The Canada Lancet

VOL. XLVIII. TORONTO, APRIL 1915 No. 8

EDITORIAL

THE SALE OF "DOPE" DRUGS IN THE UNITED STATES.

In the United States there is much effort being made to curtail the sale of habit-forming drugs. In some States such sale is now made difficult, and the recent Act for the entire country will do much good. From a leading journel we quote the following:

"The Bureau of Internal Revenue is engaged this week in the making of rules and regulations having for their object the suppression of the use of habit-forming drugs throughout the country. During the past decade the consumption of "dope" has greatly increased in the United States, and it is calculated that from two to four millions of people are victims of the appetite, while every year 100,000 more sufferers are added to the number. Some of the State Legislatures have dealt with the subject, but their efforts have not been successful.

"In Massachusetts, for example, there is a law which sets forth that no habit-forming drug shall be sold except upon the prescription of a regular practitioner, and that no physician shall give a prescription to and person who is known to him to be a habitual user. This is a good law so far as it goes, but the confirmed "dope fiend" can evade it by the simple process of buying or ordering his drugs from another State, in which no such law exists. The opponents of the drug habit have long struggled to secure national legislation to cover the situation, and to render it difficult, if not impossible, for any person to secure the objectionable and dangerous drugs for personal use.

"The campaign in favor of restriction bore fruit during the session of Congress which has just closed, and as a consequence a stringent anti-drug law is now on the statute book, and is at this moment in operation. Under this statute, opium, heroin, codeine, cocaine, morphine, and all other like preparations are withdrawn from sale except under certain restrictive conditions. These conditions, if carefully observed, are calculated to minimize the evil, if not to wipe it out altogether. Every person or company dealing in the objectionable drugs, whether by wholesale or at retail, must take out a license from the Bur-

eau of Internal Revenue, and must make an annual return of its purchases and sales. The return must give the names of the parties from whom the purchases are made, and the names of the persons to whom sales are made.

"No sale can be made except by written order, no matter how small the amount, and the written order must be held for inspection by a Government officer or any other person for two years. Physicians, dentists and veterinarians requiring these drugs for their patients are compelled to keep a record of the amount of the drugs dispensed, the date, and the names of the parties receiving them. The law covers a class of proprietary medicines that contain the drugs in question, and are bought by drug users to satisfy their cravings. All these medicines are saleable only under such terms as apply to the unadulterated drug. To make the law effective it is provided that any person having in his possession drugs that have not been entered by the vendors in their books as required by law shall be liable to fine or imprisonment or both.

"The consumer of the dangerous drugs cannot now enter a store and buy what he wants. He must present either a prescription or an order written by himself for the drug in question. This order calls for a full description of the purchaser, including age, color of eyes, occupation, etc. The description is filed away with the order, and is examined and reported upon by the Government inspector. The sale of the drugs, in fact, is made so irksome to both parties to it, that it is expected that the drug victim, or the possible drug victim, will shrink from the red tape and the prospect of exposure which the law has provided for drug buyers and users. The law is not so strong as prohibition but, the Bureau can strengthen it by the regulations which that branch of the public service is empowered to make."

The foregoing from the Washington correspondent of the *Mail and Empire* will commend itself to all. We should like to see the law in Canada made much more stringent than it is. There is no reason that can be advanced for allowing these drugs to be obtained too easily. Members of the medical profession can always secure the supply they require for the treatment of their patients. The laity should be debarred the right to purchase, except on an order from a legally qualified practitioner of medicine.

THE CHIROPRACTORS' BILL.

With the action of Attorney-General, Hon, I. B. Lucas, all will be in accord. None should be more gratified at the outcome of the effort on the part of chiropractors to secure special legislation than the people

themselves. Mr. Lucas, chairman of the Bills Committee, made it plain that it was contrary to the Government's policy to grant any such legislation until the whole matter of medical education and practice had been gone into fully by a special commission.

On the occasion of the opening of the Toronto General Hospital the late Sir James Whitney made the statement that it was the Government's intention to appoint a commission to investigate all sorts of practice and report upon them. On the facts brought out by such a commission legislation would be based. The commission has not yet been appointed, and Mr. Lucas stated that he could not state when this would be done, but until it had been done, there would be no special legislation for any body of practitioners.

Chiropraxy and osteopathy are forms of massage, rubbing, manipulation, and movement of parts of the body. In some form this has long been before the world. The whole question can be summed up in an effort to evade the requirements of the Medical Act and take a proper course in medicine before being allowed to practise. The establishment of special colleges could have no other effect than to create short cuts to the right to practise on sick people.

The medical profession has always taken the position that if a person goes through the usual course of study and qualifies in the usual way, he may call himself by any name he pleases and practise as an osteopath, a chiropractor, an eclectic, and so forth and so on. If he cares to throw away his five years' training he may do so.

THE UNIVERSITY OF TORONTO BASE HOSPITAL.

With great armies in the field there are sure to be large numbers of wounded and sick soldiers. his imposes heavy burdens for their proper care. Much credit is due to President Falconer in this matter, as, no doubt, he was mainly instrumental in bringing the University of Toronto military hospital into existence.

All the arrangements have now been completed. The selections of surgeons, physicians, specialists and scientists have been made. All is now ready for a movement onward. The action of the medical staff of the University cannot be too highly praised in this matter. There was not the slightest difficulty in securing the requisite number of professional men to man the hospital, which is to be one of 1,040 beds. The list of those going is published on another page. This hospital will render splendid services, as those who constitute its staff are among the best known members of the medical profession.

THE BELGIAN DOCTORS' FUND.

It is very gratifying to note with what rapidity this fund is growing, and this more especially as most of the money is coming from the medical profession. Sir Ryckman Godlee, president of the Royal College of Surgeons of England, wrote Dr. Bruce, of Toronto, as follows:

"As to the distribution of the funds it would be as difficult for Canada to ensure that proper use is made of any immediate personal relief they may send to Belgium, either in kind or money, as it is for the Mother Country. We have to do what we can in that way through the instrumentality of the International Commission for Relief in Belgium, which is chiefly in the hands of the United States, who are acting with great energy and efficiency in this direction. It would be highly gratifying to our committee if the duty of distributing the Canadian funds was entrusted to it, but this is a matter for the Canadian committee to decide.

"Whatever course the Canadian committee adopts it is earnestly hoped that a considerable proportion of the collected funds will be reserved for the important purpose of reinstating the Belgian doctors and pharmacists at the termination of the war, or when Belgium can be reoccupied by its own population. When that time comes it will be well for the Canadian committee, that of the United States, and other committees to consult and co-operate with one another in order to avoid the waste that may result from overlapping, if each body were to work independently of the others."

To any who have not yet contributed to this fund, we commend the cause. The condition of the Belgian doctors during the winter that has just passed must have been deplorable in the extreme. To these unfortunate people we should extend both our sympathy and our assistance. All that we can do for them will be required, and most highly esteemed. The present war calls for the best that is in humanity.

THE CARE OF THE FEEBLE-MINDED.

There is no more important duty resting on the people than the proper care of the feeble-minded. They should be provided with suitable institutions where they may be cared for and removed from the public, and the evil results of mixing up with others. All will concur in the words of Hon. Thomas Crawford, spoken at the annual meeting of the Toronto institution.

In speaking of the work in the city, Hon. Thomas Crawford drew attention to the large number of cases of feeble-minded children which the society had to look after. "Such children must be considered as a

menace to the future of any municipality," he said, "and while we all feel the greatest of sympathy for them, it is nevertheless our duty to protect ourselves against them, and not permit them to become a danger. The handling of these children should be undertaken by the municipality, and there should be a special detention home erected where they could receive special attention and such training as they could be given. The Children's Shelter is not the place for such boys and girls to be sent, for neither has the society the accommodation nor the facilities to undertake the education of mentally defective children."

The report of the Board of Management showed that during the year 1,445 children had been admitted to the shelter. Over 3,800 complaints had been received from the police, which involved 3,615 children. The Juvenile Court had also sent 745 children to the society. A great deal of work had also been done by the society's agents in the homes where the children had been living, and in many cases it was found possible to improve the conditions. The necessity if continuing the fresh air work, which is now being done in the two country homes, was emphasized, and the hope was expressed that it would be found to build cottages in the near future. The society has adopted the policy of sending the mothers and children for a two weeks' outing every summer, and last year at Bronte accommodated 42 mothers and 140 children, while 47 children were sent to Orillia. During the year 99 children were sent to foster homes, and all are reported to be doing well.

The treasurer's report showed that at present there is a credit balance of $879.11 in the bank. The total donations for the year amounted to more than $19,000, including the $4,000, from the City Council, $1,368.44 by the Thanksgiving school collections at $741.48 contributed by parents towards the support of their children. The chief expenditures were wages, $6,169; buildings at Bronte, $1,447.27; fuel, light and printing, $3,466. The sum of $5,819.92 was also transferred to the extension fund account.

THE MOTOR CAR IN WAR.

The motor car is playing a very important part in the present war. In no direction is this manifested to a greater degree than in the care of the sick and wounded. In Germany, France and Belgium many thousands of some form of car are in use by the Red Cross Societies. The Royal Army Medical Corps of France had at a recent date at least 2,000 in the Red Cross service.

Another use to which a large number of specially constructed cars is being applied is that of supplying pure water to the troops. These

cars are aquipped with a distillery plant for the purification of the water.

Then another use is the motor kitchen. This has been found to be of the utmost utility to the various armies.

Perhaps one of the most useful of all applications of the motor car is in the form of motor operating rooms. In one of these movable operating rooms there is space for a good surgical equipment, a table, and the surgeon and his assistants. These cars are supplied with sterilizers, and the means of furnishing electric light at night.

There are armored cars for fighting purposes and others that are employed in digging trenches.

THE CARRIER OF MENINGITIS.

The recent appearance of meningitis among the soldiers in training led to a considerable amount of investigation. It was felt that the disease was not due to anything wrong with the camp. It has been found that the disease is due to the presence of carriers, as there have been a number of cases in the city. When swabs were taken from new recruits several of them were found to be carriers.

MAKING SALVARSAN.

Mr. Neil Macallum and Mr. Newton Candee, two chemists of the University of Toronto, have secured a licence to make salvarsan. After some experimentation these gentlemen are in a position to go on with the manufacture of the compound. Profs. McPhedran and J. J. MacKenzie have undertaken to see that such supply is properly standardized before it is placed upon the market for use. The cost will be about the same as before the war.

MEDICAL AFFAIRS IN QUEBEC.

Some years ago, when any one failed to meet the requirements of the Medical Board in the matters of preliminary education or course of training, he would apply to the Legislature for a special act to enable him to practise. This was almost invariably granted.

In 1909 the Medical Board succeeded in having an act passed to the effect that no one could apply for such special legislation without first obtaining the approval of the board. During these five years many have been rejected by the board and these are now asking the

Legislature for statutory recognition to enable them to apply to the Legislature directly as formerly. This the board is opposing, and the chairman has issued an appeal to the profession to use all possible influence with the members of the House to throw out the proposed measure.

It would seem very strange, indeed, for the Legislature to place in the hands of the Medical Board the control of the medical standard for the Province; and at the same time take it away again by passing special legislation that would enable those who cannot conform to that required standard to obtain their licences in another way. We hope the Legislature will not accede to this request.

THE ONTARIO MEDICAL ASSOCIATION.

The Ontario Medical Association and the Medical Officers of Health will hold their annual meetings in Peterboro on 25. 26, 27 and 28 of May, this year.

Members of the medical profession should make a special effort to be present. Many physicians and surgeons of distinction are serving in the army. This makes it all the more encumbent upon those who are left at home to attend the meeting and contribute to the proceedings.

THE CANADIAN MEDICAL ASSOCIATION.

This association meets this year in Vancouver, B.C., on July 6, 7, 8 and 9. An excellent programme is in preparation. There will be a full discussion on chronic arthritis and chronic renal infections. The Panama Exposition and the American Medical Association meet in San Francisco in the latter part of June. Those attending these can proceed to Vancouver for the July gathering there.

HYPOPITUITARISM IN CHRONIC HYDROCEPHALUS.

L. J. Pollock calls attention to the frequency of the association of hypopituitarism with hydrocephalus. The similarity of serous meningitis to tumor cerebri is well known, and the inclusion of patuitary symptoms may lead to a diagnosis of tumor of the hypophysis wrongly. The involvement of the pineal gland in the mechanical injury resulting from a cystic third ventricle deserves further study in its relation to cerebral adiposity.—*Medical Record.*

ORIGINAL CONTRIBUTIONS

SHORTENING OF THE INTESTINAL CANAL FOR THE RELIEF OF AUTOTOXAEMIA.

By Ernest A. Hall, M.D., C.M.,
Victoria, B.C.

"I HAVE thought many hours, read much and worked not a little at this subject of intestinal stasis and have tried to clear my eyes for the new vision opened to us by Sir Arbuthnot Lane. My experience has been full of surprises."—*Sir Berkeley Moynihan.*

After five years' experience at the treatment of subtoxic conditions by different methods of intestinal exclusion and excision, and after having handled a few score cases, I can say with the Leeds surgeon, that my experience has been full of surprises. Not only as to the remarkably satisfactory results in some cases, but also in the untoward results which follow a small percentage of the cases.

In the first place allow me to express the opinion that I am not certain that intestinal stasis is the great factor in these autotoxic cases that we have been led to ascribe to it. It is only in a comparatively few cases of stasis that we find the conditions of toxaemia. It is the presence of the toxaemia—per see—whether associated with stasis or not, that should determine the course of treatment. Again, how are you to determine the time required for passage other than noting the giving of a certain substance, and its passing from the bowel. And in order to be able to approximately judge of the rapidity of passage the substance given must not be unlike the material of ordinary daily food. The passage of bismuth through the intestinal canal is no more to be depended upon as an index of stasis than that of croton oil. Bismuth has from its introduction into the pharmacopia, been used to check persistalsis. As a remedy for diarrhoea it is freely used, yet we have blindly followed, owing to the fact that it was easily swallowed, and gave a shadow to the X-rays. Even Mr. Lane gave an instance in which the bismuth was delayed eighty-five hours in the terminal part of the ileum, yet upon the operation table no obstruction was found. We can therefore dispense with this method of diagnosis, and proceed along the line of the presence or absence of toxaemia, realizing the fact that by far the majority of these cases have been suffering from constipation for years. Do not misunderstand me here, regarding the use of bismuth. I exclude those cases of stricture of the bowel when the bismuth may be useful in determining the exact location of the lesion.

A much better test is a satisfactory purgative. If the depression, languor, headache, which is so characteristic of these cases, are appreciably lessened, even temporarily, are we not justified in concluding that the toxaemia has been lessened. As to the exact portion of the canal affected who can say, and if we could, what difference would it make as to treatment. We know that an overloaded colon hampers the caecum, that a distended caecum would be expected to hamper passage from the ileum. However, the main consideration is first,—*Is there toxaemia?* If gums, tonsils, bones, joints, gall bladder, etc. are interrogated with negative results, we then look to the kidneys, remembering that presence of sugar, or albumin means that the pancreas and the kidneys have been injured by working overtime, probably in their vain attempt to eliminate toxins. To these latter organs we can extend a measure of encouragement that in this freer exit of toxins from the alimentary tract they may be relieved from a portion of their responsibility.

Given a case of Lane's disease (this is the term given to the group of conditions caused by the absorption of toxins from the alimentary canal), joint, or bone tuberculosis in early stage, diabetes, Bright's, rheumatoid arthritis, mental aberration or pernicious anaemia, the informed and thoughtful man, after trying the older recognized method of treatment, will not omit the consideration of the shortening of the intestinal transit.

How is that to be done? By the least amount of traumatism possible. I reserve colectomy, partial or complete until the less formidable anastomosis has failed. Then with half of the operation done, the subsequent removal of the non-functioning parts is relatively a much milder procedure. In cases of kidney or blood diseases, I do an ilco-sibmoidostomy with ligature of the ileum between the valve and the anastomosis, or a severence of the ileum. The only reason for the former is in the gaining of time, an important factor in feeble cases. When the trouble appears restricted to the alimentary canal, I prefer a large caeco-sigmoid union, leaving the ileocaecal valve intact except where there are adhesions at this part, when the ileum is united to the sigmoid. I have had but one case of retro-peristatsis, which necessitated the complete removal of the caecum and colon, in a mental (melancholia with delusions) case. My own method of anastomosis with the constriction and enfolding of the sigmoid, forming a valve, I have consigned to the waste basket of surgical technique, and now do the simple latteral anastomosis. We must remember that in all these cases of autotoxaemia, the patients resisting power is at a low ebb, and time is a most important factor in the success of these operations.

CAMPHOR AS A HEART STIMULANT.

By F. A. Clarkson, M.D.

WHEN we begin to seek some scientific basis for clinical observations, we realize the force of the Hippocratean aphorism, "Experience is fallacious and judgment difficult." No where is this more true than in the attempt to study the action of drugs upon the human body. One has only to read over a list of the properties said to be possessed by camphor, to realize how little we actually know of the substance and how empirical is our application of it, in spite of the fact that the drug has been in use for centuries.

Camphor is a dextrogyrate ketone obtained by sublimation from the wood of *Cinnamomum camphora,* a tree belonging to the laurel family. It comes to us from China, Japan and Formosa. In large doses it produces mental confusion, hilarity and delirium with hallucinations. This action is more frequently observed in thujon, an isomere of camphor, which is the deleterious principle of absinthe.

The pharmocology of the drug in its relationship to the heart, however, seems to give rise to some difference of opinion. Cushny, for instance, says that the heart is sometimes slowed, but generally little affected either in strength or rate, and that the blood pressure shows only a slight fall. Other experimenters assert that camphor is one of the best heart-tonics at our disposal, increasing the blood pressure markedly. Boehme found that this drug would cause a frog's heart to beat again, after it had been stopped by chloral, and Gottlieb considers that it has a favorable action on fibrillation in the cat's heart. But quite recently O. H. Plant has gone over the ground (*American Journal of Medical Sciences*) using Starling's isolated heart-lung preparation, and he finds that the changes attributable to camphor are so slight as to be almost negligible.

There is an opinion strongly held by many clinicians that under special circumstances, camphor is a valuable heart stimulant, in fact that it sometimes saves life in a most magical way. Probably all of us think that we also have seen some such action. I recall two patients, both young women, with pneumonia, in which a hypodermic injection of camphor when they were apparently moribund seemed to bring about a rapid restoration to consciousness. The favorable influence of this drug upon pneumonia is well attested, perhaps from its action upon the specific organism, but the discussion of that part of the subject hardly falls within the limits of this paper.

---

* Read at Symposium Section of Medicine, Academy of Medicine, February 9th, 1915.

In order to ascertain the action of camphor upon the heart of the human being, I have carried out a number of simple experiments, some done four years ago, and some during the past month.

The first series consisted in giving camphor to a patient apparently healthy. We began with 3 grs. in oil subcutaneously, and each day increased the dose by 3 grs., till we gove 30 grs. The blood pressure and pulse were uninfluenced. We then tried the effect of the drug upon several patients suffering from cardiac diseases and again could find no changes registered by our instruments. We formed the opinion at that time that there was little use in giving more than 3 grs. at a dose.

In a recent series we gave camphor both subcutaneously and intramuscularly to a number of controls, using both large and small amounts. In no case did we find any change in the pulse rate or blood pressure. We then investigated the effect of the drug upon several patients suffering from various forms of disease of the cardio-vascular system. One of these was a young man with acute rheumatism, endocarditis and a large paricardial effusion. He was cyanosed and had been in a sitting posture for more than a week. The following is the protocol:

Time.	Pulse	Systolic B.P.	Diastolic.
4.50	88 irregular	110	75
4.53	Camphor, grs. 3, subcutaneously.		
4.55	88 "		
5.00	88	110	75
5.07	90	110	75
5.15	88 "	110	75
6.00	90	110	80
8.00	90 "	110	70

Another patient, aet. 38, was recovering from an endocarditis. Two weeks before he had a heart-block. For the four hours following the subcutaneous injection of 3 grs. of camphor, his pulse rate and blood pressure were unaltered. This was practically the result in all the other cases.

Conslusions.—Although under certain conditions, camphor appears to be a powerful analeptic, there is no experimental or clinical evidence which would warrant us in considering it a cardiac stimulant. Some of its reputed action is probably due to the ether in which it is often dissolved. It is only fair to add, however, that, although ordinary instruments of precision fail to show any effect of the drug upon the body, it is entirely possible that by stimulating phagocytosis or producing other changes in the organism, camphor may materially aid the patient in his struggle with disease.

CAFFEIN AS A HEART STIMULANT.

By Fletcher McPhedran, M.D.

IT is not because of lack of material that it is so hard to assign to caffein its proper role in cardiac therapeutics. In particular the suit brought by the United States Government a few years ago against the Cocoa Cola Company brought out a great deal of evidence as to the value of the drug, that resulted in attention being strongly devoted intensively to its cardiac possibilities. Though a considerable proportion of this investigation was done by excellent men, their conclusions were far from being unanimous and it was not long until the discussion degenerated into an exchange of personalities.

Dr. Henderson has dealt with the pharmacological side, and in so far as this aspect has been studied from a purely clinical view, it is simplest to say that practically no effect whatever has been attributed to caffein as far as the heart is concerned in itself. No one investigator has found that caffein in the doses used causes any change in the rhythmical contractions, time or strength of the heart muscle, except one, who found an increase in pulse rate and also cardiac tone. Nor has any effect been described as due to the influence of the drug on the nerves of the heart itself. The effect in the blood pressure has been much debated. Most of the authorities have come to the conclusion that the action is not constant that the pressure first rises, then falls and then rises a little above the first level.

The effect seen in the administration of caffein is due to a stimulation of the central nervous system. The irritability of the cerebrum and the medulla are aroused. That is to say both parts of the brain respond to a smaller stimulus than is generally needed to produce a response. The best understood instance of this effect is the wakefulness and mental vigor experienced after taking a cup of coffee. The effects on the medulla, as far as we are concerned, may be divided into three subheads: First, there is a stimulation of the vagus that results in slowing of the heart beat. Second, the stimulation of the respiratory centre improves the respiration in numbers and volume, thus reducing any cyanosis or dyspnoea that may be present and so lightening appreciably the work of the heart from the improvement in circulation, and the third the vasomotor centre is so stimulated that the vessels are contracted and the blood flow and pressure is improved thereby in the case of heart failure. In addition there seems to be very good ground for the belief that there is a local action on the coronary vessels wherein

* Read in the Section of Medicine, Academy of Medicine, Toronto, February 9th, 1915.

they are dilated and so an improved blood supply sent to the heart. It is also supposed that the renal vessels are dilated and the flow of urine much increased, though not to the same extent as is the case when theocin is used.

The type of case that is most likely to be benefited by caffein may be described as that case in which digitalis is not indicated or where it has not benefited the patient, or where one is waiting for digitalis to act. That is to say, the case with a fast irregular pulse, with dyspnoea and cyanosis, and enlargement of the liver will probably derive more benefit from digitalis. Though if the pulse is weak and irregular and the cyanosis marked, caffein may do a great deal of good. It is best used intramuscularly, and we take some other muscle than the gluteus for the injection site. Probably teh best available is the deltoid. It is always free from oedema, the patient does not lie on it or press on it at any time and it is readily accessible. It is thus much better absorbed, acts much faster and there is no possibility of upsetting the stomach. While it is insoluble, it is best to use the pure caffein itself, rather than any of the soluble salts, because the action of the pure drug is more constant and it can readily be used for injection by dissolving it up with sodium salicylate in an amount equal to the caffein. As the patient may be suffering from oedma of the buttock, or will at any rate have to remain lying on the back, it will be better to take the deltoid as the scene of the injection. If a long sharp needle is then pushed in through the tissue till the bone is reached, the injection is scarcely painful at all.

Bearing in mind the enormous importance of rest to the sufferer from cardiac disease, which rest is probably more essential to the patient than any drug thereapy, and again recalling that the main characteristic of caffein is the stimulation of the mental activities, as well as those of the medulla, it will be seen that in cardiac disease the drug has at once a serious disadvantage. It is possible that all the effect on the circulation will be more than overcome by the deleterious effect on the patient's rest. It is well in all cases to give the patient morphia, either with the caffein or on the appearance of any signs of restlessness or sleeplessness.

As far as the renal effect of caffein is concerned, the same or even greater diuresis can be obtained with theocin without the undesirable effect of wakefulness described above.

We might sum up and say that caffein is occasionally of great value, where digitalis is not indicated or is not effectual, that its main action is in slowing and so strengthening the heart beat by central stimulation of the vagus and by improvement of the respiration, but that in view of its effect in stimulating the higher centres and so making the patient wakeful, it must be used with caution and often aided by morphia.

THE RELATION OF THE LABORATORY TO THE PROBLEMS OF MENAL HYGIENE.

By J. G. Fitzgerald,

Associate Professor Hygiene, University of Toronto.

THE most important problem in psychiatry to-day is that of mental hygiene. Activities of every other sort in relation to the mental health of the community are subordinate to this vital question.

Perhaps the most interesting developments will be along lines more closely related to sociology than to medicine. The application of biological knowledge, however, to these problems will also be most significant, and in the development and application of biological principles in the prevention of mental disease there is a distinct field for laboratory work.

The work of laboratory should include activities in psychology, bio-chemistry, pathology, bacteriology and immunity, especially of an investigational nature. Ontario has not lagged behind in her efforts to fully utilize certain of these branches in order to gain the fullest possible knowledge in regard to the mental disease from which patients suffer when admitted to hospitals for the insane. Futhermore every rational method of alleviating mental suffering has been applied. Laboratory work and clinical study have gone hand in hand to do everything possible for the unfortunate patient suffering from the saddest of all human afflictions, mental disease.

But here we must pause, because all of this activity has been for those in whom the disease has developed or those who have shown mental deficiency. Valuable as this work unquestionably is, and has been, our problem is that of prevention. Work so far done is not in any sense related to preventive medicine. It is not the aim of this short communication to insist on the necessity for a campaign of mental hygiene, all agree it is necessary, but rather to reiterate how the laboratory may help, in the good work.

Naturally we must turn our attention first to those types of mental disease which all are agreed may be prevented. We may first mention the infective-exhaustive group, which comprises about 3% of first admissions to the state Hospitals of New York and Massachusetts. The exact etiology of these forms of mental disease is not known, but it is generally believed that the manifestation of symptoms is due to exhaustion, or to the toxic action of bacterial products or the non-elimination of products of tissue waste. The greater activity of health departments in controlling infectious diseases and the co-operation of social service agencies should be of assistance in limiting these types of mental disease.

* Read in the Symposium of Mental Hygiene before the Toronto Academy of Medicine, January 28, 1915.

The problem of the laboratory of biochemistry, bacteriology and immunity is to endeavor to show the exact relation of the supposed etiological factors to these diseases. This work should be undertaken by men trained along the lines mentioned. No such conjoint studies have to this time been undertaken. The final elimination of the psychoses classed as infective-exhaustive will come only with knowledge thus obtained.

Next we may consider the cases of mental disease due directly or indirectly to syphilis. In New York and Massachusetts, 13% of first admissions to hospitals for the insane are classed as Paresis. In the year 1911 alone there were more deaths from paresis in the New York state hospitals than from smallpox in the entire registration area of the United States from 1908-1911 inclusive. (*Salmon.*) There are also said to be half as many deaths every year from paresis as from typhoid fever in the United States.

Statistics published in 1913 by Mattauschek and Pilcz relating to 1434 patients who had syphilis between 1880 and 1890, showed that 4.67% of these patients later developed paresis. The ravages of syphilis are thus most manifest. What can the laboratory worker do to in some measure apply this knowledge in the prevention of possible future cases of paresis?

The Wassermann reaction showing the presence of syphilitic antibodies (or at least substances giving fixation with certain suitable antigens and more or less specific for syphilis), is a patent, available weapon. The demonstration of a positive Wassermann reaction in a patient should lead us, as Dr. A. M. Barrett of the Psychopathic Hospital of the University of Michigan has suggested, to determine whether or not the blood or cerebro-spinal fluid of the conjugal mate, or children of the patient gives a positive Wassermann reaction, if so suitable treatment should immediately be instituted along the lines suggested by Swift and Ellis. Repeated examination being made of the cerebro-spinal fluid, to follow the exact course of the luetic infection. The laboratory of bacteriology and immunity can readily undertake such work.

Alcohol may next receive a moment's consideration. As Salmon has pointed out, practically all forms of mental disease are unfavorably influenced by alcohol. In Massachusetts and New York, 12% of all first admissions are included in the following group: Acute Alcoholic Hallucinosis, Chronic Alcoholic Insanity, and Korsakoff's Psychosis. It is probable that alcohol plus a psychopathic heredity is responsible for the human wreckage included in the group of alcoholic psychoses just mentioned.

Unfortunately scientific work to this time has resulted in conflicting opinions being advanced as to the exact significance of the factors mentioned. The work of Bezzola and Hartmann on the one hand and of the Galton Eugenics Laboratory, on the other, emphasize this. Therefore there is urgent need of co-operation between the Laboratory for Statistical Study, such as that conducted by Major Greenwood at the Lister Institute in London and the laboratory of psychology to clearly define the issue. Popular education and an adequate campaign of prevention await the results of such collaborative studies. The laboratory for statistical study should also undertake work on the very important subject of the relation of heredity to insanity. It might, for example, determine accurately (1) the number of normal individuals with an insane heredity, and (2) the number of insane with no insane heredity. Study of such questions will aid us in the intelligent discussion of the factors of heredity and environment in relation to Mental Disease.

Finally, the efforts along lines of school hygiene in relation to mental hygiene, and here we have one of the most important of all possible fields of endeavor. Dr. Adolf Meyer, of the Phipps Psychiatric clinic, John Hopkins' Medical School, has made the suggestion that all school medical inspectors be chosen only after they have received adequate training in normal and pathological psychology. The very great importance of medical inspectors in schools being trained to detect early evidences of mental diseases in children is obvious. Here the laboratory of psychology may be of the greatest assistance.

Many of these problems await solution in Ontario. If ten cases of chronic mental disease were prevented in one year, the saving to the province would be sufficient to repay the expense of such work for five years, provided the present machinery were completely utilized. The ultimate aim, however, should be the development of hospitals, either as psychiatric institutes, psychopathic hospitals, or preventoria, one of whose most important functions will be, not the treatment of cases of mental disease, but the prevention of mental disease. This is the gospel of mental hygiene. The question will be, not only how many cases have been cured, but how many have never developed because of wise phophylactic measures.

The Italian Government has made an important change in the Italian office for Toronto, making it necessary that a native of Italy should hold the position of Vice-Consul. By this change Dr. Harley Smith retires from the position he has so well filled for many years.

CURRENT MEDICAL LITERATURE

MEDICINE

TOOLS OF OUR TRADE.

F. X. Dercum, Philadelphia (*Journal A. M. A.*, March 13, 1915), reviews the methods for combating existing insanity in the individual, leaving out questions of prevention and questions of general hygiene, etc. The theory of insanity which he accepts is that it is essentially an intoxication, and he gives his reasons for this, especially as it is shown the latter type the affection, as in manic depressive insanity, is essentially neuropathic, but with the addition that it occurs in organisms fundamentally and morphologically defective. As a rule it is not until the organism enters on the great changes involved in the transformation from childhood to puberty, and still further from adolescence to maturity that the inherently defective character of the organism becomes apparent. If these defects are very marked, we may have the early insanity of adolescence, but if they are more recondite, the mental disease may be delayed until later, giving rise to the various paranoid states of the adult. In puberty a new chemistry is entered on in the organism, and if it is defective, the chemistry becomes aberrent and toxic. In the treatment of thtse conditions the indications are clear. We can aid nature by favoring the production of immune bodies and by full feeding which does more than to add to the weight of the body, and encourages the repair of the associated tissues, but distinctly favors the formation of lipoid substances which play a most important rôle both as antigens and antibodies. The thought arises whether it would not be of value to administer lipoids, but it is probable that they would be altered in tht digestive tract. Whether a parenteral introduction could be successfully accomplished in sufficient amount to have an appreciable effect is yet to be determined by experiment. Dercum mentions in this connection the inoculation of paretics with toxins of erysiptlas by Pilcz, who thus brought about remissions. A second indication in the therapeutics personal experience it has been suggestively frequent in dementia praecox and Bahr has found it present in 32.1 per cent. of the cases of this type in the Central Indiana Hospital for the Insane. Such a finding, Dercum says, cannot bt a coincidence, but must have a profound significance, and he thinks it probable that with the improvement of methods, a larger proportion of dementia praecox will be found in which spyhilis can be demonstrated. He fears that an increasing knowledge will support tht view that the symptoms of dementia praecox can be

attributed to the breaking down of an organism during the period of development and that it will be too late to use a specific remedy against the treponema in this disease. As regards the infections, he finds little that is so significant. In the treatment of the special symptoms he emphasizes the use of the warm bath, especially of the continued warm bath, in certain forms of mental disturbances, active deliriums, etc., and excited stages of other types. It fails, however, to lessen the duration of melancholia or manic wave or the progress of dementia praecox. The warm pack is also mentiontd with a good word, and it and the continuous bath form the most humane methods of restraint. Sedatives have obtained a rather bad reputation, but there is no doubt as to the necessity or propriety of their use under certain conditions. Many of them produce a sleep approximating the normal condition, but all physicians recognize the unadvisability of their continued use for any length of time, and the dangers of creating tolerance or habit. The alcohol group of sedatives, Dercum says, he seldom uses, and that they have been displaced by other and more serviceable remedits. Amang the other remedies mentioned are the sulphonal group and the bromides are mentioned as of less value than othtr available drugs. Opium and its alkaloids, except in agitated melancholia, have very restricted value.

THE ABDERHALDEN TEST WITH ITS RELATION TO DISEASE OF THE LIVER.

Dr. Joseph Sailer and Dr. T. G. Schnabel, in College of Physicians and Surgeons of Philadelphia, said that Breitmann, having reporttd the successful application of the Abderhalden test in diagnosing destructive disease of the liver, an effort was made to confirm or disprove his statement. In all 43 cases that were examined the dialyzing method was used. In each case the serum and the substratum were tested separately and if free from dialyzable substances and negative with the ninhydrin test, they were tested together. If, after this a positive ninhydrin test was obtained, the result was considered as positive. Tests were also made whenever a sufficient amount of serum could be obtained with kidney, thyroid and placenta substratum, and when possible, several tests were made with the liver substratum. It was not possible in all cases to verify the diagnosis by autopsy or operation, but as far as possible, only very definite clinical cases of liver disease were included under that head. The following results were obtained:

Five cases of secondary malignant disease of the liver, all strongly positive.

Two cases of cholelithiasis; one strongly positive, and one faintly positive.

One case of cholecystitis with adhesions and jaundice, moderately positive.

Five cases of atrophic cirrhosis; all probably alcoholic; two were moderately positive; two, very strongly positive and one negative.

Four cases of passive congestion of the liver secondary to cardiorenal disease, all strongly positive.

Two cases put down as enlarged liver, positive.

One case put down as suspected liver disease without definite symptoms, faintly positive.

Three cases of syphilitic cirrhosis with positive Wassermann's, all positive. One of these was positive after the injection of salvarsan.

Two cases of hypertrophic cirrhosis, both positive.

The control with serum of a supposedly normal person gave a very faintly positive reaction with both liver and kidney substratum.

One case of renal insufficiency one week after induced abortion gave a strong reaction with liver, strong reaction with thyroid and intensely strong reaction with placenta.

Another case of supposed puerperal infection gave a strong reaction with placnta, but none with either liver or thyroid.

In a case of suspected pregnancy, afterwards proven not to be, there was no reaction with either tissue.

In two cases of lobar pneumonia the serum of both showed dialysable substances and gave a positive reaction with ninhydrin.

In one case of myxedema a very faint reaction was obtained with liver substratum, but with no others.

In one case of known pregnancy there was no reaction with liver tissue, faint reaction with thyroid, and strong reaction with placenta.

In a cast of malaria there was a strong reaction with liver tissue, with kidney tissue, and with thyroid tissue.

Case of multiple serositis there was a faint reaction with liver, thyroid and placenta.

In a case of recurrent alopecia, which had been diagnosed by two other physicians as disturbance of the thyroid gland, there was no reaction with any substratum.

On the whole the results indicated that the reaction was positive in the majority of known cases of liver disease and occasionally positive in cases not known or supposed to have liver disease, and in which the complete demonstration of a normal liver naturally could not be made.—*Boston Medical and Surgical Journal.*

PERSONAL AND NEWS ITEMS

Ontario.

An addition is to be made to the Military Hospital at Kingston to accommodate 100 patients. The authorities of the General Hospital are asking the Government for an increase from 75c to $1.00 a day for the soldier patients in that hospital. The cost of each patient to the hospital has been figured out at $1.43 a day.

The twenty young Toronto doctors who were granted their degrees and who are going off with the second contingent to join the clearing hospital on the firing line in France, were tendered a banquet at the Walker House. Members of the faculty and students to the number of over one hundred were present. Professors Cameron, McKenzie, Primrose, Watson and Ryerson, and Dean Clarke, spoke during the evening.

The highest possible praise is due Dr. J. T. Fotheringham for his unremitting devotion to his duties at the Exhibition Camp, where a portion of the second contingent has been in training.

No. 2 Casualty Clearing Station of the Army Medical Corps, which was recently organized by Lieut.-Col. G. S. Rennie of Hamilton, has been the recipient of a splendid gift in the form of a Wolseley automobile-ambulance, fully equipped, which is to be delivered to the hospital in London, the donor of the ambulance being Mr. Gerard B. Strathy, who will accompany the unit as quartermaster. The gift has been accepted by Lieut.-Col. Rennie and Major-General the Hon. Sam Hughes, who have thanked Mr. Strathy for the eminently useful and practical gift. The value of the motor ambulance is estimated at between $8,000 and $10,000.

Colonel G. Sterling Ryerson, M.D., president of the Canadian Red Cross Society, has received a cablegram from his son, Lieut. A. C. Ryerson, a member of the Ninth Battery, of Toronto, stating that he arrived in Rouen, on his way to the front.

Dr. C. M. Burroughs, of Sudbury, graduate of the University of Toronto in 1910, has enlisted for service in the Army Medical Corps.

Dr. J. J. Williams of Woodstock was recently elected Grand Master of the Orange Order at its meeting in North Bay, where the Grand Lodge met on March 12th.

Toronto's death-rate from tuberculosis per 100,000 of population was 95 last year, while Milwaukee made the next best record, 101. Montreal had 208, and Los Angeles, where tuberculosis patients go to recover, 252. Bristol had the best British record, with 157 deaths from tuberculosis per 100,000 of population, Glasgow 141, London 164, and Liver-

pool 208. These figures show that Toronto is to be congratulated on an excellent bill of health.

Toronto's death rate per thousand of population was only 11.2 last year, as compared with 14.2 in 1910. Other American cities of over 350,000 population made records in the following order: Milwaukee 13.2, New York 13.8, Cleveland 14.1, St. Louis 14.5, or higher than Toronto in 1910, San Francisco 14.7, Los Angeles 15, Chicago 15.1, Philadelphia 15.7, Buffalo 15.8, Boston 16.1, Cincinnati 16.7, Washington 17, Detroit 17.1, Baltimore 17.7, New Orleans 19 and Montreal 21.5.

Dr. P. E. Doolittle, the retiring president of the Ontario Motor League, was presented with a handsome grandfather's clock by the members of the league as a token of their esteem. Dr. Doolittle was one of the founders of the old Toronto Automobile Club, which subsequently developed into the present provincial organization.

The following recent graduates of Toronto University in the Faculty of Medicine are going with the second contingent: Harold Parrish Hamilton, Maurice Round Helliwell, Storms, Harry Rowe Smith, David Edmund Stanton Wishart, Athel Alexander Moon, Paul Michael O'Sullivan, Thomas Harold Douglas, William Ray Hodge, Herbert Carl Martin and Stanley Young Walsh.

For the first time since the University of Toronto started receiving a grant from the Provincial Government based upon the receipts from the Succession duties of the Province, that institution will receive as her 1915 grant the limit provided by the statutes, $500,000. Except for the fact that the University grant was limited by a special act of last session, the University would receive $522,000 due to succession duty increases.

At a remarkable reunion of old time and present members of Berkeley Street Methodist Church, Toronto, Dr. Richard Coatsworth, who is going to the front with the Toronto medical students who recently graduated, was presented with a set of medical instruments.

The members of the Durham Old Boys' Association made a presentation of books, accompanied by a complimentary address, to Dr. and Mrs. Gilmour on the occasion of their removal to Guelph from Toronto. The address spoke of the high qualifications possessed by Dr. Gilmour for the work of reclamation of prisoners and expressed regret at his duty calling him away from Toronto.

Dr. Howard Harrison, a Toronto boy, nephew of ex-Controller Dr. W. S. Harrison, is now serving the Empire as surgeon on a transport carrying soldiers between France and England. Dr. Harrison had been in England studying for six months when war was declared and he volunteered for service. From September until December the transport on which he sailed passed to and from England to Bombay, carrying

troops. Since December it has been engaged in the Channel between England and France. Dr. Harrison graduated four years ago from Toronto University.

Dr. Oscar A. Cannon of Stratford, a graduate of the University of Toronto of 1907, has applied for a post in the Canadian militia.

Dr. W. E. Brown of Peterboro committed suicide on March 2nd.

The jury under Coroner Dr. Powell, enquiring into the death of Lizzie Miles, who jumped from a window of the Haven on Seaton Street, Toronto, rendered a verdict of accidental death. It was recommended that more institutions of the nature of the Haven be established, as the Haven was not large enough to receive the number of feeble-minded persons. The institution was doing all it could, but it did not have the accommodation necessary.

The number of Varsity students, that is actual undergraduates now enlisted for and on active service, is 284, according to a list just completed by Mr. James Brebner, the registrar. To this number must be added the 23 fifth year students who were given their degrees, and who would ordinarily be still undergraduates. This makes the total 307.

Dr. James Sprague of Belleville has been made an honorary member of Humboldt County Medical Society, Iowa. He was one of the founders of the society in 1870, and its second president.

Dr. C. Wilson, London, is attached to the Red Cross in France. Dr. H. R. Casgrain, Windsor, will be in charge of a stationary hospital in England or France. Dr. G. H. Wilson, London, is medical officer of the 7th Regiment, Canadian Mounted Rifles. Dr. H. L. Jackes, Toronto, is leaving for the front and has been granted leave of absence from his school inspection duties.

A ward containing twenty beds will be added to the fever hospital at Lanark. The cost is estimated at $2,000.

Dr. T. M. Flock was appointed medical superintendent of the Essex County Tuberculosis Hospital.

The Queen Alexandra Sanatorium of London, Ont., since it was opened in 1910, has admitted 325 patients. At the end of the year there were 56 under treatment.

Quebec.

When Scott Moffatt, whose home is in Campbellton, N.B., left a Montreal hospital one day just about three years ago he carried away with him in the place formerly occupied by his appendix a pair of forceps. He left the hospital again recently, this time with the forceps in his pocket.

Sir Lomer Gouin, Premier of Quebec Province, is in receipt of a letter from Georges V. Todoronovitch, secretary of the Serbian Royal Legation, asking for the names and addresses of Canadian doctors who would volunteer to serve in the Red Cross Hospitals in Serbia.

Members of the British Medical Council are interested in the bill introduced in the Ontario Legislature with a view of arranging reciprocity between British and Ontario medical men.

On a recent date the numbers of patients in the Montreal hospitals were: Montreal General, 401; Royal Victoria, 307; Western, 83; Notre Dame, 150; Hotel Dieu, 251.

Contagious diseases in the Montreal schools decreased materially during the year 1914, as compared with 1913, owing to careful medical inspection.

An effort was made recently to secure from the Government a grant of $3 per bed for the treatment of tuberculosis in any charitable institution.

Western Provinces.

During last year there were treated in the Medicine Hat Hospital 1,511 patients. The total hospital days were 27,470.

The ratepayers of Weyburn, Sask., have voted $30,000 to complete and equip the hospital.

The College of Physicians and Surgeons of Saskatchewan registered 40 practitioners last year, six of whom had the Dominion qualification.

The administrative building and nurses home of the Vancouver General Hospital has been opened. They cost $250,000.

The University of Alberta has now a bacteriological laboratory, and is going to prepare vaccines. The University has been admitted to affiliation with Oxford.

From Abroad.

A number of leading physicians in Britain have signed an appeal to the Government to follow the lead of Russia and abolish liquor from the rations allotted to soldiers.

Dr. R. A. Bowie, surgeon of the 41st Regiment, Brockville Rifles, who went to England late in December, has been accepted by the military authorities for active service, and will be attached to one of the base hospitals in France. He is a McGill graduate.

Germany has become a vast hospital and the Red Cross emblem has

almost supplanted the national flag. The accommodation for the sick and wounded and medical men and nurses to wait upon these are taxed to the extreme limit.

The Secretary of the War Office intimates that doctors are urgently needed who would join as lieutenants and with excellent chances of promotion. They would acquire in a few months surgical experience of many years and would not be too old at forty. Thirty officers are needed immediately by the Royal Army Medical Corps, 500 men are needed in the Field Ambulance, 150 in the Sanitary Corps from the ages of 19 to 38.

The Harvard Medical School expedition of 17 surgeons, physicians and nurses, who have volunteered for three months' service at the American Ambulance Hospital in France, sailed for Gibraltar aboard the steamer Canopic on March 17th. The members of the party took up their duties in Paris on April 1.

Sir Frederick Treves is authority for the statement that in the British expeditionary forces there have been only 212 cases of typhoid since the war began. Of these cases 173 were among solditrs who had not been inoculated with the anti-typhoid serum, and not one of the 22 deaths from typhoid was in the case of an inoculated man. These remarkable results are, in Sir Frederick Treves' opinion, "positively astonishing," and form a conspicuous part of the "astounding sanitary precautions" taken to guard the health of the army.

The British Red Cross Hospital ship Asturias, which the allies assert was subjected to a submarine attack, is by far the finest hospital ship in the British service. It plies between Havre and Southampton. While surgical operations at sea are generally avoided on hospital ships, unless of a minor kind, the operating theatre of the Asturias is so well equipped that many serious cases are handled there.

Reports of the excellent work which is being done at the Canadian Hospital in France have reached the Government, following inspections of the hospital by Col. Dr. Hodgetts, commissioner of the Canadian Red Cross in London, and by Hon. Phillippe Roy, Canadian Commissioner in Paris. Canada, it will be remembered, gave $100,000 towards the establishment of this hospital, which is situated in Brittany, opposite the historic port of St. Malo.

Nurse Seiler, who went through the Alsace campaign, contracted typhoid fever and died. A national gold medal had been awarded her. She was buried with military honors.

Up to March 1 the Prince of Wales National Relief Fund paid out approximately $7,000,000 for the relief of distress among the families of soldiers and sailors.

Among the recipients of British honors recently announced are, as usual, several physicians. Sir William MacGregor, G.C.M.G., C.B., is appointed to the Privy Council, Surgeon Major-General Eugene Fiset of Canada, is created C.M.G., and the order of knighthood is bestowed on Perceval Aleyn Nairne, Chairman of the Committee of the London School of Tropical Medicine.

On Feb. 6th the total of the New England Belgian relief fund amounted to $197,573.77; the Massachusetts Red Cross fund to $109,723.12; the Boston branch of the American Ambulance Hospital fund to $52,976.45; the Boston Jewish relief fund to $32,011.92; the American St. George fund to $19,892.86; the Boston Polish relief fund to $20,582.77, and the Lithuanian national relief fund to $10,184.24.

On February 12 the total of the New York Belgian relief fund amounted to $918,016.98; the New York Red Cross fund to $457,583.86; the American Jewish relief fund to $458,792.05; the American Ambulance Hospital fund to $325,929.86; and the Committee of Mercy fund to $117,904.42; the French relief fund to $57,522.34, and the American Polish relief fund to $18,741.52.

The Harvard University corporation has set aside $100,000 to aid Belgian professors who have been driven from their land by warfare. Two of the faculty of Louvain University will come to Cambridge at the beginning of the next college year to take charge of courses at Harvard, and they will be paid for their work from this special fund.

Le Caducée, the journal of the French army medical corps, publishes a long list of casualties among the army surgeons, the losses being greater, it says, than in any of the other armies at war. The reason given for this is that the French surgeons never abandon their wounded, and when the main body falls back they are exposed to the enemy's fire or are taken prisoners. There are now 158 French army surgeons imprisoned in Germany.

The National Stomach Hospital, an institution devoted to the investigation and treatment of digestive disorders, was formally opened in Philadelphia on February 9th. The funds for the building were subscribed by persons interested in that branch of medicine. It is situated in Fifteenth Street, near Jefferson.

The late Dr. Isaac Burney Yeo, of London, a well-known writer on medical subjects, left an estate valued at £95,413. He left £5,000 to King's College Hospital Medical School.

On February 16, the new Chicago Municipal Tuberculosis Sanatorium was formally dedicated with appropriate exercises. It already provides accommodation for 650 patients and will eventually accommodate 950. The buildings have been erected at a cost of $2,400,000.

It is announced by the Royal Academy of Medicine at Turin, Italy, that the thirteenth Riberi prize of the value of $4,000 is offered for the best work of medical research presented before Decembr 31, 1916. Further information may be obtained from Dr. V. Oliva, secretary of the Academy.

The Wisconsin State Board of Health in its annual report shows that since the eugenics law went into effect January 1, 1914, the number of marriages in Wisconsin dropped 3,800. In 1913 there were 21,052 marriages and in 1914 only 17,252.

A plan of Drs. William J. and Charles H. Mayo of Rochester, Minn., to establish a $1,000,000 foundation for medical research in connection with the University of Minnesota under certain restrictions has been approved by the faculty of the medical department and it now is under consideration by the University Medical College Advisory Board. The interest of the fund will be used in research work at Rochester by graduates of the university medical department.

OBITUARY

DAVID J. MINCHIN, M.D.

David J. Minchin, for the past thirty years practising physician, died in Berlin, Ontario, February 27th, after a lingering illness of about a year. He was prominently identified with hospital work, being a member of the General Hospital Board since its inception in 1895. He enjoyed a large practice and was beloved by many. He was born in Perth County 57 years ago. He was prominently identified with the Masonic Order, and carried the 32nd degree, Mystic Shriners, and was affiliated with Grand River Lodge, A.F. & A.M.

THOMAS WESLEY MILLS, M.D.

Dr. Thomas Wesley Mills, late Professor of Physiology in McGill University, died at his home at Maida Vale, Eng., on February 18th. He was a licentiate of the Royal College of Physicians in London, and M.A. of Toronto and McGill. He had been Professor in Physiology in McGill University, and was a fellow of the Royal Society of Canada, of which he had twice been president of one of the sections. He was in his 68th year.

WILLIAM BRITTON.

Dr. William Britton, who represented the University of Toronto on the Ontario Medical Council for many years, and in the University was a double gold medalist, died on March 10th at the home of his brother-in-law, Dr. C. F. Moore, 17 Isabella street. The funeral was on March 12th and the pallbearers were: Dr. Alex. McPhedran, Dr. G. A. Bingham, Dr. R. A. Reeve, Dr. N. H. Beemer, Sir Alan Aylesworth, and J. S. Fullerton, K.C. Rev. Dr. Hincks of Trinity Methodist Church officiated. Dr. Britton was in his 63rd year. He retired from practice some time ago on account of ill health, and spent some time in California, hoping to regain his strength.

J. J. KINGSTON.

Dr. J. J. Kingston, a prominent Aylmer physician, died March 12th in his 70th year. He was born in Cobourg.

JAMES MIGHT, M.D.

Dr. James Might died at Port Hope in the end of January. He was in his 84th year, and had practised for many years in that town.

DR. TAMLYN.

Dr. Tamlyn died in Wingham, Ont., in the latter part of December. He was a graduate of Trinity College in 1859. He was in practice in Wingham for 40 years. Dr. W. H. Tamlyn is his son.

AIBERT EDWARD BOLTON, M.D.

Dr. Bolton died on the 26th December in Vancouver. He was a graduate of Queen's University. For many years he conducted a mission at Port Simpson, and for 12 years he was in practice in Victoria and Vancouver. He was 53 years old.

NELSON McGARVIN, M.D.

Dr. McGarvin died in Berlin, Ontario, on Christmas day. He was in his 85th year. He practised at Acton, Georgetown and Markham, and for 24 years in Butte, Montanna. He retired three years ago.

CRAWFORD JOHNSTON, M.D.

Dr. Johnston graduated from the University of Toronto. For some years he was located in Montana and died at Havre in that state.

D. A. DRUMMOND, M.D.

Dr. Drummond of St. Stephen, New Brunswick, died of heart disease on the 1st of January in his 40th year. He practised for some time in Chicago, but latterly was located in St. Stephen, N.B.

C. H. L. JOHNSTON, M.D.

Dr. Johnston was in his 71st year at the time of his death. He was a graduate of Edinburgh University, and had practised in St. John since 1865.

GERALD DEVELL, M.D.

Dr. Devell of Souris, Manitoba, died a short time ago at Millbrook, Ont.

BOOK REVIEWS

THE INTERNAL SECRETIONS. ... ...

An Introduction to the Study of the Endocrine Glands and Internal Secretions, Lane Medical Lectures, 1913. By Sir Edward Schäfer, Regius Professor of Physiology, University of Edinburgh. The Leland Stanford Junior University Publications.

When Professor Schäfer was asked to deliver a series of lectures on the Internal Secretions, much was expected from him. These lectures are now before us in printed form. A careful reading of them shows that they constitute a real and solid advance in our knowledge of the functions of the internal secretory glands. It is a real pleasure to have our views on this subject brought up to date by one so well able to do so. It would be well for all to secure a copy of these lectures and give them the study they deserve.

STUDIES IN NEUROLOGY.

Cornell University Medical Bulletin. Studies from the Department of Neurology. Published by Cornell University, 477 First Avenue, New York City, Vol. iv., No. 2, October, 1914.

This volume contains a series of articles that had appeared in various journals and were reprinted. They are collected and bound together in this volume. The contributors are well known writers on nervous diseases, such as Drs. Dana, Kennedy, Berkeley, Goddard, Connell, Lambert, Leverty, Frink, Fraenkel and Oberndorf. These papers cover a wide range of topics, are well written, and, therefore, constitute a valuable addition to the department of neurology. The University has done wisely in having these papers collected into one volume.

CURATIVE ACTION OF RADIUM.

The Curative Action of Radium. By Sigm. Saubermann, M.D., of Vienna and Berlin. Fifty papes with 35 half-tone illustrations. Published by Radium, Limited, 25 West 45th Street, New York, N.Y.

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

The 35 illustrations contained, are in all probability the first of their kind ever shown in this country, and demonstrate clearly the effects of the rays and emanation of radium.

The booklet will be sent free to our readers on application to the publishers, by mentioning the name of the "*Canada Lancet.*"

As the booklet contains much useful information on this vrey interesting subject, we think our readers would do well to avail themselves of the offer made in this notice.

HARE'S PRACTICE OF MEDICINE.

A Text-book of the Practice of Medicine. For Students and Practitioners. By Hobart Amory Hare, B.Sc., M.D., Professor of Therapeutics, Materia Medica and Diagnosis in the Jefferson Medical College, Philadelphia; Physician to the Jefferson Medical College Hospital; one time Clinical Professor of Diseases of Children in the University of Pennsylvania. Third edition, revised and enlarged. Imperial octavo, 969 pages, with 142 engravings and 16 plates in colors and monochrome. Cloth, $6.00 net. New York and Philadelphia: Lea & Febiger, Publishers, 1915.

Every day usefulness is the dominant characteristic of the new edition of Hare's Practice. A rare faculty for concise expression has

enabled the author to present in one volume of not excessive bulk the essential facts in Practice in a form which renders them peculiarly available for the use of practitioner and student. Moreover conciseness has not entailed loss of literary quality or of fluency in diction.

Dr. Hare's insight into the needs and problems of the man in general practice, and his ability to supply the exact information required, in the form in which it is available for instant use, are elements which give this work a distinctive value.

Pathology, Symptomatology and Diagnosis are given full consideration, but emphasis is laid on Treatment as the final aim in practice, and the therapeutic recommendations are accordingly set forth in detail, with indications for their employment. A comprehensive knowledge of the latest advances of present-day medicine is balanced by a wise conservatism.

The revision, which has been most thoroughly carried out, amounts practically to a rewriting of the book. New sections have been added to include the recent advances in every department of medical science, and each page has been subjected to a most careful scrutiny. The physician who has enjoyed the advantage of using Hare's Practice as a work for daily consultation will appreciate this new edition. To those who have not used it, the book can be recommended as a work of the highest didactic quality, of practical directness, and sustained interest.

The plan of the work is such as to emphasize the usefulness of the material presented. In the consideration of each disease a definition and general discussion is followed by a statement of its distribution and history; etiology; prevention and frequency; pathology and symptoms; complications and sequelae. Diagnosis and prognosis are taken up in order and in full detail, and an exhaustive discussion of treatment follows. A splendid index of 64 pages renders every item of essential information readily accessible.

INTERNATIONAL CLINICS.

A Quarterly of Illustrated Lectures and Especially Prepared Original Articles on Treatment, Medicine, Surgery, Neurology, Paediatrics, Obstetrics, Gynaecology, Orthopaedics, Pathology, Dermatology, Opthalmology, Otology, Rhinology, Laryngology, Hygiene and other Topics of Interest to Students and Practitioners. Edited by Henry W. Cottell, A.M., M.D., Philadelphia, with the collaboration of Chas. H. Mayo, M.D., Rochester; Sir W. Osler, Oxford; A. McPhedran, Toronto, and others. Vol. 1, 25th series, 1915. Philadelphia and London: J. B. Lippincott. Charles Roberts, Montreal, Manager for Canada. $9.00 per year.

This series is so well known that any introduction in the way of review notices would seem to be quite unnecessary. The duties of the reviewer are reduced to those of noting the merits of each voume as they

appear. There are ten articles on Diagnosis and Treatment; four on Medicine; five on Surgery; one on Medical Problems, and one on the Progress of Medicine During 1914. The contributors of these articles are all well known, a fact that adds much to the value of what they have to say. The number of subjects discussed is large and varied. Throughout the volume there are numerous plates and figures, which enhance its value very much. The typography and binding are good. We can recommend this volume.

CYSTOSCOPY AND URETHROSCOPY.

A Work for General Practitioners. By Bransford Lewis, B.S., M.D., F.A.C.S., Professor of Genito-urinary Surgery, Medical Department of St. Louis University, Missouri; Genito-urinary Surgeon to St. John's Hospital; and Ernest G. Mark, A.B., M.D., F.A.C.S., Professor of Genito-urinary and Venereal Diseases in the University Medical College, Kansas City, Missouri; with a chapter by William F. Braasch, M.D., Attending Physician to the Mayo Clinic, Rochester, Minnesota. With 113 illustrations, 23 of which are printed in colors. Philadelphia: P. Blakiston's Son and Company, 1012 Walnut Street. Price, $4.50.

There has been much work done of recent years on this important branch of medical practice that a book on the subject is welcome. The authors have enjoyed unusual opportunities of making themselves familiar with the various conditions and the best methods of treating these. They give a brief resume of the history of the subject. An excellent account is also furnished of the anatomy of the urethra and bladder. The methods of examining by the cystoscope the urethra, the bladder and the ureter are stated in clear terms. There are many very fine illustrations, and the paper and binding are first-class. We can recommend this volume as a most valuable one on this subject. It should be in the hands of all who have occasion to amploy the cystoscope.

CANCER.

Its Cause and Treatment. By L. Duncan Bulkley, A.M., M.D., Senior Physician the New York Skin and Cancer Hospital. 8vo., cloth, 224 pages. Price, $1.50 net, prepaid. New York: Paul B. Hoeber, Medical Publisher, 67-69 East 59th Street.

Cancer has hitherto been regarded almost wholly from its histological and surgical aspects. But relatively little attention has been paid to the dietetic and medical aspects of this most threatening malady, although voices have been raised from time to time, with more or less force, claiming that the basic cause of the disease is constitutional, and that it depends largely on diet and mode of life.

In the present book the author has collected from literature and

analyzed the evidence of the constitutional nature of cancer, and presents his own experience in its dietetic and medical treatment, during the past thirty years, with reports of cases.

As cancer is steadily increasing the world over, with a mortality of fully 90 per cent. of those once affected, and with over 50,000 deaths from this disease in the United States in 1913 (an average of 12 deaths from it daily in New York City), this contribution to the solution of the concer problem is most timely and should be highly welcomed by the profession. The contents are:—Nature of Cancer, Frequency and Geographical Distribution of Cancer, Metabolism of Cancer, Relation of Diet to Cancer, Medical Treatment of Cancer, Clinical Consideration and Conclusions.

The subject, Cancer and Its Treatment, is a very important one. It is very ably handled in this volume and by one who has had much experience. The work is worthy of a very wide distribution and careful study.

NEURASTHENIA AND ITS VICIOUS CIRCLES.

The Vicious Circles of Neurasthenia and their Treatment. By Jamieson B. Hurry, M.A., M.D., Author of "Vicious Circles in Disease." With illustrations. London: J. and A. Churchill, 7 Great Marlborough Street. Price, 3s 6d net.

Those who are familiar with the author's work on the vicious circles in disease will readily expect that the same plan is followed in this book. The author makes use of diagrams and brief statements of a dogmatic character to set forth his views. This is a very interesting volume, and is also very instructive. We have examined its pages and find in it much to praise. In the present book the author emphasizes the various points by appropriate quotations from eniment savants in medicine. By a study of this small volume one can secure a maximum of information with a minimum of labor and expenditure of time. The author must be congratulated on the success he has attained in his graphic method of setting forth diagnosis and treatment. The book will, no doubt, have many readers.

DIFFERENTIAL DIAGNOSIS.

VOLUME II.

Differential Diagnosis. Presented through on Analysis of 317 Cases. By Richard C. Cabot, M.D., Assistant Professor of Clinical Medicine, Harvard Medical School. Octavo of 709 pages, 254 illustrations. Philadelphia and London: W. B. Saunders Company, 1914. Cloth, $5.50; half morocco, $7.00. The J. F. Hartz Co., Ltd., Toronto, sole Canadian agents.

This is the second volume of Dr. Cabot's Differential Diagnosis.

In this volume there are 307 cases studied. The author gives the occupation, the history of the illness, the examination of the patient, the discussion of the case and the diagnosis. This collection of cases are of the utmost importance, and, if carefully studied, will prove of the utmost value in enabling one to perfect his skill in making diagnosis. The author has displayed much ingenuity in the careful preparation of these case reports, so as to combine brevity and clearness. As one reads these case reports the diagnosis gradually emerges, and a satisfaction is felt the science of making such investigations is so well on its way to perfection. This is the method of studynig diagnosis by concrete example. We reviewed the first volume some time ago, and our pleasure is equally great on the present occasion. The book is got up in very fine style.

DIAGNOSTIC AND THERAPEUTIC TECHNIC.

Diagnostic and Therapeutic Technic. A Manual of Practical Procedures Employed in Diagnosis and Treatment. By Albert S. Morrow, M.D., Clinical Professor of Surgery, New York Polyclinic. Second edition, thoroughly revised. Octavo of 834 pages, with 860 illustrations. Philadelphia and London: W. B. Saunders Company, 1915. Cloth, $5.00 net; half morocco, $6.50 net. The J. F. Hartz Co., Ltd., Toronto, sole Canadian agents.

On the field of surgery covered by this book, one could hardly conceive of a better work. The author deals with diagnosis and treatment. By adhering steadily to these two topics he can cover much ground in a work of medium size. While the diagnosis of disease and injury is always interesting and important, we think that most readers will turn with greatest eagerness to the sections on treatment. One after another of the operations of surgery are explained, and such procedures as the administration of salvarsan, antitoxine, etc., and set forth. The author has adopted a very practical style throughout, and we feel that this will commend this edition once more to a wide circle of sympathetic readers. The illustrations are numerous and valuable additions to the text. The publishers have done their share with much thoroughness, and have given the profession a very handsome volume.

INFECTION, IMMUNITY AND SPECIFIC THERAPY.

A Practical Text-book of Infection, Immunity and Specific Therapy, with special Reference to immunologic Technic. By John A. Kolmer, M.D., Dr. P. H., Instructor of Experimental Pathology, University of Pennsylvania; with an introduction by Allen J. Smith, M.D., Professor of Pathology, University of Pennsylvania. Octavo of 899 pages, with 143 original illustrations, 43 in colors. Philadelphia and London: W. B. Saunders Company, 1915. Cloth, $6.00 net; half morocco, $7.50 net. The J. F. Hartz Co., Ltd., Toronto, sole Canadian agents.

This is one of the newer but vastly important departments of medi-

cine. The perusal of such a work as the one before us makes clear how much has been done. In this volume we have discussed General Immunologic Technic, Principles of Infection, Principles of Immunity and Special Immunologic Technic, Applied Immunity in the Prophylaxis, Diagnosis and Treatment of Disease, Specific Therapy, Experimental Infection and Immunity. These are very important subjects and are handled in a very scholarly manner. This branch of medical science is one that is worthy of very close study. It would be entirely impossible to enter into any details in the review of such a large volume as this is, and covering so many subjects of a highly technical and scientific character. One can only recommend the work, and this we do with much confidence. The author and publishers are entitled to much praise.

MISCELLANEOUS

ACADEMY OF MEDICINE, TORONTO—PROCEEDINGS OF THE SECTION OF MEDICINE.

A regular meeting of the Section of Medicine was held on Tuesday evening, February 9, 1915, with Dr. A. R. Gordon in the chair. The programme consisted of a symposium on the value of certain so-called heart stimulants (strychnine, camphor and caffeine). A paper on the pharmacology of the drugs was read by Dr. V. E. Henderson. Dr. F. A. Clarkson spoke on the use of camphor, Dr. F. McPhedran on the use of caffeine, and Dr. R. G. Armour on the use of strychnine. The subsequent discussion was carried on by the following doctors: Alexander McPhedran, Graham, Chambers, J. Hart, A. Primrose, G. A. Bingham, R. A. Reeve, J. Ferguson, H. T. Machell and W. J. Wilson.

Pharmacology:—Dr. Henderson said that strychnine was not a cardiac stimulant in the ordinary sense of the term, as there was no evidence to show that it acted on the heart or blood vessels. It was a drug whose point of attack could be accurately localized, and its action was upon the connecting cells which transmit impulses from the sensory neurones of the central nervous system to the motor neurones. These connecting or transmitting cells are stimulated, so that reflex irritability may be much increased. The respiratory, vaso-motor, and cardio-inhibitory centres in the medulla are composed of these connecting cells and it is through these cells that strychnine has an effect upon the heart. When there is a diminution in irritability of these medullary centres, the use of strychnine may restore them to their normal state.

In describing the pharmacology of camphor Dr. Henderson quoted the experiments of Boehme. In one experiment a frog's heart was slowed down with a solution of chloral, which affects only the rhythm and does not alter the tone, contractility, irritability, or conductivity of the heart muscle. Weak solutions of camphor were then injected into the circulation, and as a result the rate of the heart beat suddenly increased. In certain toxic conditions, which are seen clinically, camphor may restore the rhythm of the heart by acting on it directly. Another observer slowed the heart by stimulating the vagus. It was then found that it took stronger solutions of camphor to raise the rate of the beat. In another experiment, where the heart is exposed and stimulated by an electric current, it is found that the heart shows a fibrillation which in many cases can be relieved by camphor. The two pharmacological indications for the employment of camphor are fibrillation and the slow heart due to chloral, chloroform and toxines.

Caffeine was stated to affect the central nervous system, the heart, and the blood vessels. The most important effects were on the central nervous system. It acted by increasing the irritability of the medullary and cerebral centres and was an important drug if there were a depression of the vagus, vascular, or respiratory centre. In some of the experiments it caused a cardiac slowing with increase in the blood pressure and the rate of respiration. If the heart be removed from the influence of the central nervous system, the action of caffeine is to increase the rate, tone, and contractility of the heart. By such action the output of the heart is increased. If the vagus connections with the heart be left intact there may be an increased output along with slowing of the heart. The action on the skeletal muscles is to increase the irritability, contractility and ability to do work. In the kidneys and splanchnic area caffeine causes a vaso-dilation. In recapitulation caffeine was said to have the greatest action of the three drugs on the cardiac muscle. With camphor it was necessary to have an exact diagnosis of the pathological condition of the disease to be treated. Strychnine had a beneficial effect when the reflex centres in the medulla were depressed.

The use of strychnine:—Dr. R. G. Armour said that, from a clinical standpoint, strychnine had lost some of the popularity which it once had. Its influence on the blood pressure is variable. Cushny has stated that the blood pressure is raised by strychnine, but Dr. Armour's observations wert to the effect that the average therapentic doses of strychnine did not usually alter the blood pressure. The respiratory efficiency is increased and the heart is indirectly influenced by the better oxygenation of the blood. The muscular activity, the appetite and sense of well-being are improved, but this improvement is not necessarily due to a

stimulation of the vast-motor centres or the other centres in the medulla. One effect which Dr. Armour had noted after injections into the temporal region was an increase in the visual field of the eye on the side of the injection. In some conditions 15 or 20 minims of the liquor strychnine hydrochloridi, or 1-5 of a grain of strychnine sulphate had been used by the mouth three times a day.

The Use of Camphor:—This aspect of the symposium was dealt with by Dr. F. A. Clarkson, who said that one has only to read over a list of the properties said to be possessed by camphor to realize how little we actually know of the substance and how empirical is our application of it, in spite of the fact that the drug has been in use for centuries. There was an opinion strongly held by many clinicians that under special circumstances camphor was a valuable heart stimulant. Probably nearly all of us think we have seen some such action. Dr. Clarkson could recall two cases suffering from pneumonia, in which a hypodermic injection of camphor when they were apparently moribund seemed to bring about a rapid restoration to consciousness. Perhaps it was due in these cases to a specific action on the pneumococcus. A number of cases of normal patients to which camphor had been given were cited. In these the blood pressure and pulse were uninfluenced. In other cases suffering from cardiac disease the same results were obtained in regard to the pulse and blood pressure. The conclusion was that although under certain conditions cemphor appears to be a powerful analeptic, there was no experimental or clinical evidence to warrant us in considering it to be a cardiac stimulant. Some of its reputed action was probably due to the ether in which it was often dissolved. It was only fair to add that, although ordinary instruments of precision failed to show any effect of the drug upon the body, it was possible that by stimulating phagocytosis or producing other changes in the organism, camphor might materially aid the patient in his struggle with disease.

The Use of Caffeine:—Dr. Fletcher McPhedran said that in the suit brought by the United States Government against the Cocacola Company a great deal of evidence was obtained as to the value of caffeine. The conclusions, however, were far from being unanimous. No investigator, except one, had found that caffeine in ordinary doses caused any change in the rhythm, rate or strength of the heart. Nor has any effect been described as due to the influence of the drug on the nerves of the heart. The effect on the blood pressure has been much debated. Most of the authorities believe that the pressure first rises, then falls, and then rises a little above the original height. The effect of caffeine is due to a stimulation of the central nervous system. The irritability of the cerebrum and medulla is increased. As far as the medulla is con-

cerned there is a stimulation of the vagus, respiratory, and vaso-motor centres. In addition there is probably a local dilation of the corouary vessels. It is also supposed that the renal vessels are dilated and the flow of urine increased. The type of case that is most likely to be benefited by caffeine is one with a fast irregular pulse, with dyspnoea and cyanosis, and enlargement of the liver. The action of the pure drug is more constant than its salts and can be readily used for hypodermic injection by dissolving it with sodium salicylate. It is well in all cases to give the patient morphine, either with the caffeine or on the appearance of any signs of restlessness or sleeplessness. To sum up, caffeine is occasionally of great value, where digitalis is not indicated or is not effectual, that its main action is in slowing and so strengthening the heart beat by central stimulation of the vagus and by improvement of the respiration; but that in view of its effect in stimulating the higher centres and so making the patient wakeful, it must be used with caution and is often aided by morphine.

Discussion:—Dr. Alexander McPhedran said he had listened to the papers with interest. We were getting more confused in regard to the medicines which are supposed to promote a better circulation. One principle was important to remember and that was the dosage. The dose was the quantity of the drug which was required to produce the therapeutic effect, and to regulate the dose we must consider each patient individually. Strychnine was not a stimulant per se, but will strengthen the heart indirectly by stimulating the nervous system. Lately he had been using large doses of strychnine in cases of pneumonia, accompanied by great prostration. He was not convinced of the value of camphor and would not rely upon it. It was, however, a safe drug to give and to repeat. As regards caffeine, there were no definite proofs of its effect on the heart. The psychic centres were stimulated by caffeine. On account of the action on the nervous system the heart beat more rapidly, but he did not know that it beat any more forcibly.

Dr. Graham chambers said that caffeine and strychnine stimulated the spinal receptive centres and increased the blood pressure by stimulating the vaso-motor centres. Indirectly, therefore, they were cardiac stimulants. Camphor appeared to be useful in cases of bradycardia following pneumonia, but in these cases it was difficult to draw conclusions, as the bradycardia was often only a transitory condition. Dr. Chambers found caffeine and strychnine useful when there was a depression of the vaso-motor centres, due to infectious diseases, such as typhoid, scarlet fever and diphtheria. In cases of pneumonia with low blood pressure he thought caffeine was of more use than strychnine. He also used caffeine to prevent this fall of pressure. If there were no contraindica-

tion he gave caffeine when the blood pressure was 120 mm. or lower. He did not think caffeine caused insomnia in cases of pneumonia, but he usually used small doses of morphine in conjunction with the caffeine.

Dr. Hart said that camphor was of very little use in his experience. He quoted a case of a woman of 20 with empyema, in which he had used strychnine. The pus had ruptured into the lung and was being expectorated. The extremities were cold and he expected the patient to die in a few hours. One-twentieth of a grain of strychnine sulphate was given every four hours during the day and night. When seen next morning the patient was an a much improved condition. He had also seen large doses of strychnine used with a beneficial effect in the depression which followed typhoid fever. The usual dose which he used was from 1-30 to 1-20 of a grain.

Dr. Primrose spoke of post-operative cases. These cases were different from the cases already considered, because they were usually cases of patients with normal hearts and vesels, but in a state of surgical shock. The results were difficult to determine when drugs were used, because individuals had an insuperable tendency to get over shock just as wounds had an insuperable tendency to heal. He used to give strychnine as a routine drug after operations, but does not do so now. He believed strychnine had a cumulative effect. He also said that it caused what was called a strychnine pulse. This pulse was a bounding pulse, which could be detected clinically. The combination of drugs should be considered, and strychnine with digitalis was sometimes of use in shock. The effects of camphor were doubtful.

Dr. Bingham also spoke on post-operative shock. He said there were three varieties of shock. The first form accompanied great hemorrhages and in these cases no drugs except saline injections were of use. In the second form, which followed trauma due to a prolonged and difficult operation, the treatment was preventive. Operations should not be prolonged. In such cases saline injections, caffeine and strychnine were useful. In the third variety, due to toxaemia, which accompanied such conditions as perforation of the appendix with general peritonitis, saline injections, caffeine, strychnine and camphor were of use. Camphor was not of value unless combined with strychnine. Rapidity in performing operations and the administration of morphine before the operations were important factors in the prevention of shock. In the past all the stimulants of the pharmacopoeia had been given for shock.

Dr. Reeve said that there was a class of cases in ophthalmic practice which was benefited by increasing doses of strychnine. These were cases in which there was decreased limitation of the field of vision, pallor of the optic disc, but no actual optic atrophy. Large doses of strychnine were also beneficial in cases of tobacco and alcoholic amblyopia.

Dr. Ferguson said that strychnine was of indirect value in cardiac cases through its action on the nervous system, but must be given in large doses. Caffeine may do more harm to the nervous system than good to the heart, while camphor was practically worthless.

Dr. Machell had found camphor to be valueless. There was a great variation in the physiological effect of strychnine. He quoted the case of a child of 12 years in which 1-48 of a grain of strychnine, given for three doses at six-hour intervals, had caused twitching of the limbs and had made the jaws stiff and uncomfortable.

Dr. W. J. Wilson said that large doses of strychnine were unnecessary in ordinary medical practice. Strychnine did accumulate in the system, and he had never given large doses except in rare instances.

JULIAN LOUDON,
Editor, Section of Medicine, Academy of Medicine, Toronto.

AN APPEAL FOR SERBIA.

Demetrius, Archbishop of Belgrade, has issued an appeal for aid for the unfortunate Serbians, who have suffered so much by the present war. He points out how his people have been ruined, tortured and murdered by the Austrians. All contributions should be addressed to the Royal Serbian Legation, 195 Queen's Gate, London, S.W. Names and addresses of donors should be written plainly in order that a letter of thanks may be sent in return.

TORONTO'S SICKNESS.

Toronto's health for the months of January and February has not been a great deal better than it was a year ago. There was a remarkable drop of from 209 to 8 cases of measles, and scarlet fever showed a big decrease, but mumps doubled, tuberculosis held up, and there were eight cases of spinal meningitis outside those at the Exhibition camp. The figures follow:

	Feb. 1915	Jan. 1915	Feb. 1914
Diphtheria	46	75	87
Scarlet fever	69	85	154
Typhoid fever	6	13	7
Measles	8	21	209
Smallpox	2	11	2
Tuberculosis	52	54	51
Chickenpox	64	117	38
Whooping cough	20	8	22
Mumps	194	172	100
Spinal Meningitis	8	1	0

ONTARIO VITAL STATISTICS.

Eight cases of spinal meningitis, with three deaths, were reported from Toronto to the provincial health authorities during February. The appearance of the disease amongst the troops at the Exhibition contributed more than half the cases reported from all over Ontario, but it is interesting to note that, while but three deaths were recorded out of eight cases in the city, every one of the five cases at outside points resulted fatally. These were at London, Kingston, Port Arthur, Fort William and Georgetown.

Smallpox is still prevalent to a serious extent as compared with a year ago, but the outbreak is now in hand, and the February total shows a reduction of 53 cases compared with January.

Cases and deaths reported during February were:

	1915		1914	
Disease.	Cases.	Deaths.	Cases.	Deaths.
Smallpox	117	0	60	0
Scarlet fever	162	2	410	6
Diphtheria	281	12	216	10
Measles	623	2	427	3
Whooping cough	67	2	63	2
Typhoid fever	106	4	49	10
Tuberculosis	119	64	136	72
Cerebro-spinal meningitis	13	8	7	7
	1,488	94	1,368	110

INFECTIOUS DISEASES IN THE BRITISH ARMY.

The first six months of the war passed without a single case of typhus or of cholera in the British army, including both the expeditionary forces and the troops in the British training camps. Smallpox claimed only one victim in the United Kingdom, but returns in this respect have not been given out by the armies in France and Egypt. Of 783 cases of diphtheria, only six ended fatally. So far the greatest cause of mortality among the troops has been pneumonia, which resulted in 357 deaths out of 1.508 cases.

As regards other diseases, 625 cases of typhoid fever and 49 deaths are reported in the expeditionary force, and 262 cases and 47 deaths in the camps in the United Kingdom. Scarlet fever had only 196 cases and four deaths in the expedition, as against 1,379 cases and 22 deaths in Great Britain. Measles, associated with childhood, sent 1,045 recruits to the English training camp hospitals, with 65 deaths, while the seasoned men on the Continent had only 175 sick from this cause, with two deaths.

Considering that the British army, regular and territorial, began

the war with a half million men, and has since expanded to about 2,500,000, the low death rate is said to have probably established a record.

The report of the Canadians being mowed down by camp sicknesses proved to be unfounded, and the Admiralty now says in regard to a similar rumor affecting the naval division in training at the Crystal palace, that only two per cent. of the 8,000 men are now on the sick report.

SPREADING EXPLOSIVES.

Dr. R. W. Bruce Smith, Toronto, inspector of Prisons and Charities for the Province, has sent out the following warning to all institutions under his control:

"I am authorized to advise you that notification has been received from high authority that agents have been instructed to call on engineers and plumbers at different institutions and factories throughout the Dominion of Canada asking the institution or firm to try a lubricant, of which they will leave a sample in a box. It is reported that this box when opened will explode with great force and do damage to persons and buildings, as instead of a lubricant it contains a very high and powerful explosive.

You will inform your officers, engineers, and staff of this fact, and if such an agent should call at your institution offering such samples you will endeavor to have him detained, and at once notify the police department and this office by telegram or telephone."

DOCTORS GOING TO SERBIA.

A short time ago the Government of Serbia sent to Sir Lomer Gouin, Premier of Quebec, an appeal for medical men and nurses. In reply to this appeal the following have so far volunteered: Albert Paling, Winnipeg; M. J. Casserly, St. Thomas, Ont.; W. J. McAlister, Calgary; A. W. M. Leclair, Letellier, Man.; O. S. Waugh, Winnipeg; D. C. Hart, Kipling, Sask.; Arthur Macann, Birtle, Man.; R. L. Hutton, Rosthern, Sask.; J. Hetherington, Carievale, Sask.; Thomas H. Smith, North Sydney, N.S.; James Peake, Winnipeg; W. A. Dymond, Winnipeg; Alex. Osmanly, Toronto; W. P. Mackasee, Springhill, I.S.; F. H. Bowen, London, Ont.; J. V. Brandon, Winnipeg; L. Zealand, Winnipeg; J. Baxter, Chatham, N.B.; W. B. McVey, St. John, N.B.; G. DeGrys, Abenakis Springs; Alfred Whitemore, Cabri, Sask.; V. Bourgeault, Marcelin, Sask.; P. E. Lavoie, Marcelin, Sask.; C. M. Keiller, London, Ont.; C. E. Duncan, Vernon, B.C.; M. F. Lucas, Dryden, Ont.; J. Murray,

Winnipeg; P. A. Guay, South Shipshaw (near Chicoutimi), Que.; E. E. Rohrabough, Sanford, Man.; B. A. Hopkins, Blaine Lake, Sask.; J. B. Mackay, Kitscoty, Alta.

The following nurses have volunteered: Miss Clara Lonsdale, Edmonton, Alta.; Miss A. A. Ramsay, Halifax, N.S.; Miss Jean Wallace, Winnipeg.

THE HARRISON LAW CONCERNING NARCOTIC DRUGS. WHAT EVERY DOCTOR MUST DO.

Under the Harrison Antinarcotic Law (United States), in effect March 1, 1915, every physician, dentist, veterinarian, and druggist must register with the collector of United States Internal Revenue for the district in which his office is situated before March 1, 1915, paying an annual tax of one dollar and receiving a registry number.

He must prepare before March 5th a sworn inventory of all opium, cocoa, and derivatives, or preparations thereof, which he has on hand on March 1st, and must keep this inventory subject to inspection.

He must purchase from the collector duplicate order blanks on which alone he can obtain the drugs named for his own dispensing, but which are not to be used for prescriptions.

He must give on each prescription his registry number, the date, his full name and address, and that of the patient. Such prescriptions cannot be refilled if they contain more than the stipulated maximum quantity of the drug named.

He must keep a record of any such drugs furnished by him to any one except patients upon whom he is in personal attendance, giving the name of the patient, the date, and the kind and quantity of the drugs so dispensed.

He must not give orders or prescriptions for the drugs named, by telephone.

He must not give instructions to have such prescriptions refilled, but must write a new prescription each time.

He must not furnish such drugs to anyone, except his bona fide and personal patients.

He need not keep any record of doses given or administered to his patients during personal attendance on them.

Exemptions: Government, State, and Municipal officials are exempt while acting in an official capacity.

Employees of registered persons need not be registered.

The penalty for infraction of this law is a fine of not more than $2,000, or imprisonment for not to exceed five years, or both.—*New York Medical Journal.*

RELIEF FOR BELGIAN MEDICAL AND PHARMACUTICAL PROFESSORS.

Amounts not previously acknowledged:—Dr. Fred Montizambert $25, Dr. A. D. McKelvey $10, Dr. Douglas Storms $20, Dr. W. B. Thistle $10, Dr. F. L. M. Grassett $25,, Dr. King and Dr. Green $10, Dr. A. H. Perfect $25, Dr. Fred Winnett $5, Dr. W. J. Clark $5, Dr. W. E. Ferguson $5, Dr. Robin Pearse $5, Dr. McKibbon $5, Dr. Bryans $5, Hamilton Executive Comm. $20, Dr. W. H. Lowry $5, Dr. J. S. Freeborn $10, Dr. C. M. Foster $5, Dr. H. L. Anderson $2, Dr. W. J. Henderson 50 cents, Dr. J. H. Cameron $10, Dr. S. Johnston $10, Dr. R. E. Gaby $5, Dr. A. Taylor $1, Dr. J. E. Elliott $5, Dr. J. H. Peters $5, Dr. H. A. Griffin $5, Dr. P. P. Park $5, Dr. Arthur Wright $5, Dr. Bingham $25, Dr. Shuttleworth $10, Dr. Geo. Young $10, Dr. Warner Jones $5, Dr. P. MacNaughton $10, Dr. J. Webster $10, Dr. A. C. McClenahan $4, Dr. W. M. McKenzie $5, Dr. W. M. English $10, Dr. Geoffrey Boyd $10, Dr. W. L. Bond $5, Dr. J. McAlpine $5, Dr. J. McCulloch $5, Dr. W. T. Rich $5, Dr. W. H. Clarke $5, Dr. George Boyer $5, Dr. Colin Campbell $5, Dr. B. A. Campbell $3, Dr. Alex. Taylor $5, Dr. N. Woods $5, Dr. R. C. Cooper $10, Dr. E. T. McCrae $5, Dr. A. T. Emerson $10, Dr. W. Gunn $10, Dr. J. W. Shaw $5, Dr. E. Weir $5, Dr. Chas. Hair $10, Dr. A. H. Harrington $10, Dr. John L. Davison $50, Dr. J. R. McEwen $5, Medicine Hat Medical Society $50, Dr. Browning $5, Dr. F. J. Burrows $5, Dr. G. M. Aylesworth $5, Dr. Wm. Faul $5, Dr. Donald McKay $5, Dr. J. Robins Arthur $5, Dr. H. C. Scadding $25, Manitoba Exec. Comm, third remittance $200, Dr. F. C. Redmond $49, Dr. Thompson $3.50, Dr. Graham Chambers $15, Dr. Andrew Gordon $10, Dr. J. A. Oille $5, Dr. Yellowlees $5, Dr. Hoig $10, Dr. T. W. McKay $5, Dr. James Moore $5, Dr. T. A. Rundle $5, Dr. R. Young $1, Dr. R. W. Bell $5, Dr. Wm. McCulloch $2, Sudbury Exec. Comm. $35, Dr. A. E. Wickens $5, Dr. A. E. Ardagh $5, Dr. A. R. Harvie $5, Dr. W. G. Gilchrist $5, Dr. W. C. George $5, Dr. J. N. Harvie $5, Dr. J. A. Hocking $5, Dr. James Moore $10, Dr. John Livingston $2, Dr. H. D. Livingstone $2, Dr. W. E. Dingman $5, Dr. A. H. Nicol $5, Dr. John Philp $5, Dr. James Stewart $1, Dr. Oliver Mabee $5, Dr. John Malloch $10, Dr. A. G. Moorhead $5, Dr. Miller $10, Dr. W. C. Ryckman $5, Dr. F. Woodhall $10, Miss Madeline Bell $5, Dr. Hess $5, Dr. W. Stevenson $5, Prof. McPhedran $10, Dr. Calder $2, Dr. Charles Smith $2, Dr. Thomas Bradley $2, Dr. Robert McDonald $2, Dr. W. J. Hicks $2, Dr. M. McDonald $2, Dr. Leslie Aiken $2, Dr. P. McG. Brown $2, Dr. C. L. Taylor $50, Dr. J. James $2, John Kidd $2, Dr. E. M. Copeland instruments, Dr. Wm. Reid instruments, Dr. John Dunfield instruments, Dr. Eccles instruments, Dr. F. Mulligan absorbant

cotton, Mrs. and Miss Adam Webb instruments, Dr. Adam Wright instruments, etc., Dr. Donald Meyers instruments, Dr. R. W. Buckle $2, Dr. W. Marrigan $5, Dr. Kolyman $1; Academy of Medicine, Toronto, Special Committee on Hospital Supplies, Convener Dr. N. A. Powell, instruments. In October last the Societe Medicale de Montreal formed a committee to assist the French and Belgian physicians, and this committee has already collected the sum of $2,600. This may be fairly added to the amount above acknowledged, so that the total subscriptions from the medical profession of Canada to date amounts to $5,974.25.

THE CANADIAN RED CROSS SOCIETY.

March 18, 1915.

The Editor *Canada Lancet,* Toronto:

Dear Sir:—

It may interest your readers to learn something about the war situation so far as typhoid fever is concerned.

Sir Frederick Treves reported a few days ago at a meeting of the Executive Committee of the British Red Cross Society that active measures were being taken by the Anti-Vaccination Society to prevent men from being inoculated against typhoid fever, and that they were sparing no expense in a campaign to induce the men to refuse to be inoculated.

It is well known that in the British Army inoculation against typhoid is voluntary, and this pestiferous society is sparing no money or expense in circulating misleading literature. The consequence is that only 44 per cent. of the men in one regiment who have gone out were protected, and in another only 17 per cent.

Since the war began the total number of cases of typhoid fever in the British Expeditionary Force was only 212. Of this number 201 were not protected, that is to say, 173 had not been inoculated in any way, the remaining 28 had only had one dose, or had not been inoculated for two years, only 11 had been properly inoculated. There has been from the beginning of the war to the present time only 22 deaths from typhoid fever—22 out of 212 and those deaths had all been in non-inoculated men.

Since the war began there had not been a single inoculated man up to date who had died from typhoid fever.

Yours faithfully,

G. STERLING RYERSON.

UNIVERSITY OF TORONTO BASE HOSPITAL.

Both the University and the City of Toronto have given of their best to the new No. 4 University of Toronto Base Hospital, the personnel of which was announced last night, as in addition to the leading lecturers in the medical faculty, the list contains many of the city's most eminent physicians. The list, subject to minor alterations, is as follows:

Administration staff—Lieut.-Col. J. A. Roberts, in command; Dr. W. B. Hendry, second in command; Capt. J. L. Yellowlees.

Surgery—Drs. A. Primrose, W. McKeown, equal rank; Drs. J. Malloch, E. S. Ryerson, G. E. Wilson, R. Baby, F. W. Watts, J. G. Gallie, H. Wookey. Two other doctors remain to be heard from, Drs. F. W. Marlow and B. P. Watson.

Medicine—Dr. A. R. Gordon and Dr. Graham Chambers, equal rank; Drs. D. McGillivray, H. C. Parsons, D. King-Smith, C. S. McVickar, G. F. Boyer, F. R. D. Hewitt, R. G. Armour, J. H. McPhedran.

Nose and Throat—Dr. Gilbert Royce and Dr. W. E. Lowry.

Genito-urinary—Dr. Robin Pearse.

Sanitation—Captain J. A. Amyot.

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

Dental Surgeon—George Gow.

A few more applications are anticipated, and it is possible that a few alterations in the list may also be made.

TORONTO VITAL STATISTICS.

A decided drop in both births and marriages and an increase in deaths features the Toronto vital statistics for February, as compared with those of a year ago for the same month. The figures are:

	Feb. 1915	Jan. 1915	Feb. 1914
Births	1,051	1,019	1,093
Deaths	533	504	446
Marriages	368	398	385

The deaths from contagious diseases during February were: Smallpox, 1; measles, 1; diphtheria, 2; whooping cough, 1; typhoid fever, 1; tuberculosis, 21; spinal meningitis, 3.

SEVENTH PAN-AMERICAN CONGRESS.

The seventh Pan-American Congress will meet in San Francisco June 17th-21st, inclusive. It assembles pursuant to invitation of the

President of the United States, issued in accordance with an act of Congress approved March 3, 1915.

The countries and colonies embraced in the Congress are the Argentine Republic, Bolivia, Brazil, Canada, Columbia, Cuba, Chile, Costa Rica, El Salvador, Ecuador, Guatamala, Honduras, Haiti, Hawaii, Mexico, Martinique, Nicaragua, Panama, Paraguay, Peru, Santo Domingo, United States, Uruguay, Venezuela, British Guiana, Dutch Guiana, French Guiana, Jamaica, Barbadoes, St. Thomas and St. Vincent. The organization of the Congress is perfected in these countries and the majority of them have signified their intention to be represented by duly accredited delegates.

The Congress will meet in seven sections, viz.: (1) Medicine; (2) Surgery; (3) Obstetrics and Gynecology; (4) Anatomy, Physiology, Pathology and Bacteriology; (5) Tropical Medicine and General Sanitation; (6) Laryngology, Rhinology and Otology; (7) Medical Literature.

All members of the organized medical profession of the constituent countries are eligible and are invited to become members. The membership fee is $5.00 and entitles the holder to a complete set of the transactions. Advance registrations are solicited and should be sent with membership fee to the Treasurer, Dr. Henry J. Newman, Timken Building, San Diego, California.

The general railroad rate of one fare for the round trip, good for three months, made on account of the Panama-Pacific Exposition at San Francisco, and the California Exposition at San Diego is available for the Pan-American Medical Congress.

The Palace Hotel will be headquarters.

The first Pan-American Medical Congress was most successfully held in the United States in 1893. Five intervening Congresses have been held in Latin American countries. It now devolves upon the medical profession of the United States to make this, the seventh, the most successful in the series.

Charles A. L. Reed, President, Union Central Building, Cincinnati; Harry M. Sherman, Chairman Committee of Arrangements, 350 Post Street, San Francisco; Ramon Guiteras, Secretary-General, 80 Madison Avenue, New York City; Philip Mills Jones, Special Committee on Hotels, 135 Stockton Street, San Francisco.

HURON COUNTY MEDICAL ASSOCIATION.

At a meeting of the Huron County Medical Association, held in Seaforth on March 10th, 1915, a number of interesting papers were pre-

sented and discussed with much profit and enjoyment to the members present from various parts of the county.

Dr. W. Gunn, of Clinton, gave an excellent account of the results he obtained in four recent cases of practatectomy.

Dr. Rogers, of Brucefield, gave a review of the modern methods of treating lobar pneumonia.

Dr. Michell, of Dublin, described rheumatic tonsillitis and its complications.

Dr. Burrows of Seaforth gave the history of a case of subacute pancreatitis.

At that meeting also the treasurer reported that in response to an appeal for aid to Belgian physicians $120 had been received from the physicians of Huron County, which was duly forwarded to Dr. Wishart of Toronto, treasurer of the fund.

R. C. REDMOND,
Secretary-Treasurer.

MEDICAL PREPARATIONS

THE TREATMENT OF INACCESSIBLE HEMORRHAGE.

Every physician feels the need occasionally of a reliable agent in persistent hemorrhage that is inaccessible to the ordinary modes of treatment. In Coagulose we have a product that meets this want—meets it better, it is believed, than any agent hitherto employed for the control of hemorrhage due to defective coagulation of the blood. Coagulose is prepared in the biological laboratories of Parke, Davis & Co., from normal horse serum. It is a sterile, anhydrous powder, obtained by precipitation. It contains the fibrin ferment necessary for clotting the blood and is soluble in cold water. It is administered hypodermically (subcutaneously).

Coagulose is indicated in all cases of hemorrhage due to defective clotting of the blood, as in purpura, hemorrhage of the new-born, nasal hemorrhage, hemorrhage from gastric or duodenal ulcer, pulmonary hemorrhage, hemorrhage during and after prostatectomy, hemorrhage from the kidney pelvis, hemorrhage from the bladder, uterine hemorrhage and hemorrhage after turbinectomies and tonsillectomies. It is also useful as a local styptic to bleeding surfaces. For this purpose the powder may be applied on a tampon or on sterile gauze or cotton. Coagulose is der, equivalent to ten cubic centimeters of blood serum. A solution is made by the addition of six to eight cubic centimeters of sterile water.

Physicians are advised to write Messrs. Parke, Davis & Co., Walkerville, Ont., for their brochure on Coagulose, which contains the original

article of Drs. Clowes and Busch, of Buffalo, who perfected the product, together with other valuable scientific research matter pertaining to the serum treatment of hemorrhages and blood dyscrasiae.

THE RECOVERY FROM LA GRIPPE.

Since the first appearance upon our shores of that unwelcome infectious disease known as La Grippe, the medical journals have been filled with articles advocating different methods of treating the attack itself and its various complications. But little attention, however, has been paid to the important question of how to best treat the convalescent subject. Among all of the acute infections there is probably none that is as likely to leave the patient quite as thoroughly devitalized and generally prostrated, as does a sharp attack of La Grippe. For some reason the degree of prostration from grippal infection appears to be entirely out of proportion to the severity of the attack itself. This peculiarity renders it advisable and usually necessary to strengthen and support the general vitality of the patient during the period of convalescence. Complete rest, nourishing food, plenty of fresh air and stimulation according to indications are, of course, distinctly important measures. At the same time tonic and hematinic medication should not be neglected. Probably the most generally acceptable and efficient general tonic and hemic reconstituent for such patients is Pepto-Mangan (Gude), a bland, non-irritant and promptly absorbable combination of the organic peptonates of iron and manganese. This efficient blood-builder and reconstructive does not disturb digestion nor induce constipation, and is readily taken by patients of all ages.

INDISPUTABLE AUTHORITATIVE EVIDENCE.

Hayden's Viburnum Compound is compounded from remedies of acknowledged therapeutic value and so acclaimed by the leading therapeutists of this country.

The therapeutic action of the principal ingredients is attested to and so stated in recognized text books upon Materia Medica and Pharmacology.

A recent brochure, "The Reason Why," just issued by the New York Pharmaceutical Company, Bedford Springs, Bedford, Mass., presents, not only those conditions in which Hayden's Viburnum Compound has proven to be of particular service, but also an abstract from leading authorities attesting to the therapeutic activity of its principal component parts.

A card addressed to the above named firm will bring you this booklet.