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Original Articles

SUBTENTORIAL TUMORS AND ABSCESSES*

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The technical difficulties encountered by the surgeon in any attempt to expose, much less remove, tumors of the cerebellum, mainly on account of its anatomical relations, are especially great. Encompassed as it is by large venous sinuses, the peculiar plane of the tentorium cerebelli, and its confined position, far removed from the surface of the body and with a limited and difficult approach, one realizes at once that there are especial dangers met with in a radical subtentorial operation. There are distinct risks also attending manipulations upon the cerebellum in order to gain adequate exposure of tumors, due to traction, causing trauma on the medulla oblongata, which at times proves rapidly fatal. Owing to the relatively small space occupied by the cerebellum as compared with the hemispheres of the cerebrum, when the surface tension is relieved, the cerebellar tissues almost invariably protrude through the opening made in the skull and this takes place even under normal conditions. This state of affairs is all the more aggravated when a tumor is present. The situation is all the more embarrassing when the new growth is situated in the cerebello-pontine angle, for the cerebellum cannot be retracted to the same degree nor with the same ease as can the cerebral lobes.

Profuse and alarming hemorrhage may also be met with, due to emissary veins which pierce the skull near the mastoid process or in the neighborhood of the occipital protuberance,

* Read at the Surgical Section, Academy of Medicine, Dec. 16th, 1913.

sometimes necessitating the postponement of the second steps of the operation to a later date. The occipital bone on account of its varying thickness does not lend itself well to any osteoplastic flap being made and is to be discountenanced.

The indications for operation in cases of suspected tumor do not differ materially from those in other parts of the brain. Once the diagnosis has been made, if operation is to be done at all, it should be done at once and not postponed in the hope that improvement may take place under treatment, or that localization may be made with mathematical accuracy. Kocher says there should be less delay in bringing to the surgeon a lesion of the brain, whether it be a neoplasm, tubercle, gumma or abscess. There is no more excuse to-day for delaying operations in case of tumors, because the neoplasm could not be exactly located, than there would be for declining to operate upon a case of intracranial hæmorrhage because one was unable to determine positively the seat of the clot.

In order that the very best results may be obtained, the surgeon and the physician must work hand in hand in this as well as in other fields. As exploratory operation is recognized as the surest, safest and most reliable diagnostic measure in abdominal lesions, such as tumor of the stomach, it should be considered of equal value and importance in tumor of the brain. Patients with cerebral tumors make very poor subjects for surgical intervention. The operation is of itself one of considerable gravity, and the condition of the patient should be as good as to enable him to withstand its depressing effects. Therefore, no postponement of operation should be tolerated if good results are to be expected.

It is well known that cerebellar tumors are more difficult to localize than those of the cerebrum, and at times well nigh impossible. This, however, should not be an indication for delay, but rather for early exploration. When the diagnosis has been made with a reasonable degree of certainty, just so soon should operation be carried out, providing other measures have failed and the operation, *per se*, is not contra-indicated.

During the last month there have been two patients in the General Hospital who were suffering from cerebral tumors, who both died the day before that set for the operation of respiratory failure.

Operation as a palliative measure is indicated for the relief of symptoms when the tumor cannot be found or localized, or it may be inaccessible or of such a size as to make its re-

moval impracticable. This is justified in order to prolong life, to alleviate the severe and persistent headache, to stop fits or to save the sight. In general, to benefit the patient by reducing intracranial pressure, by a suitable decompression, even though it is quite impossible to remove or even locate the tumor. The headache, vertigo and vomiting, so marked a feature in cerebellar tumor, make the life of the patient pitiable, and these symptoms may be relieved for a considerable interval by relieving pressure. Of all the considerations enumerated above, for which palliative measures are indicated, there is none more urgent than optic neuritis, which steadily goes on to atrophy and blindness. This calamity may, with certainty, be averted, for a considerable time, at least, even up to a period of three years, by an efficient and early decompression operation.

Time will not permit me to enter into the details of the operative technique for the removal of subtentorial tumors, either intra- or extra-cerebellar. The mortality has of late years, owing to improved technique, been lowered from seventy per cent. to twenty-eight per cent.

I would, however, briefly draw attention to the question of the advisability of relieving intracranial pressure by the tapping of the lateral ventricles or by Quincke's lumbar puncture. Puncture of the ventricles is done for two purposes: first, as a palliative measure to relieve intracranial pressure, and secondly, to relieve tension to render it possible to make a more thorough examination of deep-seated tumors, in the hope of removal at the time of operation. Experience has shown that it is a procedure of great gravity and of questionable propriety. Many cases have resulted disastrously from immediate collapse and in the majority of cases the patients have died immediately or soon afterwards.

Von Bergmann attributes the relief which follows the palliative operations for tumors of the brain more to the loss of the cerebro-spinal fluid than the removal of large sections of the skull. He, therefore, recommends lumbar puncture in cases where the pressure symptoms are very marked. According to Oppenheim, lumbar puncture is indicated in a very limited number of cases, chiefly in those where the tumor is associated with internal hydrocephalus, and especially in those where the tumor encroaches on the posterior fossa and threatens life. However, there is particular danger in this procedure and many fatal cases have been reported. The cause of death is

usually attributed to the brain stem being suddenly forced down into the foramen magnum, like a cork in a bottle, with the consequent disturbance of the vital centres in the medulla.

Lumbar puncture supplies information as to the tension of the cerebro-spinal fluid and to its bacteriological and cytological characters. But there is abundant evidence of the increase of intracranial pressure as shown by the mental condition of the patient, the headache, optic neuritis, etc. On the other hand we may get valuable indications of the probable tuberculous or syphilitic character of the brain lesion from an examination of the cerebro-spinal fluid. But cannot the same evidence be obtained by using tuberculin, the Wassermann, or other tests? Looking at the question from the broadest point of view, it would appear that lumbar puncture, especially in cases of subtentorial tumors, where the pressure is usually very great, is fraught with considerable peril.

The frequency of subtentorial tumors may be gathered from collected cases. Schüster, from an investigation of 1,000 cases, showed that cerebellar tumors are relatively more common than cerebral, the comparative size of the two regions being taken into account. Paton's tables show cerebellar and extra-cerebellar tumors together form rather more than twenty-five per cent. in 202 cases of brain tumor formation.

Gliomata, sarcomata and endotheliomata are the commonest types. Other forms are fibromata, tuberculomata, syphilomata, cysts and carcinomata.

Gliomata are generally primary and single, are ill-defined and seldom amenable to surgical operations.

Sarcomata grow from the meninges, periosteum of the cranial bones and from the sheaths of nerves and vessels. They are primary and then single or secondary and their multiple. Sarcomata are more or less encapsulated, tending in the first place to cause pressure only and then later invading surrounding regions. In the early stage of its development the tumor may be completely removed.

Endotheliomata grow from the meninges. They are hard in their early stages, definitely non-infiltrating and when accessible, removable.

Fibromata commonly originate in the cerebello-pontine angle, possessing a narrow stalk, often an atrophied nerve or vascular bundle, being very frequently attached to the eighth nerve, hence often designated acoustic tumors. They may be small or large, appearing as pink lobulated tumors growing

slowly and not invading the brain tissues. When accessible, are often readily removed.

Tuberculomata, commonly situated subtentorially, are often multiple and cannot be considered favorable tumors from a surgical standpoint, because usually accompanied by similar lesions in other parts of the body and commonly infiltrating the meninges.

Syphilomata are not so common as in the cerebrum, sometimes totally unaffected by anti-syphilitic remedies. They appear as hard, encapsulated tumors and if they can be reached are readily removed.

Cysts are of frequent occurrence, being (1) traumatic (for partially absorbed blood clot); (2) parasitic; (3) cystic degeneration of a sarcomatous, carcinomatous or gummatous mass, or (4) simple arachnoid cysts. Many of these cysts are amenable to surgical treatment.

Carcinomata are always secondary to cancer in other parts —particularly the breast. Are usually multiple and are quite unsuited to surgical procedures.

Subtentorial abscesses may be (1) multiple and generally pyæmic in origin, (2) acute traumatic abscess, usually from infected compound fractures of the skull, and (3) chronic abscess.

Chronic abscesses of the brain to which I will confine my remarks, in a large proportion of cases arise from middle ear suppuration and are about one-half as common as abscesses in the temporo-sphenoidal lobe; these abscesses are also due to the same cause.

Many of the symptoms common to cerebral abscess are intensified when the focus of suppuration is situated in the confined space below the tentorium cerebelli. Headache is exceptionally severe and usually occipital in type; optic neuritis may develop early and reach a high grade of intensity, vomiting is severe and exhausting, while other symptoms dependent upon the increased intra-cranial pressure—slowing of the pulse alterations in respiratory rhythm—are correspondingly accentuated.

The more localizing symptoms are vertigo, when standing the patient tends to fall in some particular direction, most commonly to the side affected, although opinions differ on this point and may lead to error in diagnosis. Sometimes Dana's cerebellar fits are noticed—vertigo, roaring in head, relaxation of limbs and the patient falls unconscious. This symptom is

said to be pathognomonic of an abscess (or tumor) in the cerebello-pontine angle. Cerebellar gait, disturbances of co-ordination, paresis or paralysis of the limbs of the ipso-lateral side and a conjugate deviation of the eyes to the opposite side, with nystagmus of a coarse type are also observed in well marked cases.

Treatment: Two courses are open for the operative treatment of otitic cerebellar abscesses: (1) To trephine directly over the antero-lateral aspect of the cerebellum (the usual site of the pus), and postponing the mastoid exploration to a later date (the two-stage operation), and (2) To carry out the radical mastoid operation, searching for the stalk of the abscess and draining the abscess into the now-united middle ear and antrum (the one-stage operation).

The former method (the two-stage operation), is advocated by many general surgeons, the latter is the one usually pursued by the aural surgeon.

The advantages claimed for the former method—the direct trephining method—are as follows:—

(1) The general condition of the patient is often so serious as to prohibit the more prolonged procedures essential to mastoid exploration.

(2) When an exploration is conducted through the infected middle ear, one unsuccessful attempt to find the abscess carries with it the dangers of meningeal or brain infection, which can be avoided if a separate incision is made in the healthy tissues over the lesion.

(3) The drainage through the trephine hole is much more efficient.

(4) Many general surgeons do not possess that intimate anatomical knowledge of the middle ear and its surroundings which is necessary to carry out a complicated aural operation.

Each case must be judged on its own merits. Rawling advocates the two-stage operation, evacuating the abscess and draining with a tube, when the diagnosis of cerebellar abscess is reasonably certain and then followed by the mastoid operation as soon as the patient has recovered from the first procedure. When, however, considerable doubt exists as to the situation of the abscess, or the nature of the complication in general, it is then advisable to start by exploration of the mastoid and aural regions, further measures being adopted according to the conditions found at the time of the operation.

478 Huron Street, Toronto.

THE EMERGENCY

By A. C. E.

"Business as usual" had begun in the Provincial Bank of Tottenham, as Mr. Chamberlain, the manager, stepped in precisely at ten o'clock. There was an expectant raising of heads of tellers, ledger-keepers, clerks; for the day was the first of April—and had the manager ever been known to miss an opportunity to pull off a practical joke at the expense of some one of his juniors?

With a curt nod at the cages he brisked through to his private office. Turning to close the door, his shrewd eye glimpsed the exchange of sly winks and abortive grins as the staff resettled to its duties. He might fool them by doing nothing.

Mr. Chamberlain flung his Balmacaan into the embrace of an oak chair which stood, open-armed, like a sturdy backstop awaiting the delivery of the sphere. Upon it he deposited bottle-green fedora and chamois gloves. Then he seated himself at his glass-topped desk, brushed aside the ready pile of correspondence and reached for the telephone.

"_____"

"H1046."

"_____"

"Is that you, Dr. Greene?"

"_____"

"Come at once to the Provincial Bank—the paying teller has gone insane!"

Once again did Mr. Chamberlain call for a number, and when he had replaced the ear-piece in its socket and pushed away the instrument, Dr. Greene and Dr. Robinson were on their way to the emergent call.

Drawing the pile of letters before him, he took up the first and began hurriedly glancing over its contents, chuckling to himself, and wondering how the teller would pay out this emergency. In discussing the political situation, the manager had always contended there was no emergency. The teller had always affirmed there was—that Germany was prepared for war—was a menace, in fact, to the British Empire, if not to the whole world. His argument had been that everybody should always be prepared for any and every emergency. Banks should ever be ready for a run. Mr. Chamberlain remembered in the heated argument of the pre-

vious day the teller had instanced the case of the doctors, who always went prepared to any emergent call. Would they now? The manager would put them to the proof. How would the teller meet his emergency? As though any person ever knew when an emergency would arise!

"Come in!" he called to a knock which sounded on the office door, as he laid down the first letter, and without turning from the correspondence,

"You sent for me, I believe," quietly announced the visitor, as she stepped within and began taking off her gloves, after having set a neat, brass-mounted, black, professional-looking bag upon the desk,—"accident or design?"

"Eh? I beg your pardon—who did you say you were?" and the manager sprang from his chair to his feet and swiftly sensed the tidy, self-possessed, compact woman of medium height and build, who was quietly removing a long, reddish-looking, rubber tube from the black bag on the desk.

The lady, who was none other than a woman doctor, quite recently established in the town, Dr. Caroline Courtenay, paused. This man did not act like one who had just taken strychnine, although the sudden jump from the chair might be a premonitory symptom acting as usher to others which would shortly follow.

"I did not say who I was," with much dignity, "though I am Dr. Caroline Courtenay. I got a message a few minutes ago to come to the bank at once—a man had taken strychnine. I asked the teller about it, and he sent me in here. Did you take it by accident or on purpose?" and she drew the obnoxious and nauseating instrument through her left hand. "There's no time to lose."

"Er—yes—I think—yes—I may have taken an overdose." stammered the manager, and he jerked his arms and shrugged his shoulders, at the same time catching his breath and stamping his feet. "Oh! I beg your pardon—I was afraid I might step on that thing—put it away!" pointing at one end of the snaky-looking coil on the carpet.

Dr. Caroline Courtenay sharply scrutinized her patient. Was the man crazy? And was he attempting suicide?

Suddenly loud voices, in rapid altercation, burst hotly from the outer office through the half-open door.

The manager stood still and listened, while Dr. Courtenay recognized the voices of two confreres. The incident added zest, professional zest, to commence operations at once. She could manage the manager-patient. There was no need for assistants or consultants. "Hurry, sir! sit down in that chair again before

it is too late!" and she poised the tube deftly between the thumb and forefinger of her right hand.

Forgetting for the time being that he was supposedly a poisoned man, Mr. Chamberlain, breathing something about "professional ethics," threw wide the office door and hastened to the two medical men, imminently combative.

"I tell you, Dr. Robinson," Dr. Greene was repeating for the third time, "he is my patient—I got here first," wildly gesticulating in front of the paying teller's wicket, where he had been standing for several minutes quietly quizzing that altogether innocent individual.

"I was called, too—two will be needed anyway," spluttered Dr. Robinson, his more elderly brother of the scalpel, with an oblique look at the open-eyed teller, who stood speechless at the turn affairs had taken.

"Come with me, gentlemen—come to my private office!" interpolated Mr. Chamberlain, laying a hand on the sleeve of Dr. Greene. "You are both needed." Customers were coming in, and he did not care to have any clashing of consultants.

When the manager returned to his private office with the two medical men they bowed reservedly to Dr. Courtenay, who had taken possession of one of the office chairs. Mr. Chamberlain motioned Dr. Greene and Dr. Robinson to seats on a lounge placed at the back of the office.

"Dr. Courtenay," he began, "you were called here to treat some one who had taken strychnine?"

"Yes."

"And when you asked the teller he sent you in to me?"

"That is correct."

"And I said I had probably taken an overdose?"

"Quite so."

"That was not so. I had called these two gentlemen to examine the teller, who, I am afraid, has gone insane, or is developing signs of insanity—wait a minute," and he held up his hand as Dr. Courtenay was about to reply. He touched the button under the edge of his desk. "Send the paying teller to me directly!" he ordered to the boy who responded to the call. That official appeared in the doorway. The manager fixed him with a steely eye. That gaze meant business.

"You telephoned for Dr. Courtenay to come to the bank?"

"Yes, sir," apologetically.

"Then return to your wicket, and pay Dr. Courtenay her fee." Mr. Chamberlain arose and bowed to Dr. Courtenay, who departed.

"Now, gentlemen," turning to the two medical men, "have you the papers with you to certify to that man's insanity?" he asked triumphantly. 'No?' I thought medical men always went prepared for every call. I certainly told you a man had gone insane in the bank."

"We can get the papers and have them filled in this afternoon," volunteered Dr. Greene, who was a young practitioner.

"Yes," returned the manager, "and in the meantime he may pay out more money on some cheques than he should; or, perhaps, shoot himself, or some one in the bank. He has a revolver on his desk all the time."

"Not so fast, Mr. Chamberlain; I, at least, am not yet convinced that your teller is insane," interjected Dr. Robinson. "I should like to observe him a little longer. I hadn't much time to study the case. Dr. Greene thought I was interfering."

"Well, do you both go out and study the case to your heart's content," and he resumed his correspondence as the two medical men withdrew, pulling to the door after them. The manager was glad to get a spell to think how he would get out of his emergency dilemma.

At the end of a half hour Mr. Chamberlain looked cautiously out into the general offices. Both medical men had vanished. He summoned the teller.

"How much did Dr. Caroline Courtenay cost you for your fool-proof emergency?" he inquired, laughingly.

"Five dollars." There was a twinkle in the teller's eye.

"How did you get rid of the other two?"

"I told them I would give them ten each of the bank's money if they would get out and leave me alone."

"You're crazy all right. I'll have to foot that bill; but no more emergency calls for me, please."

CEREBRO-SPINAL FEVER: A MEMORANDUM FROM THE LOCAL GOVERNMENT BOARD *

Occurrence of the Disease.

A memorandum of the first importance upon the incidence of cerebro-spinal fever, its clinical features, and the administrative action that should be taken against its spread, was issued on Wednesday morning by the Local Government Board to the medical officers of health and sanitary officers of this country. The memorandum has been prepared by Dr. Arthur Newsholme, medical officer of the Board, in view of the recent occurrence of the disease in various districts, and is a revision of the memorandum first issued by the Board in 1905 and re-issued in 1910. After a brief resume of the outbreaks of the disease at earlier dates, the memorandum continues:—

Incidence of the disease.—In this country seasonal incidence of the disease has not been marked, but there has been some increased prevalence of the disease in winter and still more in the spring. This has been much more marked in Continental and American experience. Amongst the civil population in this country and in such epidemics in other countries the majority of the cases have occurred in children. During 1912 there were notified in England and Wales 272 cases,[1] during 1913, 304 cases, and during 1914, 310 cases of this disease. It is possible that some of these cases were meningitis due to other micro-organisms than the meningococcus, and that some cases regarded as cerebro-spinal fever were poliomyelitis. On the other hand, it is not unlikely, in view of the difficulty of diagnosing sporadic cases, that unrecognized cases of cerebro-spinal fever may have occurred.

Clinical features of the disease.—The late Mr. Netten Radcliffe described cerebro-spinal fever as " an acute, epidemic disease, characterized by profound disturbance of the central nervous system, indicated at the onset chiefly by shivering, intense headache or vertigo, or both, and persistent vomiting; subsequently by delirium, often violent, alternating with somnolence or a state of apathy or stupor, an acutely painful condition with spasm—sometimes tetanoid—of certain groups of muscles, especially the posterior muscles of the neck, occasioning retraction of the head and an in-

* "The Lancet," February 27, 1915.

[1] The disease was made notifiable for the entire country from Sept. 1st, 1912. Prior to this it had been notified in a number of sanitary areas.

creased sensitiveness of the surface of the body. Throughout the disease there is marked depression of the vital powers, not unfrequently collapse, and in its course an eruption of vesicles, petechial or purpuric spots, or mottling of the skin is apt to occur.[2] If the disease tend to recovery, the symptoms gradually subside without any critical phenomena, and convalescence is protracted; if to a fatal termination, death is almost invariably preceded by coma. After death the enveloping membranes of the brain and spinal cord are found in a morbid state, of which the most notable signs are engorgement of the blood vessels, usually excessive, and an effusion of sero-purulent matter into the meshes of the pia mater and beneath the arachnoid."[3] Local prevalence of illness distinguished by the foregoing features would, no doubt, attract attention and would, it may be presumed, lead to early recognition of its true nature. But while these features are characteristic of typically severe cerebro-spinal fever, experience shows us that it may and does appear in milder or in anomalous forms which render identification difficult, and which lead to its being mistaken for other ailments of more common occurrence in this country. Illustration of this is afforded by certain localised outbreaks of cerebro-spinal fever in the eastern counties in 1890, where this disease was generally mistaken for sunstroke or for enteric fever, or was looked upon as a new form of illness; by the prevalence of what would seem to have been cerebro-spinal fever in Northamptonshire in 1890-91, where the malady was for the most part diagnosed as pneumonia or as sore throat; and by the occurrence of cerebro-spinal fever in Irthlingborough in 1905, where many of the persons attacked were regarded as suffering from influenza. In these anomalous forms of cerebro-spinal fever, many or even most of the symptoms associated with the recognized type of the disease may be absent, while in mild cases they may be so slight or of such brief duration as to escape notice. It is necessary to be on the outlook for such cases when cerebro-spinal fever occurs in a locality or when illness not clearly referable to definable cause prevails in a particular neighborhood. Cerebro-spinal fever is apt also to escape recognition when it is of the "fulminant" variety, in which death ensues rapidly. In these instances the disease has been mistaken for typhus fever, idiopathic tetanus, malignant measles, or other diseases.

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[2] In a very considerable number of instances, however, no eruption of any kind is present.

[3] To the clinical manifestations of the disease indicated in the above description may be added the presence of Kernig's sign and of tache cérébrale.

Mode of spread of the disease.—Cerebro-spinal fever has a much more restricted direct infectivity than characterizes a disease like smallpox, which attacks the majority of persons exposed to infection who are unprotected by vaccination or previous smallpox. In most outbreaks of cerebro-spinal fever only one member of the invaded family develops definite symptoms of meningeal disease, though exceptions to this statement are not uncommon. The meningococcus is found in the mucous secretion of the naso-pharynx in a considerable proportion of those suffering from the disease, especially in its earlier stages, and also in some apparently healthy persons who have been in contact with cases of the disease.

The memorandum continues by pointing to the probability of carriers of infection existing who are themselves unaffected, and while admitting that modes of infection as yet unrecognized possibly exist, concludes that cerebro-spinal fever generally spreads in association with overcrowding, lack of cleanliness and ventilation, inclement weather, and perhaps excessive fatigue.

Administrative Action.

The second part of the memorandum deals with administrative action, and commences by pointing to the necessity of careful diagnosis between cerebro-spinal fever and poliomyelitis, both of which diseases are compulsorily notifiable. The advisability also is mentioned of making inquiry into the circumstances of deaths recorded as tuberculous meningitis, meningitis, or convulsions (with no further definition) when these deaths occur in districts where cerebro-spinal fever is known to be present, while medical officers of health are recommended also to invite from practitioners details as to anomalous cases of sickness which might be cerebro-spinal fever.

The memorandum then points out the necessity of employing bacteriological aids to diagnosis.

In view of the difficulty of diagnosis of early cases of the disease the Board are prepared to undertake the examination in their pathological laboratory of cerebro-spinal fluid sent to them packed in accordance with the regulations of the post office. The parcel should be addressed to the Medical Officer, Local Government Board, Whitehall, and should be accompanied by a short statement of the circumstances of the case. The hour at which the specimen was collected should be stated, and delay in transmitting the material should be avoided. The patient is also to be strictly isolated, carefully nursed, and all precautions are

to be observed as to disinfection, both during the patient's illness, and later when the sick-room is vacated.

The memorandum continues:—

Investigation of sources of infection.—The possible occurrence of anomalous cases should be investigated. Special attention should be directed to cases of sore throat, headaches, pains in back and limbs, etc., suggesting "influenza." The important share borne by healthy "carriers" as agents of infection should be borne in mind. The bacteriological examination of swabs from persons likely from their history to have acted as "carriers" should be undertaken. The method of procedure is set out in the next paragraph.

Investigation of possibilities of continued infection.—The infectivity or otherwise of contacts can be determined by taking swabs from the upper part of the nasopharynx. Swabs from the fauces are of small value. It is important to avoid contamination of the swab by the bacteria of the mouth and fauces. This has been effected by using a swab mounted on a long rod, curved at its distal end, and protected by a metal cannula. The swab should not be extruded until the end of the cannula has passed behind the uvula, and should be withdrawn into the cannula immediately after careful contact has been made with the mucous membrane of the nasopharynx. As the meningococcus does not live long in the swab it is desirable that Petri dishes containing suitable media should be obtained direct from a laboratory and inoculated directly the swab has been taken. The first Petri dish may become overgrown with extraneous organisms, and it is therefore desirable to use two dishes, the second being inoculated from the first by means of a sterile glass rod or other sterile implement. The Petri dishes should be forwarded to the laboratory without delay. Whenever practicable, swabbing should be done by or under the superintendence of the bacteriologist. Inability to secure a positive result from swabbing may be caused by unskilled swabbing or by failure in the subsequent procedure of inoculation of the medium in the Petri dish or by failure to incubate promptly at the appropriate temperature. Negative results obtained with swabs sent by post for transfer to culture media at a laboratory may be due to the death during transit of any meningococci present.

Precautionary measures as to contacts.—All persons who have been in attendance on, or otherwise in close personal association with, the patient should be regarded as possible carriers of infection. The duration of the infectivity of contacts is doubtful. It will be a useful rule to regard them as possibly infective for three

weeks from the date of last association with a patient, but the partial restrictions to their intercourse, otherwise desirable, may be relaxed if swabs from the nasopharynx examined under the conditions set out in the foregoing paragraph fail, preferably on two occasions, to show the presence of the meningococcus. Contacts should be instructed and warned that they may be a source of danger, although remaining quite well themselves, and that for this reason they must abstain from intimate personal association with others. This rule should be especially followed by contacts who have catarrh. Contacts should also be advised that an open-air life diminishes the risk of infection, both of themselves and of others. Isolation of such contacts in a hospital should not be attempted. Detection of the meningococcus in the nasopharynx of a contact is valuable evidence of his potential infectivity to others, while failure to find the micro-organism does not possess an equal negative value. Nasal sprays have been recommended for contacts, a disinfecting solution such as potassium permanganate, 1 in 1,000, being used. If spraying is employed it should be carried out under medical supervision.

General preventive measures.—In the presence of cerebro-spinal fever the nearest approach to open-air life should be aimed at, especially for all contacts. In view of the known association of cerebro-spinal fever with overcrowding, insufficient ventilation, and uncleanliness, the avoidance of these conditions becomes a matter of prime importance. This is especially true where large numbers of persons are aggregated under one roof.

A covering letter to Dr. Newsholme's Memorandum, signed by the Assistant Secretary of the Local Government Board, requests that medical officers of health will forward to the Board, addressed to the medical officer, a report on each case of cerebro-spinal fever notified in their districts, and a schedule is appended to the memorandum indicating the form which the information should take.

Reviews

"*Defective Children.*" By T. H. Kelynack. The price of the volume will be $2.25 net. Sole agents for Canada: The Macmillan Company of Canada, Limited, 70 Bond Street, Toronto.

Messrs. John Bale, Sons & Danielsson, Ltd., of Oxford House, 83-91 Great Titchfield Street, London, W., are about to issue an important medico-educational work on "Defective Children." The volume is edited by Dr. T. N. Kelynack, and consists of a representative collection of studies by twenty-seven well-known medical experts, dealing with the chief forms of defectiveness in children. At a time when everyone realizes the importance of conserving the nation's children such a work should be of special service to all interested in the scientific supervision of child welfare work. The book is appropriately dedicated to Sir George Newman, M.D., Chief Medical Officer of the Board of Education.

Student's Pocket Prescriber. By David Mitchell Macdonald, M.D. Fourth edition. Price, 1s. 6d. Edinburgh: E. & S. Livingstone.

This little pocket book has been revised in accordance with the B. P., 1914. The medical student will find it an efficient guide in prescription writing.

International Clinics, Volume I. Twenty-fifth series, 1915. Philadelphia and London: J. B. Lippincott; Montreal office, 201 Unity Building.

This is a valuable volume in that it contains the annual review of the progress of medicine during the year 1914. In addition there are a large number of papers on Diagnosis and Treatment, one being by Sir William Osler. There are four papers in the section of Medicine, five in Surgery, one on Medical Economics.

"*The Curative Action of Radium.*" By SIGM. SAUBERMANN, M.D., of Vienna and Berlin. Fifty pages with thirty-five half-tone illustrations. Published by Radium, Limited, U.S.A., 25 West 45th Street, New York, N.Y.

Dr. Saubermann is one of Europe's greatest authorities on the Radium Emanation Therapy, and in this booklet he voices the results of his research work, covering a period of over eleven years. It is of great interest to all physicians desirous of using radium emanation in treating these diseases which it influences.

The thirty-five illustrations contained are in all probability the first of their kind ever shown in this country, and demonstrate clearly the effects of the rays and emanation of radium.

The booklet will be sent free to our readers on application to the publishers, by mentioning the name of the DOMINION MEDICAL MONTHLY.

The Clinics of John B. Murphy, M.D., at Mercy Hospital, Chicago. Volume IV, Number 1 (February, 1915). Octave of 185 pages, 41 illustrations. Philadelphia and London: W. B. Saunders Company, 1915. Published Bi-Monthly. Price per year: paper, $8.00; cloth, $12.00. Sole Canadian Agents, The J. F. Hartz Co., Ltd., Toronto.

Surgeons will be particularly interested in this volume, coming as it does from one of America's widely-known and distinguished surgeons. It treats on a variety of conditions, is nicely illustrated, and contains material of great value.

Principles of Hygiene: For Students, Physicians and Health Officers. By D. H. BERGEY, M.D., First Assistant, Laboratory of Hygiene and Assistant Professor of Bacteriology, University of Pennsylvania. Fifth edition, thoroughly revised. Octavo of 531 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1915. Cloth, $3.00 net. Sole Canadian Agents, The J. F. Hartz Co., Ltd., Toronto.

The subject of public medicine is now attaining such outstanding importance that it of necessity calls for frequent issuance of works of this character to keep the medical officers of health, and

the profession generally, in touch with the latest opinions and advances in hygiene. As a text-book for medical students, this volume can be cordially recommended. This edition shows careful and up-to-date revision. The later departments, such as medical inspection of school children, industrial hygiene—an ever-increasing study in itself—naval hygiene and military hygiene, are all carefully dealt with, and afford really compact and authoritative accounts of these special branches. The other parts of the book include all which is to be expected in books of this character.

Clinical Diagnosis. A Manual of Laboratory Methods. By James Campbell Todd, M.D., Professor of Pathology, University of Colorado. Third edition, revised and enlarged. 12mo. of 585 pages, with 176 text-illustrations and 13 colored plates. Philadelphia and London: W. B. Saunders Company, 1914. Cloth, $2.50 net. Sole Canadian Agents, The J. F. Hartz Co., Ltd., Toronto.

Here is a very practical book on the laboratory methods of clinical diagnosis. In the revision, new material has been added, and each section has been carefully revised. The chapter on the use of the microscope has had added to it many practical points. There is a new chapter on Serodiagnostic Methods, including Abderhalden's test for pregnancy. Thirty-five new pictures have been included, mostly photo-micrographs.

Dominion Medical Monthly

And Ontario Medical Journal

EDITED BY

Medicine: Graham Chambers, R. J. Dwyer, Goldwin Howland, Geo. W. Ross, Wm. D. Young.

Surgery: Walter McKeown, Herbert A. Bruce, W. J. O. Malloch, Wallace A. Scott, George Ewart Wilson.

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GEORGE ELLIOTT, MANAGING EDITOR.

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COMMENT FROM MONTH TO MONTH

The Canadian Medical Association has announced its annual meeting to take place in Vancouver, July 6th-9th. It is understood that the Committee of Arrangements have so far been working well towards a great success for this meeting. That a large attendance is expected from the east on account of the Panama-Pacific Exposition at San Francisco seems to be the principal foundation upon which to build this hope.

Since the date of the meeting was announced, however, there have been many changes of momentous character; indeed, so important are conditions considered to be in the medical profession at the present time that we are informed that the President of the Ontario Medical Association, Dr. Wishart, Toronto, has deemed it advisable to suggest to the President of the Canadian Medical Association, Dr. R. E. McKechnie, Vancouver, the advisability of reconsidering the holding of the meeting of the Canadian session this year at all. So many prominent members of the Association from Toronto, Montreal, Ottawa, and other eastern cities will

be across the Atlantic, that it can scarcely be expected any very large delegations will be able to go; forby, the hospitals will be so very much undermanned that that in itself will keep many from participating in the proceedings of the meeting.

Another factor of considerable significance must also be taken into account. When the Association met in Vancouver in 1904 there was a large attendance from Seattle, Portland, and other points in Washington and Oregon. The Oregon State Medical Society met immediately following the Canadian, which was an inducement for the Oregon and Washington men to run up to Vancouver and then return to their own meeting. The visitors to the Canadian Medical meeting from these two States possibly numbered some sixty to seventy. Such a delegation can scarcely be expected this year on account of the fact that the meeting of the American Medical Association which is to take place June 21st to 25th in San Francisco will provè the big attraction to medical men in the Pacific States.

It is understood also that the General Secretary as well as prominent members of the Finance Committee and the Executive Council will be absent with either McGill or Toronto Base Hospitals. This will also be detrimental to a successful meeting this year.

Last year the Canadian Public Health Association called off its meeting, as many officers and members had gone with the First Overseas Force, and it is not likely that one will be held this year.

However, the matter rests with the Vancouver members, or the Executive Council. Vancouver will be reluctant to withdraw, but under the circumstances there does seem reason to expect that Eastern Canada cannot be very well represented. If the arrangements stand, then all will wish the Vancouver meeting the usual, or better, success.

Since going to press advice has been received, through Dr. Wishart, that the Canadian Medical Association has cancelled its meeting for the present year.

The Chiropractors failed utterly to secure recognition in Ontario. Next! When the proposed measure for recognition of this body and the establishment of a training school came before the Private Bills Committee of the Ontario Legislature it received very scant consideration. Whilst two or three members seemed to favor its adoption, the good sense of other members and of the Government in particular was strongly in evidence.

Ontario has all the medical schools it needs. That apparently is the position of the Government. Its policy is opposed to the establishment of any other medical, or pseudo-medical, schools or colleges. If any one, or even the entire population, want to become doctors of medicine, the schools are there for them. If they took a straight medical course they would not wish to practise any particular cult very long.

Did any one suggest to the chiropractors and the osteopaths *et al* the advisability of offering a corps of manipulators and rubbers for active service abroad?

McGILL UNIVERSITY

The officers of No. 3 McGill General Hospital are: Lieutenant-Colonel Herbert Stanley Birkett, officer commanding; Lieutenant-Colonel H. B. Yates, Drs. John M. Elder, John McCrae, J. George Adami, W. H. P. Hill, Edward W. Archibald, A. Howard Pirie, L. J. Rhea, William G. Turner, Campbell P. Howard, Herbert M. Little, W. B. Howell, Colin K. Russel, W. Hutchinson, J. C. Meakins, Wm. W. Francis, J. A. MacMillan, R. H. M. Malone, L. H. McKim, W. T. Ewing, J. C. Wickham, H. C. Dickson, H. C. Burgess, L. L. Reford, R. St. J McDonald, Donald Hingston, J G. Browne, David Law, quartermaster, and A. Stevenson, dentist. Supernumerary, Revere Osler. There are still a few additional appointments under consideration.

Mr. Revere Osler is a son of Sir William Osler.

Editorial Notes

ONTARIO MEDICAL ASSOCIATION; HEALTH OFFICERS OF ONTARIO

GENERAL INFORMATION.

The fact that the above two Associations will hold joint meetings, that business of far-reaching effect to the medical profession of this province will be introduced and discussed, and, finally, that an excellent programme has been prepared, should make the approaching meeting one of the very best ever held in the province.

As this is the first time that the Ontario Medical Association has met east of Toronto, and the first time in one of the smaller cities, every effort is being put forth by the local committee that nothing be lacking to ensure the success of the meeting.

Peterborough is situated seventy-five miles east of Toronto on the main line of the C.P.R., and is one of the most rapidly growing cities in the province, with a population of nearly 25,000.

Thus its accessibility from east to west by rail or motor car, its miles of beautifully shaded streets, numerous parks, well kept lawns and good hotel accommodation render it an ideal place for convention purposes.

Good roads and attractive country side make motoring a pleasure, and visitors coming by automobile will find ample accommodation for their cars.

The meetings will be held in a group of buildings surrounding Central Park, which is situated in the centre of the city. These are: The Armories, one of the most commodious in the province, the Assembly Hall of the Collegiate Institute, seating some 600; the Assembly Hall of the New Public Library, seating 250; the Assembly Hall of the Y.M.C.A., all within stone's throw of one another.

Hotels.—Several hotels, two of them being among the largest of the smaller cities, will be at the service of our visitors. The committee also have a list of excellent boarding-houses, where good rooms may be secured.

Railways.—Peterborough is situated on the main line of the C.P.R., and is also the centre of the Midland System of the G.T.R., offering a direct service on the main line of this road via Port Hope, or by Orillia and Lindsay, for those coming from the north.

The Medical Officers of Health of the province will meet on Tuesday and Wednesday. On Tuesday evening an address of interest to all medical men will be given. The programme for this meeting will be issued in the regular way by the Secretary of the Provincial Board of Health.

PROVISIONAL PROGRAMME.

Tuesday, May 25—Registration.

Wednesday, May 26—Morning: Registration. Afternoon: Business—General Session. Evening: General Session—President's Address—Address in Medicine.

Thursday, May 27—Morning: Sectional Meetings. Afternoon: General Session—Business Meeting—Address in Surgery. Evening: General Session—Symposium on Heart.

Friday, May 28—Morning: Sectional Meetings. Afternoon: General Session—Business Meeting.

On afternoon of Wednesday and Thursday, entertainment of visitors by local Associations.

Contributions Promised for the Ontario Medical Association Meeting.

General Sessions.—

I. Address in Medicine, by E. C. Rosenow, Chicago—"Variations in Streptococci and their Elective Localizations in Man and Animals."

II. Symposium on Heart:
1. "Recent Physiological Findings in Heart Disease." T. G. Brodie.
2. "Syphilis of the Heart and Aorta." A. McPhedran.
3. "Auricular Fibrillation." A. R. Gordon.
4. "Treatment of a Fever Heart." H. B. Anderson.

III. Address by Adam H. Wright, Toronto—"Medical Education, with reference to the Specialties and Fee-Splitting."

Sectional Meetings.—

I. Section in Medicine:
1. "The Relation of the Mental Hospital to the General Practitioner's Work." Harvey Clare, Toronto.
2. "Pyloric Stenosis—Diagnosis and Treatment." Alan Brown, Toronto.
3. "The Relation of School Children to the Tuberculosis Campaign." J. H. Holbrook, Hamilton.
4. "Serum Therapy." W. Goldie, Toronto.

5. "The Use of Radium and Trichloracetic Acid in Dermatology." W. H. B. Aikins, Toronto.
6. "Observations on Blood Pressure." Dr. Emmerson, Goderich.
7. "Exophthalmic Goitre." Dr. D. Smith, Stratford.
8. "Clinical Manifestations of Cerebro-Spinal Syphilis." T. G. Phillips, Cleveland, O.

Papers have also been promised by Drs. Lyman, Ottawa, W. L. Bray, Raybrook Sanitarium, and J. W. Campbell, Kingston.

II. Section in Surgery:

1. "Some Observations on the Direct Transfusion of Blood." A. Primrose, Toronto.
2. "Tendon Fixation in Infantile Paralysis." W. E. Gallie, Toronto.
3. "Local and Spinal Anesthesia." J. R. Parry, Hamilton.
4. "The Saccular Theory of Hernia." Dr. Etherington, Kingston.
5. "Simple Goitre and its Treatment." F. N. G. Starr, Toronto.
6. "The Treatment of Pott's Fracture." George Wilson, Toronto.
7. "Renal Tuberculosis—its Diagnosis and Treatment." Robin Pearse, Toronto.
8. "The Treatment of Arthritis." Dr. Seaborn, London.
9. "The Principle of the Surgical Treatment of Exophthalmic Goitre." W. J. McDonald, St. Catharines.
10. "Empyema." W. A. Brown, Chesterville.
11. "Surgical Aspects of Neurasthenia." Dr. Fredericks, Peterborough.

III. Section in Obstetrics and Gynecology:

1. "Scopolamine-Morphine Narcosis in Obstetrics." J. C. Gallie, Toronto.
2. "Serious Vomiting in Early Pregnancy." K. McIlwraith.

Papers have been promised by Drs. E. K. Cullen, Detroit, J. R. Goodall, Montreal, and Geo. S. Cameron, Peterborough.

IV. Section in Eye, Ear, Nose and Throat:

1. "The Treatment of Tuberculosis of the Larynx." Dr. Morton, Hamilton.
2. "The Use of the Electro-Magnet in Ophthalmic Practice." R. A. Reeve, Toronto.
3. "The Use of the Broncho-Tracheoscope and Oesophagoscope in Treatment." George Biggs, Toronto.

4. "Case Reports." F. C. Trebilcock, Toronto.
5. "Ocular Manifestations of Disseminated Sclerosis, with Case Report." Colin Campbell, Toronto.
6. "Demonstration of Accessory Sinuses Diseases." Angus Campbell, Toronto.

RELIEF BELGIAN MEDICAL AND PHARMACEUTICAL PROFESSIONS

Amounts not previously acknowledged:—Dr. Fred Montizambert, $25; Dr. A. D. McKelvey, $10; Dr. Douglas Storms, $20; Dr. W. B. Thistle, $10; Dr. F. L. M. Grassett, $25; Dr. King and Dr. Green, $10; Dr. A. H. Perfect, $25; Dr. Fred Winnett, $5; Dr. W. J. Clark, $5; Dr. W. E. Ferguson, $5; Dr. Robin Pearse, $5; Dr. McKibbon, $5; Dr. Bryans, $5; Hamilton Exec. Comm., $320; Dr. W. H. Lowry, $5; Dr. J. S. Freeborn, $10; Dr. C. M. Foster, $5; Dr. H. L. Anderson, $2; Dr. W. J. Henderson, 50c.; Dr. J. H. Cameron, $10; Dr. S. Johnston, $10; Dr. R. E. Gaby, $5; Dr. A. Taylor, $1; Dr. J. E. Elliott, $5; Dr. J. H. Peters, $5; Dr. H. A. Griffin, $5; Dr. P. P. Park, $5; Dr. Arthur Wright, $5; Dr. Bingham, $25; Dr. Shuttleworth, $10; Dr. Geo. Young, $10; Dr. Warner Jones, $5; Dr. P. MacNaughton, $10; Dr. J. Webster, $10; Dr. A. C. McClenahan, $4; Dr. W. M. McKenzie, $5; Dr. W. M. English, $10; Dr. Geoffrey Boyd, $10; Dr. W. L. Bond, $5; Dr. J. McAlpine, $5; Dr. J. McCulloch, $5; Dr. W. T. Rich, $5; Dr. W. H. Clarke, $5; Dr. George Boyer, $5; Dr. Colin Campbell, $5; Dr. B. A. Campbell, $3; Dr. Alex. Taylor, $5; Dr. N. Woods, $5; Dr. R. C. Cooper, $10; Dr. E. T. McCrae, $5; Dr. A. T. Emerson, $10; Dr. W. Gunn, $10; Dr. J. W. Shaw, $5; E. Weir, $5; Dr. Chas. Hair, $10; Dr. A. H. Harrington, $10; Dr. John L. Davison, $50; Dr. J. R. McEwen, $5; Medicine Hat Med. Soc., $50; Dr. Browning, $5; Dr. F. J. Burrows, $5; Dr. G. M. Aylesworth, $5; Dr. Wm. Faul, $5; Dr. Donald McKay, $5; Dr. J. Robin Arthur, $5; Dr. H. C. Scadding, $25; Manitoba Exec. Comm. (3rd remittance), $200; Dr. F. C. Redmond, $49; Dr. Thompson, $3.50; Dr. Graham Chambers, $15; Dr. Andrew Gordon, $10; Dr. J. A. Oille, $5; Dr. Yellowlees, $5; Dr. Hoig, $10; Dr. T. W. McKay, $5; Mr. Jas. Moore, $5; Dr. T. A. Rundle, $5; Dr. R. Young, $1; Dr. R. W. Bell, $5; Dr. Wm. McCulloch, $2; Sudbury Exec. Comm., $35; Dr. A. E. Wickens, $5; Dr. A. E. Ardagh, $5; Dr. A. R. Harvie, $5; Dr. W. G. Gilchrist, $5; Dr. W. C. George,

$5; Dr. J. N. Harvie, $5; Dr. J. A. Hocking, $5; Dr. Jas. Moore, $10; Dr. John Livingston, $2; Dr. H. D. Livingstone, $2; Dr. W. E. Dingman, $5; Dr. A. H. Nicol, $5; Dr. John Philp, $5; Dr. Jas. Stewart, $1; Dr. Oliver Mabee, $5; Dr. John Malloch, $10; Dr. A. S. Moorhead, $5; Dr. Miller, $10; Dr. W. C. Ryckman, $5; Dr. F. Woodhall, $10; Miss Madeline Bell, $5; Dr. Hess, $5; Dr. W. Stevenson, $5; Prof. McPhedran, $10; Dr. Calder, $2; Dr. Chas. Smith, $2; Dr. Thos. Bradley, $2; Dr. Robt. McDonald, $2; Dr. W. J. Hicks, $2; Dr. M. McDonald, $2; Dr. Leslie Aiken, $2; Dr. P. McG. Brown, $2; Dr. C. L. Taylor, $50; Dr. J. James, $2; John Kidd, $2; Dr. E. M. Copeland, instruments; Dr. Wm. Reid, instruments; Dr. John Dunfield, instruments; Dr. Eccles, instruments; Dr. F. Mulligan, absorbent cotton; Mrs. and Miss Adam Webb, instruments; Dr. Adam Wright, instruments, etc.; Dr. Donald Meyers, instruments; Dr. R. W. Buckle, $2; Dr. W. Marrigan, $5; Dr. H. Kolyman, $1. Academy of Medicine, Toronto, Special Committee on Hospital Supplies; Convener, Dr. N. A. Powell, instruments.

In October last the Societe Medicale de Montreal formed a committee to assist the French and Belgian physicians, and this committee has already collected the sum of $2,600. This may fairly be added to the amount above acknowledged, so that the total subscriptions from the medical profession of Canada to date amounts to $5,974.25.

CANADIAN DOCTORS FOR SERBIA

Canada has not remained unmoved by the strong appeal Serbia has sent, asking for doctors to help the Serbian wounded. It will be remembered Sir Lomer Gouin, Premier of Quebec, some time ago received a letter from the Serbian Royal Legation in London, asking the names of all Canadian doctors who would volunteer. Following is a complete list of all physicians who have offered their services for Serbia, so far:—

Albert Paling, Winnipeg; J. M. Casserly, St. Thomas, Ont.; W. J. McAlister, Calgary; A. W. M. Leclair, Letellier, Man.; O. S. Waugh, Winnipeg; D. C. Hart, Kipling, Sask.; Arthur Macaan, Birtle, Man.; R. L. Hutton, Rosthern, Sask.; J. Hetherington, Carievale, Sask.; Thomas H. Smith, North Sydney, N.S.; James Peake, Winnipeg; W. A. Dymond, Winnipeg; Alex. Osmanly, Toronto; W. P. Mackasee, Springhill, N.S.; O. A. Cameron, Stratford, Ont.; A. H. Bowen, London, Ont.; D. E.

Scott, London, Ont.; J. V. Brandon, Winnipeg; L. Zealand, Winnipeg; J. Baxter, Chatham, N.B.; W. B. McVey, St. John, N.B.; G. Degrys, Abenakis Springs; Alfred Whitmore, Cabri, Sask.; V. Bourgeault, Marcelin, Sask.; P. E. Lavoie, Marcelin, Sask.; C. M. Keiller, London, Ont.; G. E. Duncan, Vernon, B.C.; M. F. Lucas, Dryden, Ont.; J. Murray, Winnipeg; P. A. Guay, South Shipshaw, near Chicoutimi, Que.; E. E. Rohrabough, Sanford, Man.; B. A. Hopkins, Blaine Lake, Sask.; J. B. MacKay, Kitscoty, Alta.

UNIVERSITY OF TORONTO No. 4 GENERAL HOSPITAL

The following is the provisional list of doctors and nurses for No. 4 General Hospital, which is being furnished by the University of Toronto to the War Office. The list has been sent to Ottawa for approval:—

Administrative Staff—Lieut.-Col. J. A. Roberts, F.R.C.S., commandant; Major W. B. Hendry, second in command; Capt. M. J. L. Yellowlees.

Surgical Staff—Drs. A. Primrose, F. M. G. Starr, W. McKeown, J. Malloch, E. F. Ryerson, G. E. Wilson, F.R.C.S.; R. Gaby, F. W. Watts, J. G. Gallie, H. Wookey. In addition to these Drs. F. W. Marlow and B. T. Watson may be added, although they have not yet announced their decisions.

Medical Staff—Drs. A. R. Gordon, Graham Chambers, D. McGillivray, H. C. Parsons, D. King Smith, C. F. McVicar, G. F. Boyer, F. R. D. Hewitt, R. G. Armour, J. H. McPhedran.

Nose and Throat—Dr. Gilbert Royce.

Eye—Dr. W. E. Lowry.

Genito-urinary—Dr. Robert Pearse.

Sanitation—Capt. J. A. Amyot.

Laboratory Staff—Drs. Duncan Graham, N. C. Sharpe, A. A. Fletcher, C. J. Imrie.

Dental Surgeon—Dr. George Dow.

Two or three other appointments or substitutions may yet be made.

News Items

Montreal is to erect a new hospital for the tuberculous.

The death is announced of Dr. J. R. Clouston, Sherbrooke, Quebec.

Notre Dame Hospital, Montreal, treated 2,474 patients during 1914.

Dr. F. F. Westbrook, President of the British Columbia University, has become attached to the Canadian Militia.

Dr. Reni Hebert, superintendent of St. Paul's Hospital, Montreal, has tendered his resignation, after a service of seven years.

Colonel G. Stirling Ryerson, M.D., Toronto, President of the Canadian Red Cross Society, has sailed for France and England on a tour of inspection of different hospitals. He will return in June.

Drs. Victoria Reid, Toronto; T. H. Farrell Utica, N.Y.; E. C. Watson, Detroit, have been elected to represent the graduates in medicine on the Council of Queen's University, Kingston, to serve for six years.

Drs. Alexander McPhedran, Chas. J. Hastings and Graham Chambers attend the annual meeting of the New York State Medical Society in Buffalo the last of the month. Dr. Hastings will deliver an address on Public Health, whilst Drs. McPhedran and Chambers have been invited to read papers.

Dr. William Britton died recently in Toronto. For many years he was one of the best-known physicians in the city, though latterly, for the benefit of his health, he had taken up residence in Prince Albert, Sask. He was a past-president of the Ontario Medical Association, and the Ontario Medical Council. Being a very conscientious and straightforward man, he was held in the highest esteem by his fellow practitioners and citizens.