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Original Communications.

ON SANATORIA:—LOCALITY AND CURE.*

By A. J. RICHER, C.M., M.D., Lecturer on Hygiene, Faculty of Medicine University of Bishop's College, Montreal.

Tuberculosis, which has figured prominently in medical history since its earliest day, has been treated in every conceivable way. Climate, however, seems to have met with the greatest favor, but the question of localities has been much disputed throughout centuries.

We are indebted to Brehmer, of Goebersdorf, for having successfully established a systematic treatment, consisting of absolute rest, open air life, and an abundant supply of very nutritious food, which was conducted under his strict supervision in a closed establishment, a sanatorium. Since then, his methods have been modified, both on the continent and in America. Dr. Trudeau, in the Adirondacks, has adapted the sanatorium life of the continent to American ideas, by his cottage plan of habitation, with a central administration building. In Canada, we have a duplicate of the far famed Adirondack Sanatorium, at Gravenhurst, Muskoka, situated at an elevation of somewhat less than 800 feet above sea level, which has for the last two years been doing very excellent work. The Loomis Sanatorium, at Liberty, N. Y., which is situated at an altitude of 2000 feet on the N. Y. O. and W. Ry., at a distance of 119 miles from New York City, on a plateau adjacent to the Catskills, offers similar advantages to our own Laurentian Range. The winters are long, cold and dry, the summers cool, the soil sandy and porous.

* Being part of a Discussion on the "Prevention and Cure of Tuberculosis" at the Montreal Medico-Chirurgical Society, April 1st, 1899.

The Adirondack Institution, situated at an elevation of some 1500 feet, is so well known that it need not here be described. The Adirondack Mountains, as a part of the Laurentian formation, are very similar to our own Laurentian Mountains, and what may be said of one, applies almost in every way to the other. The Trembling Mountain district of the Laurentian Mountains offers every advantage for the treatment of incipient tuberculosis. Open air life can be carried out throughout the year. The thermometer registering 30 or 35 degrees below zero, makes one feel as though standing before a blazing fire, so stimulating is this dry and cold atmosphere. But the winters are not constantly so cold. The winter mean temperature, roughly estimated, has been a trifle over 17 degrees above zero during this last winter at Ste. Agathe, near the site of the Laurentian Sanatorium, now nearly completed, and situated at an elevation of 1500 and some odd feet. It is unfortunate that meteorological observations have not yet been systematically made in that particular region, but from euquiries and frequent visits made during the last nine months, little doubt exists in my mind as to the suitability of this district for the treatment of incipient tuberculosis. It is our intention, during the coming year, to make minute observations upon temperature, rainfall, winds, barometric pressure, hygrographic records, etc., etc.

Clinically, one may classify cases more or less easily, but therapeutically, it is a little more difficult, and now, as in days gone by, particular regions, altitudes, climates, latitudes, etc., have their critics, as well as their adherents. The favorite resort of to-day may be the forgotten one of to-morrow, and this as a result more or less of the agitation of climatologists ever busy, and the general public forever thirsting for new health resorts. We should not, however, lose sight of an important point in connection with the treatment of tuberculosis; that a cure, in order to be permanent, should as much as possible be obtained or looked for in the climate in which the patient lives or intends to live permanently. Von Leyden, at the International Congress at Moscow, in '97, emphatically laid stress upon this point,

quoting verbatim the words of Knopf in his Paris thesis of 1895. This phthisio-therapeutist (Dr. Knopf) even now inclines to the idea that, all other things being equal, altitude is a very negligible quantity. A sanatorium to be opened next month at Suffern, N. Y., at an altitude of less than 400 feet, is to be closely watched as to its results by this observer, and to us, accustomed as we are to look upon altitude as a necessity, it will be extremely interesting to read the first annual report of this institution.

Climatic advantages, with regard to treatment, are more apparent than real. Cases of lymphatic and glandular tuberculosis, however, seem to be an exception in this respect, and sea air undoubtedly appears to exercise marked influence upon this class of cases, acting almost as a specific against this particular form of tuberculosis. Fibroid, purulent and hæmorrhagic varieties of the pulmonary form, however, should be treated in a sanatorium, in a climate as nearly similar as possible to that in which the disease developed, or where the patients are likely to live permanently. High altitudes, such as are met with in different parts of Colorado, of course would not be suitable for hæmorrhagic cases, or other forms complicated by heart disease. Kamloops, B. C., at an altitude of 1100 feet, with as dry a climate as Colorado, and a mean temperature of 5 degrees above that of Montreal, with a greater uniformity in temperature, would no doubt offer a very fine site for a sanatorium.

The subject of relative advantages for different classes of patients is an important one. They may be briefly classified as:—

1st. Lymphatic and glandular forms of the disease, which may derive a certain amount of benefit by open air mountain life, but are more likely to improve by a prolonged sea trip.

2nd. Incipient pulmonary forms, and some of the cases where softening is just commencing, which, according to the district in which they live, may be sent either to the Adirondacks, Gravenhurst, or the Laurentians.

3rd. Far advanced cases, where softening is marked in one or both lungs, with more than one cavity, which had

better be kept at home under appropriate sanitaryregime, as their presence in a sanatorium exercises a demoralizing influence upon the other patients. These latter cases should be especially cared for in a City hospital, conducted upon the same principles as our civic infectious hospitals, and at the expense of the City, or State, or both.

In Montreal, during the year 1897, we had 827 deaths from tuberculosis, *i. e.*, more than 10 per cent. of all deaths which occurred during the year, which are enumerated and classified under more than 100 different forms of disease as causing death, and of which only one other gave a superior number, *i. e.*, gastro enteritis, 1,396 deaths, 1,231 of which occurred during the first year of life. This gives about 2.7 deaths from tuberculosis per thousand of population, which is not above the average for cities of its size on this continent. When one considers the fact that this disease is now successfully treated by absolute rest, proper hygiene, open air and a liberal diet, one cannot help asking why the Government of the province does not take the matter in hand and treat in this way as many cases among the poorer classes as can conveniently be treated, and they in turn, being restored to health, would, by their systematic life and knowledge acquired during their stay in State institutions, educate others in how to prevent the spread of this dreaded scourge. Our local and provincial Boards of Health should be asked to take active steps in the matter of the prevention of the disease, while our local government should at once attempt to do something for our consumptive poor. With such associated forces, we should within five years reduce the mortality by one-half, and within ten years be rid of "the plague of the North."

It is strange, but true, that when a physician tells a patient that his lungs are weak, said patient never dreams for a moment that he is sick. His disease to him is not a disease, and often only a pretext for a holiday, and usually he makes the best of it at some fashionable resort. Given the same patient outside of the discipline and watchfulness of an institution, even though you may at great length describe within well defined limits his mode of life at a health resort,

you will invariably discover that the lesson given most minutely has been just as minutely forgotten in the course of a few weeks. No patient requires more constant supervision, more tactful handling, and more sympathetic treatment, than does a phthisical one.

The experience of the last thirty years in sanatorium treatment has proved its value beyond the shadow of a doubt. The results obtained by Brehmer, Dettweiler, Driver, Szontagh, Meissen, Trudeau, Sabourin, Daremberg, Theod. Williams and many other phthisio-therapeutists, are proof positive of the absolute curability of 25 per cent. at least of all cases treated, and the arrest of the disease, or marked improvement, in 60 per cent. of the remainder. At present it is the only treatment giving uniform results, and until such time as an anti-toxine with rapid and direct action shall have been discovered, it remains our strongest weapon of defense.

But if you want your patients to derive benefit from sanatorium treatment, don't keep them at home until you can do no more for them, send them to an institution as soon as you are satisfied of the nature of the trouble, and the earlier you do so the better for the patient as well as yourself.

PROGRESS OF GYNECOLOGY.

By A. LAPTHORN SMITH, B.A., M.D., M.R.C.S., Eng.

Fellow of the American and British Gynecological Societies; Professor of Clinical Gynecology in Bishop's University; Surgeon-in-Chief of the Samaritan Hospital for Women; Surgeon to the Western Hospital; Gynecologist to the Montreal Dispensary.

THE DIAGNOSTIC VALUE OF PAIN IN GYNECOLOGY.—Lomer, of Hamburg, has a long article in the April number of the *American Journal of Obstetrics*, reporting twenty-seven cases of abdominal pain in women which he divides into three classes; first, those in which there was no gynecological disease which could be brought into relation with the pain; second, cases in which laparatomy was done for the relief of pain, and in which the patient was no better but even worse after it; third, cases in which gynecological lesions are pre-

sent that are in direct relation to the pain. In the first class, namely, those in whom the most careful examination failed to reveal any pathological condition of the generative organs, he found on every occasion all the signs and symptoms of hysteria, the most important of which were hyperæsthetic areas, sometimes over the ovaries, sometimes over the navel, sometime as large as the palm of the hand and sometimes the size of a half dollar. These spots were sometimes exceedingly tender to touch, in some cases the patients being unable to bear the pressure of their corsets or an abdominal bandage. Besides these painful areas there are large areas of numbness or anæsthesia on the legs or back, and nearly always on the conjunctiva and throat. The most important point which he brings out is that many women who have been operated on for distinct and organic diseases of the tubes and ovaries and even of the womb, and who, instead of being completely cured of their pains as we might reasonably expect, on the contrary complain as much as or more than ever of the pain in the abdomen. In these cases he found that on careful examination of the skin of the abdomen the pain was found to be situated there and not in the pelvic organs. We may easily be misled if we make a bimanual examination only, for then the patient will complain of extreme pain which we will naturally attribute to the pressure of the internal hand, while in reality it is the external hand pressing on the hyperæsthetic area which is causing the pain. Lomer points out what is very important, namely, the remarkable curative effects of the galvanic current in small doses in these cases. Out of twenty-seven there was only one case in which the current partially failed to cure. The dose which he found most useful was five or ten milliamperes of the positive pole on the painful surface for ten or fifteen minutes. In some cases a single application cured them, while in a few eight or ten were necessary. Lomer fully recognizes the importance of general treatment as well, and among medicinal agents he places iron, preferably in the form of Blaud's pills. Another therapeutic measure of great value he found to be cold sponging and, if possible, cold baths. He also found it advisable to devise

means of taking the patient's attention off herself, and for this purpose nothing worked so well as learning to ride the bicycle. Many of his patients who had become a nuisance to him with their complaints ceased to complain from the day they learned to ride the wheel, and some who could hardly drag themselves to his office astonished their friends by going for long rides on the wheel without any pain or fatigue. I have given some prominence to Lomer's excellent article because his experience exactly coincides with my own, and probably with that of every one who has much to do with diseases of women. In at least twenty cases I have been bitterly disappointed, as has been the family physician who has sent them to me, because after the most careful and thorough removal of the painful organs these women have continued to complain as much as ever, until a sufficient time has elapsed after their operation to enable their nervous system to throw off as it were the vicious habit to which it had been so long accustomed. Under proper diet, regular hours, iron tonics and the application of electricity, sometimes galvanic, sometimes faradic, applied over the painful spot on the abdomen, nearly all of these patients have been completely restored to health. But to avoid disappointment it would be well for the specialist to warn the family physician and the patient herself that the cure of the pain does not in every case follow immediately upon the removal of the affected organs. The same remark applies, but even with still greater force, to the result of repairing bad lacerations of the cervix uteri of long standing. Even after the most successful operation it sometimes requires the lapse of several months before the patient regains her health and the restoration of her shattered nervous system.

HYSTERECTOMY IN PUERPERAL SEPSIS.—A brilliant discussion recently took place at the College of Physicians at Philadelphia on this subject, in which Dr. Barton Cook Hirst took the leading part in favor of the operation, reporting twelve cases in the last three years with only one death, and this one the victim, as he says, of conscientious delay. This question is of special interest to me, because I was the first in Canada and one of the first in America to report a

successful case. This patient is still alive and well, but I am ashamed to say that, in spite of the encouraging result in this case, I have allowed several women since, to whom I have been called in consultation, to die without this chance being given them, the victims of conscientious scruples as to whether I was justified in resorting to such radical measures. The most important point brought out in the discussion came out in answer to several members who asked, "How can you decide whether a case is bad enough to require hysterectomy?" Both Dr. Hirst and Dr. Baldy admitted that this was a most difficult one to decide There was no rule. But in general terms they must be guided by the pulse rather than by the temperature. The temperature was often masked by antipyretics, which for that reason should never be given; but a pulse of 140 steadily rising meant that a profound intoxication of the nervous system was going on, and that the woman was bound to die unless something radical were done and done quickly. As Dr. Baldy said: "There is a large field in puerperal cases for good work, for life-saving work, much larger than in the ordinary pelvic infections. There is in the hands of a good and conscientious surgeon, I believe more danger of too long delay than too much hurry in operating in this class of patients." Dr. Hirst said: "There are two classes of cases of puerperal septicæmia in which one must operate. In one case a sudden change for the worse in the course of the disease, which, to an experienced man, means death in a short time unless some radical relief is afforded, demands operation if there are physical signs of inflammation in the abdomen or pelvis. In the other kind of case the long continuance of fever with a pelvic exudate indicates an operation." Judging from my own experience I am convinced that in the cases which I have seen die from puerperal sepsis the disease was, with few exceptions, located in the uterus, and that most, if not all, of them would have been saved, as my only case of puerperal hysterectomy was saved by the removal of the poison factory in the uterus. Now, that our technique of abdominal hysterectomy has been so much improved, and the death rate so much lowered, it is

to be hoped that this life-saving operation will be resorted to earlier and oftener, when it becomes evident that the patient is otherwise doomed to die. In all of the cases reported by Dr. Hirst the uterus itself was so rotten that the finger could be pushed through its walls.

In the last number of the *Canada Medical Record* will be found an abstract of an article on the prevention and treatment of cancer of the uterus, in which I stated that the disease is becoming rarer in countries where lacerated cervix is recognized early by the general practitioner, and sent at once to be repaired by the gynecologist. Since then several papers have appeared in the journals of America noting that the writers, who are all men with large clinical material, are meeting with these cases much more rarely. On the other hand, the latest European journals are pointing out that cancer of the uterus is greatly on the increase. As every one who has studied in Europe knows, much less attention is paid to lacerations of the cervix there than on this side of the Atlantic. Many prominent gynecologists have prophesied that cancer of the uterus will gradually disappear when all the lacerated cervices are repaired, and these experiences of the two continents would seem to bear them out. Haliday Croom, of Edinburgh, and Jacobs, of Brussels, both have recent articles in their respective journals pointing out that out of fourteen cases of cancer treated by abdominal hysterectomy, none of the patients were alive at the end of eighteen months, and out of three cases of vaginal hysterectomy for cancer none were alive after one year. Jacobs, who told me that none of his three hundred vaginal hysterectomies for cancer were alive after three years, has a recent article advocating the abdominal route for its removal, because it gives us a better opportunity of removing adjacent diseased tissue, especially the lymphatic glands. I recently had an experience of this kind in my own practice in a woman of forty-five, who came to me with cancer of the cervix involving the broad ligaments so that the uterus was firmly fixed in the pelvis. I told her she had cancer, but that she would die sooner and have more pain if I removed the uterus, and advised the curetting of all soft

tissue and the application of the cautery. This was done and she felt much better because a stop was put to the hemorrhages and discharge. She then visited five other physicians, two of whom said as I did, but two others, without knowing that I had seen her, gave her a letter each to me, urging me to operate. I again declined, when she went to a sixth doctor who removed her uterus two months ago. Already she is back to me regretting not to have followed my advice, as she is suffering severely, and the disease is progressing much more rapidly in the stumps of the broad ligaments. There are now four women alive after two years in whom I have either amputated the cervix or treated it by repeated curetting.

Clinical Lecture.

LARYNGEAL PARALYSIS.

CLINICAL LECTURE DELIVERED AT THE WESTERN HOSPITAL (DEPARTMENT FOR DISEASES OF THROAT AND NOSE).

By G. T. ROSS, M.D., Laryngologist to the Hospital.
Professor of Laryngology and Rhinology Faculty of Medicine, University of Bishop's College, Montreal.

The man before us complains of aphonia, which began about 3½ years ago. He says the trouble was caused by a severe cold. Pains in back of head were noticed at the time of onset. Had bad cough, and thinks it was asthmatic. He had hemoptysis 4 or 5 weeks ago, and says he has night sweats just now. Neuralgic pains are complained of in face, back of head and legs. Complains also of vertigo. His general health is poor; appetite, deglutition and empty swallowing good; loses sense of taste and smell if he contracts cold in head, which he says comes on often. He has lived in comparative poverty for years; insufficient food, exposure, and alcoholism being a common experience. There is a history of pulmonary tubercle amongst his relatives. He made excessive use of alcohol for a time, but says he stopped this three years ago.

Examination of nose and naso-pharynx shows a chronic rhinitis. In the mouth and fauces we find the teeth covered

with tartar and foul; gums unhealthy and irritated round roots of teeth. The velum is granular, while the pharynx is covered with a glutinous muco-pus exudation; breath tainted. In the larynx, we find a general chronic irritation over epiglottis, ary-epiglottic folds and arytenoids; no erosion or destruction of the parts in the inter-arytenoid space or elsewhere; the vocal cords are a light brownish red color, partially overlapped by the ventricular bands, and anteriorly their mobility is lost for one half their length, leaving the anterior commissure open during attempted phonation. In the posterior half abduction and adduction are normal. There is no special loss of sensation. The appearance here is like that found when head or falsetto notes are produced, the glottis being more tightly closed behind, but gaping wide apart in front. The plate shown gives illustration of it. This posterior closure reaches its highest degree in so-called abdominal notes or ventriloquist's voice, in which convulsive contraction of the adductors may even result in overlapping of the true cords in their posterior half, at the same time the arytenoid cartilages are pressed tightly together. Those of you who have heard a ventriloquist may notice that this patient can forcibly produce notes bearing such a similarity, although without effort he is almost voiceless. His heart and lungs are normal. On testing for tabetic symptoms the signs are negative.

Laryngeal muscles may be paralyzed singly or in pairs, or several muscles may be affected simultaneously. The paralysis may be unilateral or bi-lateral, affecting only one side or both. Anæsthesia of the laryngeal mucous membrane may exist as a complication. The paralysis may be of central origin, the disease being located in that part of the brain where the laryngeal nerves have their origin, or it may be due to disease in the course of the nerve trunk. On the other hand, the lesion may be of a local character, the muscles being affected by some systemic disease.

In cases of disease where there is an organic lesion of the nervous system, the object of the physician is not merely to give a name to the disease, but to make an exact anatomical and pathological diagnosis. Both of these points are

of importance not merely as a scientific basis for your opinion, but for the practical purposes of prognosis and treatment. By the anatomical diagnosis you determine the exact part of the nervous or other apparatus implicated by the lesion; by the pathological feature you determine the character and extent of the existing disease. In the larynx disordered function is our only guide for diagnosis. Remember in examining the larynx that only a few unimportant affections of this organ are independent of systemic disease, or of disease in contiguous organs. Since, then, the interpretation of doubtful cases will always depend largely upon examination of neighboring parts of the air passage, especially the fauces, the alimentary canal and even the entire body, it is wise in the absence of large experience to make a careful general examination in order to check even such local findings as seem to be perfectly clear and easy to explain, for not infrequently a preconceived opinion concerning the primary cause of disease is in this way shown to be erroneous. Your examination cannot be too thorough; in no other organ of the body is disease so dependent on the general condition as in the larynx, and conversely the finding of certain conditions in the larynx often throws light on latent or obscure processes in the entire organism.

Here let me remind you that the motor nerve *par excellence* of the larynx is the recurrent laryngeal. With the only exception of the tensor of the vocal cords, the crico-thyroid (this being supplied by the external branch of the superior laryngeal), the recurrent laryngeal innervates all the laryngeal muscles proper, that is, the antagonistic groups of the abductor and adductor muscles. The former, viz., the abductors, are represented by the posterior crico-arytenoid muscles only, the latter (adductors) by the lateral crico-arytenoid, the external and internal thyro-arytenoid and the inter-arytenoid muscles. The ultimate derivation of the recurrent laryngeal nerve is still contested by anatomists, and I will not trouble you with their different views. In the performance of the functions of the larynx, the sensory filaments of the superior laryngeal branch of the vagus supply that acute sensibility by which the glottis is

guarded against the ingress of foreign bodies or of irrespirable gases. The contact of these irritants stimulates the nerve filaments, and the impression is conveyed to the medulla, whether it produces sensation or not, and is reflected to the filaments of the recurrent or inferior laryngeal branch of the vagus, thereby exciting contraction of the muscles that close the glottis. Both these branches of the vagi co-operate also in the production and regulation of the voice; the inferior laryngeal determining the contraction of the muscles that vary tension of the cords, and the superior laryngeal conveying to the mind the sensation of the state of those muscles necessary for their continuous guidance. And both the branches co-operate in the actions of the larynx, in the ordinary slight dilatation and contraction of the glottis in the acts of expiration and inspiration, and more evidently in those of coughing and other forcible respiratory movements.

There is a marked difference between the ordinary respiratory position of the vocal cords in life and their position after death, or the cadaveric position. These plates now shown illustrate the difference. To what is this due? It is explained by the fact that the abductor muscles of the cords (posterior crico-arytenoid) are endowed with a special reflex tonus, by means of which the glottis during life is kept open in both phases of respiration to such a degree that that type of respiration which we call "ordinary" is made possible. In this degree of respiration we breathe by the aid of the diaphragm and intercostal muscles only. As soon as during life the glottis is narrowed to the same degree as we see it after death (the cadaveric position), we find that with every unusual muscular exertion dyspnœa begins, shown by very quick and shallow or by very deep and labored inspirations, accompanied by audible inspiratory stridor. At the same time whilst the action of the diaphragm and intercostal becomes intensified, the accessory muscles of respiration come into play. The reason is simple. The laryngeal tube is the narrowest part of the whole respiratory apparatus, and this tube is still further narrowed by the insertion of the vocal cords into its calibre. If this narrowing

were not compensated by nature, no sufficient space would exist for entrance of air when any extra demand was made on the breathing powers. To obviate this nature has endowed the abductors with the tonus referred to, by means of which the glottis is kept sufficiently open for ordinary breathing. As bearing upon the liability of the laryngeal muscles to have their function arrested, please note the following clinically important facts: 1. The motor nerves of the larynx have so long and tortuous a course that from their medullary origin to their endings in the laryngeal muscles, they are exposed to an enormous number of various patho logical influences. 2. The laryngeal abductor paralysis caused by any of these influences may, and in a good many cases does remain for a long time the only positive sign of these various morbid processes. 3. This paralysis if unilateral may in no way proclaim its existence, but must be sought for, if one does not wish to miss the opportunity of making early diagnosis in these cases.

Undoubtedly in some such cases of laryngeal paralysis, it is a silent storm signal of impending grave trouble, while again it may be present for years without other symptoms developing. In the latter some trivial local lesion, such as an enlarged gland compressing the motor nerves at any point in their long course, may be the cause. Thus a guarded prognosis is called for where positive lesion is not discoverable, but it is necessary to watch such cases for a further possible development.

The chief causes of laryngeal paralysis from cerebral origin are: Gummata of syphilis, apoplexy, multiple sclerosis, tumors, etc. Diphtheria is one of the most frequent causes. Aneurisms in the neck, tumors of neck, progressive bulbar paralysis, hypertrophied glands, etc., are among the causes. The recurrent laryngeal nerve is liable to pressure from aneurism of the arch of the aorta, the left carotid or the subclavian artery. Aneurism of the carotid, the subclavian or the innominate artery on the right side may produce the same result. These conditions result in unilateral paralysis, in which the epiglottis cannot be completely closed, and there is loss of power to extend the vocal cords.

When an aneurism or other tumor is large enough to cause pressure on both recurrent laryngeal nerves bilateral paralysis results.

Again, amongst the causes of paralysis, the laryngeal muscles alone may become the seat of disease, which, independently of any nerve affection, may impair or destroy their function. An extension of the inflammatory action from the mucous surfaces to the muscular tissue, with exudation and swelling, may cause a paretic state of a transient kind in the laryngeal muscles. Degenerative changes, such as atrophy of the muscular tissues, may occur to such an extent as to cause muscular paralysis.

Paralysis of the abductors causes the vocal cords to lie in such constantly close relation to each other, when bilateral, as to present a serious obstruction to respiration. The breathing is noisy and labored and suffocation is sometimes imminent. The voice is not much affected because of the action of arytenoideus muscle in approximating the true cords. We had an excellent example of this bilateral paralysis attending our clinic last summer. The man was in the hospital for several weeks before improvement occurred. At times his noisy respiration when asleep could be heard over the entire upper floor, and, although I had everything ready for intubation or tracheotomy should the embarrassment increase, he did not require it, but improved on treatment.

When unilateral paralysis of the abductors occurs there is no dyspnœa except on great exertion. When both sides are affected it may be due to brain disease about the 4th ventricle or in the medulla affecting the pneumogastric and spinal accessory nerves. Bilateral paralysis of the adductors results in the vocal cords remaining in a condition of abduction or separation from each other as far as possible. This occurs most frequently in hysteria and leaves no vestige of the voice. If this paralysis is unilateral then whispering may be done. When paralysis of the arytenoideus muscle happens the voice is very feeble or quite lost. A triangular space between the vocal cords remains during phonation due to loss of contractility of this muscle. Paralysis of the tensor

muscles is not infrequent. The cords are relaxed and uneven if the thyro-cricoid are thus affected. They also touch each other at irregular intervals, moving unnaturally, being depressed and elevated by the air current. The voice is hoarse, respiration somewhat embarrassed. Paralysis of the thyro-arytenoids prevents approximation of cords, especially at the centres. Voice is feeble, easily tired and husky. Over-use of voice is generally the cause of this trouble.

All three forms of paralysis already described sometimes co-exist, viz.: paralysis of abduction, adduction and relaxation. This causes total suppression of the voice. The vocal cords remain in cadaveric position; the usual cause being aneurism of arch of the aorta, goitre or disease of œsophagus. If brain disease caused it you would have loss of sensation and an erect epiglottis showing the superior laryngeal nerve affected. Again, you may have unilateral paralysis of all three functions, in which case but one band assumes cadaveric position. Here the voice may be only rough, but if the healthy cord does not overlap the middle line towards its paralyzed fellow then the voice may be even destroyed. Speaking is tiresome and exertion causes labored breathing.

TREATMENT.—Lesions of the nervous centres, of the circulatory system, of the apex of the lungs (especially of the right, where disease may cause pressure on the recurrent laryngeal nerve), enlargement of the glands of the neck, inflammation of the surrounding tissues and of the laryngeal mucous membrane, tumors and rheumatic and syphilitic conditions call for treatment adapted to each disease. Drugs and chemical poisons must be met with antidotes and restoratives. Strychnia is a common remedy for nervous disorders of various kinds. From $\frac{1}{60}$ to $\frac{1}{30}$ gr. tid. to the degree of causing physiological effect, is sometimes very useful. Faradism interiorly or exteriorly is efficacious. Compound electrodes are made so that both poles may be applied within the larynx, but it is difficult to use them. The current is turned on for a few seconds only at a time, and repeated often during a treatment which is given on alternate days. General tonic treatment and hygienic measures should be employed according to the necessities of

ducing the hypertrophied turbinals, restoring the long neglected pharynx to a healthy state by suitable measures, which will influence the larynx beneficially, general tonics with, if possible, an improvement in the precarious mode of his present existence. Eventually the faradic or galvanic current, or both combined, could be used with benefit, having in view the opinion that the trouble is due to paresis of the adductors, which will be restored by toning the general system through rest and proper nourishment.

Selected Article.

THE SOLDIER AND THE SURGEON.

By Surgeon Lt.-Col. G. Ryerson, Deputy Surgeon-General.

It may not be out of place to say that my mind has long been directed to military medical affairs, and that I ascribe this fact as being due in no small degree to the influence of a great painting which adorned, and still adorns, the walls of the auditorium of the Faculty of Medicine of Paris. The picture represents a sixteenth century battle-scene. In the distance are groups of men engaged in combat. In the fore-ground is an operating table, on which is strapped and held by the blood-stained assistants, a powerful man who has just had his leg lopped off by the old circular method. To the right of the picture is a brazier filled with glowing charcoal, in which repose several cautery irons, one of which is being handed to the king, who offers it to the surgeon, Paré. Beneath the picture in letters of gold runs the legend: "The King aids their efforts and rewards their zeal." Gazing upon this painting day after day as I followed the lectures, the idea came to me that I would like to become an army doctor. It was not my fate to enter the service of the Imperial army, but I made what haste I could to enter the militia medical service of my native country, on my return to Canada, on the completion of my education abroad.

Military surgery has kept pace with the scientific advance of the century, and the field surgery of to-day differs as greatly from the septic senses of horror of the sixteenth century as the telegraph does from pony express.

During the bloody civil war in the time of King

Charles I. some attempt was made to organize the English medical service, for we read of regimental mates, hospital mates, regimental surgeon, surgeon to a general hospital and a surgeon-general as being recognized ranks in the army of that unhappy monarch. But it was during the wars of Marlborough that the British army medical service took form and increased efficiency. Previous to that time soldiers who were so seriously maimed as to be rendered ineffective were simply discharged, the State believing that it was cheaper to hire whole men than to restore the sick and the maimed to health. It declined to be held responsible for those who suffered in its service, and let them shift for themselves as best they could. The morality of the proceeding did not seem to enter into the question. There was no clear distinction between the land and sea service, though there was between physicians and surgeons, and it was no uncommon thing to hold double commission, combatant and non-combatant, the holders serving in either capacity as suited their interests or convenience. The services were separated in 1796. In Marlborough's time it was considered effeminate to be sick, and there are lusty yokels who hold that view still, but the bloody and exhaustive battles of the time, and especially in the low countries, where malaria stalked its prey unchecked, brought the strongest to a sense of their fallibility.

As in all stressful periods of British history, there arises the man for the emergency, so at this trying period Marlborough's principal medical officer, Sir John Pringle, proved himself an able administrator, a man of courage, of indomitable energy, with the service of his country and the honor of his profession ever uppermost in his mind. Under circumstances of the greatest difficulty and under every disadvantage, he rose to the needs of the occasion and organized a system of regimental, field and general hospitals. The first general hospital was opened at Ath, May 11, 1745, and, after the battle of Fontenoy cared for 600 wounded. It was not, however, until many years, during the Peninsular war, that surgeons were first assigned to regiments in the field. Sir J. McGrigor, the P. M. O. under Wellington, a man of energy and ability, devised the regimental system of medical officers which has held sway until recently in the Imperial army, and which holds good to-day in Canada. That the medical officers were active and efficient will be admitted when it is stated that in ten months from the siege of Burgos up to the battle of Vittoria, the total number of sick and wounded admitted to hospital was 95,348; yet on

the eve of the battle there were only 5,000 sick in hospital, the vast majority of the 95,000 having returned to duty.

In 1812 a corps called the Royal Waggon Corps was organized, special waggons with springs being constructed for the conveyance of sick and wounded. This corps was disbanded in 1833.

In 1854, on the outbreak of the Crimean war, the Hospital Conveyance Corps was called into existence. That it was not a success was chiefly owing to the total want of special training of the men for their duties, and because the medical officers had no authority over the men.

It was followed by the Land Transport Corps. This corps also came to grief because there was no cohesion or organization which would work, and because it fulfilled but one function required of it., viz., the conveyance of the wounded. The important duties of attending to wounded on the field and in hospital were not provided for. In consequence of all these failures the first Medical Staff Corps was organized in 1855. It consisted of nine companies of seventy-eight men each, "to be employed in any way that may be required in the performance of hospital duties." There were scarcely any military features in this corps, and it also collapsed in about three months. The chief cause of failure was the doubtful and anomalous relations of the medical officers to the combatant authorities. The medical officer had no military authority, hence no power of enforcing discipline.

On September 15 of the same year, this corps gave place to the Army Hospital Corps, which possessed full military organization. The ranks were chiefly recruited by transfer from the combatant ranks of men of good character. Each man spent three months on probation in a military hospital before being finally enrolled on the corps. It was under the command of captains and lieutenants, of orderlies and quarter-masters.

In 1858 a Royal Commission, under the presidency of Right Hon. Sidney Herbert, brought in a report which remodelled the department and established the army medical school.

In 1873 Mr. Cardwell, Secretary of State for War, the author of so many army reforms, abolished the regimental system by Royal Warrant, and placed all medical officers on a staff. Regimental hospitals disappeared under this warrant, and became part of station or general hospitals, as the case might be.

In 1877 medical officers were given authority over the

A. H. Corps, non-commissioned officers and men, as well as patients in hospital and soldiers attached for duty.

In 1883 Lord Morley's committee made recommendations, which were adopted, the principal ones being the vesting of the control of hospitals in the medical officer in charge, and the assimilation of the A. H. C. and A. M. Department, bothto wear the same uniform (blue with black facings).

In 1889 a committee, under Lord Camperdown, was appointed to make inquiries into the pay, status and condition of the medical service. One of the committee's recommendations was the adoption of military titles, prefixed by the word "surgeon," as, for instance, "surgeon-lieutenant-colonel," etc. These titles carried precedence and other advantages, but a limited executive power, hence they were found unsatisfactory.

By Royal Warrant of July 1, 1898, the medical staff corps became the Royal Army Medical Corps, and medical officers were given full military titles. The duty of supplying transport to the R. A. M. C. devolves upon the Army Service Corps, the officer commanding the detachment taking his orders from the senior officer of the R. A. M. C.

Regiments which have served in the great battles of history are justly proud of the deeds of their predecessors, and emblazon the names of the regiment's battles in golden letters on their colors, while *esprit de corps* runs high. Should we not also be proud of the medical corps of the Imperial army, which has served with distinction and fidelity in every battle since Marlborough's time? Soldiers have their heroes. We also have ours. The names of Ambroise Paré, Peter Lowe, Richard Wiseman, Larrey and Longmore are emblazoned on the annals of military medicine. Nor have medical officers been lacking in military courage. "Have you ever heard of Surgeon Thomson, who, during the Crimean war, when the army marched off after the terrible battle of the Alma, volunteered with his servant to remain behind on the open field with 500 wounded Russians, and passed three awful nights, these two Englishmen alone, among foreign foes, none able to raise a hand to help himself? Have you heard of Assistant Surgeon Wolseley, of the 20th regiment, who, at the battle of Inkerman, had quietly established his dressing station in that awful place, the Sandbag Battery? When the 150 men were forced to desert it, they fell back and found in their path a Russian battalion. There was not a combatant officer left, so the assistant surgeon took command. He had not even a sword, but laying hold of a musket with a fixed bayonet, he gave the word of command, "Fix bay-

onets. Charge." The soldiers answered with a British cheer and sprang forward to the attack. The next instant they were breaking their way through the Russians. Only one-half got through alive, and among them our hero. Have you ever heard of Surgeon Landon, who was shot through the spine while attending to the wounded on Majuba Hill? His legs were paralyzed, but he caused himself to be propped up, and continued his merciful work until his strength ebbed away. You may recall the more recent case of Surgeon-Captain Whitchurch, who gained the Victoria Cross at the siege of Chitral for the most determined courage in saving the life of Major Baird.

"There died a short time ago a certain Surgeon-General Reade, C. B., V. C. During the siege of Delhi, while attending to the wounded at the end of one of the streets of the city, a party of rebels advanced from the direction of the bank, and, having established themselves in the houses of the street, commenced firing from the roofs. The wounded were thus in very great danger, and would have fallen into the hands of the enemy had not Surgeon Reade drawn his sword, and, calling on a few men near him to follow, succeeded, under a very heavy fire, in dislodging the rebels from their position. Surgeon Reade's party consisted of ten in all, of whom two were killed and six wounded." Surgeon Reade was a Canadian, and one of the two sons of a colonel in the militia, both of whom greatly distinguished themselves. I might add that of 118 wearers of the Victoria Cross fourteen are surgeons, nearly 12 per cent. of the whole number, or 9½ per cent. of all the officers of the army, a record of which we may be justly proud.

Knowing the brilliant and meritorious services of army medical officers, it gives one a shock to learn that it was only after many failures, many struggles and much heart-burning, after a prolonged period of unjust treatment, which, to the colonial mind is incomprehensible, that the medical service of the Imperial army has reached the present point of high efficiency and excellent organization—a state of things largely due to the tenacity with which the leaders in the struggle have stuck to the text, and the cordial and active support which they have received from the medical profession throughout the empire, chiefly through the medium of the British Medical Association. We, in Canada, have all the advantage which comes from the experience of others without the trials and anxieties which attend the gaining of experience, and I am happy to think that nothing but the best feeling has always existed between the different branches of

the service. No better proof of this can be adduced than that we have as the responsible Minister of Militia and Defence an able, open-minded and progressive medical officer, Surgeon Lieut.-Colonel the Hon. F. W. Borden, M.P., who has the very great advantage of the assistance of one of the ablest and most tactful general officers by whom the Canadian militia has ever been commanded. Under the united guidance of the soldier and the surgeon, I look forward with confidence to the future.

Having thus sketched the historical and evolutionary side of my subject, let me ask your attention to the practical work of the medical service in so far as organized relief and transport of the wounded are concerned. In order to understand the way in which a wounded soldier is brought from the fighting line to the base hospital, it is necessary to refer to the composition of a British army corps in the field. Such an army corps would consist of about 40,000 men, about the strength of our militia, under the command of Lieutenant-General. It would be composed of 3 divisions of infantry, and each infantry division would contain about 10,000 men in 2 brigades. The medical detail for each division would be, besides the regimental bearers, 2 bearer companies, 3 field hospitals of 100 beds each and one divisional field hospital in reserve. The corps troops has also one field hospital. The cavalry division would number about 6,500 men, and would have attached to it 2 bearer companies and 3 field hospitals of 100 beds each. The whole medical detail for the division, exclusive of regimental bearers, would be 8 bearer companies, 10 field hospitals, 2 station hospitals and 2 general hospitals, the latter being on the line of communication at any distance up to 100 miles from the front. The supreme command of the medical arrangements is vested in a surgeon-general, who is the P.M.O. of the force. In many instances he is assisted by Deputy P.M.O., who is a colonel. The duties of the P.M.O. are to advise the G.O.C. on all matters concerning the health of the troops. This would include such important matters as food and clothing, and any special precautions rendered necessary by the climate, also the oversight of his department. The importance of his functions can hardly be over-estimated, for his business is to direct the measures for keeping the men in health, which is the main business of the army surgeon, so that at the critical time they may be available.

The last Ashanti campaign was, you will remember, a "doctor's war" Nor would Khartoun have fallen, nor would Omdurman have been successfully fought but for the skillful

foresight of the men who kept the troops in health in the trying climate of Upper Egypt. Thanks to the excellent medical arrangements, a tour of service in India is no longer a thing to be dreaded. The P.M.O. has also to arrange for the transport of the sick and wounded, no small matter in a difficult country, and to fix the sites of the field, stationary and general hospitals. Each division has also its P.M.O.

The first line of assistance to the wounded consists of the M.O. attached to the unit and his regimental medical staff, which is composed of one corporal, whose duties are to take charge of the panniers, which are usually carried on a mule; one orderly who carries the field companion and the surgical haversac. Four men per squadron, or two men per company, constitute the stretcher section. The medical equipment of the unit consists of one surgical haversac, one field companion, one water-bottle and a pair of panniers. The duties of the stretcher-bearers, when an action is pending, are, after placing their rifles in the regimental transport, to take the stretchers, and when occasion arises to render first aid, and carry the wounded man and his kit to the collecting station, beyond which they do not go, but at once rejoin their companies. Lord Wolseley says that when a man falls wounded there are ten men always ready to take him to the rear. I have found this to extend to dead bodies. The solicitude of men in action to get to the rear on a fair excuse is remarkable. The first aid dressing, which every man carries in the field, is done up in a waterproof cover, and is sewn up inside the man's tunic pocket. It consists (1896) of two safety pins, gauze bandage and piece of gauze, and a compress of charpie saturated with an antiseptic (bichloride of mercury). During the late Spanish-American war these first aid dressings are said to have saved many lives. At the collecting station the man is seen by the medical officer, who arrests hemorrhages and attaches a tally on which is stated the man's name, number, rank, regiment, wound, treatment, and any special instructions required, such as "look out for bleeding," or to place the patient in a particular position. In the Italian army tallies of different colors are used for severe or slight injuries.

I now come to the second line of assistance, the Bearer Companies. They are departmental, and are formed by the Royal Army Medical Corps. They are divided in action as follows: In front (that is, in rear of the fighting-line), 38 of all ranks; at the collecting station, or in charge of the waggons, 12; at the dressing station, 10, including three medical officers; and in rear, 10. The front division of the bearer company does similar work to that of the regimental

stretcher bearers, *i. e.*, they render first aid and carry wounded to the collecting station. As they arrive at this point they are placed in one of the ten ambulance waggons in waiting and taken to the dressing station. Each waggon is in charge of a non-commissioned officer of the R.A.M.C. On arrival at the dressing station the wounded are unloaded and placed in two groups—on the right the severely wounded, and on the left the slightly wounded. The site of the dressing station is always sheltered, if possible near a good road and water, and not far from the collecting station. Here it is that the wounded receive proper treatment and primary operations are performed. At the close of the action the bearer companies search the woods and ditches for wounded. In Germany this work, at night, is done with the aid of dogs, on whose backs are first aid panniers and lamps.

From the dressing station the wounded are passed on to the third line of assistance, the Field Hospital. A Field Hospital is attached to each brigade, and on the line of march follows the bearer companies. These hospitals are mobile, and keep in close touch with the troops. After or during an action the site of a field hospital should be out of range of artillery fire and well sheltered. Buildings may be used, but churches should be avoided, as they are apt to be damp, cold and ill-ventilated. Their only advantage is their proximity to the grave-yard. Collecting and dressing stations, field hospitals and bearer companies are under the Red Cross, but regimental bearers are not, for they carry arms and are available in case of necessity as combatants. In wars on savage peoples all ranks may have to fight, as, for instance, at Rorke's Drift. Hospitals fly the Geneva Red Cross flag by day, and show two white and one red lantern at night.

As soon as possible the wounded are passed out of the Field Hospital into the fourth line of assistance, the Stationary Hospital. They are gradually drafted out of this into the fifth line of assistance, the General Hospital, a large hospital containing 400 beds, and in charge of a Colonel, R.A.M.C.

The sixth line of assistance is the hospital ship; and the seventh and last is the Royal Victoria Hospital, Netley. The principal object in view, after treatment, is to "clear the front of wounded men," who impede the movement of the army.

Having said so much on the historical and other aspects of the Imperial Medical Service, permit me to add a little

about the past and future of our own militia medical arrangement. It is strictly within the facts that our medical service is in a lamentable and unorganized condition. If we were suddenly plunged into war, we would suffer as serious disasters as befell the army of the United States during the late Spanish-American war. This war has clearly demonstrated that trained army surgeons and trained ambulance men and transports cannot be improvised with success. The result of such a course is untold suffering to the troops, great loss of life, which might have been avoided, and discredit upon a department which did its best, but had a numerically insufficient staff to work with. Let us take the lesson of this war to heart and profit by the painful and costly experience of others rather than wait to learn the lesson for ourselves at a great price of blood and treasure.

Up to 1862 the supplies to camps of instruction left much to be desired, to put it mildly. The surroundings of the sick in many camps of instruction could hardly have been worse. I am not claiming too much for the Association of Medical Officers when I state that to that association belongs the credit of drawing professional and public attention to much-needed reforms. Let us hope that the reforms and improvements which have already been made merely precede a complete reorganization of the Medical Department, under our able Director-General.

I would respectfully submit that the following are among the changes which might properly be made to place the department on an efficient basis:

1. Abolition of the regimental system of medical officers, and the formation of a Royal Canadian Militia Medical Corps, to which all medical officers would belong; those not serving with units or on the reserve would be attached to bearer companies. I believe more efficient work would be done by officers whose interests were identified with departmental rather than regimental affairs. I would not advocate a sudden and violent change in this regard, but rather would suggest that all present medical officers be permitted to continue to wear the uniform of the corps to which they are attached, but I think that all new appointees might be required to adopt medical staff uniform. Medical officers attached to battalions would command the regimental medical staff. The departmental establishment would include at least five bearer companies—one each at Halifax, Montreal, Toronto, London and Winnipeg. From the bearer companies field hospitals could be developed in time of war.

The grades in the medical service, in my humble opinion, should be: Surgeon-Colonel, Surgeon Lieutenant-Colonel, Surgeon-Major, Surgeon-Captain, and Surgeon-Lieutenant. Honorary rank should be abolished. It is as unsatisfactory as relative rank.

These bearer companies would be educational, because at the centres named a certain proportion of the strength could be recruited from medical students, who might be trained for the medical service. I might add that all Canadian militia is 'royal" since 1814; therefore, the proposed title of the corps is in accordance with fact.

2. I think it is essential to good work, by the medical officers, that they shall receive instruction in their special duties, and that they shall be proficient in company and ambulance drill. The same remark applies to the non-commissioned officers and men of the regimental medical staff. For this purpose I would advocate the establishment of ambulance schools of instruction on the plan of those in operation in London and in New South Wales.

3. Medical officers, like combatant officers, should pass a qualifying examination within twelve months of their appointment, which should be provisional, and not to a higher rank than that of a lieutenant, and upon promotion to field rank.

4. Each military district should have a principal medical officer, in most cases a permanent officer, but not necessarily in all.

5. Medical officers should be given control of transport and supplies for hospital purposes, food and medicines, and authority over all connected with the hospitals in camps of instruction or during other service in the field.

6. On all field days the medical department should be exercised in their special duties, a certain proportion of men being supplied with tallies describing the nature of their supposed injuries, and ordered to fall out from their companies, to be properly dealt with by the medical officers and bearers. Collecting and dressing stations should be formed in the proper manner and instruction given by the P.M.O. of contending forces.

7. A reserve of medical officers might be formed to include those who have served but who for various reasons have been obliged to drop out of active connection with the force, and of medical men of established reputation who would be willing to serve in time of war. This arrangement would give them seniority, and would assure the department of the best surgical skill.

8. The Red Cross Society proposes to keep a register of nurses who would be willing to serve in time of war. Their names might be noted by the Militia Department.

9. A knowledge of the first aid to the sick and injured might be diffused by the medical officers, by means of lectures, under the auspices of the St. John Ambulance Association among the officers and men of the force.

These are some of the suggestions I desire to make. Some will meet with approval and some with dissent. They are offered with my most earnest wish for the welfare of the soldiers and surgeons of my beloved native land.

Progress of Medical Science.

MEDICINE AND NEUROLOGY.

IN CHARGE OF

J. BRADFORD McCONNELL, M.D.

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MASSAGE AND DIET IN THE TREATMENT OF CHRONIC CONSTIPATION IN CHILDHOOD.

Dr. Friedmann (*Pediatrics, Medical Review*) says: Chronic constipation in childhood, even more than that of the adult, demands rational and prompt treatment.

The treatment must be adapted to the etiology. This treatment may be divided into two groups, which, although occasionally merging into each other, are, on the whole, with certainty separated. One cause of constipation—and here the suckling period and early infancy to the end of about the second year of life is especially considered—is improper feeding. Children who are brought up on food which has been too much diluted, or who do not receive a sufficient quantity, may be affected; much more frequently, however, are those who are being fed by the anxious mother or nurse with a quantity of food much in excess of their needs. These children are not only compelled to absorb the badly digested casein of cow's milk, they are besides plied with all forms of flour food and paps, which the weak intestine of the infant is unable to manage, and often, sooner or later, gives up the struggle.

Quite a percentage of these children suffer most at the

critical time of weaning. In these cases also the child is usually overfed. The intestinal canal of the baby is not only expected to digest an amount of food which would frequently give an adult distress, but they are also deprived of pauses for the purpose of digestion and assimilation. Here constipation, besides many other disturbances, will soon play a prominent role.

The treatment of this form of coustipation can be learned from the history of its cause. Regulation of the diet according to the child's age will, in most cases, constitute a sure and lasting cure. Only in individual cases, and temporarily, will treatment have to be instituted with clysmata, suppositories and mild laxatives. An earnest warning should here be presented against the habit which many doctors have contracted of placing the greatest importance on the administration of purgatives. This treatment, although efficacious for a time, can never procure lasting results; on the contrary, the intestines become more and more weakened and inelastic, and the constipation will return stubbornly again and again.

Numerous authors, and only recently Cattaneo, of Heubner's clinic, have directed attention to the good results of abdominal massage in the constipation of children. Cattaneo mentions a series of cases, the great majority being infants at the breast, in which, besides regulating the diet, massage was employed by himself or the parents, and in many instances the anticipated result was obtained in a few days. Much as Friedmann values the practice of massage for older children, he cannot bring himself to believe that it will ever be used extensively for children at the breast. To permanently change a chronically diseased organ, not only days but weeks and months are necessary, and the treatment cannot be trusted to the hands of the layman, but should be practiced by trained physicians, who alone possess the necessary delicacy, care and mechanical skill. Abdominal massage of the adult being at any time a difficult proceeding, how much more so must it be in the infant, who, even where carefully handled, is apt, through screaming, to make tense the abdominal muscles to such a degree that they become as hard as a board to the touch, and quickly put an end to further manipulation. The rapid improvement which took place in the cases of Cattaneo is a proof that the former was due rather to the regulation of diet than to the massage, and his statistics still further convinces Friedmann that infantile constipation is to be treated rather by regulation of the diet.

The second group of constipation in children embraces

those cases in which the affection can be traced to insufficient action of the intestinal canal. The infantile period of life may be considered excluded here. As a rule, we have to deal with children in whom, on account of rachitis, anemia, general nervous prostration and similar atrophic conditions, the muscular tissue and innervation of the intestinal wall has been affected, so that the peristalsis is not sufficiently vigorous to force the contents of the intestine down and out. The slighter forms of this group we will also be able to cure occasionally, ordering the meals to be eaten at certain times, separated by long intervals to rest the stomach, and by the consumption of fruits, honey, spice cakes and vegetables, which facilitates its massage along the intestinal canal. In severe cases, however, especially where the constitutional anomalies above mentioned are at the bottom of the complaint, abdominal massage, accompanied by active and passive curative gymnastics is indicated, together with the casual treatment. Where we are satisfied, however, to leave this in the hands of the laymen and promise a cure within a few days, we will not be able to gain any satisfactory results.

Massage always should be left in the doctor's hands, and the friends of the patient must be instructed that a lasting cure can only be expected after treatment has been continued for at least six weeks. If these conditions are not complied with, it is far better not to begin the treatment at all, for we shall not attain any other results than the discrediting of abdominal massage as a curative measure. It is only within the period mentioned that the operator is able to stimulate the functions of the nervous and muscular elements of the intestine in such a manner that its impression becomes lasting, and that an occasional overloading will be naturally overcome.

THE THERAPY OF EXERCISE.

There is a rapidly growing belief in the efficacy of well directed movements or exercise in the treatment or cure of disease. That growth, development and health depend largely on exercise has, perhaps, always been known, but the therapy or curative properties of exercise in disease is of more recent origin. Proper exercise, says Dr. L. J. Ingersoll in the *Critique*, whether taken by the individual in labor or when sick, administered to him in the form of mechanical or Swedish movements, enables the body in all its parts to perform its intended normal functions.

Exercise by movement in the feeble and diseased pro-

duces the same beneficial effects as does well directed labor in the more vigorous. Indeed, the results of movement as a remedial means in the cure of disease or for the continuance of health are even more satisfactory; because labor is performed without regard to health, while exercise by movement is so directed as to correct faulty habits and pathological conditions.

The muscles of the laborer, and also those of the more feeble and debilitated by disease are alike enlarged and hardened by use. Use, exercise, movement are Nature's means of recuperation as well as of growth.

Under movement the parts moved are filled with circulating blood. When the hands are benumbed by cold, the blood fails to circulate in force. The capillaries, cells and veins become clogged and the blood motionless. Oxidation or combustion has diminished or entirely ceased. There is neither the reception of nutriment nor the casting off of waste. The dead tissues are retained and still further impede circulation. There is no surer nor quicker way of flooding the cells and capillaries with blood from the trunk, and producing full, natural oxidation or heat in the cold and benumbed fingers than by vigorously swinging or oscillating the arms and whipping the hands against the body. Here are perfect Swedish and mechanical movements with positive results. And this illustration confirms the beneficial effects of wise movements in all diseased conditions, and goes far toward making my meaning clear—that movement is a positive remediable force in disease of inestimable value. But some may ask just *how* does movement accomplish these results in removing the cause of the disease?

In the above illustration, under inactivity of the muscles and the paralyzing effect of cold, the blood remains in the capillaries and veins, powerless to move on; blood stasis from deficient outflow was the result and the inactive muscle cells filled with suboxids. Rapid movements of the arms and hands urged the blood onward through the veins, and left an open channel into which the capillaries and muscle cells could unload their contents. The arteries brought a full supply of blood from above charged with oxygen from the lungs. Oxidation or combustion of the suboxids in the cells now takes place and the temperature is restored. In the same manner the cells, veins, capillaries and lymph channels are cleared of their toxic matters, and disease prevented or cured when established.

Movement, when properly administered, becomes a mechanical force, an energy of great and varied adaptability

in the treatment of disease, and is capable of specific direction. Its action upon the affected parts continues for some time after the movement itself ceases. Every part and function of the body is greatly affected by every form of movement, and several results follow. The contracting muscles shorten, and usually carry with them bones to which they are inserted. Other and adjacent muscles are also made to move. At the same time the opposing muscles relax and lengthen ; the veins are narrowed and the blood made to flow more rapidly, especially when the muscles return to rest and the temporary stricture is removed. The capillaries, cells and lymph tubes through all the muscles and tissues moved are for the time compressed by the shortening, thickening and hardening of the muscle fibres, and their contents pressed out and on through their channels of exit, much as we squeeze water out of a sponge or wring it from a cloth we wish to dry. The blood in the veins is hastened toward the lungs and heart, leaving a clear channel for the capillaries and muscle cells to fill. They contract and expand more vigorously, emptying their contents of tissue and toxic waste into the veins and lymph channels for elimination, and the whole circulatory volume is urged on in a more rapid manner. Increased heat through the rapid oxidation of suboxids in the blood and vital cells and nutriment from arterial blood are greatly increased and widely distributed according to the demands of each part. Thus are established and continued at least five most needful and wholesome results.

1. Congestion, inflammation and blood stasis from any cause are prevented. Nor can they long continue when once they arise, because the movement is a direct, physiological force exerted upon the nerves and muscles which control circulation and equalize the blood currents. Movement both crowds and draws the blood onward, proportioning its force to the condition to be relieved or the parts to be protected and engorgement to be overcome.

2. The muscle and vital cells act with more vigor in gathering up and eliminating the waste toxic matters, the oxids—as uric and carbonic acids, water, uria and those absolutely dead tissues and death producing poisons, the ptomains and leucomains, which cause many violent diseases —rheumatism, nephritis, inflammations, convulsions, or the more deadly infectious diseases of diphtheria and smallpox, and which produce those chronic conditions known as epilepsy, lithemia, asthma, and those neuroses, chorea, neurasthenia and thesia. Let it be remembered movement re-

moves this whole brood of causes of disease by speedily eliminating their poisons from the body.

3. More abundant nutrition is brought into the vital cells for repair and recuperation. No sooner does a muscle execute a full movement of vigorous contraction and relaxation than a larger volume of arterial blood charged with oxygen and nutriment courses through all the parts acting. And every cell and muscle fibre is filled and bathed in nutriment and oxygen.

4. Increased circulation produces an increase of heat through the more rapid combustion of suboxids. Heat is also diffused or distributed by motion. Under movement the general temperature of the body is raised proportionate to the vigor and length of time the muscles are engaged.

The special lymph channels, through which refuse and toxic matters are passed on to the lungs, liver, kidneys, skin, thyroid and thymus glands for final elimination are very abundant about the joints. In movement the joints become the center of motion or foci of strain. The contents of these channels are, therefore, more rapidly hastened on by the pressure and relaxation alternately laid upon them in movement. It is apparent that movement wisely directed increases the functional activity of all the processes of life and health; that by it a normal balance, a healthy equipoise and rhythm between different parts are secured and maintained; that the vital cells, the centers of life, as of diseased functions, are made active and vigorous by proper movement. The therapeutic and physiological importance of movement is vastly increased when we consider that it is a specific force, a vital energy which can be regulated, increased or diminished or changed in character, and so directed as to meet the demands of any diseased part, muscle or group of muscles, organ or set of organs. Movement is, therefore, in exact accord with Nature in all her operations to maintain vital energy; through nutrition from the great central organs of digestion and to protect the body against those diseases which arise from the retention of waste and toxic matters which tend to accumulate in the cells. It is thus seen to be a safe, efficient remedy of varied but universal application.—*Dietetic and Hygienic Gazette.*

SURGERY.

IN CHARGE OF

ROLLO CAMPBELL, M.D.,

Lecturer on Surgery, University of Bishop's College; Assistant-Surgeon, Western Hospital;

AND

GEORGE FISK, M.D.

Instructor in Surgery, University of Bishop's College; Assistant-Surgeon, Western Hospital.

ON THE LOCALIZATION OF INTRACRANIAL TUMORS.

In the *Lancet* for April, '99, Byrom Bramwell discusses the localization of cerebral tumors from the results of observations on forty cases with autopsies, and two cases in which operation was performed, in one of which the tumor was localized and the other not. In six cases the tumor was confined to the frontal lobe; in five others the frontal was involved in addition to other parts. The point of interest in tumors of this situation is the impairment of the mental strength of the individual. In seven cases there were well-marked mental symptoms present; in four there were no definite mental symptoms. From this the author concludes that tumors localized in the frontal lobes are more apt to be attended with well-marked mental symptoms (mental enfeeblement, loss of memory, loss of the power of attention, change in character, etc.) than tumors localized in any other part of the cerebral hemispheres. Tumors localized on the posterior surface of the temporal lobe, by irritation of the adjacent motor area, produce Jacksonian epilepsy. In one case of tumor involving the left second frontal convolution (Exner's writing speech center) there was present no agraphia. Vomiting is less frequent and less severe than in tumors situated further back. In two cases of temporo-sphenoidal-lobe tumors there were no localizing symptoms whatever. This is aptly called the silent area of the brain. In tumors of the occipital lobe there is almost constantly found involvement of vision, hemianopsia and soul blindness. In seven cases the cerebellum alone was involved; in three other cases other parts were also affected. The difficulty of localizing a tumor in the cerebellum is well shown by the fact that in one case, in which there were found four tumors in the cerebellum, there were absolutely no localizing symptoms present. Two cases in which distended ventricles simulated

cerebral or cerebellar tumors are described. Some of the conclusions which the author draws from his extensive experience and his careful study of the cases post-mortem are the following. Great care should be taken not to put too much weight upon the clinical symptoms, in regard to the localization of a tumor. Pseudo-localizing symptoms should be distinguished from true ones. Localizing symptoms are most certainly obviously produced in those cases of intracranial tumors in which the tumor is situated at the base of the brain, and in which the cranial nerves at their point of origin from the nervous tissue are directly involved by the growth. Tumors are placed in the order of their difficulty of localization as follows: Pons Varolii and medulla, centrum ovale (internal capsule), occipital lobe, motor area, cerebellum, frontal lobe, parietal lobe, temporo-sphenoidal-lobe.—*Med. Review.*

A METHOD OF RENDERING THE HANDS SURGICALLY CLEAN.

Surgeons and bacteriologists are agreed that sterilization of the hands offers the most serious obstacle to the attainment of perfect asepsis in operative surgery.

Exact data bearing upon this point were furnished by Prof. Mikulicz on the occasion of the Twenty-seventh Congress of German Surgeons.

Mikulicz carried on at his clinic in Breslau extensive bacteriological investigations during the year 1897, with results as follows:

He noted that the possibility of sterilizing the hands varied greatly with different individuals, according to the kind of work done by each. For example, the hands of assistants who had taken part in septic operations even in 92 per cent. of all cases were the abode of virulent pathogenic microbes, even after treatment with hot water, soap, alcohol (70 per cent.), bichloride (1-1000), and lysol (1-100.)

On the other hand, assistants who passed instruments and had nothing to do with septic operations, or the after-treatment of cases, presented hands which were absolutely aseptic after the above treatment in two-thirds of all cases.

In view of these results, Mikulicz thoroughly tried the thread operating gloves, but expressed himself as dissatisfied with them because they do not fulfill what he declares to be the prerequisites of a proper covering for the surgeon's hand, viz: that it be impermeable, pliable, sufficiently thin so as not o impair the touch, cheap and easy to sterilize,

Granted then that only the requirements of Mikulicz need be met, I have in a coating of *sterilized vaseline* an ideal covering.

My method of application is as follows: I cleanse the hands as fully as possible with hot water, soap and brush; apply the vaseline (which has been boiled in a glass jar) and rub off the surplus in a sterilized towel, taking particular care to rub the vaseline into the depressions around the nails and under the ends of the same. The hands may now be dipped with impunity into any antiseptic solution, with the result that the exterior of this impermeable coating is rendered aseptic and fit for contact with a wound, while the skin itself with germs that may be upon it is completely covered.

Vaseline is of course absorbed by the skin, but as the covering can be removed in a few seconds, I see no reason why this may not be done as often as the surgeon finds it necessary to cleanse his hands during an operation.

In this way one not only protects the wound from contact with hands which are admittedly nearly impossible of sterilization, but at the same time protects his own skin from the effect of antiseptic solutions which render it rough and a likely field for the lodgment, development and retention of all forms of bacteria.

Six months' use of the above means of rendering the hands fit for use in surgery has given most satisfactory clinical results, and a bacteriological report will be made in the near future.—W. Bartlett, M.D., *Med. Review.*

COMPRESSION OF THE SPINAL CORD AND SPINAL HEMORRHAGE.

A. Woldert discusses the diagnosis of spinal compression, due to fracture, hemorrhage into the cord and hemorrhage into the spinal membranes. In fracture or dislocation there is a history of traumatism, deformity present, sudden onset, consciousness frequently lost for several hours, paraplegia with loss of control of sphincters, rigidity of lower extremities, after a few hours a high rise of temperature; prognosis fatal. In cases of hemorrhage into the cord there is a history of prolonged exertion, no deformity, sudden onset, consciousness not disturbed, paraplegia with loss of control of sphincters, relaxation of lower extremities, fever absent or moderate; prognosis unfavorable. When hemorrhage is into the spinal membranes, there is a history of traumatism, no deformity, onset slow or sudden, consciousness generally

retained, paralysis generally affecting lower extremities and rarely loss of control of sphincters, rigidity of the lower extremities, moderate fever; prognosis guardedly favorable.—*Phila. Med. Jour., Med. Review.*

NEW OPERATION FOR EPITHELIOMA OF THE LIP.

W. W. Grant describes the following method: A straight perpendicular incision is made on both sides of the diseased area and extending well below it; these are united by a transverse incision, removing a quadrangular block of tissue. From each lower angle of the wound an incision is then made, obliquely downward and outward over the upper and lateral surface of the chin, the length, an inch or more, to be determined by the amount of tissue removed from the lip. These incisions give two large triangular flaps, which, with little traction, slide easily over the stationary tissue of the chin. The flaps are first united in the center by four interrupted silkworm-gut sutures and the lower borders by continuous catgut sutures. The incisions are confined to the elastic portions of the lip and cheek; there is less tension of the lip, and it is more prominent and natural in consequence than after the old V-shaped incision.—*N. Y. Med. Rec., Med. Review.*

THE ANESTHETIZER AS A SPECIALIST.

D. H. Galloway believes that the people seem to be more alive than the profession to the desirability of expert anesthetizers, but that surgeons also are now awakening to the necessity of skill in this as well as in other departments of medicine. The anesthetizer will have to make his own place in medicine, and as soon as he has demonstrated the value of his services the profession will concede him the position which the importance of his duties entitles him to occupy. After discussing the qualifications necessary in one who would be considered an expert anesthetizer, Galloway defines his duties from the time he meets the patient until after the operation is completed and the patient has regained consciousness. The prevailing mode of compensating the anesthetizer is radically wrong, and results in dissatisfaction to all parties concerned.—*Phila. Med. Jour.*

DRAINAGE FOR LACERATED AND CONTUSED WOUNDS.

S. C. Benedict, in the *Railway Surgeon*, reports the continued success in the use of rubber tissue as a protective and means of drainage, as advocated by Halsted some years ago. He has used it for all wounds in which closure for primary union could not be attempted, either from loss of skin or extent of injury to deeper tissues. Some of its advantages are that it is non-irritant, is non-adherent to the tissues, allowing free drainage, prevents the dressings from adhering to the wound, and insures perfect drainage. If the wound requires a piece of rubber tissue wider than three-quarters of an inch, parallel slits should be cut into the rubber one quarter of an inch apart and of different lengths crosswise to the length of the rubber tissue; this insures quicker drainage and absorption by the dressing. The wound may also be covered by strips of tissue overlapping each other in shingle-fashion. The dressing need not be changed for several days unless it becomes saturated.

THE CANADIAN "COUNTRY DOCTOR."

(Copyrighted.)

I s'pose mos' ev'ry boddy t'ink hees own job's 'bout de hardes',
From de boss man on de Gouvernement to poor man on de town,
From de Curé to de lawyer, an' de school-boy to de farmer
An' all de noder feller was mak' de worl' go roun'.

But dere's wan man got hees han' full t'roo ev'ry kin' of wedder,
An' he's never sure of not'ing, but work an' work away,
Dat's de men dey call de Docteur, w'en you ketch heem on de contree,
An' he's only man I know, me, don't got no holiday.

If you're comin' off de city, spen' de summer tam among us,
An' you walk out on de morning, w'en de leetle bird is sing,
Mebbe den you see de Docteur, w'en he's passing wit' hees buggy,
An' you t'ink "Wall, contree Docteur mus' be very pleasan' t'ing.

"Drivin' dat way all de summer, up an' down along de reever,
W'ere de nice cool win' is blowin' among de maple tree,
Den affer makin' visit, comin' home before de night tam,
For pass de quiet evening wit' hees wife an' familee."

An' w'en off across de mountain, somewan's sick, an' want de Docteur,
"Mus' be fine trip crossin' over for watch de sun go down,
Makin' all dem purty color lak' w'at you call de rainbow."
Dat's way de peep is talkin' w'en dey're leevin' on de town!

But it isn't alway summer on de contree, an' de Docteur
He could tole you many story of de storm dat he's been in;
How hees coonskin coat come handy, w'en de win' blow off de reever,
For if she's sam' ole reever, she's not alway sam' ole win.'

An' de mountain dat's so quiet, w'en de w'ite cloud go a sailin'
All about her on de summer w'ere de sheep is feedin' high,
You should see her on December, w'en the snow is pilin' roun' her,
An' all de win' of winter come tearin' t'roo de sky.

Oh! le bon Dieu help de Docteur! w'en de message come to call heem
From hees warm bed on de night-tam for visit some poor man
Lyin' sick across de hill side, on noder side de reever,
An' he hear the mountain roarin' lak de beeg Shaw-in-i-gan.

Ah! well he knew de warning! but he can't stay till de morning,
So he's hitchin' up hees leetle horse, an' put heem on burleau,
Den w'en he's feex de buffalo, an' wissle to hees pony,
Away t'roo storm an' hurricane de contree Docteur go.

Oh! de small Canadian pony! dat's de horse can walk de snow-dreef!
Dat's de horse can fin' de road, too, w'ere he's never been before!
Kip your heart up, leetle feller, for dere's many mile before you,
An' it's purty hard job tellin' w'en you see your stable door.

Yass, de Docteur he can tole you, if he have de tam for talkin',
All about de bird was singin' before de summer lef',
For he's got dem on hees bureau, an' he's doin' it hese'f, too,
An' de las' tam I was dere, me, I see dem all mese'f.

But about de way he travel t'roo de stormy night of winter,
W'en de rain come on de spring tam, an' de bridge is wash away,
All de hard work, all de danger, dat was often hang aroun' heem,
Dat's de tam our contree Docteur don't have very moche to say.

For it's purty ole ole story, an' he alway have it wit' heem,
Ever since he come among us on de parish Saint Mathieu,
An' I s'pose he's feelin', mebbe, jus' de sam' as noder feller,
So he rader do hees talkin' about somet'ing dat was new.

WILLIAM HENRY DRUMMOND, M.D.,
Author of "The Habitant," etc.

THE
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Editorial.

WEAKNESS, NOT GOODNESS.

There is certainly no profession that accumulates so many bad debts as the profession of medicine. There is no profession which contains so many poor business men as does the medical profession. These two statements will, we think, be pretty generally accepted by all who are qualified to form an opinion. We have been told by a medical friend of twenty years' experience that his books contained enough bad debts—the interest on which could give him a handsome living. This is a startling statement, especially so if it applies proportionately to many others—which we believe it does. We have for some time held views on one of the reasons for this condition of things, and for which, we believe, the teachers in medical schools are primarily responsible. Year after year, before large audiences, the professor whose duty it is to give the parting address to the graduating class advises them to ignore the financial side of the medical man's life. Its glory—its humanity—its importance—second only to that of the ministry—is explained and dwelt upon. This last, to a certain extent, is correct, but in the presence of a promiscuous crowd of the general public, we believe its effect is often not of the best. They get year after year this same doctrine impressed upon

them, till they at length really believe that to all medical men money is a secondary consideration. When the doctor does venture to send in a bill for services rendered, it is cast aside, and in most cases its payment left to a convenient season, which, unfortunately, is often long in making an appearance. While we would not for a moment detract from the noble and philanthropic character of our profession, yet let it be distinctly understood and stated that each graduate has chosen the profession of medicine with a view of earning his living. We have been induced to make these few remarks from reading an article in a recent number of the *Medical Brief*, and which so well gives our views that we copy it in full. It is as follows:

Uriah Heep was not an humble man. His conceit merely took an unusual way of displaying itself. So, there is a great deal of "goodness" in the world which is nothing but weakness. Genuine goodness is not a passive quality. The man who submits to injury rather than make an effort at retaliation is not a good man, he is lazy and a coward.

There is nothing higher than Justice, It punishes, rewards, instructs, without respect of persons.

Real goodness acts. It teaches by example rather than precept. It is true, first, to the legitimate interests of the individual man, and consequently forwards those of all men. It compels a man to be an honest, straightforward, self-respecting, self-controlled, responsible member of society. It does not permit the substitution of a lurid emotional display for the conscientious, exact performance of duty.

The idea that it is man's duty to submit cheerfully to imposition, yea, even go half way to meet it, has done a great deal of harm. The do-nothing policy is the line of least resistance, and when man is glorified for it, it becomes doubly attractive.

All forms of charity, except the emergency kind, are species of imposition. The Doctor is the most preyed upon of all men. This is largely his own fault. He has educated the public to believe that it is his duty to furnish the necessary knowledge and skill when disease occurs, and that pay is altogether a secondary consideration.

The Doctor is now suffering, as all men must suffer who neglect their own interests. Nature provides no special Providences to reward this sort of goodness. She calls things by their right name, and smartly punishes carelessness.

If a grocer were called upon to furnish the needy with

articles of food, his first inquiry would be as to who would settle the bill. It is difficult to get the Doctor to present one within a reasonable time after services rendered. Small wonder that people think it unnecessary to pay so indifferent a creditor! It is taken for granted that a man will look out for his own end of a bargain.

The Doctor's charity list is a large one, and it represents: Real goodness and kindness of heart, one-fourth; neglect, carelessness, procrastination and unbusiness-like methods, three-fourths. Such a list shows that he is indifferent alike to the true interests of himself, his profession and those who employ him.

System and order in the business end of the profession is by no means incompatible with scientific study. Mail each and every one of your patrons a statement of account the first of every month. Give them a chance to be honest and self-respecting. If any take offense at your assuming they possess these desirable qualities, you are better off without their patronage. There are too many people in the world who fancy they are doing you a favor when they pay you for your work. And do not take unction to your soul that by neglecting to provide for yourself here you are laying up riches in the Hereafter! That was cheap consolation for the early Christians, who were so unmercifully fleeced by their religious advisers. "From him that hath not shall be taken even that which he hath."

THE WOMAN'S HOSPITAL.

This institution is the hospital where the students of the Medical Faculty of the University of Bishop's College receive their obstetric training. For four years it has been housed at 80 Osborne street, Montreal, and for the last two the demand made on it has been more than it could accommodate. It accordingly last winter secured two three-story first-class houses, 170 and 172 Mountain street, and during the early spring they were altered and in every way prepared for the work to be performed within their walls. It was officially opened on the 21st of June, when an informal reception was held by the Ladies' Committee, of which Mrs. H. L. Reddy is President, and to whom the hospital owes a debt of gratitude. The institution averaged in its old quarters about one hundred and fifty patients yearly, but the new building will be able to accommodate many more. This will at once be

evident when we state that it is able to accommodate fully twenty free patie nts, 10 nurses and also ten private patients at prices varying from $1.50 to $2.00 per day, and a few semi-private patients at $1.00 a day.

The new hospital is well-equipped and is now in full running order, and if need be the accommodation can be so arranged as to take in at least forty public patients. Every possible sanitary precaution has been taken in modelling the buildings, and the most up to date plumbing used throughout. It is entirely lighted by electricity. The walls are painted cream color, over which a glazed antiseptic solution has been spread. This hardens and is able to be thoroughly washed. Telephone and annunciators connect every room and floor in the building and with the matron's, nurses' and house physicians' rooms. There is on the ground floor a small operating room, well equipped with instruments and sterilized apparatus. The dining rooms for the staff are on the lower floor ; also for the patients. The kitchen, as also the laundry (both models of their kind), are also on the same floor ; both houses are practically one, communication between them having been made by doors on each flat.

We believe we are correct in saying that at the present time this is the largest and best equipped obstetrical hospital east of Toronto, and as it has been steadily growing in importance we predict for it continued success. All medical men can have the use of the private wards and attend thier own patients. The medical staff is as follows, viz.:—Dr. H. L. Reddy, Professor of Obstetrics in Bishop's University, Physician Accoucheur ; Dr. Burnett, 1st Assistant Accoucheur; Dr. George Fisk, 2nd Assistant Accoucher; Dr. Tanguay and Dr. Lopez (graduates of Bishop's College), Resident House Physicians. The Medical Committee is composed of the following : Dr. F. W. Campbell, Chairman; Drs. J. B. McConnell, G. T. Ross, W. H. Drummond and W. Grant Stewart.

The Ladies' Committee are : Mrs. H. L. Reddy, President; Mrs. Macdonald, Treasurer; Mrs. M. Logan, Secretary; Mrs. Agnew, Mrs. Donald, Mrs. Warrington, Mrs. G. F. Cooke and Mrs. Drayner. Mrs. Lavack is Matron and Miss Alexander is Head Nurse.

THE LAURENTIAN SANATORIUM.

The desirability has for years been felt of having a Sanatorium for the treatment of tuberculosis, erected on some of the mountainous ranges of the Laurentides, north of Montreal. This desire was the outcome of two factors, viz., belief in the special value of our northern atmosphere—rich in ozone and largely impregnated with the odor of the pines; the other was the antipathy of patients to being sent far away, so that for friends to visit them, except at long intervals and much expense, was practically impossible.

Dr. A. J. Richer, lecturer on Hygiene in the Medical Faculty of Bishop's College, devoted much of the two years he spent in Europe in investigating tuberculosis, and on his return to Canada, a few years ago, he recognized the necessity which existed for a Sanatorium, near Montreal, and of easy access. In Dr. H. A. Lafleur, Associate Professor of Medicine in McGill University, and Dr. Robert Wilson, Professor of Materia Medica and Therapeutics in the University of Bishop's College, he found two gentlemen deeply interested in the scheme which was near his heart. After succeeding in getting a few friends to assist in raising the required capital, the medical committee or directors, if we may so call them, looked around for the best site. After full consideration a property was acquired at St. Agathe, in the Laurentides, sixty-four miles from Montreal, on the line of the Canadian Pacific Railroad. It is situated about three-quarters of a mile from the village and a good mile from a very beautiful lake. The site selected for the erection of the Sanatorium was half way up Mount Calvary, and about sixteen hundred feet above sea-level. On Thanksgiving Day, 1898 (November 25), the foundation stone was laid by Dr. F. W. Campbell, Dean of the Faculty of Medicine of Bishop's College, in the presence of a number of friends who went from Montreal to give encouragement to those engaged in the undertaking. During the winter and spring the building operations were continued, and a few weeks ago it was open to receive patients, several of whom are now within its walls. The official opening, however, took place on the 13th July,

when its medical staff invited about three hundred of the Medical profession to take part in the ceremony. Fully two hundred and fifty responded to the invitation, and were conveyed thither in special train leaving Montreal at half-past eight. On arriving at St. Agathe carriages were in waiting to convey the ladies around the lake and thence to the Sanatorium. After all had viewed the building, and admired the magnificent view from its galleries, the entire party sat down to a bountiful lunch. Dr. Robert Wilson occupied the chair, supported on his right by Mayor Prefontaine of Montreal, and on his left by the Hon. Mr. Nantel. Justice having been done to the good things, Dr. Robert Wilson gave a history of the enterprise, and the hopes for the future of his promoters. Addresses were subsequently delivered by Mayor Prefontaine, Hon. Mr. Nantel (who has a beautiful residence on the border of the Lake), Dr. T. Wesley Mills, of McGill Faculty of Medicine, and Dr. F. W. Campbell, Dean of Bishop's College Faculty of Medicine. This function completed, the majority proceeded to complete the ascent of Mount Calvary—some two hundred feet above the Sanatorium. Those who made the ascent were well rewarded, for the view from its summit is indeed magnificent. Mountain after mountain and at least seven lakes in sight. At about twenty minutes to five the return journey was commenced, and at seven o'clock the party arrived at Montreal, all being loud in their praise of the treatment they had received, and wishing all possible success to the Laurentides Sanatorium. The House Surgeon of the Sanatorium is Dr. Meli, a graduate of the University of Florence, and till recently assistant to the two Bianchi at Naples and Genoa. He has also worked at the Hygienic Institute at Berlin, Pathological Institute, Vienna, and the Pasteur Institute in Paris. An office of the Dominion Meteorological Observatory has been established at the Sanatorium under the charge of Dr. Meli.

CANADIAN MEDICAL ASSOCIATION. TORONTO MEETING.

The thirty second Annual Meeting of the Canadian Medical Association will be held at Toronto on Wednesday,

Thursday and Friday, August 30th, 31st and September 1st, 1899.

Through the kindness of the Honorable Minister of Education for Ontario, the building of the Education Department has been placed at the disposal of the Association, and in it the meeting will be held. This building is most centrally situated, as the Church street cars pass the building, and the Yonge street line is but one block away.

The programme will be of exceptional interest, and the very important subject of Inter-Provincial Registration will receive full discussion at this meeting.

A number of entertainments have been provided for. The Association will be the guests of the City of Toronto on Thursday evening, when members and their friends are invited to attend a smoking concert on board one of the large Niagara steamers during a sail of a couple of hours on Lake Ontario; the pyrotechnic display at Exhibition Park will be witnessed from the deck of the vessel. On Friday afternoon the Association will be entertained by the President and Directors of the Toronto Industrial Exposition at Exhibition Park.

There will be an exhibition of instruments, drugs and physicians' supplies in connection with the meeting.

The Committee of Arrangements is making every possible effort to insure a successful meeting, and trusts there will be a very large attendance. As the meeting is held during the first week of the Industrial Exposition, railway tickets to Toronto and return may be obtained at reduced rates. (Single fare throughout Ontario.)

It has been found impossible to send a circular concerning the Canadian Medical Association to every practitioner in the Dominion, as the lists of addresses are imperfect. It is particularly requested that any reader of this JOURNAL who has not received a circular, and who takes any interest whatever in the advancement of professional and scientific progress, will send a card to the General Secretary, Dr. F. N. G. Starr, 471 College street, Toronto, from whom he will receive all information.

The American Electro-Therapeutic Association will hold its Ninth Annual Meeting at Washington, D.C., September 19, 20, 21, 1899.

Willard's Hotel has been chosen for the Headquarters, and special rates have been made for all interested in this meeting.

Many able papers have been promised, and a very successful scientific meeting is assured. There will be a large and varied exhibition of Electro-Therapeutic apparatus in Willard's Hall during the meeting of the Association. The Committee also promises a very pleasant social programme, including a reception by the President of the United States, an excursion to Mt. Vernon, Arlington and Alexandria, a Buffet lunch to be served at Alexandria, an evening visit to the Congressional Library to be viewed under electrical illumination. Provisions have also been made to visit the War, State and Navy Department, the United States Treasury and other public buildings.

A NEW LINE OF SPECIALISM.

Gastro-Enterology is the latest specialism. The Maryland *Medical Journal* announces that a physician of Baltimore, who practices on this special line, has left for Paris and Berlin to visit the special clinics for diseases of the stomach and intestines.

Personal.

Dr. Fortin (M.D., Bishop's, 1897), has taken the L.R.C.P.E. and the L.R.C.S.E. and F. of P. & S., Glasgow, and accepted the position of assistant to a surgeon in Surrey, England.

Dr. Rottot has retired from the position of Professor of Clinical Medicine at the Notre Dame Hospital, Montreal, and has been replaced by Dr. Demers.

Dr. Benoit has been appointed to the Chair of Practice of Medicine in Laval University, Montreal.

Dr. W. B. Atkinson, for a quarter of a century Permanent Secretary of the American Medical Association, has retired.

Dr. Shirres, late physician to the Earl of Aberdeen, has been appointed Clinical Assistant in Neurology at the Royal Victoria Hospital, Montreal.

Dr. J. C. Webster, of Montreal, lately appointed Professor of Gynecology in the University of Chicago, was married in New York on the 26th May, to Miss Lusk of that city.

Dr. D. P. Anderson, Demonstrator of Pathology in McGill University, was married on the 1st of June.

Dr. Roddick, M.P., has been visiting the various Medical Boards of the different Provinces and explaining the scheme for a Dominion Medical Board. It is gratifying to know that everywhere the proposal has met with unanimous endorsation.

Dr. Bruere, Professor of Physiology in the Medical Faculty of Bishop's College, and Chief of the Laboratory of Clinical Medicine in the Royal Victoria Hospital, has left Montreal on a trip of six weeks to Trinidad,

Dr. Casey A. Wood (M.D., Bishop's, 1877), of Chicago, was Chairman of the Ophthalmological Section of the American Medical Association, which met at Columbus, Ohio, June 6th-9th,

Dr. Birket (M.D., McGill, 1886), of Montreal, sailed for Europe *via* New York, on the 1st of July. While in Europe he will be married. His numerous friends wish him long life and much happiness.

Dr. Benny (M.D., Bishop's, 1896) has been named Lecturer on Anesthesia in the Medical Faculty of his Alma Mater.

Dr. Ford (M.D., Bishop's, 1898) has returned from Europe. While absent he took the triple qualification at Edinburgh.

Dr. Byers (M.D., McGill, 1896) has returned from Europe, having taken Imperial qualifications. He has settled in Montreal as an ophthalmologist.

Book Reviews.

Diseases Ear, Nose and Throat. By S. Scott Bishop, M.D. The S. A. Davis Company, Philadelphia, 1899

This is one of the most acceptable books published on this subject from a practical standpoint. The arts of lithography, engraving and printing are utilized in a superior degree. It is de-

signed to help not only students but practitioners generally and those exchanging their practice for special work. Special subjects are treated in greater detail than can be carried out on other subjects as a whole, such as the latest data regarding every day important work like diphtheria, serum therapy, related diseases of eye and nose, hay fever, improved instruments and apparatus, inhalents, etc. These are given special prominence, and constitute the practical character of the work which may be noted. It is a book to be recommended in every way.

PUBLISHERS DEPARTMENT.

LITERARY NOTES.

Readers of the August number of *The Critic* may notice the absence of Mr. Dickson's paper on "Thackeray's Contributions to 'Punch.'" It has been held over to make room for "A Repentance," a drama in one act by John Oliver Hobbes (Mrs. Craigie), which is given complete in this number. Besides this, there is an article on Charlotte Bronte and her two friends, Miss Taylor and Miss Nussey, by Marion Harland, who has recently visited the scenes in which the drama of Charlotte Bronte's life was acted, and who has had special advantages for writing the story. The article is illustrated with a portrait of Miss Nussey by Miss Taylor, and a portrait of Branwell Bronte by the same hand. There is, also, a family group drawn by Branwell Bronte, which does not show evidences of the artistic talent he and his family seemed to think that he possessed. Another picture shows the house in which Charlotte Bronte was born. There is, also, in this number an appreciation of the late Augustin Daly by Mr. A. I. duPont Coleman, who admired Mr. Daly the man as much as Mr. Daly the manager. This article is illustrated with a new portrait of Mr. Daly and a view of the interior of his private office at Daly's Theatre, showing the beautiful Empire furniture which he bequeathed to Miss Ada Rehan in his will. A notable contribution to this number of *The Critic* is a poem called "The Song of the Nebraska Cattle-Country." The frontispiece of *The Critic* is a reproduction of Falguière's Balzac. In "The Lounger" there are portraits of Carlyle, Winston Churchill, Mrs. Ella Higginson, Seumas MacManus and Mrs. Kate Chopin. The Polish Rider, by Rembrandt, supposed to be the only equestrian portrait he ever painted, is given in this number.

In celebration of its 20th anniversary, The *Art Amateur* gets out an exceedingly handsome number. The cover in brown and gold is very attractive. The number begins with a retrospect of the magazine for the past twenty years, carrying us back to the time when the art movement was just beginning. The paper, it will be remembered, was founded by Montague Marks, of whom is given an interesting account, and also of his successor, John W. Van Oost, who is a descendant of the famous Flemish painter of the same name, some of whose works are shown in the magazine. The American painter, Henry Mosler, is made the subject of a bright article, illustrated by a number of his best pictures. The color plate, "The Artist's Daughter," also by him, bears out his reputation, for it is an excellent piece of work, strong and masterly in handling. Among the other contributors are Montague Marks, who writes on "The Royal Academy Exhibition"; W. A. Rogers, on "The Artist and the Camera"; Ernest Knaufft on "Elementary Drawing" and "Drawing for Reproduction"; Rhoda Holmes Nicholls on "Figure Painting" and "Animal Painting"; David Malcolm on "Open Fireplaces"; E. C. Dierhold on "Carpets and Rugs"; Cecilia Bennett, E. C. Darby, and Fanny Rowell Priestman on China Painting.

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