniment made of two parts of ext. solani to one part lin. saponis rubbed on the part will in most cases give relief after the first or second application.

It has also been of great benefit in sprains and bruises.

The author has found this method of treatment relieves pain much more quickly than lead and opium lotion.

THE CURATIVE TREATMENT OF GENERAL PARALYSIS

BY W. H. B. STODDART, M.D., F.R.C.P.
Superintendent of Bethlem Royal Hospital.

For more than fifty years, Stoddart (*Medical Press and Circular*) says, the probability of syphilis bearing an etiological relationship to general paralysis has been recognized. Patients were treated with mercury and iodide of potassium with no avail. It came to be regarded as an incurable disease. Dr. Clave Shaw had a few successes after trephining and draining the cerebro-spinal fluid, but his plan was not generally adopted. About ten years ago Dr. Ford Robertson, Edinburgh, announced the discovery of the bacillus paralyticans in the cerebro-spinal fluid and that he had secured remissions through a vaccine prepared from the bacillus.

The bacillus paralyticans was not generally accepted, but Robertson's work raised the question of the cause being due to a secondary infection of some kind superimposed upon syphilis. This notion received some support, as patients treated with urotropine for cystitis did well, and cure was even sometimes established. There are few drugs which find their way into the cerebro-

spinal fluid. Potassium iodide fails to enter the cerebro-spinal fluid, but urotropine does; and beneficial results from the latter lent support to the hypothesis of a micro-organism in the nervous system.

For several years, therefore, Stoddart has given all his general paralytics ten grains of urotropine three times a day, and the result has been that no convulsive seizures ever occur, and remissions obtained in 25 per cent. of cases. But in 75 per cent. urotropine has proved a miserable failure.

"Provocative dosage"—a large dose of a drug killing a micro-organism; a small one only stimulating to further activity; the difficulty with large doses of urotropine is that they are liable to cause strangury. Lately Dr. Stoddart has adopted the plan of giving twenty grains four times a day for four days, omitting the drug for four days alternately.

As remissions are liable to occur when the patient is attacked with an acute illness, Pilez hit upon the plan of injecting tuberculin to produce a febrile attack, but in cases where this is tried the patients should have tuberculosis eliminated. After a von Pirquet test is made, a ten per cent. solution of Koch's alt-tuberculin (T_A) is prepared as follows: Tuberculin, one part; glycerine, four parts; sterilized water, five parts. One division of a Pravaz syringe—0.01 milligramme of tuberculin—is then injected. Two days later, if the reaction is not severe and the temperature not above 101 deg. F., 0.02 milligramme is given; and then, at intervals of two days, 0.03, 0.04, 0.05 milligramme, up to one-half milligramme. With this treatment Pilez obtained remissions in 26 per cent. of his cases.

Donath, Fischer and Lépine used nucleinate of soda to produce hyperleucocytosis, as follows: Sodium nucleinate, two parts; sodium chloride, two parts; sterilized distilled water, one hundred parts. Donath recommends seven injections of this at intervals of five days. With this he obtained remissions in thirteen out of thirty-six cases.

Salvarsan has been tried by many, all having negative results. This, like mercury and iodide of potash, fail because the choroid plexuses will not allow these drugs to enter the cerebro-spinal fluid. This has been definitely proved.

Swift and Ellis have introduced the intrathecal injection of salvarsanized serum. Salvarsan is first introduced into the blood of the patient by intravenous injection; a quantity of blood is subsequently removed and the serum separated from it, and, lastly, this serum is injected into the lumbar sac of the patient.

This is the most recent treatment and most in vogue at the present time. It has only been introduced in the last few months.

Half a gramme of neosalvarsan is dissolved in about 5c.c. of freshly distilled water. It is very important that the water should be freshly distilled into a sterile flask, for it has been found that the presence of dead bodies of micro-organisms in the solution causes a very severe general reaction, the temperature of the patient rising to 104 to 105 deg. F. after injection. A suitable vein is selected, and with a specially constructed syringe the solution of neosalvarsan is injected into the blood stream. From one hour to four hours later the patient is bled and 40 c.c. of blood are withdrawn into sterile centrifuge tubes. The blood is centrifugalized in the electric centrifuge for one hour so as to separate the clot and corpuscles from the serum, and 12 c.c. of the salvarsanized serum are diluted with 18 c.c. of normal serum.

Venesection is unnecessary, as the blood can be obtained through the needle of the salvarsan syringe, that for the normal serum being obtained just before injecting the salvarsan, and the salvarsanized blood one to four hours later by the same method.

The mixed sera are now heated to 56 deg. C. for half an hour, a lumbar puncture is made and cerebro-spinal fluid is withdrawn until the pressure falls to 30 mm. This sometimes means the withdrawal of 40 c.c. or more of cerebro-spinal fluid. The mixed sera are now injected into the spinal canal and the patient placed in the Trendelenburg position so that they may trickle up to the brain by the force of gravity. This procedure is repeated about once a week until the patient has received about ten injections.

Some physicians dilute the salvarsanized serum with sterile salt solution or distilled water instead of normal serum.

Stoddart pins his faith to the urotropine treatment as the most satisfactory. Ten grains of urotropine three times a day ultimately induces a solution of one in 20,000 of formaline in the cerebro-spinal fluid.

THERAPEUTIC NOTES

Tachycardia.—T. C. Janeway (*Archives of Internal Medicine*) says where great tachycardia sets in acutely, in cases of well-compensated mitral disease, the tachycardia can be controlled by digitalis within forty-eight hours, with complete relief of symptoms. Even under long-continued digitalis medication such patients may maintain a fair working ability for years. Treatment must be instituted before marked dilatation of the right heart and general venous stasis have occurred.

Common Colds.—N. P. Stauffer (*N.Y.M.J.*) treats colds according to three stages of rhinitis. For the dry pricking of nose and throat, with chilliness, headache, absence of secretions, temperature 99 to 104 deg., the treatment should be hot baths, purges—calomel and salts—salts especially to deplete the system of water, rest in bed, icebag to forehead, hot water bag to feet; internally, 10-grain Dover's powder and hot lemonade; in the nose locally, epinephrine, 1:5,000. When the condition is a profuse watery discharge, throat sore, headache less, atropine internally until dryness of nose and throat develops; hot alkaline nasal douches. With mucopurulent discharge, lowered temperature, pulse less bounding, etc., hot alkaline nasal douches, oil sprays, strychnia sulph. 1-100 gr., three times a day; urotropine, 5 grains, three times a day.

Brachial Neuritis.—C. M. H. Howell (*Practitioner*) prescribes for the pain in rheumatic or gouty cases the following: Antipyrine, grs. five to ten; sodium salicylate, grs. ten; caffeine cit., grs. five; aromatic spts. ammonia, one-half dr.; chloroform water, one-half dr.

Sprains and Strains of Knee-Joint.—G. L. Cheatle (*Practitioner*) first prescribes rest for about twenty-four hours, in first sprains where there is no rupture of ligamentum patellæ; a splint not necessary, but a thick layer of cotton wool and a bandage. Cold might arrest the hemorrhage if seen in first five minutes after injury; seen after a half hour, hot and frequent fomentations to the joint. At the end of twenty-four hours, gentle massage

may be applied to the thigh muscles and articulation and passive movement may be begun. In the latter the patient should help the surgeon in every movement. They will be acting with and not against the surgeon. There need be no fear of excessive movement.

In a very severe sprain the treatment should be continued for three or four days, when walking may be cautiously resumed. At the end of a week, massage may be continued and regular muscular exercise performed by weight and pulley attached to wall. If the exercises cause pain and swelling, hot fomentations should be resumed. In chronic cases regular muscular exercises with weight and pulley or Cheatle's foot dumb-bell may be used, but they must be regularly performed. Exercises are devoted mainly to improvement of flexors and extensors.

Threatening Obstetric Hemorrhage.—G. Fioux (*Annales de Gyn. et d'Obs.*) placed the patient in the Trendelenburg position to combat symptoms of ischemia of the brain and found that it arrested at once and permanently the tendency to hemorrhage. After that he applied it in four additional cases. He improvised a support of a chair, face down under the mattress, the back of the chair under the patient's back. By this means the blood in the uterus and vagina falls back and acts as a tampon or plug to the bleeding surface.

Fracture of Patella.—J. Rogers (*Annals of Surgery*) suggests that the autogenous bone graft be taken from the crest of the patient's tibia. This should be placed over the front of the patella and so bridge the lines of fracture. The following is his description of the procedure: Make a V-shaped flap, the apex of the convexity over the ligamentum patellæ, the extremities over the femoral condyles. Then suture the lateral rents in the fibrous capsule. The anterior surface of the patella should be denuded of periosteum about one inch square on each side of the line of fracture. Then expose the crest of the tibia and chisel off a plate one and one-half inches long, three-quarters wide and one-eighth thick from its inner surface. The periosteum of this plate is left undetached. Apply the raw surface of this to the denuded area in front of the patella. The fragments should be united by a figure-eight chromicized catgut or kangaroo tendon suture. This suture grasps the ligamentum patellæ and quadriceps tendon immediately below and above the broken bone and crosses in front

of the transplanted plate. The flap of periosteum is now drawn up to or over the transplanted plate with two catgut ligatures. Close the skin incisions by a subcuticular catgut stitch. Place the limb in a plaster-Paris case splint four or five weeks.

Urticaria.—A. Eustis (*New Orleans Med. and Surg. Jour.*) says the aim in treatment should be to prevent putrefaction of histidine in the intestinal canal. The way to do this is obvious: not to introduce any histidine, or when so introduced to overcome intestinal stasis. An initial purgative, such as calomel and phenol-thaleine, of each grains three; pulv. rhu., grains six; misce et caps, number three; one every half hour at night. In the New Orleans Charity Hospital in several hundred cases it has been found that the average time of the first stool has been eight hours after the last dose; little nausea and no colic. A morning saline is not needed as a rule. Daily evacuation of bowels can be best accomplished by two or three-ounce doses of liquid albolene, fig paste with chopped senna leaves, or agar-agar taken in oatmeal in the morning. To overcome the intestinal toxemia, beets, celery, spinach and other articles with much cellulose may be added to the Salomon diet of tea, coffee, bouillon, lemon and grape juice, potatoes, rice, cereals and plenty of butter and sugar, with 200 grammes of bread made of coarse flour. A glass of water on rising in the morning and regularity in emptying the bowels tend to remedy the condition. Examination of the urine for indican should be conducted systematically, and even a trace should call for the elimination of protein food from the diet.

Wounds.—H. Poth (*Deut. Zeit. für Chir.*), noticing that wounds healed exceptionally well and readily in places with low humidity, applied the method in the aseptic treatment of granulating wounds by playing a jet of hot air upon them. He records the details in fifty-two cases with ideal results. Application is made for three-quarters of an hour once a day. The Kutner apparatus for this purpose, however, is expensive.

Prostatectomy.—Van Bisselick (*Zentra. für Chir.*) notes prompt recovery after prostatectomy when a retention catheter is worn continuously for a time and the incision in the bladder sutured, leaving only a small space to bring out one strip of gauze. The catheter is changed daily and the bladder washed every two hours.

Reviews

Students' Pocket Prescriber. By H. AUBREY HUSBAND, M.B.
Fourth edition, revised and enlarged. Edinburgh: E. and S.
Livingstone.

To gain a knowledge of prescription writing, medical students will find this vest-pocket formulary a good guide. The prescriptions are well selected.

Treatment of Chronic Leg Ulcers, a Practical Guide to Its Symptomatology, Diagnosis and Treatment. By DR. EDWARD ADAMS. 122 Pages. Cloth, \$1.00. Published by The International Journal of Surgery Company, 100 William Street, New York City.

This is a small book dealing lucidly and concisely with conditions very often found to be intractable. It is nicely illustrated. There is a brief description of the surgical treatment of enlarged veins.

Interstate Medical Journal. St. Louis, Mo., The Interstate Medical Journal Company.

The March issue is a special Tuberculosis Number, admirably well filled with many original articles by well-known authorities. The price of the journal is \$2.00 per annum.

The Intervertebral Foramen. By HAROLD SWANBERG. Chicago: Chicago Scientific Publishing Co.

Mr. Swanberg is a member of the American Association for the Advancement of Science. The book is illustrated with 16 full-page plates, all new. It will enlighten practitioners upon compression of nerves from the foramina, and as to whether a considerable number of pathological conditions can be substantiated on these grounds.

International Clinics. Volume I. Twenty-fourth Series, 1914. Philadelphia, London and Montreal: J. B. Lippincott Co.

As usual the volume is well illustrated. There are seven excellent articles upon Treatment and Therapeutics which alone make the issue valuable. To these add four on medicine, two on surgery; and the epitome of the progress of medicine generally during 1913. No work keeps a medical man any better abreast of the times than does this one.

Biology: General and Medical. By JOSEPH MCFARLAND, M.D., Professor of Pathology and Bacteriology, Medico-Chirurgical College of Philadelphia. Second edition, thoroughly revised. Octavo of 457 pages, with 160 illustrations. Philadelphia and London: W. B. Saunders Company, 1913. Sole Canadian Agents: The J. F. Hartz Co., Ltd., Toronto. Cloth, \$1.75 net.

In the second edition of this interesting book, the author has endeavored to eliminate the defects of the first and has introduced such new matter as would bring it up to present-day thought. That its usefulness is increased thereby will readily be assented to; and that it will serve as a reliable guide to students of biological science.

The Practice of Pediatrics. By CHARLES GILMORE KERLEY, M.D., Professor of Diseases of Children, New York Poly-clinic Medical School and Hospital. Octavo of 878 pages, 139 illustrations. Philadelphia and London: W. B. Saunders Company, 1914. Sole Canadian Agents: The J. F. Hartz Co., Ltd., Toronto. Cloth, \$6.00 net; half morocco, \$7.50 net.

Our readers will remember a previous volume of Professor Kerley reviewed in these pages a few years ago—The Treatment of Diseases of Children. Many have no doubt found that an admirable guide in practice amongst children. They will be glad to learn Dr. Kerley has put his hand, and mind, and experience to a larger and more comprehensive work. The book is a very complete one and will be sure to take first-class rank with other extensive books of pediatrics.

Dominion Medical Monthly

And Ontario Medical Journal

EDITED BY

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GEORGE ELLIOTT, MANAGING EDITOR.

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COMMENT FROM MONTH TO MONTH

An Infant Mortality of over six thousand under one year of age and over eight thousand under five years in Ontario in 1912 should call for elaborate work during the coming summer; so in other provinces.

Some boards of health are preparing circulars to mothers, printed in English, French, Hebrew, Italian, German and Russian. Will these circulars be kept even if they are read and remembered? As an infant mortality campaign is concerned most with the poorer and uneducated classes, would not suitably illustrated and neatly printed cards, either framed or suitable for framing, or upon a fine quality of heavy cardboard, be very much better? There should be a staying power to all instructions given to mothers. Circulars are too often immediately destroyed, mislaid or burned. There is nothing in them to beget a saving propensity.

Probably neatly bound books of instruction would be better still. There should be a text-book upon this subject for mothers at a nominal price. It need not be elaborate, but simple, plain,



direct, and to the point. To those who could not buy for themselves they should be furnished free by all municipalities.

If provincial or municipal governments will not publish these there is a first-class opportunity for the Canadian Public Health Association to publish a small Text-Book for Mothers.

Unlicensed and Unauthorized Practitioners of the healing art are flourishing in the Province of Ontario to a degree which is becoming alarming even to the people.

No matter under what sonorous, harmonious and melodious titles they are prosecuting their almost superstitious mummeries, they all practically come under the common category of quackery.

This is amply testified to and borne out by the fact that it is in the cities and towns most quacks prosecute their calling. It is only upon rare occasions an excursion into country districts is taken.

To an educated, trained and humanitarian profession, the condition of quackery running riotously over the Province is becoming exceedingly intolerable.

Any man or woman has as much moral right to issue marriage licenses and perform the marriage ceremony as the hordes of unauthorized charlatans have to style themselves "doctors" and diagnose and treat diseases and persons with which they are so imperfectly acquainted. Surely no person is going to contend in this age that knowledge of the science of medicine which has been so carefully and gradually evolved and built up can be acquired in a few months' course of study which takes no cognizance of the several great branches of medicine.

It is really deplorable to reflect how many apparently intelligent and educated people can be carried away from the cold logic of facts to the specious sophistry of all these uncultured cults.

Nearly a year has passed since Sir James Whitney, now happily almost restored to health, announced the purpose of his government to appoint a commission to inquire into the whole question of medical education and practice in the Province. The medical profession are respectfully and patiently awaiting that commission. The call is loud for the rectification of unjust license.—license, which is paradoxical for it is not true license.

The medical profession stands for two systems, prevention and treatment; and the former is as great a moiety of its work as the latter. Can this be ever said of quackery?

Editorial Notes

MEASURES THAT WILL CAUSE FURTHER DECREASE IN TUBERCULOSIS

(J. A. M. A.)

These may be enumerated as, primarily:—

1. General instruction in hygiene and in the conditions that predispose to this disease.
2. Tenement-house laws to prevent overcrowding.
3. Sunlight.
4. Open windows, verandahs and roof-gardens.
5. Municipal breathing-spaces; parks, playgrounds, etc.
6. Proper ventilation of all churches, theatres, halls and assembly-rooms.
7. Open-air schools, or open-window schools.
8. Laws prohibiting spitting on the streets and in buildings.
9. Better factory sanitation; better methods of cleaning public buildings and public conveyances.
10. Special laws against the dissemination of dust in factories, foundries and all occupations in which it may be inhaled.
11. Better hygiene and improved buildings for all general hospitals, prisons and jails.
12. Better laws for the more scientific control of tuberculous cattle, and compulsory cleaning and improving of all cow-barns and farms used for producing public milk supplies.
13. Certification or pasteurization of all milk used for infant feeding.

Personal preventive measures are:

1. Compulsory report of every case of tuberculosis.
2. Careful instruction of the family in the care of the tuberculous person, if he is to remain at home.
3. Careful personal instruction of the patient, if he is at an age to receive it, as to the possible methods of communicating the disease to others.
4. Sanatoriums for incipient cases of pulmonary tuberculosis.
5. Isolation hospitals for advanced tuberculosis patients whose home surroundings are inadequate.
6. Skilled dispensary care of ambulatory cases and visiting nurses for "follow-up" work.

7. Sanatoriums or rest-hospitals for joint and bone tuberculosis; these are of special value when located at the seaside. (The value in glandular tuberculosis of seaside sanatorium or verandah rest-cures should also be recognized.)

8. Careful instruction to reduce the morbid fear of other members of the family, and for the mental comfort and happiness of the patient. This should be given, both by the board of health and by the attending physician, to the effect that the disease is not contagious, and that if the instructions urged are properly carried out the probability of acquiring the disease from the patient is practically nil.

LAKE AND RIVER VESSELS

BY RUFERT BLUE, Surgeon-General, Washington, D.C.

AN OPEN LETTER.

To owners, agents, and masters of lake and river vessels:

Sir,—I desire to call your attention to the fact that there were admitted to the United States marine hospitals during the fiscal year ending June 30, 1913, 392 cases of typhoid fever among seamen employed aboard United States merchant vessels.

Considering the fact that in addition to this number many other cases were treated at various public hospitals and at home, it is evident that the incidence of typhoid among the personnel of our merchant marine is high.

That the question of typhoid prevalence is of prime importance, from the standpoints of health conservation and financial welfare, to seamen, shipping interests, and the public at large, may be readily appreciated when we consider a few facts.

Hospital experience has demonstrated that the average seaman who has an attack of typhoid loses in actual working time, as a result of his illness, from two to four months. Taking two and a half months, which is a fairly low average, as the individual loss in time, and \$1.50 as the average daily wage of the employee, it is seen that the above mentioned 392 cases represent in the aggregate a loss of 80 years in actual working time, and of \$44,000 in wages. In terms of cold dollars and cents alone, this is a rather heavy price to pay for an entirely preventable disease.

Every case of typhoid must be considered as a focus for the spread of the disease, either during the period of actual illness or subsequent to recovery as a possible "carrier." If such a case or "carrier" is on a vessel, he is not only a constant menace to his fellow shipmates and passengers on account of the close association which exists on board between individuals, but to the public at large, for his frequent shifting from port to port as a travelling focus of infection renders him an active agent in the spread of the disease. As illustrative of the foregoing, it may be stated that recently a "carrier" aboard one of our coastwise vessels was found to have been responsible for the occurrence of 28 subsequent cases of typhoid among the crew, and during the past summer a cook who performed his duties in the galley while in the early stages of his illness played an important part in a serious outbreak of the disease among the passengers and crew of one of our large inland steamers. Such incidents not only militate against operative efficiency, but by becoming general knowledge may affect prospective passenger traffic and occasion financial loss to the steamship company.

In order to efficiently combat typhoid prevalence, it is necessary either to enforce sanitary measures which will protect individuals from the sources of infection, or to immunize them against the disease.

Though the former provision should be carefully carried out by people on board ship as well as on shore, the nature of a sailor's calling necessarily subjects him to many insanitary dangers over which he has practically no control. On account of his close association with fellow shipmates on board, the great variation in character of food and drinking water, and his roving life from port to port, he is exposed to many more sources of infection than is the average citizen who remains at home surrounded by municipal sanitary safeguards.

For these reasons, there is no class of individuals to whom immunization by typhoid prophylactic is of more value as an insurance against the disease than to sailors. There is no doubt that if the practice of typhoid immunization is encouraged aboard ship, there will be a marked reduction in the yearly typhoid rate among crews.

That this method of prevention has long since passed beyond the theoretical and experimental stages is evidenced by the results obtained in the armies and navies of the United States and Europe.

The value of this safeguard is recognized as being so great that vaccination against typhoid is now compulsory in both our military services, and as an instance of what it has accomplished toward prevention of illness and death the following figures give a graphic idea: During the Spanish-American War, in 1898, among 10,759 troops assembled at Jacksonville, Fla., there occurred over 2,000 cases of typhoid, with 248 deaths during a period of about four months. In 1909 the use of the typhoid prophylactic was begun by the Army and was made compulsory late in 1911. The opportunity to observe the results of typhoid vaccination on a large scale was afforded during the summer of 1911, when 20,000 troops were mobilized in Texas and along the southern border of the United States. Among this large assemblage of men, over 9,000 more than were encamped at Jacksonville in 1898, there occurred during the mobilization period of over four months but two cases of typhoid, both mild and ending in recovery. The report of the Surgeon-General of the Army for the fiscal year ending June 30, 1913, states that there occurred during the year, among the entire personnel of the forces stationed within the geographical limits of the United States, but 18 cases of typhoid, with 3 deaths, as compared to 44 cases, with 6 deaths, in 1911; 142 cases, with 10 deaths, in 1910, and 173 cases, with 16 deaths, in 1909.

As showing the War Department's opinion of the value of typhoid vaccination, the following is quoted from the report: "It has now been clearly demonstrated that the immunization against typhoid fever by the use of typhoid prophylactic is a thoroughly practical measure for the prevention of this disease; that it is unattended by bad results; and that its protective value is very probably equal to that afforded against smallpox by vaccination."

Not only are the military establishments availing themselves of this form of insurance against disease and death, but throughout the country many municipal health authorities are bending every endeavor to similarly fortify the citizens of their respective communities.

Therefore, in view of the undoubted value of the use of the typhoid prophylactic to sailors, it is strongly urged that all shipping interests unhesitatingly recommend and encourage their ship employees to avail themselves of this protection against typhoid infection. A display of interest and action on the part of the ship companies, owners, agents, captains, seamen's unions, and others in authority toward the furtherance of a campaign of edu-

cation in typhoid prophylaxis will most certainly be of great value in the fight against this disease.

The United States Public Health Service is ready and willing to render every assistance and advice, and at all relief stations throughout the country service officers are instructed to administer the typhoid prophylactic to all sailors applying for same.

OFFICIAL PROGRAMME OF THE ONTARIO MEDICAL ASSOCIATION

TUESDAY, MAY 26TH.

Registration of Members in Secretary's Office, Medical Building.

SECTION MEETINGS.

- 10 a.m.—Medical Section. (In North Lecture Room.)
1. Case of Tetanus Treated by Carbolic Acid, with Recovery—
Dr. J. T. Fotheringham.
 2. Artificial Pneumothorax in the Treatment of Tuberculosis—
Dr. C. D. Parfitt.
 3. Vincent's Angina, Reports of Cases—By Drs. P. Goldsmith,
D. Gibb Wishart, and Brefney O'Reilly.
 4. Syphilitic Splenomegaly simulating Banti's Disease—Dr.
H. B. Anderson.
 5. Case of Splenectomy in Banti's Disease—Dr. J. S. N. Mag-
wood.
- 10 a.m.—Surgical Section. (In the South Lecture Room.)
1. Acute Intestinal Obstruction—Dr. F. N. G. Starr. Dis-
cussion opened by Dr. Rutherford (Stratford).
 2. Cardiospasm, with exhibition of two cases—Dr. J. K. Mc-
Gregor, Hamilton.
- 10 a.m.—Exhibition of specimens to illustrate Dr. E. Libman's
lecture on Subacute Bacterial Endocarditis. These interest-
ing specimens can be seen all day on both Tuesday and Wed-
nesday.
- 12.30 p.m.—Luncheon in the Medical Building.
- 2 p.m.—Afternoon.
1. President's Address—Dr. C. F. McGillivray.
 2. Symposium on "Syphilis." (a) Address—Dr. J. A. For-
dyce, New York. (b) Syphilis of the Nervous System—
Dr. Arthur Ellis, Rockefeller Institute, New York. (c)
Syphilis from the Standpoint of the Officer of Public

Health—Dr. J. S. W. McCullough. (d) Statistics—Prepared by Drs. D. Graham and Dr. R. W. Mann. Discussion.

3.30 p.m.—Business Meeting.

1. Reading of Minutes.
 2. Election of Nominating Committee.
 3. Reports of Officers.
 4. Reports of Committees—
 - (1) Necrology—Dr. J. H. Elliott.
 - (2) Audit—Dr. E. Ralph Hooper.
 - (3) Special Committee on the Question of Fees, etc.—Dr. H. B. Anderson, chairman.
 - (4) Credentials—Dr. R. R. Wallace.
 - (5) By-laws—Dr. J. W. S. McCullough.
 - (6) Ethics—Dr. A. B. Osborne.
 - (7) Special Committee on the Amalgamation of the County Societies—Dr. F. Arnold Clarkson.
 5. Motions of which notice has been given—
 - (1) Dr. A. H. Wright, *re* the Separation of the Ontario Medical Association from the Canadian Medical Association.
 - (2) Dr. Harley Smith, *re* a committee for the consideration of all resolutions.
 6. Resolutions—
 - (1) *Re* the Workmen's Compensation Act.
 7. Notices of Motion.
- Evening—8 p.m.
1. Address in Surgery—By Dr. Finney, of Johns Hopkins University, Baltimore, "The Cause of Failure in Operations for Cholelithiasis."
 2. Address in Obstetrics—By Dr. B. P. Watson.

WEDNESDAY, MAY 27TH.

Clinics and operations at the General Hospital and at the Hospital for Sick Children, and demonstrations in the Pathological Building, all beginning at 9 a.m.

Sick Children's Hospital.

Surgical Section—To be presented by Drs. C. L. Starr, W. E. Gallie, D. E. Robertson, and Bruce Robertson.

1. Congenital Dislocation of Hip. Results of operation.
2. Bone Grafting for Pott's Disease. Results of operations.
3. Tendon Fixation and Transplantation.

4. Fractures of the Elbow, Humerus and Femur. A study of the results of treatment and a demonstration of methods.

Operations—

1. Congenital Dislocation of Hip.
2. Abbott's Treatment of Lateral Curvature of the Spine.
3. Tendon Fixation and Transplantation for Infantile Paralysis.
4. Bone Grafting.

Medical Section—

- 9 a.m.—Demonstration of Cases in wards—Dr. Allen Baines.
 10 a.m.—Rheumatism in Children—Dr. Jos. S. Graham.
 10.30 a.m.—Meningitis in Children—Dr. Canfield and Dr. Newell (Watford).
 11 a.m.—Congenital Syphilis—Dr. George Strathy.
 11.30 a.m.—Birth Palsies—Dr. George Boyer.

Toronto General Hospital.

Medical Clinics—

- 9 a.m.—Aneurysm—Dr. A. McPhedran, Ward G.
 9 a.m.—Cardiac Cases, illustrating various Lesions; Graphic Methods of Examination—Drs. Andrew R. Gordon and Jno. Oille, Ward G.
 10 a.m.—Diseases of the Stomach—Dr. G. Chambers, Ward H.
 10.30 a.m.—Demonstration of Effect of Treatment in Heart Disease—Dr. R. D. Rudolf, Ward H.
 11 a.m.—Anemias—Drs. Fotheringham and Burson, Ward I.
 11.30 a.m.—Spastic paraplegia and Treatment with 606—Dr. W. B. Thistle, Ward I.
 9 a.m.—Tuberculosis—Outdoor Department—Drs. Parsons, Parfitt and Caulfeild.
 9 a.m.—Skin Clinic—Outdoor Department—Drs. D. King Smith, G. E. Smith and Trow.
 9 a.m.—Neurology—Outdoor Department—Drs. Howland and Armour.
 11 a.m.—Syphilis—Demonstration of Wassermann test, with Cases—Dr. D. Graham, Room 38, Pathological Building.
 9 a.m.—Cholelithiasis—Dr. W. Goldie, Outdoor Department.
 11 a.m.—Pathology, Autopsies and Fresh Specimens in the Morgue, Pathological Building—Prof. J. J. McKenzie.

Surgical Clinics—

- 9 a.m.—Diagnosis and After-treatment—Mr. I. H. Cameron, Ward A.

- 9.30 a.m.—Injuries of Abdominal Viscera—Dr. A. Primrose, Ward C.
- 10 a.m.—Acute Abdominal Emergencies—Dr. H. A. Bruce, Ward B.
- 11 a.m.—Dr. G. A. Bingham, Ward B.
- 9 a.m.—Fractures—Outdoor Department.
1. Non-Operative Treatment—Dr. Shenstone.
 2. Operative Treatment—Dr. J. A. Roberts.
- 9 a.m.—Gastro-intestinal Diseases—Lecture Theatre.
1. Surgical Treatment—Dr. F. N. G. Starr.
 2. X-ray Findings—Dr. E. Stanley Ryerson.
 3. Chemical Findings—Dr. F. W. Rolph.
- Operations.—Operations in all the theatres during the whole morning.
- Afternoon, 2 p.m.—Address in Medicine—Dr. E. Libman, Mount Sinai Hospital, New York, "Subacute Bacterial Endocarditis."
- 3 p.m.—Business Meeting—(1) Report of Committees. (2) Unfinished Business. (3) New Business. (4) Installation of Officers.
- Evening, 8 p.m.—Dinner at Royal Canadian Yacht Club. Hon. W. J. Hanna will give an address. Secure your tickets at the time of registration.

THURSDAY, MAY 28TH.

Morning—Clinics at Grace, Western and St. Michael's Hospitals.

Grace Hospital, 9 a.m.

Service of Dr. B. L. Riordan; assistants, Drs. McConnell and Thomas—Treatment of fractures and dislocations; demonstration of when to use Lane's plates. Removal of spleen, stab wound, with ease.

Service of Dr. J. Milton Cotton; assistants, Drs. McPherson and Hooper—Wertheim's operation for procidentia uteri; demonstration of cases previously operated on. Single stitch operation for perineorrhaphy. Intestinal stasis; treatment by Coffee's slinging operation, and ileo-sigmoidostomy, with cases already operated upon. Bastianelli's operation for cancer of large bowel, with demonstration of case. Case of Leontiasis ossea.

Service of Dr. W. H. Harris; assistants, Drs. Gilmour and Cerswell—Two cases of decompression for Jacksonian epilepsy. Two cases of tubercular kidney. Post-operative abdominal

ptosis. Ureteral catheterization, and renal surgery demonstration.

Service of Drs. Hamilton, Noble, and Griffith—Medical cases of interest in the wards.

The Diagnosis of Gastric and Intestinal Disorders by means of the X-ray Plates, with cases—Dr. Charles Treble.

Demonstration of Clark's new gas-oxygen-ether sequence for prolonged anesthesia—Dr. Herbert Holm.

Western Hospital.

Medical Clinics—

9 a.m.—Tuberculosis—Drs. Geo. H. Carveth, J. H. Elliott, W. J. Dobbie, W. E. Ogden, and F. C. Neal.

10.30 a.m.—Anemia—Drs. W. J. Wilson, H. B. Anderson, Jno. Ferguson, and Williams (Bracebridge).

Surgical Clinics—

9 a.m.—Hernia operations, under Local Anesthesia—Drs. Ingersoll Olmstead (Hamilton), and Perfect.

10.30 a.m.—Diagnosis and Treatment of Perforation of the Stomach and Duodenum, with patient—Drs. S. M. Hay, W. Heggie, H. A. Beattie, and W. T. Parke (Woodstock).

St. Michael's Hospital.

Medical Clinics—

9 a.m.—Mitral Stenosis—Drs. Dwyer, A. J. McKenzie, and J. H. McPhedran.

11 a.m.—Case of Acromegaly—Dr. Guinane.

11.30 a.m.—Injuries to Musculo-Spinal Nerve—Dr. M. H. V. Cameron.

Surgical Clinics—

9 a.m.—Abdominal traumatism, with cases—Dr. G. Silverthorn.

10 a.m.—Intestinal Anastomosis—Dr. J. F. Uren.

11 a.m.—Demonstrations with the Cystoscope—Dr. George E. Wilson.

Operations in theatre all morning.

OBSTETRICS AND GYNECOLOGY.

General Hospital—Wednesday.

9 a.m.—Obstetrical Demonstration—Obstetrical Building—Drs. B. P. Watson, Kinnear, and Mabee.

Abderhalden's Test—Dr. J. G. Gallie.

St. Michael's Hospital—Thursday.

- 9 a.m.—(1) Use of the Pelvimeter. (2) Abdominal Palpation—Dr. M. M. Crawford.

Gynecology—

General Hospital—Wednesday.

- 9 a.m.—Gynecological Demonstrations—Drs. Watson, Marlow, Hendry, and Hendrick.

St. Michael's Hospital—Thursday.

- 9 a.m.—Repair of Perineum and Vagina—Dr. F. A. Cleland.

SECTION OF EYE, EAR, NOSE, THROAT.

Meetings of this section will be held in the Extern Department and operating room, Ward E, at the Toronto General Hospital.

Wednesday Morning.

- 9 a.m.—Demonstration of Tonsil Removal—Sluder Method—Drs. J. C. Calhoun and N. K. Wilson.
Leland Method—Dr. Alex. McKelvie.
- 9 a.m.—Demonstration of Results of Mastoid Operations in Cases Complicated by Sinus Thrombosis—Drs. Perry G. Goldsmith and R. S. Pentecost.
- 10 a.m.—Radical Mastoid Operation—Dr. Gilbert Royce.
- 10.30 a.m.—Presentation of cases in Practice and Case Reports—Hereditary Optic Atrophy; Retinitis Pigmentosa; Embolism of Central Artery—Dr. R. A. Reeve.
Not Designated—Dr. Jno. Morton, Hamilton.
Tuberculous Keratitis—Dr. Colin Campbell.
Not Designated—Dr. G. H. Burnham.
Ptosis; Trichiasis—Dr. Geo. McLaren.
Not Designated—Dr. Mortimer Lyon.
Not Designated—Dr. J. M. MacCallum.
Not Designated—Dr. J. Price-Brown.
Suppurative Otitis Media, treated with Zinc Ions—Dr. Hereward Livingstone.

Thursday Morning.

- 9 a.m.—Suspension Laryngoscopy and Bronchoscopic Examination—Dr. D. J. Gibb Wishart.
- 9 a.m.—Demonstration of Accessory Sinus and Ethmoid Disease—Dr. Geoffrey Boyd.
- 10 a.m.—Demonstration of Trephine Sclerostomy—Dr. R. A. Reeve.

10.30 a.m.—Presentation of Cases in Practice and Case Reports—
Results of Radium Treatment—Dr. G. S. Ryerson.
Post-neuritic Optic Atrophy—Dr. J. C. Patton.
Not Designated—Dr. Wm. Wallace, Berlin.
Not Designated—Dr. N. B. Buchanan, Peterboro'.
Keratosi Pharyngis—Dr. N. K. Wilson.
Not Designated—Dr. J. C. Connell, Kingston.
Radical Mastoid Without Packing—Dr. Jane P. Sproule.
Sarcoma of Eyelid—Dr. Angus Campbell.
Diffuse Suppurative Labyrinthitis—Dr. R. S. Pentecost.
Optic Atrophy After Fracture; Interstitial Keratitis in Adult;
Optic Atrophy in Intra-Cranial Disease; Stab Wound of
Eyeball—Dr. F. C. Trebilcock.

The last hour of each session will be spent in a formal discussion of the demonstrations made, and cases shown during the morning.

We expect that cases and case reports will be presented by other members from the Province, who are not able at this early date to make a definite promise.

Members who wish to present cases or case reports are requested to correspond with the Section Secretary as soon as possible, so that such may be included in a later and more detailed programme which this Section will issue early in May.

2 p.m.—Thursday afternoon.

Through the kindness of the President and Directors of the Ontario Jockey Club, complimentary badges are being issued to members of the Ontario Medical Association and their wives for the races at the Woodbine.

MEMBERSHIP FEES.

Register at Secretary's Office.

Ordinary Members—Annual fee, \$5.00, which includes membership in the Canadian Medical Association, the Ontario Medical Association, and the Journal of the Canadian Medical Association for one year.

Associate Members—Annual fee, \$2.00, payable on registration only. This admits to the privileges of the Ontario Medical Association only.

IMPORTANT NOTICE.—RAILWAY CERTIFICATES.

To avail themselves of reduced Convention Railroad Rates, members coming to the meeting must procure, with their single

fare ticket to Toronto, a Standard Certificate. Ask your agent for this when buying your ticket. Hand it to the Secretary at the place of meeting. A special agent will attend each day to visé certificates, for which a fee of 25 cents will be charged. The Association has this year to make a deposit, as a guarantee to the railroads. The Secretary therefore asks each member to present a Railway Certificate no matter how short the distance he has to come. By so doing he helps the members coming from a distance.

BIOLOGICAL PRODUCTS

The Department of Hygiene of the University of Toronto has undertaken to prepare and distribute various biological products. These include diphtheria antitoxin, tetanus antitoxin, anti-meningitis serum and rabies vaccine for the Pasteur treatment.

The prices of these products are only to be slightly above actual cost. The Department has already entered into arrangements with the Provincial Board of Health of Ontario for the distribution of diphtheria antitoxin and rabies vaccine.

The proceeds of the sale of these substances, after paying the cost of maintenance, will go toward aiding research in Preventive Medicine and Hygiene. Under the plan as it is arranged in Ontario all these biological products will be available at exceedingly low prices, and it is hoped that these prices can be reduced still further at a later date.

The work will be under the direction of the members of the Department of Hygiene.

THE ESTABLISHMENT OF A CENTRAL MEDICAL NEWS DEPOT

The omniscient eye of the ubiquitous newspaper man is fast upon the unsuspecting doctor. It watches his every move—be it in the midst of an operation of unusual character, be it in the turning of the pages of a wonderful medical essay. There seems no escape from this chronicling astuteness. It pierces the closed door of the operating room—it invades the privacy of the consulting room; through it does the provincial physician first learn of the marvelous doings of his metropolitan confrère. But

we must finally confess that this enterprising kindness of the newspaper man is not pleasing to us. Is there not some method for us to adopt to insure future relief? An odd feature of newspaper medical literature is that it always involves physicians who have an inborn aversion to publicity, physicians who aim to work unseen.

To-day our paper tells us that kidney diseases are being favorably influenced by this doctor through the injection of salt into the veins—to-morrow we read of a wizard in the East who is conquering syphilitic disease of the brain by means of autoserosalvarsan injections—next week the tale will be one of a pair of kidneys taken from the body and washed free from bichloride ere replacement.

Let us call a halt—it's fair time this indecent pandering to public curiosity ceased, but if this be impossible, and likely it is, then let us, in co-operation with the daily press, establish an authorized central news depôt that a stop may be put to the publication of weirdly fantastic medical tales, at least. The adoption of such a plan would work but slight hardship on the reading public which, of course, must have its modicum of medical information, and but little upon those of us who ooze information at the slightest provocation—so let it be on.—*The Urologic and Cutaneous Review.*

LITERARY NOTE

Be we financier, industrial worker, navy, scavenger, or merely a gentleman, we all suffer to a greater or less degree from the ills which our vocations or avocations engender. Just how to prevent, ameliorate or cure these but partly understood ills should no longer be a puzzle to the man, employer or physician, because a reliable and essentially practical book is soon to appear, under the joint editorship of Dr. George M. Kober, of Washington, D.C., and Dr. Wm. C. Hanson, of Boston, Mass. Among the contributors are such authorities as Sir Thomas Oliver; Legge (London); Teleky (Vienna); Devoto (Milan); Edsall (Harvard); Alice Hamilton (Chicago); etc., etc. P. Blakiston's Son & Co., Philadelphia, will publish the volume.

News Items

Dr. A. J. Richer, Montreal, is in London, England.

Dr. George P. Sylvester, Toronto, has arrived in Paris from Italy.

Dr. C. F. Martin, Montreal, has returned from a trip round the world.

The Ontario Medical Association meets in Toronto, May 26th, 27th and 28th.

The Canadian Medical Association meets in St. John, N.B., July 7th to 10th.

The Ontario Association of Officers of Health met in Toronto May 7th and 8th.

Dr. H. A. Gibson, Calgary, has passed the F.R.C.S. examinations at Edinburgh.

Dr. R. J. Manion, Fort William, who has been abroad for several months, has returned.

Dr. H. C. Burgess, Montreal, who has spent the past two months in Europe, has returned.

The Æsculapian Society elected the following officers at its last monthly meeting in March: President, Dr. Bruce L. Riordan; Vice-President, Dr. George A. Bingham; Treasurer, Dr. Edmund E. King (re-elected); Secretary, Dr. George Elliott (re-elected).

The Academy of Medicine, Toronto, has elected the following officers: President, Dr. H. B. Anderson; Vice-President, Dr. W. H. B. Aikins; Treasurer, Dr. W. A. Young; Secretary, Dr. J. H. Elliott. Dr. W. Harley Smith, who has been Secretary for several years, retired and was accorded a vote of thanks, as was the retiring President, Dr. Herbert J. Hamilton.

The following appointments have recently been made at Queen's University owing to the retirement of Dr. R. W. Garratt from the professorship of Obstetrics and Pediatrics: Professor of Pediatrics and Gynecology, Dr. G. W. Mylks; Professor of Obstetrics, Dr. A. R. B. Williamson; Assistant Professor of Surgery, Dr. Fotheringham; Lecturer in Clinical Medicine, Dr. E. D. C. MacCallum; Lecturer in Pharmacology, Dr. S. M. Asselstine; Lecturer in Jurisprudence, Mr. J. M. Farrell, B.A. Owing to the adoption of the five-year course, the departments of physics, chemistry, physiology, bacteriology and hygiene will be strengthened.