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MISSING

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EDITORIAL

THERAPEUTICS, WHOLE AND UNDIVIDED.

Therapeutics is a very comprehensive term, and should be clearly defined as everything that may be done or employed in the treatment of one who is suffering from any form of injury or ill-health, whether physical or mental.

Surgery is therefore one branch of therapeutics. The amputation of a leg is as strictly treatment as would be the application of a splint to a broken arm. The removal of a breast is treatment, or therapeutics, just as would be the administering of an anodyne for the relief of pain. It is therapeutics to incise an abscess just as surely as it would be therapeutics to give a cool sponge in typhoid fever.

Then every form of electricity used in medical practice is therapeutics, and, therefore, we speak of electro-therapeutics. The galvanic and faradic currents, the franklinic spark, the galvano-cautery, and the X-ray are all parts of physical therapeutics.

Then we have balneology in all its forms, and climatology. These are at times most useful, but they are only forms of therapeutics. It is treatment in the case of typhoid fever to order a bath, as much as it would be to order some drug to secure some needed relief for the patient. To order an ice bag to the side of a pneumonia patient is therapeutics just as much as to prescribe something for his troublesome cough.

Then there are rubbing, friction, manipulation, kneading, moving parts, and massage. For long centuries in some form and under some name these agencies have been made use of. They all constitute a part of the domain of therapeutics. Under the names of osteopathy and chiropractic an attempt has been made of late years to raise them into separate systems and designate them as new sciences. Nothing could be further from the truth. What is good in osteopathy and chiropractic is only there as part of general therapeutics in the subsection of manipu-

lation in some form. What is good in Christian Science is only there because of the principle of suggestion.

It has long been known that suggestion is a powerful agent for weal or woe; but it should be employed sanely and honestly, and not jumbled in with a crude and ignorant form of religious faith. When suggestion is made use of it should be by the doctor and nurse in charge of the patient. In no case should suggestion be used to create false hopes, and lead the patient to believe that there is a merit in some mystery. This is nothing short of callous deception.

Now, all these things are parts of therapeutics as a whole. No one of them should set up shop for itself as an independent system. Anything that is good in any one of them belongs to treatment as a whole. Thus it will be seen that there is no foundation left on which osteopathy, chiropractic, of Christian Science may stand. As healing systems they are very minor portions of general therapeutics. In like manner drugs are only a part of the whole.

A WARNING,

The medical profession is at war in more ways than one. It is doing its share well in the great European struggle. Many have gone from comfortable homes to the battlefront, and many have given up lucrative practices for the very much reduced remuneration of an army doctor or surgeon. All this is noble and should, and we feel shall, receive due consideration at the proper time.

Then the medical profession is at war with disease. It is engaged upon the splendid task of discovering ways and means of preventing disease. If one will only consider for a moment what has been done along this line. The sickness and death rates from tuberculosis, typhoid fever, ague, yellow fever, hydrophobia and many other infectious diseases is steadily declining. At the present moment medical men are leading in the war against venereal diseases, and in the campaign for better care of the weak-minded.

But there is another and great war in which the medical profession, especially in Ontario, is engaged, namely, the war against that variety of parasite that would practise under some narrow dogma, or according to some exploded theory of disease. At the present moment Ontario is infested by such parasites under various names. Guided by an erroneous theory regarding disease they enunciate a still more erroneous theory regarding treatment. Such a condition should be stamped out with the same remorselessness that we drain a malaria-producing swamp, or order that a polluted well be closed up to stay the spread of typhoid fever.

It would be impossible to imagine a more dangerous element in a community than one who contends that typhoid fever arises from some displacement in one of the vertebral points, and, this being the case, then the germ can do its work and cause the disease. Such a theory put into practice is on the level of manslaughter; for there is no excuse for it on the ground of ignorance, as the science of such things is now known.

Well, then, the medical profession must use its influence to prevent all sorts of irregulars gaining a foothold in this Province. The demand must be quality first. Take a course of study and training that is equal to the highest. Then pass the prescribed examinations. No one should seek to treat the sick or injured until he has complied with this standard; nor should the public desire to have in its midst "healers" who have not secured their right to practise by conforming to this standard.

It is here that the members of the medical profession have a duty to discharge both to the people and themselves. They must come forward in favor of a high standard; they must be the guides of the people on this matter; they must lead the way in the securing of such medical legislation as will for all time place this Province in the lead of all others. We have often dealt with this subject, and may have to return to it again, and the need for action is great, but the reward will be great if all do their duty.

OSTEOPATHY AS TAUGHT BY ITS LEADERS.

1. The duration of course is of no moment if the system is wrong, and the application of the information obtained along erroneous methods.

2. Knowledge of anatomy, physiology, bacteriology, etc., means nothing, so far as treatment is concerned, if the theory of disease is unsound and contrary to the experience and investigation of the past.

3. The final test of all medical science is what it can do for the sick, and the prevention of disease. The fruit of medical research is treatment.

4. Osteopathy holds an erroneous view on disease. Dr. A. T. Still, founder of osteopathy, taught that "A disturbed artery marks the period to an hour, and minute, when disease begins to sow its seeds of destruction in the human body." This is quoted approvingly by Dain L. Tasker, on page 19 of his *Principles of Osteopathy*. Now, this view of disease is altogether too confined, as it takes no account of the long list of diseases that are caused by infections, nor of the many morbid processes, such as cancer, that are due to cell changes.

Osteopathy finds its theory of disease on what it calls "Lesion." Dain L. Tasker lays it down in these words on page 40 of the work just

quoted: "The principles of osteopathy take their natural beginning in the consideration of 'the lesion.'" Then he tells us that lesion is "any structural change which affects the functional activity of any tissue is called a lesion." Here the origin of disease is reduced to a purely mechanical cause. On page 41 he tells us that "the causes of lesions fall under two general divisions: First, violence: second, failure to react to environment." This, again, is entirely unsound.

But Tasker quotes the following as stating the truth: "In no case can anything appear in the form of disease which was not previously present in the body as a predisposition; external forces are able merely to make this predisposition apparent." If one, therefore, had no predisposition to typhoid fever he could not have it. At once this theory may be dismissed as most absurd.

On treatment this author lays down the following: "Thus we divide treatment into three divisions: (1) Manipulation for the purpose of correcting the malposition of any tissue, whether that tissue be bone or blood; (2) proper feeding, *i.e.*, dietetics; and (3) proper surroundings, *i.e.*, hygiene." If one sets aside dietetics and hygiene, common to all ideas of treatment, all that is left is "manipulation." This must be pronounced as most inadequate to meet all the conditions of disease.

In the announcement for 1917-18 of the American School of Osteopathy, Kirksville, Missouri, this is stated, page 39: "The general purpose of vaccination and serum therapy is to increase the activity of the antibody forming organs of the body. It has been demonstrated that the same results may be obtained by osteopathic treatment with out the use of serum-therapy, and that the results obtained are more satisfactory." This would logically mean that the manipulation treatment would render our soldiers immune to typhoid fever in a more satisfactory manner than by the employment of anti-typhoid fever vaccination. This sort of teaching is too sericus to be allowed to pass.

This absurd theory is borne out by the announcement of the Philadelphia College and Infirmary of Osteopathy for 1916-17, page 38, where this is found: "He reasons that a perfectly normal body is insusceptible to germ invasion, and as some form of anatomical defect is the basis of all diseased conditions, that the virulent germ in a given case is but an exciting cause and is not the prime factor." So when one is taken ill with pneumonia, the germ would have been powerless if there had not been some "anatomical defect." "These wild and wandering cries" should not be allowed to hold sway in this Province.

In the announcement of the College of Osteopahic Physicians and Surgeons, Los Angeles, California, for 1915-16, page 9, this is stated: "The central sun in the osteopathic solar system, however, is anatomical

adjustment." And on page 19 this appears: "Therefore, when confronted with a diseased body, the osteopathic physician proceeds, first, to correct all existing anatomical derangements. He then surrounds it with the external agencies necessary to normal life, and the result is health." Here the same falacious views are set forth.

One would expect to get the best from Massachusetts, so in the announcement of the Massachusetts College of Osteopathy for 1916-17, page 9, this appears: "He goes more deeply into the origin of the disease than does the physician of the older schools, and finds in the obstructed nerve and blood supply the predisposing and actual cause of disease." Now, then, an obstruction of nerve and blood supply is the actual cause of disease. But science says "no" to this very one-sided theory, so "cribbed, cabined, confined and confined" that it is absolutely worthless.

Turning for a moment to Charles Hazzard's "Practice and Applied Therapeutics of Osteopathy", it will be found that such entirely different diseases as asthma, bronchitis, hay fever, pneumonia, consumption, pulmonary hæmorrhage, pleurisy, laryngitis, tonsillitis, mumps, gastritis, hæmorrhoids, duodenal ulcer, appendicitis, intestinal obstruction, peritonitis, jaundice, gall-stones, splenitis, nephritis, renal calculi, cystitis, heart disease, and so on, are said to be caused by some lesion of the spinal column, or of some of the ribs, or some abnormality of some muscle. The acceptance of such teaching might well be regarded as evidence of mental distortion in one who has studied anatomy, physiology, bacteriology and other branches of science, as osteopaths claim they do.

Now, while it is known that there are sometimes displacements of bones, or irregularities in their shape due to faulty development, disease or injury, yet it is contrary to all medical experience that these conditions give rise to such diseases as asthma, peritonitis, gall-stones, jaundice, disease of the kidneys, and many others as set out in Hazzard's text-book on osteopathy.

Charles H. Murray, in his work on "The Practice of Osteopathy", lays down this on page 14: "The effect of working on a spinal articulation with sufficient force to loosen the joint, is to stimulate the segments of the spinal cord nearest that joint, and send nerve impulses in increasing numbers over the nerves that find their origin in that portion of the cord. This nerve stimulation will be caused by any mechanical force acting on the spinal column sufficient to influence the cord."

Such views are contrary to everything that is known about the anatomy and physiology of the spinal column and the spinal cord.

AN IMPORTANT JUDGMENT.

Mr. Justice Middleton recently, in a very able manner, set forth his views on the Proprietary Medicines Act and the Ontario Temperance Act, and showed that they do not conflict. He pointed out that compounds prepared according to the British Pharmacopæia or any standard work on pharmacy, and so medicated that they could not be used as beverages for the sake of the alcohol they contained, did not come under the purview of the Ontario Temperance Act. This did not, however, apply to proprietary compounds put up and sold under the Dominion Proprietary Medicines Act. These compounds come within the scope of the Ontario Temperance Act, and will be treated on their merits as to their alcohol content and the degree of medication they may contain so as to prevent their use as beverages.

Justice Middleton held that section 125 of the Ontario Temperance Act clearly sets forth the fact that all compounds offered for sale which contain alcohol must be so medicated that they cannot be used as beverages. If they are not so medicated the vendor or manufacturer may be proceeded against under the Temperance Act. Another important feature of the judgment is that merchants who do not set themselves forth as selling drugs and medicines are not permitted to sell such preparations. This removes from the grocer's shelves all invalid wines, etc.

It was shown that the Dominion Proprietary Medicines Act and the Ontario Temperance Act are not at variance; and that the Ontario Act makes no exception, for it states that all preparations must be sufficiently medicated.

WILD CLAIMS FOR CHRISTIAN SCIENCE.

Francis J. Fluno, M.D., C.S.D., of the Board of Lectureship of the First Church of Christ Scientist, of Boston, was in Toronto recently and lectured in the Royal Alexandra Theatre. Do not place too much on the letters M.D., for, unfortunately, some with the title of M.D. have taken up with some strange sects. We have known M.D.'s sell electric belts and travel with advertising frauds and quacks.

The average man until awakened by Divine Science is mainly on his mental swaddling clothes. The fact is, Mrs. Eddy's *Science and Health* is proof that she was in an extreme state of pitiable mental swaddling clothes. More absolute rubbish and nonsense and contradictions were never compressed into any book. It is not a science of medicine, it is not a science of religion, it is not a science of mental philosophy. It is a crude jumble of mysticism, ignorance, metaphysics, prejudice and egotism.

We are told of the wonders that Christian Science can do, such as doing away with divorce, the creation of happy homes, the raising of the sick to health, the raising of the healthy to a still higher standard of health, the restoring of sight to the blind, the deaf are given their hearing, the lame are made to walk, and Christian Science not only heals mortals of sickness, but it corrects the world of such a thing as sickness.

If this was true, it would be most delightful; but it is not true. It is a gross falsehood to say that one who is blind because of optic atrophy can be made to see, or that one who is lame because of destruction of his spinal cord can be made to walk. But greater feats than these were claimed for Christian Science. We are told that it can lift the mentally unbalanced and insane to sanity and mental balance. In the face of such pretensions as this why do not some kind and well-disposed Christian Scientist go to the asylums for the insane and say to this one, your delusion that you have a glass neck is gone, and to another, that you are no longer damned, but a sinless creature, and to a third that your notion that people are persecuting you has taken its departure? The entire six hundred or more inmates are restored to "their right mind", and go about their former occupations.

You see the insane cannot exercise faith in Christian Science, and all this would be working miracles on those people. It would be telling them be sane and they become sane. Who ever read of Mrs. Eddy going to the Massachusetts General Hospital and saying to the superintendent, "Show me your most hopeless case of cancer, or paralysis, or consumption, that I may cure them, and thus prove my power over disease."

From time to time Toronto is favored with visits from Christian Science teachers, and they take pleasure in telling the public what marvellous cures Christian Science can perform; but we have not heard of a single instance where any of these teachers have applied for the privilege of addressing any learned body, or appeared in the wards of any of our hospitals. One would think that the Hospital for Sick Children would appeal to them, and they would hasten there to restore these little sufferers to health, and more health, and still more health.

Now, why is this not done? For the very simple reason that Christian Science cannot cure organic disease. There are some neurotics that may, for the time being, be influenced by suggestion, and feel better under the impressions made by claimants of special power. Along with Christian Scientists may be ranked Doweyites, Latter Day Saints, Faith Healers, Divine Healers, Magnetic Healers, etc. Gregory Rasputin was one of the worst villians of history, and yet he had great hypnotic power, and possessed extraordinary suggestive influence over other people.

Let us tell a story that sets forth the viewpoint of many Christian

Scientists. A young lady collecting on the Queen Alexandra Rose Day went into an office where many were employed. She asked one young man for a donation and offered him a pink rose. He said that his donation would do no more good to the children than the rose would to him, as there was no such thing as sickness, it being only a delusion. Such teaching would drive charity from the land. When the Christain Scientist becomes good and sick, and they do at times, they have to go to hospitals built by other people.

THE FASTING CURE OF DIABETES.

Recent works on this subject by Kellogg, of Battle Creek, and Stern, of New York, award the chief credit for this innovation to Guelpa, of Paris, which may be just, so far as the calendar goes. But the work of Allen, of the Rockefeller Institute, though published a year or so after Guelpa's clinical reports, has a sure scientific foundation, including results of animal experiment, hence it evens matters up when Professor Sabrazès, the distinguished clinician of Bordeaux (*Gazette hebdomadaire des sciences médicales de Bordeaux*, August 12), appears to give the American full credit for the scientific—as contrasted with the empirical—*raison d'être* of the fasting management of diabetes. We have never understood why anyone should begrudge to Allen the credit to which he is abundantly entitled in this connection, nor can we understand how Stern, in his recent work, can ignore Allen so completely that—if we do not err—the latter is not even granted the courtesy of a passing reference. Kellogg gives some space to Allen's work, yet since he began the fasting treatment as soon as he had learned of Guelpa's experience, he may perhaps be excused for not expatiating on the former. On the other hand, the work of Joslin, of Harvard, is more or less confused with that of Allen. The former appears to have evolved a near-fasting treatment before 1908, and he was the first, or one of the first, to give Allen's work a fair test in practice, so that to-day the Joslin and Allen methods agree very closely. The name of Naunyn is often seen in connection with the evolution of the fasting treatment of diabetes, and it is to be hoped that the question of priority in this regard will eventually be permanently settled to the credit of all just claimants. The same problem seems inevitable whenever a really epoch-making discovery is made in any branch of applied science.—*Medical Record*.

The General Ministerial Association, which met recently in Toronto, after hearing a statement by Capt. J. W. Magwood re the prevalence of venereal diseases among soldiers, unanimously adopted a resolution in favor of placing these diseases under the same regulations as govern other infectious diseases.

ORIGINAL CONTRIBUTIONS

PRESIDENTIAL ADDRESS TO THE TORONTO ACADEMY
OF MEDICINE.

BY D. J. GIBB WISHART, M.D.

FELLOWS of the Academy of Medicine,—I had almost said, in the Presbyterian phrase, "Fathers and Brethren". I hesitate to appear before you this evening and from this seat to address you upon subjects upon which I feel so ignorant.

This Academy, which I watched through its pre-natal development and at whose birth I assisted, has become in the ten years of its existence such a healthy, thriving youngster with such a capacity for earnest achievement, and withal, with a wilful temper, requiring guidance and perhaps the curb, that my heart may well fail me lest I come short in making the year of my official control one of distinct progress.

The rule by which you enlist for three years the services of the individual selected for your highest office—the first year as vice-president, the second as president, and the third as consultant-in-chief—is, to my mind, most wise, for thereby he is at once trained and stimulated.

It is my pleasing duty to direct your thought first to the programme for the year's study. The programme should be annually prepared in advance, with a view to definite progress in a scientific direction. It should not be arranged hap-hazard nor capriciously.

Each eminence gained upon our path opens up vistas of land unexplored. It is given to our profession to pursue as fascinating an exploration of new truths as ever it was to those intrepid voyageurs who threaded their way across the ocean, entered the Hudson Straits or the mighty St. Lawrence, and blazed their paths across this continent to the Pacific. It may be, at times, a false idea, an *ignis fatuus* which leads us on—and we may in our zeal venture to name our mighty rapid a *Lachine*—but still it is truth, and truth only that is our one endeavor.

Our pursuit must never be aimless, and I invite the executives of each of the sections to assist in directing the forces of the succeeding year in such a way as will ensure a maximum of success and a minimum of wasted effort. The suggestions thus handed in will ensure a steady development.

Even as it is, what a wealth of experience is available for each of our fellows who makes his attendance a serious effort, who takes the programme and directs his reading along the lines it suggests, and makes it

a resolve to assist his fellows onward. As iron sharpeneth iron, so will such a fellow increase the usefulness of his section.

We hope to issue an advance notice of our season's course of study and invite your careful perusal thereof, and a regular preparation for each evening's task.

During the summer your officers have had a few matters of importance to transact. The commissioner invited us to a couple of final interviews upon the position taken up by the followers of the various cults seeking to assist us in the pursuit of medical truth, and we have reason to expect that his report has been finished and that its proposals will presently be laid before the Government and the public. There will be need of a close scrutiny of this report by every fellow, in a united endeavor upon our part to secure our one aim, that every student of medicine in the widest application of the term be required to take the full course of study and pass the required tests, after which he may practise as he may elect.

It is interesting to note in this connection that the labor and research of our past-president, Dr. Ferguson, in the preparation of the articles upon "False Systems of Healing" has been recognized officially by the American Medical Association's Council on Medical Education.

As you are aware, the Academy held a special meeting in July and placed upon record its views upon the failure of the Government to place the care of the returned soldier in such hands as the profession could trust and respect. I regret to say that matters, up to the present, have not been improved, nor have either the daily press or the Government shown any serious appreciation of the fact that the questions involved are primarily medical, and as such amenable only to a medical tribunal.

The Academy has also taken steps to meet the attempt to victimize the public by the exploitation of various alcoholic beverages known as "Tanlac", etc., etc., and trust that presently we shall see the termination of this newest method of trading upon our aches and ills.

The House Committee has made new arrangements regarding the caretaking, and measures to prevent a recurrence of the discomfort occasioned last winter through inadequate heating.

Shortly after the inception of our Academy, steps were taken to ensure for our citizens a supply of healthy milk, and a Milk Committee was appointed by this body. The result upon the milk was very beneficial, but the process has been costly to the public pocket. Is it not time that we as an Academy urged a further step forward, the municipalization of the entire milk trade of the city, including the control and ownership of the dairy farms, the purification and preservation of the milk, and its distribution to the citizens. This would greatly cheapen

an essential article of food, by the cutting out of competitive advertising, and the present prodigal waste of time and labor in distribution.

As an Academy, our duty with regard to venereal diseases is not yet discharged.

The striking increase in the prevalence of venereal diseases in Canada is a question that must interest the whole medical profession. There are those who insist that the increase does not exist, but stubborn facts make apparent the falseness of their claim. The reluctance of legislative bodies to deal with this question is to be greatly regretted, and there can be no reason why this Province should not include these diseases in the Contagious Act. A very slight alteration of this Act would enable the police and other authorities to place the dangerous elements in society under control. The women of the street, who at present are at liberty to come and go as they please, and who carry on their wretched traffic unhindered, could thus be taken care of and treated in the early stages of disease. This would enable the authorities to weed out the defectives among these classes, and as a great proportion of the women actually engaged in the illicit traffic are definitely feeble-minded, they might be segregated, if the citizens would wake up to their responsibility.

It is, in my opinion, the duty of every physician to educate the people of the community to a knowledge of the present peril and to suggest this most sane way of dealing with it.

The well-known cover of Bairnsfather's "Fragments from France" bears the cartoon of two Tommies sitting in their dug-out contemplating the effect of a well-placed enemy shell, and remarking, "There goes our blinkin' parapet again," an endeavor by the artist to give utterance to the feeling of being—as the "Student in Arms" has it—"blasphemously fed up." We, as an Academy, are "blasphemously fed up" with the misdirection of the medical side of Canada and the great war by our Government and our Militia Department. The profession in Canada has always occupied a high position in the standing of its institutions of medicine, in the training and quality of its rank and file, and in the skill and wisdom of its leading practitioners, but we fail to note that a single endeavor has been made by those who govern to make use of these in any fair and proper way, although our profession has been equal, at least, to that of any other of the Allies, in the way it has come forward to assist—and to die when needful.

Compare the action of the United States. No sooner was war declared than the acknowledged leaders of medicine in every single department were called to Washington to consult on the most scientific way in which the trained profession could be utilized, and these com-

mittees were given full control as to the selection of men to fill the various positions. To take one instance—the oto-laryngologists were listed to the number of 5,488, and in July every one of these men were circularized, and their replies card-indexed. In Canada it has been most hap-hazard. A few of our leading physicians and surgeons have been sought out, but the majority have not been called on, and in not a single instance—except this summer when the Dominion Medical Council was invited, I understand, to offer some suggestions—have any of our Medical Associations, university or scientific bodies, been used for their legitimate purpose. There has been no “Win the War” policy in medicine.

The recent action of our College of Physicians and Surgeons in circularizing the Ontario profession is a step forward, but for this the Government cannot claim credit.

The result of this lack of initiative is self-evident. There has been a complete break-down. The C. A. M. C. is considered by a parliamentary committee to be a failure; there is a committee of laymen placed in charge of the returned soldiers; our respected fellow and guest, General Fotheringham, has been dallied with so long at Ottawa that his resignation has been sent in; there is no permanent Surgeon-General at Ottawa in whom the profession can place confidence, and if there were, he would not have a voice at the table of the Militia Council. My thought upon this subject is well expressed in an editorial of *The Journal of the American Medical Association* of July 28th:

“The medical service has not been given the rank and authority which its importance deserves, and the work of the medical department, and the views and with military training alone, no matter how high his rank or how brilliant his attainments as a soldier, to dictate conditions regarding the hygiene and sanitation of troops and the management of hospitals is as ridiculous as it would be to give a surgeon authority over the artillery or the aviation corps. Subject always to the necessities of warfare, the military and medical services must be on an equality. Each line of activity requires highly specialized, technical training. To permit either one to encroach on the field of the other is not only absurd, but is often suicidal. Especially should there be the closest co-ordination and co-operation between the military and medical officers in order that the Medical Corps may be of the greatest assistance. This is the lesson which Japan learned in Manchuria, and which the English have demonstrated on the western front.”

And in the utterance of Lord Esher in *The London Times* of February 3rd:

“Certainly the control of the Adjutant-General’s branch over the Royal Army Medical Corps was and is responsible not only for the early failure to grip the medical factors of the war, but they hampered conditions under which the Surgeon-General worked. His triumphs, and

those of the Royal Army Medical Corps, have been achieved in spite of obstacles that the subordination of science to ignorance, and of elasticity to military discipline explains, but cannot justify."

The passage of the Military Service Act at Ottawa raises two questions of intense interest to our profession. 1st, What number of army surgeons can the profession of this country legitimately supply? and, 2nd, shall students entered upon their course of medical study be liable to the draft?

In August last, the Central Medical War Committee of Great Britain informed the Government that after a careful survey of the whole of England and Wales, it is of the opinion that no more physicians can be called on to take commissions in the Army Medical Corps, without seriously endangering the supply of physicians for the treatment of the civil community.

In Australia the stress has become so great that the senior practitioners are being called upon to come forward and take on the younger men's job, and it is announced that the Department of Defence will send to France within the next two months every available physician.

In New Zealand we are informed that "as regards medical service for the civilian population the position is now becoming very acute". The Minister of Public Health there recently pointed out the absolute necessity which had arisen for the mobilization of the medical services, and the exercise of control in the location of physicians.

I have recently been invited, semi-officially, to ascertain who among the Toronto practitioners beyond the army service age are ready to step forward and assume the duties of house-physicians and surgeons, laboratory and dispensary assistants.

So far as figures are obtainable, 75 per cent. of the classes which have graduated at our University since the war began have joined the C.A.M.C. or R.A.M.C. For three years past, therefore, the accessions to the ranks have been inadequate to supply the loss through death.

The second question is also important. This arose first in Britain, where, as it has proved unfortunately, all students of medicine under the fourth year were drafted as combatants. In the United States the question is now to the fore. The registration recently made covered 8,983 students of medicine, or 85.9 per cent. of all students upon the rolls of the medical schools. In Canada, at the outset, the men in the senior years were advised to remain at their studies, but the juniors were not discouraged from enlisting. The draft will affect as large a proportion of the medical student body in Canada as in the United States. There, however, the question has been solved by the ruling of the President, that all hospital interns, and medical students of the 2nd, 3rd and

4th years, may be enrolled in the Enlisted Reserve Corps of the Medical Department, and pursue their studies while remaining in the military service of their country, but always liable to a call to service by telegraph or letter.

A resolution was adopted by the Canadian Medical Association at its last meeting in Montreal, urging upon the Government the necessity for the mobilization of the entire profession, in order that all those fitted for service overseas by age, and health, and freedom from family duty, might be sent forth, and further, that all others might be assigned to such service at home as their training and the necessities of the country demanded.

The war is making great demands indeed upon our profession. I do not know of any other profession where similar incomes have been thrown to the winds at the call of duty, and yet we must be prepared to do still more.

It will be wise if this Academy make representations to the Government, both as to the best means of providing medical attendance for the people at home, and their sons overseas, and also as to the provision of a continuous supply of students to fill the ranks of the profession depleted by death and enlistment.

It is also true that the relatively low rank under which officers serve handicaps their work both individually and collectively, and in Canada a low estimate has been placed upon the Army Medical Service, the result of defective legislation, which should have been remedied long since.

It is not too late yet for the Government to summon "intelligence" to its aid. Numbers of our profession have gained experience through service that would make it possible for them to give advice that would bring order out of the chaos that exists, and it is due to the high intelligence of our profession that the Government get the best advice which the leaders of medicine can supply. But we want no party politics. Let efficiency alone be considered, whether in appointments in Canada, Great Britain or the field.

In looking over the work of our Academy in its many phases, I am confronted by the surprising fact that we have as yet made no attempt to establish a historical museum. There are many interesting details connected with medical institutions which have passed out of existence, with leaders of the profession who are dead and gone, historical facts, relics of those we respected, medical diplomas, documents, etc., etc., which it should be the business as well as the profit of our Academy to collect and collate.

With the cordial permission of your Council, I have appointed a committee of interested Fellows, and have great pleasure in handing the

treasurer a cheque to form the nucleus of a special fund to start this branch of our legitimate work. I invite your co-operation. Give your ideas and information to the members of the committee, and keep an eye open to every opportunity which offers to obtain material for our historical museum.

Where questions of public welfare relating to medicine are concerned, the great obstacle to the proper presentation of the weight of medical opinion before Parliament and the public has been the lack of organization of the profession. Little attempt, if any, has been made to achieve this end by the College of Physicians and Surgeons, who stand, naturally, as the representatives of the profession in this Province, nor has this slight attempt been followed by any measure of success.

The Ontario Medical Association, as the Provincial branch of the Dominion Association, has been laboring for some years to evolve a scheme, and basing its efforts, to an extent, upon the plan followed so successfully by our confreres in the United States, hopes this fall to put the matter through its final stages, and secure a ready and certain method of bringing medical opinion to bear the full weight to which its training and intelligence entitle it.

It is unnecessary to point out to this body the need which has brought this action about. There are so many questions in which it is highly necessary that the profession speak out with a concerted voice so that the public may be informed, or warned, it may be; or, on the other hand, that a professional body exist, which the representatives of the public may consult before legislation is finally enacted. The success of this Academy is largely due to the influence it has exerted upon such questions as the Workmen's Compensation Act, the presentation of evidence before the Medical Commission, etc., and those who attended our annual meeting last May and listened to the reports of our various committees, must have been amazed at the scope of our energies. If the Academy of the capital of the Province could accomplish so much, what cannot be effected by a properly organized body representing the entire medical opinion of the Province, and later of the Dominion, if we can induce the profession of the other Provinces to follow our example. Had a Dominion body existed, such as I have indicated, we should not have seen a body of laymen appointed to tell the profession what to do medically for the returned soldiers.

To my way of thinking, whether it be in matters military, hospital, or of public health, the effect of legislation has been to bring it about that our profession has been degraded to be the hewers of wood and drawers of water for those who advertise themselves as being business men, and this reproach "that we of the profession are not business men"

is often hurled at our heads. By the reorganization which is planned, every reputable physician in the Province will have an opportunity of expressing his views upon all matters of public import medically, and in such a way that no legislative body can afford to pass them over lightly.

While the public has a duty to the profession, the profession, on its own side, has a duty to the public, and the occurrence of such unfortunate incidents as took place in connection with a well-known criminal case of the past summer in this city is a disgrace to us.

Ignorance of responsibility by the attending physician and the hospital authorities is a reflection upon the training of the student, and the knowledge that every licensed practitioner should possess the code of ethics which we profess.

Are you each personally aware that you are obligated to obey a code of ethics? I wonder. Nevertheless, the law does not excuse a man because of ignorance, and our by-law No. 10 is decisive. We are bound by the code of ethics of the Dominion Medical Association. How many of you have even read these, let alone committed them to memory, and yet you are bound to these by oath. I am afraid students enter upon the study of medicine too often as a means of livelihood, or business, and and do not know that they thereby assume great responsibilities. As was stated in a *Globe* leader a few weeks since:

"Medicine is not a private profession. The medical man to-day is not merely a private practitioner; he has a social obligation; he is a trustee for society; his duty to his patient and to his patient's friends must be read in the unwinking light of his own social responsibility as a guardian of public life and a leader of public opinion.

"The public good is the moral standard by which professional service is tested.

"Privileges recognized by the public and protected by Parliament give duty supreme claim, and make that obligation binding upon every member of the profession."

I am not desirous of depreciating the high standard of conduct which characterize our Fellows. My wish is to point out that we must force all the members of our profession to recognize that they must think and act as we do, or leave our ranks. We are far too lenient with those who commercialize our calling. We are disposed to protect the failings of our brethern, even when we recognize that those failings are due to a low moral standard, and not to the inadvertences which the experience which comes with years will remedy. Medical science is advancing rapidly. No one among the public can point the finger of scorn at what our profession is doing for the world. Are we at all keeping pace with this advancement, in the recognition of our moral and ethical responsi-

bilities? Is the practitioner of to-day standing in each community upon a higher plane than did his predecessors? Is he the leader in all measures for the public good?

We boast of our advance in knowledge, but "knowledge is power, and power is not for personal advantage, or for private gain, but for social service, and for the public good."

Let us beware where we stand, lest we fall.

The very humblest man or woman who receives the license to practise medicine should know that by that act the honor of the highest of the professions is committed to their charge; that whether they walk abroad or sit at home, they embody in their persons the dignity and moral responsibility attached thereto, and that they stand pledged as the hippocratic oath has it, "that with purity and with holiness they will pass their lives and practise their art".

What can we do beyond individually setting the highest example we know how; frowning down all suggestions in thought or expression which savor of a lower standard; seeing to it that our new Fellows, as they are elected, receive instruction in the rules which govern our conduct, and requiring of those bodies which educate students of medicine, a definite course of teaching from such living exponents of our standards as one whom I see before me to-night.

Personally, I have always regretted that such matters form so unimportant a part of the medical curriculum at the universities, nor can I find that a graduation oath is demanded by the College of Physicians and Surgeons, or by any of the universities of this Province, with the exception of Queen's, while that administered to the graduates of McGill is in Latin.

It may be asserted that an oath has little weight, but no Masonic initiate could forget the oath he takes, and its administration would, at least, serve to draw to the attention of the attestant to the solemn character of the service upon which he enters, and there is no reason why every practitioner should not legally be compelled to keep a copy of the oath in a prominent place in his office as a perpetual reminder of his duty. The oath should be administered at graduation in no merely formal way, but with a solemnity befitting its nature.

The sin of the educated practitioner is, as a rule, one of ignorance, and as things are now conducted, there is little wonder that this ignorance exists.

An evil which has been very prevalent among the profession to the south, and which was a factor in the inception of the American College of Surgeons, has shown its dydra head in Ontario and in Toronto. I refer to fee-splitting.

To mention it is to condemn it. It is a frankly dishonest transaction which stamps as a fraud the practitioner who demands his pound of flesh. It destroys all possibility of the patient obtaining an honest opinion from his attendant if that attendant is to share in the fee of the operator to whom the patient is referred by his attendant. Timothy was assured by St. Paul that the love of money was the root of all kinds of evil. This is one of the evils which not only injures the parties to the transaction, but commercializes the profession and gives sure and certain ground for distrust on the part of the public.

It is to the interest of this Academy to "wage a relentless war of extermination upon this degrading and dishonest practice, so fatal to professional honor and integrity."

I am credibly informed that men in this city have endeavored to solicit the operative work of practitioners upon the frankly stated basis of a fifty-fifty division of the fee, and I have personally been solicited by a general practitioner to state what percentage he might expect to receive upon referred cases. The physician who sells his soul of honor for a paltry fee, and the would-be surgeon who builds up his experience upon cases referred upon a financial basis of share-and-share are equally abhorrent, and with your help we will drive them from our midst.

This naturally introduces the subject of the training of the surgeon. Surgery has been well defined as "a science founded upon certain fundamental principles, without a thorough knowledge and understanding of which no man can do himself or his patient justice." Dr. Finney has said:

"No doctor, no matter who, without a thorough surgical training, has the moral right to attempt to make a practice of surgery. He may succeed in doing certain minor operations or even certain major operations, well; he may learn to do mechanically certain things satisfactorily to his patient and to himself, and he may have a fair percentage of success; but, sooner or later, he will meet his limitations, and in attempting to go beyond these, with his small and imperfect equipment, some of the catastrophies of surgery will happen, and then who pays the price of his temerity and ignorance? Yes, let me repeat, surgery is far too serious a matter to be lightly undertaken by those who are not thoroughly trained in the fundamental principles underlying its proper performance."

It is not necessary to leave this city to see in well-equipped operating rooms, heinous crimes committed against the most fundamental surgical principles and technique. These are done by men who for the gain of filthy lucre would shorten the regular and necessary steps to a reputable surgical practice. They will not agree to spend several years as an assistant and understudy to a surgeon of experience, but by vari-

ous underground expedients solicit cases upon which they may try their prentice hand.

No hospital which values its reputation, or which appeals to the public for financial support upon humanitarian grounds has the slightest right to open its operating rooms to any but tried and experienced surgeons of established and good repute, unless it be in the capacity of assistant only.

We read everywhere articles suggesting that the one great effect of the war will be a new world—a fresh outlook, an upsetting of accepted aspects of truth, a fundamental change. In fact, it will usher in a reign of “peace and good-will to men”. What, we are asking, will be its effect upon medicine?

Those of you who have read the second volume of “A Student in Arms” will have been struck by the chapter entitled “The Good Side of Militarism”, where Donald Hankey refers to the fact that in pre-war days “self-realization” was considered to be a primary duty of every man and woman, and the words “Fear God and keep His Commandments” amended to read “self-realization”, but that as a result of military discipline as practised in the 20th century by the democracies of the world, we have learned the “unimportance of individuality, realizing that in a national, a world crisis, it counts for nothing”—the good soldier has learned the hardest lesson of all—the lesson of self-subordination to a higher and bigger personality. He has learned to sacrifice everything belonging to him personally to a cause that is far greater than any personal ambition of his own can be.

In medicine we have seen great things—the death rate of the army from disease reduced far below that of the civil community in the times of peace; camp sanitation; the purification of water; minute attention to the bodily care of marching soldiers; vaccination against typhoid and tetanus; have achieved amazing results, and honors are pouring in upon those of our profession who have taken the lead in demonstrating what results may be obtained when medical science is utilized to the full. We are everyone proud of our own Col. Nasmith, C.M.G.

Is it not evident that the effect of all this is to exalt the preventive side of medicine; to reveal to the world that syphilis, the care of the child of school age, tuberculosis, etc., etc., may be taken out of the hands of the family practitioner and assigned to the care of the State. May these not be the signs of the times that the day of the competitive physician and surgeon is over and that presently he must become a member of a panel and have removed from him the opportunity to exploit his experience for mere gain—that as his training is even now largely paid

for by the State, so his employer hereafter may be that same body. The greatest good of the greatest number.

What will follow will be—and already there are ominous movements in the not too solid ground on which we stand—that those who teach in our clinical and final subjects will be whole-time men, paid by the State at a salary commensurate with their responsibility and with an equal allotment of money for the maintenance of the laboratory side of each department.

I am not a prophet, but let us not mistake, there are great changes coming.

Fellows of the Academy of Medicine, let us then be up and doing, and remembering the words of our example, the Great Physician, “work while it is day”.

47 Grosvenor St., Sept., 1917.

THE CANADIAN ARMY MEDICAL SERVICE.*

BY COLONEL J. T. FOTHERINGHAM, C.M.G.,
A.D.M.S. Second Canadian Division.

HE adage, “Cast thy bread upon the waters and thou shalt find it after many days”, had never truer exemplification than in the relations found existing in this great war of all ages, between the R.A.M.C. and the Canadian A.M.C. The latter is the lusty progeny of the former, and well pleased that the physique and lineaments of the parent can be seen in the child. In all matters of present-day organization, equipment, and even uniform, the two services are closely homologated—and interchangeable. But in spirit, and sympathy, and attainments, and just and generous emulation, their relations are more fraternal than parental.

During the somewhat troubled years which followed in British North America after the rebellion of the American colonies, the British troops who helped, as in the War of 1812-15, to safeguard the feeble settlements of Nova Scotia, Lower Canada and Upper Canada, had their medical officers—army doctors, as they were known. Not a few of these well-trained men left the service to settle down to practice in Canada, and in most cases at once secured a commanding professional position in the new community. Their superior education and good social position gave to many of them great influence with the authorities, especially in Upper Canada—now Ontario—and this influence was always exerted in favor of sound legislation on all matters pertaining to education, both general and professional. The Provinces were thus from the outset, to

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a very large extent, protected from the evils of free and unlicensed medical practice, from which the United States are only now with much effort and delay beginning to shake themselves free. British ideals in both teaching and practice have in the main prevailed everywhere in Canada, the precedent and example of the medical legislatures in the older Provinces being closely followed in the newer as they were organized, so that all the medical faculties in Canada have always drawn their inspiration, neither from American nor German sources, but from the great schools of London, Edinburgh and Dublin.

With this heritage, nothing could be more natural and legitimate than that the Canadian Army Medical Service should both give and get, in this time of sore trial for all British hopes and ideals, absolute mutual co-operation and good-will in its relations with the Royal Army Medical Corps and Service. The opportunity of comradeship and common service in the stricken field and in the cause of Empire and civilization is keenly realized and most highly prized by all ranks.

The intimacy between the two services is evidenced by the circumstances that many scores of Canadian graduates hold temporary commissions in the R. A. M. C., and the value of their services is freely acknowledged by their fellow officers. Furthermore, the Canadian laboratory man has been given his chance and has made good in both British and Canadian laboratories in the field, and the friendly rivalry and hearty good comradeship of their work has gone far to make permanent for all time the good relations which are and can be based only upon mutual respect. One dreams of the day when the degree or license of any reputable faculty in the Empire may run and be recognized as valid in all the parts of the Empire.

A résumé of the activities of the C.A.M.C. may be made under three topics:

1. Preventive medicine.
2. Clinical progress in medicine and surgery, and
3. Laboratory and research work.

With reference to preventive medicine, the two outstanding features of the situation are:

- (a) Preventive inoculation.
- (b) Sanitary control in the field.

(a) *Preventive Inoculation.*

On the western front, where most of the Canadian medical troops have been employed, this has been mainly against the typhoid group, smallpox and tetanus.

The percentage of inoculated men as regards the first two runs very high, practically 100 per cent., as the conscientious objector is not recog-

nized by the Canadian authorities, and legitimate means have been found for overcoming the objections of the very few who were at first disinclined to submit.

The Minister of Militia, at my request, obtained from His Excellency in Council, acting under the War Measures Act, an order that all colonial troops, wherever serving, shall submit, if required by higher military authority, to inoculation against typhoid, cholera, dysentery, etc., and to vaccination against smallpox, and, further, if ordered, to examination of blood for detection of syphilis. Any one refusing, in addition to being compulsorily inoculated, vaccinated, etc., is liable to punishment under section 18, Army Act.

Anti-tetanus serum has been administered in all main dressing stations to all wounded, and latterly to trench foot cases, at the time of their admission, the dose being entered on field medical card and in admission and discharge book. The dose has been, as a rule, 1500 units. The serum has been to a large extent, but not exclusively, obtained from the Canadian Red Cross Society, and is that manufactured in the laboratories of the University of Toronto, through the thoughtful provision of a wealthy benefactor there. The regular source of supply through the advanced depots of medical stores has also been drawn upon. Comparisons and results are not available as yet, but there is no doubt in the minds of all in a position to judge, that as a preventive measure the procedure is proved to be indispensable.

The same remark holds true, if possible, more positively, with regard to anti-typhoid inoculation. When regard is had to the practical absence of true typhoid and to the extraordinarily low incidence of the other diseases of the enteric group, on the one hand, and to the universal contamination of the water supply by the colon group on the other, one may truly say that a new chapter may now be written in the history of military medicine, and that the world at large owes to Sir William Leishman and the R.A.M.C. a debt which it can never repay. And it should not be forgotten that the millions of men now in the war zone and far from their accustomed strains of enteric infection, represent, without inoculation, virgin soil for the ravages of the disease.

Smallpox has been practically non-existent among the Canadian troops, as each man signs in his attestation papers an undertaking to undergo vaccination, which is universal.

Dysentery has occurred in a slight sporadic form, but not as either epidemic or endemic. Such cases, even though only suspected, are sent to a special hospital in each army direct from the field ambulance admitting, by M.A.C. car.

(b) *Sanitary Control in the Field.*

The two important parts of this many-sided problem are water-control and disposal of waste. The organization necessary is briefly as follows:

1. Battalion and unit sanitary sections, specially detailed and trained by unit medical officers and employed under their direction. Responsibility rests with each O.C. for his own lines, the M.O. acting as adviser.

2. Divisional sanitary section under a specially qualified medical officer, who is also divisional sanitary officer, under command of A. D. M. S. of division, reporting to him, and employing the other ranks of his unit as inspectors over the whole area occupied by the division with reference to water supply, disposal of waste and conservancy arrangements of every sort.

The opinion has been steadily growing that for the semi-siege type of warfare so far prevailing on the western front, too frequent moves of these divisional sanitary sections detract seriously from their usefulness, and that they should, within limits, be made more permanently responsible for the areas with which they have become familiar, after the manner in which town majors and camp commandants are employed.

With respect to the protection of the water supply, in addition to the supervision maintained by the divisional sanitary sections, which is good, the Canadian corps has in action a water patrol. This patrol places a second check upon the chlorination of water.

Experience has shown that a water which gives a good reaction for the presence of chlorine half an hour after the addition of one gramme of chloride of lime (1 scoop) to 110 gallons of water, can be considered a safe water, provided it is clear, after efficient chlorination for drinking purposes, and that only when the amount required reaches double this amount would further chemical, or a bacteriological examination, give evidence of gross contamination. Small cases are supplied to the B.E.F. whereby sanitary or regimental medical officers may so test water and establish the amount of chloride of lime necessary to produce sterilization. Mobile laboratories are available to examine and give any information on request. Muddy water must first be filtered, otherwise sterilization will not be complete, the chloride of lime failing to penetrate to the centre of particles of mud.

Water patrols, covering a Canadian corps area, are in charge of an officer under the "Q" branch at corps headquarters. A survey is made, maps prepared and information collected. The corps area is then subdivided into patrol sections, each section being patrolled by one N.C.O.

and 5 men (permanent base). The duties of these patrols are as follows:

- (a) To see that rivers, streams, ponds, wells and springs are not polluted.
- (b) To see that no washing and no watering of horses is done in any but authorized points.
- (c) To see that no material connected with the corps water system is destroyed or removed without corps or divisional orders.
- (d) To visit daily each of the water tanks, stand-pipes, etc., where water carts are filled, collecting the daily report from the divisional control in charge.

Divisions are responsible that all orders regarding chlorination and "water details" are carried out, and also all instructions such as those mentioned in paragraph (b). Any unit not complying with instructions regarding water supply, is reported by the water patrols to the water patrol officer, but this does not relieve divisions from their responsibility for seeing that all instructions are carried out. Where a unit is reported to the water patrol officer, a report is forwarded to the division concerned. Should the same unit be reported a second time, a report is forwarded to corps headquarters. Men belonging to, or attached to, the divisional sanitary sections are detailed as "water controls" by the O.C. Sanitary sections for all authorized supplies in the divisional area. These water controls keep a "Daily Tank Report" in triplicate, which sets forth the condition of carts drawing water, condition of lime, etc. A copy of these reports is forwarded daily to the divisional sanitary officer, one copy to water patrol officer, and one copy is retained as record by the water control. The divisional sanitary officer is responsible that the necessary steps are taken to prevent a recurrence. The O.C. water patrols summarize these daily tank reports once a week; a copy of this is sent to the D.D.M.S. A record is thus kept.

Other matters pertaining to the water supply are also reported to the D.D.M.S. and thus the medical services work in conjunction with the other branches, especially in trying to maintain as adequate and good a supply of drinking water as possible.

The incidence of water-borne diseases in the Canadian corps has been low, and it may be said, has only occasioned anxiety when conditions were such as to interfere with, or prevent, the maintenance of those measures which have been indicated above.

Reference should be made to the very important topic of baths and laundries. In most British divisions it is understood that these establishments are under control and administration of the A.D.M.S. for the "A and Q" branch of the staff. In the Canadian divisions the practice

has been to relieve the medical service of this responsibility and to place in charge a capable business man who is an officer seconded from his unit to the staff of the division. This has given excellent results, and would seem to be less wasteful of the special training of the medical officers, though close co-operation always exists between the A.D.M.S. and the officer in charge of baths and laundries through the A.A. and G.M.G. The Foden-Thresh Lorry disinfecter, for instance, which is in charge to the sanitary section and under the control of the A.D.M.S., is kept in operation at the divisional baths, where the men exchange their soiled clothing for fresh. Ordnance by arrangement makes issue of socks and underwear through the baths officer.

Adverting now to the second topic, "Clinical Progress in Medicine and Surgery," the barest reference alone is possible to so wide a subject. A few topics of interest have been selected:

1. *Injuries and Diseases of the Lung.*

In a general way, we have come to a set method of treating wounds of the lung, which usually reach the base hospital not earlier than the fifth day after infliction. Gunshot wounds are rarely, shell wounds frequently are complicated. Hæmo-thorax is usually demonstrable, and the history of hæmoptysis is generally present. The rapidity with which blood is spat up after wounding depends on whether the upper or lower part of the lung is wounded, the hæmorrhage being most prompt in the case of the former. Fever is usually present in the earlier days, often disappearing by the sixth or seventh day. When the fever continues, we draw off blood from the pleura for the purpose of culture; such cultures usually prove sterile. As a usual thing, we draw off by aspiration the blood, about the tenth day; sometimes the blood so drawn off is replaced in a few days by effusion, so that subsequent aspirations may be made. The blood so drawn off is sometimes replaced by oxygen, the outflow of blood and the inflow of oxygen being made through separate needles at the same time. Of late we have not felt so keenly the necessity of the use of oxygen; our idea was that replacement allowed a less chance of disturbance of the bulk of the lung, with consequent hæmorrhage. An uncomplicated case is fit to travel, we judge, about the thirteenth or fourteenth day. The possibility of seasickness and vomiting is the chief reason against allowing cases to travel at an earlier date, as the repair of the lung wound seems to be relatively slow.

With shell wounds of the lung, and in cases where the foreign body remains in the chest cavity, no set method of treatment is possible. The X-rays and the fluoroscopic screen are used to the fullest extent in all these cases; a certain small per cent. of patients with foreign body are

found amenable to early operation with removal. The relative infrequency of infection of the pleural blood is remarkable. I have personally seen only two cases of gas infection of the pleural blood, both of which recovered. A number of other infections by large bacilli, which might have been gas bacilli, but were not certainly so, have been treated as empyema and drained, and so far as we know, with recovery in all cases.

2. *Continued Fevers, or P.U.O. Cases.*

In a winter such as 1916-17 has been, there has been an enormous prevalence of infection of the respiratory tract, including pneumonia, but it is remarkable how little prevalent lobar pneumonia has been. Severe cases of bronchitis, tracheitis and laryngitis are common, and loss of the speaking voice is very often seen. It is difficult to distinguish mild broncho-pneumonia from severe cases of bronchitis, and the presence of pneumococcus is in no sense diagnostic, as most cases show it to be present. The diagnosis has to be made on clinical grounds, and most frequently a high degree of physical disturbance, continued high fever, and the presence of blood streaks, blood or rose color in the sputum is used to determine the diagnosis in favor of broncho-pneumonia.

A tendency to extension of the disease from one part of the lung to another at different times in the course of the malady is remarkable, so that sometimes patients are ill for weeks, with apparent extensions of the disease; the final chart of such a patient looks like a typhoid fever chart; so true is this, that in many cases we have been compelled to make agglutination tests for typhoid and para-typhoid fever, with almost constantly negative results. The absence of sunny, clear weather in winter in the northern parts of France seems to be responsible for the slow convalescence of many patients suffering from disease of the respiratory tract.

Considering the cases of continued fever coming to the hospital, it becomes necessary to divide them into the constituent diseases, viz., typhoid and para-typhoid fevers, so called trench fever, and other less specific infections. Since the whole army is inoculated, the clinician is no longer able to determine on clinical grounds whether a case of continued fever be typhoid, para-typhoid, or another. The classical signs of enlarged palpable spleen, rose spots, etc., are too often absent. A dirty tongue implies gastro-intestinal disturbance, but is in no wise specific. The old-fashioned Widal test is useless because it is positive by reason of inoculation. It therefore becomes necessary to make a quantitative agglutination test, which is done in series; this is done at intervals of not less than four days, and the positive diagnosis of typhoid or para-typhoid "A" or "B" may be possible by observing that there is an ag-

glutination line. From this it will be inferred that a diagnosis is sometimes made by a quantitative fall in agglutination power, as well as by a rise, the fall or rise depending upon the phase in agglutination power which the blood shows at the time it is taken. No longer is the typical typhoid temperature chart to be seen. Regular, more or less continued fever, or even an acutely relapsing fever is to be seen; patients belonging to this group show very frequently myalgic pains, pains in the neck, pains in the thighs, pains in the shin bones, so that a diagnosis of the so-called trench fever upon clinical grounds becomes as difficult as a diagnosis of typhoid and para-typhoid fever. At one stage, during the past winter, our figures showed us that in pyrexias of unknown origin we were able to demonstrate by laboratory methods that about 68 per cent, were typhoid, or para-typhoid. Blood cultures and examinations of the stools for typhoid and para-typhoid fever were singularly useless. During the winter 150 cases suspected of typhoid or para-typhoid whose stools were examined three times in succession gave no positive result on any occasion.

3. *Methods of Localizing Foreign Bodies.*

A large percentage of the work done in an operating room of a base hospital in war time consists in the removal of foreign bodies. It is essential that this should be done with the least possible amount of traumatism, and this means that the position of the foreign body should be definitely known before the operator begins to work. The localization of these foreign bodies becomes, therefore, almost an art in itself, and the development of that art (if one may so call it) in the course of this war would be perfectly amazing to a civil surgeon. It is proposed, therefore, to give as briefly as possible an account of the different methods used to locate accurately any foreign body.

Foreign bodies of known dimensions, *e.g.*, rifle bullets and shrapnel balls. In these cases a Canadian radiographer, Captain A. Howard Pirie, has devised a very ingenious scale, based upon the fact that the shadow of the foreign body increases in size as the plate is removed farther from the body. Suppose, then, the plate to be in contact with the skin, all one has to do is to measure the size of the skiagram of the foreign body, and compare it with the scale, which will at once indicate the depth from the skin surface of the foreign body. A reference to the cross-section atlas will then at once give one the position of the foreign body.

The McKenzie-Davidson method, by triangulation, of localizing the depth of a foreign body from a mark, placed previously upon the skin,

is in constant use for all foreign bodies, such as pieces of shell, which are of unknown size.

If there is reason to believe, after measuring the depth of the foreign body, and comparing it with the atlas, that the foreign body is in the thorax, or the abdomen, a stereoscopic view is then taken, and the location of the body is easily determined by looking into the adjustable stereoscopic apparatus.

As aids in the operating room we place, first, the large electro-magnet, bearing the name of Bergonie of Paris. By its use can be determined the exact position of all electro-magnetic substances, and fortunately, German bullets are electro-magnetic, whilst the English and French bullets are not. Even when these bodies are deeply situated, and their vibration cannot readily be made out by the hand, it can easily be heard by the stethoscope, placed on the skin opposite the electro-magnet. A sound, very like a steamboat whistle, indicates the nearest point to the foreign body, and the skin is marked at that point. In the case of non-magnetic foreign bodies, such as lead, brass and nickel, or in the case where a magnetic foreign body is embedded in bone, and therefore cannot vibrate, we have recourse to the use of the telephone probe, or rather, forceps. This is of great assistance in locating the foreign body, either in the soft tissues, or in the bone, and enables us to extract it with a minimum of damage to the tissues. In other cases, again, when the foreign body will not vibrate, or has possibly changed its position in the soft parts since the X-ray picture was taken (and this is notably so with foreign bodies in joints) we operate under the fluoroscopic screen.

It should be borne in mind that practically all the stationary and general hospitals sent by Canada have come from the medical faculties of the universities. The fact that each one includes in its personnel the selected specialists and teachers in all branches of medicine and surgery from every medical faculty in the country, ensured from the outset a very high standard of professional efficiency. In addition, effective military administration has in most cases been secured, as in most of the universities there were medical men of military experience, both in the militia and in the South African War, and in the Canadian permanent service.

It is no improper divulging of official secrets to say that both in the Mediterranean area and in France, the highest army medical authorities state that they have found these Canadian units second to none in the whole service. Their facilities for good service, too, are enhanced by the possession in several instances of large funds subscribed by the friends of their universities at home for additions to their equipment and supplies.

3. *Laboratory and Research Work.*

The third main topic suggested at the outset of this article was laboratory and research work. Again figures and statistics may not be given, and in any case could be as yet only partial. But valuable work has been done by Canadian workers, both in Canadian mobile laboratories and in collaboration in British units, both in Britain, in France and in the Mediterranean.

An enormous volume of work has been done also as part of the daily routine of the general and stationary hospitals, which requires time for the making of generalizations. Special researches of which one has heard have been made upon continued fevers, pyrexias of unknown origin, nephritis, trench fever and epidemic jaundice.

The following extract from the first report to the Secretary of State for War, by F. M. Sir Douglas Haig, May, 1916, regarding the medical services, will prove interesting:

"All branches of the medical services deserve the highest commendation for the successful work done by them, both at the front and on the lines of communication. The sick rate has been consistently low; there has been no serious epidemic, and enteric fever, the bane of armies in the past, has almost completely disappeared, owing to preventive measures, energetically carried out.

"The results of exposure incidental to trench warfare during the winter months were to a very great extent kept in check by careful application of the precautions recommended and taught by regimental doctors.

"The wounded have been promptly and efficiently dealt with, and their evacuation to the base has been rapidly accomplished.

"The close co-operation which has existed between the officers of the regular medical service of the army and those members of the civil medical profession who have patriotically given their valuable services to the army has largely contributed to the prevention of disease and to the successful treatment and comfort of the sick and wounded.

"As part of the medical services, the Canadian Army Medical Corps has displayed marked efficiency and devotion to duty."

NOTE.—The thanks of the writer are due for their collaboration in the production of this article to various officers, and among them. Lt.-Col. F. S. L. Ford, C.M.G., A.D.M.S., 1st Canadian Division; Lt.-Col. John McCrae and Lt.-Col. J. M. Elder, No. 3 Can. Gen. Hos.; Major A. C. Rankin, D.D.M.S., staff, Canadian Corps; Major A. P. Bazin, O.C. No. 9 Can. Field Ambulance; Major J. S. Jenkins, D.A.D.M.S., 4th Can. Division.

PERSONAL AND NEWS ITEMS

Dr. James Fielding, formerly of Bowmanville, died in England at the age of 73.

Dr. Charles A. L. Reid, of Cincinnati, so well known as a writer on medical subjects, had a cerebral hæmorrhage some time ago.

Some time ago there were 12,000 doctors in the R.A.M.C., and of these 60 had been killed and 190 had been wounded.

The Camp Hill Military Hospital, at Halifax, is to be increased to accommodate 600 beds.

In future all building plans in Montreal must be submitted to the Medical Officer of Health, as well as to the city architect.

Dr. A. E. Geddes, who was professor of anatomy in McGill University when the war broke out, and went to Britain to render services in the direction of military organization, and had charge of recruiting in England, has been knighted. He is a brother of Sir Eric Geddes, First Lord of the Admiralty.

The annual report of the China Medical Board of the Rockefeller Foundation, which has just been presented, states that two medical schools were founded in 1916 at Pekin and Shanghai, planned on American and European lines. Appropriations totaling \$158,502 were made to missionary hospitals at Nankin, Huchow and Canton. An appropriation of \$50,000 was made to the Tsinanfu Medical College and \$30,000 to the Hunan Yale Medical College. The report states that the work of establishing these medical schools has been somewhat delayed by the lack of facilities for giving students the proper pre-medical training, and quite a number of the appropriations made were to institutions promising to further general and pre-medical education.

Sir Robert W. Philip has been unanimously elected by the Edinburgh University Court to the chair of tuberculosis, which has just been created in the university. This is the first professorship of tuberculosis to be founded in the United Kingdom.

Sir William Collins, M.P., M.D., through the liberality of friends, has lately despatched to the Italian and Belgian frontiers two motor ambulances equipped as mobile operating theatres according to his own design. A third ambulance of the same pattern has also been presented for use with the Greek army.

According to a London journal, many American military surgeons arrived in England during the fortnight prior to September 22nd, and took up duty in a number of hospitals in London and the Provinces, and also in France, to which country about fifty of the seventy-five had been

sent. These will only attend the military patients in the institutions to which they have been assigned, and they have been so allotted that a number of doctors may be released for work among the civil population. There are now over 900 American medical men serving with the British forces in Great Britain and France.

The United States Medical Department of the army now has an enlisted personnel of more than 69,000 men, compared with 6,600 just before the war. Nearly 13,000 officers had accepted commissions in the Medical Reserve Corps up to October 1st. The Dental Reserve Corps has more than 2,600 commissioned officers and the Sanitary Corps about 240.

Officials of the large manufacturing companies in Canada have expressed their high appreciation of the National Committee's posters on eye accidents in the industries. These posters were purchased by Sir Frederick Fraser, superintendent of the Halifax School for the Blind, and have been widely distributed throughout the Maritime Provinces of Canada.—*The News Letter*.

A Japanese medical corps of one hundred men has gone from Yokohama to assist in the effort to control the epidemic of typhus fever in Roumania. Dr. Kuranosuke Mogi is chief of the corps, which is in three divisions, each having a head. These divisions are: internal diseases, surgery, and epidemics. The headquarters of the detachment will be at Jassi. The corps has planned to remain in Roumania eight months.

An appropriation of \$500,000 has been voted by the War Council of the Red Cross for the establishment of a hospital supply service under the Red Cross Commission in France. Several warehouses are now being established by the Red Cross Commission throughout France as a part of the new service. Here drugs, medicines and surgical instruments will be available for all hospitals in the department in which the warehouse is located.

The cornerstone of the new school and hospital for children on Randall's Island was laid on September 24th, with suitable ceremonies. This building will be one of the principal structures to be built with the \$1,500,000 fund appropriated by the city to house properly the city's wards. Contracts have been awarded for eleven of the buildings. Other contracts for three more will be let soon. There are now about 2,000 feeble-minded and epileptic patients on the island, most of them children.

The campaign in the United States against the traffic in habit-forming drugs was marked a few days since by the conviction of five offenders, three men and two boys. The three men were sentenced to prison

for two years and the boys were sent to the Elmira Reformatory for terms of thirteen and eighteen months.

British authorities have confirmed the report that every British hospital ship shall carry a neutral commissioner appointed by the Spanish Government. This has been done on account of Germany agreeing to give safe conduct to hospital ships provided a Spanish naval officer is on board to guarantee that the vessel is used only for the transport of the sick and wounded. Eleven Spanish officers have been sent to various ports indicated by the Allies.

Dr. John R. Thompson, consulting physician to the Royal Victoria Hospital, Bournemouth, and president of the British Medical Association in 1891, died recently at the age of 73.

The cornerstone of the 2,000,000 hospital and medical college which the Rockefeller Foundation is establishing in Pekin, China, was laid on September 24th by Fan Yuen-lien, Minister of Education. Dr. Frank Billings, of Chicago, who is returning from his work with the Red Cross Mission to Russia, made the principal address.

On July 27th last the medical profession throughout the world suffered a great and irreparable loss in the death of Professor Dr. Theodore Kocher, the famous chief surgeon of the Inselspital, Berne, Switzerland, and professor at the medical faculty of the Berne University.

The Public Safety Committee, of Pennsylvania, has undertaken a very useful work. One of its main purposes is to co-operate with the producers of serums, vaccines and biological preparations, so that there will not be an over-production of these agents, and in this way insure a freshness and reliability of these important products.

Dr. G. Murray Flock, superintendent of the Essex County Tuberculosis Hospital at Kingsville-in-the-Lake, has been appointed to the draft medical board at Windsor.

Official announcement is made that the Military Hospitals Commission will erect a six-hundred-bed convalescent hospital on property adjacent to the Macdonald College site, St. Anne de Bellevue, Que. McGill University will be associated with the Commission in the project.

Dr. M. B. Whyte has been appointed director of medical service in control of medical inspection of public and separate schools by the city Board of Health.

Hon. Dr. W. J. Roche has retired from the portfolio of the Interior and has been appointed chairman of the Civil Service Board.

On 12th October there were 9,039 patients enrolled on the strength of the Military Hospitals Commission command. There were 1,037 ill with tuberculosis, and those able to be outside were 7,237. There were 21,620 sick and wounded under treatment in Britain.

Dr. George Baderow, C.A.M.C., formerly of Toronto, has been appointed a consulting surgeon at the South African Eye and Ear Hospital, at Richmond.

General Carleton Jones returns shortly to Canada as Director-General of Medicals.

Dr. Horace L. Brittan, of the Toronto Bureau of Municipal Research, has been appointed superintendent of the Toronto General Hospital.

The daily cost of caring for patients in a number of hospitals is as follows: Presbyterian Hospital, New York, \$4.96; Massachusetts General, Boston, \$4.05; Johns Hopkins, Baltimore, \$4.02; Lakeside Hospital, Cleveland, \$2.78; Mount Sinai Hospital, New York, \$2.74; Montreal General, Montreal, \$2.65; Toronto General, Toronto, \$2.23; Royal Victoria, Montreal, \$2.18; Winnipeg General, Winnipeg, \$2.05; Cincinnati General, Cincinnati, Ohio, \$2.01.

Major Andrew MacPhail, A.D.M.S., London, in charge of technical equipment and supplies, sails for Canada shortly for a period of duty. Since leaving Canada, two and a half years ago, he has been at the front two years. Major J. S. Jenkins, McGill graduate, Charlottetown, carries on for him.

Among recent changes in the Canadian Medical Services is the appointment of Lt.-Col. H. R. Casgrain to command the French-Canadian Hospital at St. Cloud, near Paris, while Lt.-Col. Lebel will probably return to Canada. Lt.-Col. Casgrain is succeeded at Bushey Park Red Cross Hospital by Lt.-Col. McQueen, late of the 11th Field Ambulance.

Dr. R. K. Anderson, of Milton, has been nominated as a candidate in the coming Federal elections for Halton.

The many friends of Dr. E. J. Barrick, who practised in Toronto for nearly half a century, were sorry to learn of the death of his wife at Salvador, Sask., where the doctor has been living for some years.

Dr. M. Steele, sitting member for South Perth, has been nominated as candidate again in the Federal elections.

At a meeting of the directors of the Canadian National Exhibition a grant of \$7,500, equal to one year's salary, was made to the wife and five-year-old son of Dr. J. O. Orr, the late manager, in recognition of his 25 years' service to the Exhibition, the first eleven years as director and the last fourteen in a managerial capacity.

Capt. A. Ernest McCulloch, R.A.M.C., has returned to spend a month's sick leave with his relatives. He went overseas in January, 1916, and was sent to France for duty on an ambulance train. He was awarded the French Croix de Guerre for his services on the ambulance train. Capt. McCulloch practised in Oshawa prior to enlistment.

Major D. W. Whitton, medical, is appointed to command a hospital ship, replacing Lieut.-Col. D. Donald. Lieut.-Col. E. J. Williams is appointed to command the Canadian hospital at Hastings, replacing Lt.-Col. H. E. Munro.

Dr. Alexander Davidson, Toronto, has received word that his son, Lieut. George T. Davidson, who was wounded in the Somme fighting, and was taken prisoner, died in a German hospital. He was wounded and captured on 25th October, 1916. Prior to enlisting he practised law in Medicine Hat.

Those who make and sell medicated wines are not having an easy time of late. Any beverage containing more than two and one-half per cent, alcohol is an infringement of the Temperance Act. It has been held that some of the so-called medicated wines are merely beverages.

The military authorities of the London, Ont., district are authority for the statement that 4 per cent. of the soldiers training in that district contract venereal diseases of some kind.

The Toronto hospitals have applied to the city council for aid. On account of the marked advance in the cost of living heavy liabilities have been incurred. The Toronto General is asking for \$60,000, the Weston Sanitarium for \$40,000, the Western Hospital for \$20,000, and the Hospital for Sick Children \$30,000.

The medical men of Kingston have taken steps with the Government to have 3rd and 4th year medical students exempted from military services. It is claimed there will be a shortage of medical graduates if this is not done.

The Universities of Columbia, N.Y.; Harvard, Mass.; Johns Hopkins, Md.; Cornell, N.Y., and the College of Physicians and Surgeons, N.Y., have opened their doors to women medical students.

The latest stimulant to appear in the limelight is ginger. It has become a very common practice for persons to purchase essence of ginger, which is consumed as a substitute for whiskey or brandy. Several deaths have followed its use.

OBITUARY

FREDERICK PHINEAS DRAKE, M.D.

Dr. F. P. Drake, of London, Ont., died on October 7th from heart disease, to which he had been a victim for several years. At the time of his death he was in his 65th year. He was the son of Dr. W. H. Drake, in former years a well-known physician of Windsor. Dr. Drake was

educated at Kingsville, and then at Bishop Tassie School. He took his medical course in Toronto and graduated from the University of Toronto. He took post-graduate studies in New York, London, and on the continent. He made eight trips to Europe, and visited most of the countries and medical centres of education. He enjoyed a large practice and was very much esteemed by his clientele. He was a governor of the Western University, a director of the London Health Association and Byron Sanitarium, and a former member of the Board of License Commissioners.

W. J. R. HOLMES, M.D.

Dr. Holmes, of Goderich, died on the 14th of October in his 76th year. He had been ill for about two months. He was born at Holmesville, and was a son of John Holmes, who was a member of the Legislature of Upper Canada in 1842 for the district of Huron, Perth and Bruce. He received his primary education at the Goderich Grammar School and Upper Canada College. His medical course was taken at Toronto Medical College. He then received a commission in the Northern army and served till the end of the American Civil War. For a time he practised in Bluevale and later for a number of years in Brussels, both in Huron county. In 1883 he was appointed treasurer for the county of Huron and then removed to Goderich. At the time of his death he was a coroner and secretary-treasurer of the Goderich Collegiate Institute. His wife died three years ago. He is survived by three sons.

GEORGE L. MacKINNON, M.D.

Dr. MacKinnon, of Alton, died there on 14th September, at the age of 34 years. He graduated from the University of Toronto in 1905, and obtained the Council license in 1906.

ALEXANDER S. OGG, M.D.

Dr. Ogg died in New South Wales, Australia, on 7th August, at the age of 62. He graduated from the University of Toronto in 1878. He took a post-graduate course in Britain and then settled in Sydney.

GEORGE W. LING, M.D.

Dr. Ling died at his home in Dutton, Ont., on 16th September, at the age of 74. He graduated from Ann Arbor, Michigan, and from Toronto in 1866. He practised in Melbourne, Wallacetown and Dutton.

JEROME J. MURPHY, M.D.

Dr. Murphy, of Wawota, Sask., died at the Mossomin General Hospital, 26th August. He was a graduate of Edinburgh University, 1896. He had been in practice in Saskatchewan for six years.

WILLIAM M. CALDWELL, M.D.

Dr. Caldwell died in St. John, N.B., a short time ago, in his 72nd year. He was a graduate from Harvard University in 1867. He had practised at Lancaster Heights and at Newcastle Bridge, N.B.

BOOK REVIEWS

DERMATOLOGY.

The Principles and Practice of Dermatology, designed for Students and Practitioners. By William Allen Pusey, A.M., M.D., Professor Dermatology in the University of Illinois, Emeritus; Dermatologist to St. Luke's and Augusta Hospitals, Chicago; Member of the American Dermatological Association. With fifty-four plates and four hundred and sixty-six illustrations. Third edition. New York and London: D. Appleton and Company, 1917.

To all who have this valuable work a new edition will be very welcome; while to those who do not possess it our advice is to secure a copy. It is a very trustworthy guide to the study of dermatology, which is always a difficult branch of medical science to master. With this work in one's possession most of the difficulties can be surmounted in a reasonable time. One of the chief troubles in the way of all students of dermatology is that of diagnosis. The author lays down a classification that is scientific, and, at the same time, is divested of many of the needless details that are to be found in many books on this subject. The three hundred skin diseases the author arranges under the following headings: Hyperaemias, exudative, dermatoses, inflammations, dry scaly inflammatory dermatoses, hemorrhages, infectious diseases, dermatoses due to animal parasites, hypertrophies, atrophies, anomalies of pigmentation, cutaneous neuroses, new growths, and diseases of the appendages of the skin. The descriptions of the morbid anatomy are very clear and are specially designed to be helpful in treatment. The sections dealing with diagnoses are particularly well written. The assistance given on treatment is most valuable. Throughout the book are to be found very many useful formulæ for both internal and external medication. The illustrations are also worthy of commendation. They are

numerous and carefully selected from other authors, or from the author's own collection. There is much judgment required in the choice of illustrations for such a work as this. They should be chosen with the object of enabling the reader to recognize typical cases, and from these to recognize the less typical, irregular and complicated forms. The paper is good, the type is clear, and the binding satisfactory. In the 1243 pages of this volume the author has given the latest views on dermatology. The work can be very cordially recommended.

THE MAYO CLINIC.

The Mayo Clinic, Rochester, Minn., the Collected Papers for 1916. Octavo volume of 1014 pages. With 411 illustrations. Philadelphia and London: W. B. Saunders Company, 1917. Cloth. Price, \$6.50 net; half morocco, \$8.50 net. The J. F. Hartz Company, Toronto, Canadian agents.

This volume contains articles on the alimentary canal, urogenital organs, ductless glands, the blood, head, trunk and extremities, technic, and general topics. The volume is got up in the very best form as to binding, paper and the typography. The articles are all of a very practical character, and are intended to be useful to both the specialists and the general practitioners. It is very unusual for any hospital to publish such a collection of papers. The annual reports of Guy's and St. Thomas' Hospitals are well known. The Mayo Clinic has now taken a place with the best that appears from year to year on the practice of medicine in all its branches. We have always had pleasure when called upon to review the Mayo Clinic; but on no occasion has that pleasure been so great as at the present time, because this volume seems to have distanced the high standard attained in former years. Impossible as this task would seem to have been it has been accomplished, and now we have the best volume yet published.

NERVOUS DISEASES.

Diseases of the Nervous System. A Text-book of Neurology and Psychiatry. by Smith Ely Jelliffe, M.D., Ph.D., Adjunct Professor of Diseases of the Mind and Nervous System, New York Post-Graduate Medical School and Hospital, and William J. White, M.D., Superintendent of St. Elizabeth's Hospital, Washington, D.C., Professor of Nervous and Mental Diseases, Georgetown University; Professor of Nervous and Mental Diseases, George Washington University, and Lecturer on Psychiatry, U. S. Army and U. S. Navy Medical Schools. Second edition, revised, re-written and enlarged. Illustrated with 424 engravings and 11 plates. Philadelphia and New York: Lea & Febiger, 1917. Price, \$7.00.

In this large and handsome book of 938 pages there is much valuable information on nervous and mental diseases. The first chapter gives some general but useful suggestions on the subject of the examination

of the patient. The main part of the work is divided into three sections. The first section deals with the physico-chemical systems, such as vegetative and visual neurology, and the endocrinopathies. The second part takes up the sursorimotor systems, as the nerves, the cord, the brain. The third part is devoted to a consideration of the psychological or symbolic systems, as the neuroses and psychoses. This arrangement is somewhat new, but the authors make excellent use of it throughout the volume, as it aids them materially in grouping the various diseases. The illustrations are numerous and of much use. The schematic diagrams are among the best we have ever seen, and help very materially to clear up obscure points in the anatomy of the nervous system, and how diseases may be manifested by groups of symptoms. The authors very wisely make much use of the anatomical distribution of nerves as a means of aiding in the diagnosis of nervous diseases. If one desires to acquire a sound working knowledge on neurology and psychiatry this would be a most useful book to study. We can recommend it to all who wish to become real students of this branch of medical science.

MEDICAL CLINICS.

The Medical Clinics of North America, July, 1917. Published monthly by W. B. Saunders Company, Philadelphia and London. Vol. 1, No. 1. Price per year, \$10.00.

This number is the Johns Hopkins one, that is, the articles have been contributed by the members of the Johns Hopkins staff. The names that appear are Theodore C. Janeway, L. F. Barker, H. O. Mosenthal, T. B. Futcher, L. Hamman, T. R. Brown. It is needless to state that the articles are all excellent. The next number will be from Philadelphia teachers.

SANITATION FOR MEDICAL OFFICERS.

Medical War Manual No. 1, Authorized by the Secretary of War and under the supervision of the Surgeon-General and the Council of National Defence. By Edward B. Vedder, M.D., Lieut.-Col., Medical Corps, U.S.A. Illustrated. Philadelphia and New York: Lea & Febiger, 1917. Price, \$1.50.

This is a first-class war manual on military sanitation. It contains 211 pages, and in a number of places some blank pages for notes. It is of pocket size and bound in limp leather. The subjects are: The Camp, The March, The Trenches, and The Battlefield, Insects concerned in the Transmission of disease, and Notes on Transmissible Diseases. There are many illustrations. The book is a true *vade mecum*, and is full of condensed rules and instructions. Though prepared for the Army Medical Corps of the United States, it should prove most valuable to those

charged with the responsibility of caring for the health of our Canadian soldiers in this country, England or France. A number of experts have contributed towards the pages of this little book.

PHYSIOLOGY.

Handbook of Physiology. By W. D. Halliburton, M.D., LL.D., F.R.C.P., F.R.S., Professor of Physiology, King's College, London. Thirteenth edition (being the twenty-sixth edition of Kirke's Physiology), with nearly six hundred illustrations in the text, many of which are colored, and three-colored plates. Philadelphia: P. Blakiston's Son and Company, 1012 Walnut Street, 1917. Price, \$3.50.

The first edition appeared in 1848, under the authorship of William Senhouse Kirkes. At different times the book has been brought out under the editorship of William Savory, Morant Baker, E. Klein, Vincent Harris. In 1896 the publishers, acting on the advise of the late Sir W. R. Gowers, selected Professor Halliburton to edit subsequent editions. How well he has done his work is best told by referring to the continued popularity of the book. As a work on physiology it has found its way into most libraries, and should find a place in all. No physician or surgeon should practise unless he is a student of physiology, and we know of no better book than this one by Professor Halliburton. In the first place, we may mention that the publishers have given us a handsome volume. The paper (typography and binding are first-class, and everyone who has to study a book knows how much these things mean to him. The real thing, however, is that the matter is so good. Professor Halliburton knows what to say and how to say it. The present edition shows that the book has been kept up-to-date, both in text and illustrations. Having had the pleasure of reading various editions of this work for forty years, we take special pleasure in recommending it to others.

COMMISSION ON CONSERVATION.

The Commission of Conservation of Canada Report of the Eighth Annual Meeting, held at Ottawa, January 16th and 17th, 1917. The Federated Press, Limited, Montreal.

Among other items of useful information, this report contains articles on venereal diseases and foods. The startling statement by no less an authority than Dr. C. K. Clarke, superintendent of the Toronto General Hospital, that more than 12 per cent. of the patients admitted to the public wards of that institution have syphilis, is the feature of the eighth annual report of the Commission of Conservation, just issued. These conditions, it is pointed out, are no doubt representative of those

prevailing elsewhere in Canada where statistics are not yet available. The return of thousands of soldiers at the end of the war lends more than usual interest to this feature of the Commission's report. Other phases of the subject, including measures for controlling the menace, are discussed by Drs. J. J. Mackenzie, C. H. Hair and Wm. Goldie, of the Faculty of Medicine, University of Toronto.

An address on "The Production and Preservation of Food Supplies," by Dr. P. H. Bryce, gives tables showing the relative values of different foods. Results of experiments by the Commission at Port Dover, Ont., in utilizing fish waste in the manufacture of stock meal, oils and fertilizer are set forth, whilst Drs. H. J. Wheeler and Frank T. Shutt make interesting contributions on the use of commercial fertilizers. In addition, a readable account is given of the varied activities of the Commission, including town-planning, game preservation, water-powers, agriculture, mining and general publicity work.

NEW JERSEY REPORT.

Fortieth Annual Report of the Department of Health of the State of New Jersey, 1916. Trenton, N.J.: State Gazette Publishing Company, Printers, 1917.

This report contains much useful information for those engaged in questions of health. Some of the investigations on contagious diseases are specially valuable, and should be read by all who are interested in such topics.

INTERNATIONAL CLINICS.

A Quarterly of Illustrated Clinical Lectures and Especially Prepared Original Articles on Treatment, Medicine, Surgery, Neurology, Paediatrics, Obstetrics, Dermatology, Ophthalmology, Otology, Rhinology, Laryngology, Hygiene and other Topics of Interest to Students and Practitioners. Edited by H. R. M. Landis, M.D., Philadelphia, and Chas. H. Mayo, M.D., Rochester. Vol. III. Twenty-seventh series, 1917. Philadelphia and London: J. B. Lippincott Company. Montreal, Charles Roberts, Canadian agents. Price, per year, \$9.00, or \$2.25 per volume, in cloth.

In the present volume there are nine special clinics. Three on medicine, two on treatment, one on public health, two on neurology, and five on surgery. There are two colored plates and many other plates and illustrations in the volume. Among the contributors we might mention G. E. De Schweinitz, A. T. Beifeld, H. A. Christian, B. A. Thomas, O. S. Ormsby, C. G. Camston, S. McGuire, R. C. Bryan, C. C. Grulee, N. B. Webber, T. E. Sutterthwaite, F. P. Weber, E. Poiree, V. Chobaitch, G. H. Fondé, J. H. Landis, J. J. Walsh, J. E. Lind, W. Babcock, W. Sharpe, G. S. Foster, B. C. Loveland and W. A. Steel. These

names are a guarantee for the quality of the clinics and articles, and they are experienced teachers, and thorough students in their own fields of work. We can recommend this volume as a very valuable addition to a well-known series. International Clinics have stood the test for 27 years, and all the time with an increasing reputation.

RECALLED TO LIFE.

A Journal devoted to the Care, Re-education and Return to Civil Life of Disabled Sailors and Soldiers. Edited by Lord Charnwood and Everard Cotes. No. 2. London: John Bole, Sons and Danielson.

This excellent number contains articles on several very important topics of great interest to those who are charged with the care of returned sailors and soldiers. The articles are contributed by leading men who are highly competent to speak with authority on the subjects assigned them. We can most cordially recommend this publication.

MISCELLANEOUS

QUARANTINE VENEREAL PATIENTS.

At the meeting of the local Board of Health, Toronto, Dr. Hastings, the Medical Officer of Health, recommended the adoption of the following recommendations:

That the board apply to the Provincial Secretary to have social disease deemed to be communicable diseases. Any person affected with such a disease, which in the opinion of the Medical Officer of Health is infectious, may be placed under quarantine by the Medical Officer of Health, for treatment, and so detained until the infectious period is passed; and furthermore that any person whom the Medical Officer of Health has reason to suspect of suffering from such a disease, he may require to have submitted to a proper medical examination to determine the same and if found to be suffering from the aforesaid disease, may be placed under quarantine. In case of dispute as to the infectiousness of any person so quarantined, the question shall be decided by the board, and the decision of the board shall be final and shall not be subject to appeal or review by any court of authority.

Dr. Hastings further recommended that an amendment of the Public Health Act dealing with diseases be framed, similar to that of the Australian Act, and that the Legislature be asked to amend the Public Health Act along the lines therein suggested. In the meantime the placing of diseases on the communicable list will materially aid in controlling the existing menace to public health.

OFFICERS OF THE CANADIAN CONFERENCE OF CHARITIES.

At the annual convention held in Ottawa of the Canadian Conference of Charities and Corrections, which closed on 26th September, these officers were elected: Patron, His Excellency the Duke of Devonshire; honorary president, Hon. Dr. Brett, Lieutenant-Governor, Alberta; president, Dr. J. H. Riddell, Winnipeg; vice-presidents, Dr. J. D. Page, Quebec; Dr. E. P. Lachapelle, Montreal; Mrs. A. M. Huestis, Toronto; J. J. Kelso, Toronto, and R. T. Riley, Winnipeg; general secretary, A. H. Burnett, Toronto; treasurer, F. M. Nicholson, Toronto; executive committee, W. W. Lee, Quebec; Dr. H. L. Britain, Toronto; Dr. Helen MacMurchy, Toronto; Dr. C. J. O. Hastings, Toronto; Rev. Father Minehan, Toronto; J. H. McMenemy, Hamilton; Mrs. Arthur Murphy, Edmonton; W. H. Mackmey, Windsor; T. M. Blair, Ottawa; Capt. W. H. Pattie, Halifax; Mrs. Copeland, Winnipeg; J. H. T. Falk, Winnipeg; Louis Ken, Winnipeg; Prof. J. H. Dale, Montreal; Mrs. Ralph Smith, Vancouver; Mrs. J. Knox McLeod, Sydney, C.B.; Colonel Thompson, Yukon; Dr. Halpenny, Winnipeg.

The next conference will be held at Edmonton. The main question under discussion was the problem of immigration as related to Canada. Many valuable suggestions were made.

FORBES WINSLOW MEMORIAL HOSPITAL.

The British Ministry of Pensions has recognized and authorized for trial the system of treating soldiers suffering from shell-shock and nervous breakdown, which disease is functional, not organic, by psychical treatment. It cannot be too widely known that this treatment has been practised at the British Hospital for Mental Disorders and Nervous Diseases, 72 Camden Road, London, N.W.1, since the beginning of the war, indeed since its founding in 1890. The hospital has given effective and permanent relief gratuitously to thousands of men, women and children. The war has obviously increased the number of cases suffering from shell-shock and nervous breakdown to a marked extent, and the hospital is at present appealing for additional funds to cope with the position, and also with the object of sending patients into the country, so necessary for their speedy recovery. Will our Canadian friends help us? Donations, however small, will be greatly appreciated and may be sent to me or the secretary, Mr. F. J. Lee-Smith, 72 Camden Road, London, N.W.1, England.

Yours faithfully,

MARGARET FORBES WINSLOW.

TORONTO INFANT MORTALITY.

The following figures prove the good that has resulted from the medical health and school medical inspection. Only one phase is revealed, viz., the reduction in infant mortality. Much of the credit for this is due to that division of the health department's work known as child welfare.

Deaths from infantile diarrhœa and neuritis:

	June.	July.	Aug.	Sept.	Total.
1917	10	7	40	38	95
1916	9	32	65	62	159
1915	7	19	74	49	149
1914	20	71	87	98	267
1913	23	81	217	149	470

Deaths of infants under one year of age:

	June.	July.	Aug.	Sept.	Total.
1917	70	86	105	114	375
1916	84	95	147	178	504
1915	82	97	154	134	467
1914	139	141	165	166	611
1913	111	176	302	253	842

GERMANY LOST 4,500,000.

The Associated Press is able to give approximately the figures representing the man-power of Germany in the war at the present time, together with the casualties, as follows:

Fixed formations on the various fronts, employed on lines of communication and stationed in the interior	5,500,000
Divisions undergoing formation and men in depots	600,000
Losses in killed, permanently disabled and prisoners	4,000,000
Wounded under treatment in hospitals	500,000

Total 10,600,000
This leaves an available man-power of 6,100,000.

CANADIAN FORCES—ENLISTMENTS AND WASTAGE.

A statement giving figures for recruiting and wastage in the Canadian Expeditionary Force during the eight months from January to August, inclusive, has just been issued by the Militia Department. The statement shows that in the eight months 49,179 men enlisted in the C.E.F., of which number 17,451 joined the ranks of the infantry. During the same period the wastage of men, from various causes, totaled 91,804, leaving a net loss to the C.E.F. for the eight months of 42,625 men.

The total enlistments and wastage by months were as follows: January, enlistments 9,194 wastage 4,396; February, enlistments 6,909, wastage 21,955; March, enlistments 6,640, wastage 6,161; April, enlistments 5,330, wastage 16,894; May, enlistments 6,407, wastage 13,347; June, enlistments 6,348, wastage 7,913; July, enlistments 3,882, wastage 7,906; August, enlistments 3,117, wastage 13,232. The number of enlistments in England for the C.E.F. from February 1st, 1915, to June 30th, 1917, a total of 1,452 is added by the Militia Department to the totals given above, making the grand total of 49,179.

SHORTAGE OF MEDICAL STUDENTS.

MEMORANDUM BY THE CENTRAL MEDICAL WAR COMMITTEE.

In the supplement last week was printed a memorandum on the shortage of medical students, submitted to the Government and the heads of the departments concerned by the Committee of Reference of the Royal College of Physicians, London, and the Royal College of Surgeons, London, passed by the Central Medical War Committee on September 12th. In supporting the memorandum of the Committee of Reference, in a letter dated September 18th to the Secretary of State for War, the Central Medical War Committee states that it desires to make certain additional remarks. These are contained in a memorandum forwarded also the Prime Minister, the Minister of National Service, the Adjutant-General, the Director-General Army Medical Service, the Medical Director-General R.N., and the President of the Board of Education. This memorandum, which we print below, embodies the two resolutions published last week:

SHORTAGE OF MEDICAL STUDENTS.

1. The annual average wastage of doctors in normal pre-war times owing to death, retirement from practice, or permanent incapacity is about 900.
2. The average number of medical men added to the *Medical Register* annually is about 1,100 in pre-war times.
3. There is now a large abnormal wastage in qualified medical men arising directly out of the war.
4. The supply of medical men to meet the needs of the civil population has now been reduced to the lowest number consistent with safety, and there is practically no reserve to make good the normal annual wastage from deaths or incapacity.
5. All new additions to the ranks of the medical profession by the qualification of students are at once requisitioned by His Majesty's forces, and are not available, therefore, to make good the normal average wastage of doctors required for the civil population.

6. The number of fifth year men students due to qualify in 1917 (922) is only barely sufficient to make good the normal wastage in the profession for that year.

7. The number of fourth year men students due to qualify during 1918 is stated in the returns of the General Medical Council to be 1,078. This number has in fact been reduced since these statistics were obtained by some of the men having accepted commissions as probationary surgeons in the navy, and the number who will actually qualify in 1918 is probably only just sufficient to meet the normal wastage, that is, about 900.

8. The number of third year men students due to qualify during 1919 is only 519, and if the greater number of these qualify in due course they will little more than meet half the normal wastage.

9. According to the returns of the General Medical Council (quoted in paragraph 2 of the memo of the Committee of Reference) there are 783 second year men students due to qualify in 1920, and 1,432 first year men students due to qualify in 1921. Since these figures were compiled the situation has undergone considerable alteration because:

(a) On February 27th, 1917, a new A.C.I., No. 341, was issued in which previous A.C.I. No. 2,290 of 1916, regarding medical students *in any year of their study* who were not passed fit for general service (Category A), was altered by the calling up of medical students classified B 1.

(b) A number of medical students of the first and second year of study, who had previously been rejected for military service or classified "C", have been re-examined under the Military Exceptions Act, placed in higher categories, and called up.

(c) First year men as they reach 18 have been called up.

10. Owing to these circumstances the number of first year men students due to qualify in 1921 is probably at the present time not more than half the figure given in the return from the General Medical Council, and the number of second year students is less, though probably not to quite the same extent.

11. The average number of medical students registered with the General Medical Council in pre-war times is about 1,500 per annum, but registration with the General Medical Council is, in cases of students of the University of London and students under the Conjoint Board in England, not now compulsory, so that the actual number of medical students in any one year of study is considerably higher than recorded in the books of the General Medical Council, and probably reaches 1,800 or more, but the figures in paragraph 2 of the Committee of Reference memorandum include all medical students.

12. The actual shortage, therefore, of first, second and third year students, as compared with normal pre-war times, *is a reduction by about two-thirds.*

13. In regard to probationer surgeons in the navy it is important that these (who for the most part are fourth or fifth year men) should be demobilized after six months of service, for otherwise their qualification is being indefinitely postponed. In order to enable this to be done it is necessary that a supply of punior students as they pass their second

year medical examination should be available, and some of these could become surgeon probationers, and thus make it possible to demobilize those who have served six months.

14. The Central Medical War Committee therefore strongly recommends that medical students who are registered as such in the books of the General Medical Council (or have been accepted as medical students by universities or the Conjoint Board, or, in case of doubt, present a certificate from the dean of their medical school), now serving in the navy or army as officers or privates, should be demobilized to continue their studies.

15. Further, in the opinion of the Central Medical War Committee, the calling up of more medical students, who are registered as such, or who are identified as such, as mentioned in the preceding paragraph, and who have completed their first year of study, should cease.

16. As the medical schools begin their new session in October, it is very important that an early decision on this question should be made by the authorities concerned, so that if it be determined to return enlisted students to their medical studies they may be placed at no disadvantage as compared with others.—*British Medical Journal*.

CANCER DECALOGUE.

The following Cancer Decalogue was recently prepared by the Standing Committee on the Control of Cancer of the Massachusetts Medical Society for publication in the *Boston Medical and Surgical Journal*:

1. *The Classical Signs of Cancer* are the signs of its incurable stages. Do not wait for the classical signs.

2. *Early Cancer causes no Pain*. Its symptoms are not distinctive but should arouse suspicion. Confirm or overthrow this suspicion immediately by a thorough examination and, if necessary, by operation. The advice, "Do not trouble that lump unless it troubles you" has cost countless lives.

3. *There is no sharp line between the benign and the malignant*. Many benign now growths become malignant and should therefore be removed without delay. All specimens should be examined microscopically to confirm the clinical diagnosis.

4. *Precancerous stage*. Chronic irritation is a source of cancer. The site and the cause of any chronic irritation should be removed. All erosions, ulcerations and indurations of a chronic character should be excised. They are likely to become cancer.

4. *Early cancer* is usually curable by radical operation. The early operation is the effective one. Do not perform less radical operations on favorable cases than you do on unfavorable ones. The chances for a permanent cure are proportionate to the extent of the first operation. Make wide dissections; incision into cancer tissue in the wound defeats the object of the operation and leads to certain local recurrence.

6. *Late cancer* is incurable, though not always unrelievable. Radium, X-rays, ligation, cautery, or palliative operations may change distress to comfort and may even prolong life.

7. *Cancer of the Breast.* All chronic lumps in the breast should be removed without delay. Benign tumors can be removed without mutilation. Examine all specimens microscopically. An *immediate* microscopical examination is desirable since if positive, it permits a radical operation at the same sitting. A radical operation performed ten days after an exploration is almost never successful in curing cancer of the breast.

8. *Cancer of the Uterus.* Any irregular flowing demands thorough investigation. Offensive or even very slight serous flows are especially suspicious. Curette and examine microscopically. Amputate all eroded crevices which do not yield promptly to treatment. Do not wait for a positive diagnosis.

9. *Cancer of the Digestive System* is difficult of early diagnosis and therefore unfavorable in prognosis. All persistent and recurring indigestions (more especially if attended by change of color and loss of weight) and any bleeding or offensive discharges demand prompt and thorough investigation. Do not wait for a positive diagnosis.

10. *Cancer of the Skin.* Any warts, moles or birthmarks which enlarge, change color, or become irritated should be removed promptly. They are likely to become cancer. Do not wait for a positive diagnosis.

This Decalogue is an admirable summary of the whole subject and it is recommended by the Cancer Society to all medical journals for publication as often as possible.

ILLEGAL PRACTICE OF MEDICINE.

It is held that under the Pennsylvania Acts of 1911 and 1914 a person may be convicted of practising medicine and surgery who holds himself out as a "doctor" under the name of "chiropractic" and professes to treat nervous diseases, nerve displacements, and nerve impingements by thrust handling and manual treatment, and by pressure and heat. The court said, in part: "The literature of the profession, as well as the speech of the common people, understand the practice of medicine and surgery to include the investigation of causes of disease, and by the use of medicines and drugs, instruments, and appliances, to cure, mitigate and alleviate bodily disease and physical derangements. There never has been and cannot be a complete separation between the practice of medicine and surgery as they have been practised and understood by the most learned in the profession. The principles of both are the same throughout, and no one is fully qualified to practise either who does not understand the fundamental principles of both. The statutory requirements of recent years have been deemed necessary to protect the public from imposition and fraudulent practises, and have resulted in subdivisions into departments, by pretentious specialists, so as to evade the statutory requirements of general professional qualifications. New and coined words are used to represent a particular branch

of medicine or surgery, or a departure from recognized methods and practices. In most instances they are deceptive and artful devices to impose on the public and increase the necessity for statutory regulation. . . . This question has been fully considered by the courts of other States, under similar statutes, and all support the conclusion reached by the court below."—Commonwealth vs. Byrd, 64 Pa. Superior Court 108.—*Medical Record*.

MEDICAL PREPARATIONS

URINARY ANTISEPSIS.

In the opinion of many practitioners Sanmetto offers the nearest approach to the ideal inhibitor to bacterial growth. It is not only non-toxic and non-irritating, but rather soothing to the urinary tract, while not strongly antiseptic, yet sufficiently bacteriostatic for common routine cases. It is largely excreted by the kidneys. In prostatic cases it tends to relieve incontinence, clears up the urine, and is as useful as a soother before and following instrumentation. It is of positive value in urethritis and cystic conditions. It is never accompanied by the untoward conditions so often following the use of more powerful germicidal and bactericidal antiseptics. Sanmetto is safe.

AUTUMNAL AILMENTS.

The autumn months constitute the season during which the average practising physician is called upon to treat the following conditions: 1. Typhoid fever, which is, more often than not, contracted at some unhygienic summer resort. The patient may return home during the first week or so, with headache, malaise, etc., or the premonitory or primary symptoms may appear after reaching home. 2. Malarial infection, in certain sections, which is more than usually rife in the spring and fall seasons. 3. The after-results of the gastro-intestinal disorders of infants and young children, due to improper feeding, etc., during the heated term. In almost every instance, when the acute symptoms have subsided, a condition of anemia and general devitalization is the final result that constitutes the essential indication for treatment. In convalescence from all forms of illness resulting in general debility, Pepto-Mangan (Gude) is the one ideal tonic and reconstructive. It not only revitalizes the blood, but also tones up every physiologic function. It stimulates the appetite, improves the absorptive capacity, increases energy and ambition and restores the blood to its normal condition. It is thus a general tonic and reconstituent of marked and certain value.