

# The Canada Lancet

VOL. XLIX. TORONTO, NOVEMBER, 1915 No. 3

---

## EDITORIAL

---

### ARMY SANITATION.

The value of army sanitation has been revealed in this war in a very outstanding way. This is more particularly noticed in the British army operating in France and Flanders. Dr. Bruce, who quite recently returned from Europe, speaks of the work done by Dr. Nasmith in these terms.

"Col. Nasmith, former director of laboratories for Toronto, sent the first report to the British Headquarters on the gases used when the Germans broke through at Langemarck. His opinion has since proved to be correct, and his recommendation the best means for counteracting their effect. His suggestions were immediately adopted by the War Office. The work which Col. Nasmith and his associates are doing at the front is recognized by the British Headquarters as invaluable, and the city of Toronto should be very proud of him."

He has associated with him, Dr. Arthur Ellis, son of Prof. W. H. Ellis, of the University of Toronto, and Dr. Rankin, of Calgary. Both of these have the rank of captain. He has the best equipped laboratory at the front, and has charge of the sanitation for the entire first British army. He was only a few miles away from Ypres when the gas was first used. The gas forced the Turcos to retreat and the Canadians had to fill the gap.

The excellent work that has been accomplished by this corps of laboratory workers is made manifest by the health of the troops, and the absence of such diseases as typhoid and typhus fever, cholera, diarrhæas. Though rats are very plentiful, there have been no cases of the plague. Malaria has also been kept under control, through some of the Canadians were carriers. Dr. Nasmith quickly recognized the gas as chlorine, and urged the use of respirators. Dr. Nasmith is a chemist and bacteriologist.

## THE APPARENT LINE-UP BEFORE THE ONTARIO MEDICAL COMMISSION.

The hearing of the various bodies and persons who wish to appear before the Ontario Medical Commissioner has been in progress for about two weeks. In the first place these bodies or associations presented the facts of their case, and later on contentious points may be argued. The following bodies have arranged to be heard: E. H. Bachus, Aylmer, and J. Bradford, Toronto, Chiropractors' Association; A. H. Holmstead, Christian Scientists; F. S. Mearns, K.C., Ontario College of Pharmacy; Dr. R. A. Reeve, Ontario Medical Association; E. Duval, Hamilton, Chiropractic College of Hamilton; Dr. W. A. Willmott, Ontario Dental College; Dr. Bell, provincial board of health; H. S. Osler, Ontario College of Physicians and Surgeons; J. C. Williams, optometricalists; E. Trowern, opticians' section of the Retail Merchants' Association; Dr. Doxee, chiropractors, Toronto; Dr. R. C. Barkley, London, Canadian College of Mano-Therapy. The universities, the Ontario Medical Association, the Academy of Medicine, and other medical associations have arranged for dates and speakers.

The main contention that has been raised and will be maintained by all the regular medical associations is that all who desire to practise medicine under any name must first pass through a proper medical training. This ground is so sound that it must appeal to all who have to deal with the question in an official way; or who at a later stage may be called upon to put the recommendations of the commissioner into the form of a statute. There should be only one door of entry. Any body wishing to secure the right to practise in any other way lays itself open to the charge of desiring to obtain a privilege at a lower cost in time and money than the one who takes a longer time to his course of studies, and has to expend more money.

---

## THE ACADEMY OF MEDICINE.

The Academy of Medicine has completed its ninth year, and has entered with energy upon the session. The Academy is the outgrowth of the amalgamation of the Toronto Medical Society, the Toronto Clinical Society. The Toronto Pathological Society, and the Ontario Library Association.

The Academy now owns the building on the northeast corner of Queen's Park and Grosvenor Street, and a long lease hold of the ground, on very favourable terms. The building is worth about \$15,000. The location is a charming one with its fine outlook over Queen's Park, and

light on all sides of the building. The site is large, and furnishes ample room for future expansion, by way of new buildings.

The growth in the number of fellows is very gratifying, and affords much encouragement for the future. At the present moment there are fellows; and made up of five honorary fellows whose names are: Dr. W. B. Geikie, Toronto; Sir William Osler, Bart., Oxford; Sir Rickman J. Godlee, Bart., London; Prof. J. B. Leathes, Sheffield, and Dr. J. Algernon Temple, of Toronto. There are five Life Fellows as follows: Dr. Joseph Bascom, Dr. William Oldright, Dr. H. C. Burritt, and Dr. R. A. Stevenson, all of Toronto, and Dr. J. Price Brown, of Cranbrooke Lodge, Norfolk County, Ontario. There are 420 active fellows, and forty-two non-resident fellows. There is one corresponding fellow in the person of Professor H. W. Hill, of St. Paul, Minn.

The work of the academy is carried on in six sections, namely, surgery, medicine, pædiatrics, state medicine, pathology, and one for the three special departments of ophthalmology, laryngology and otology. These meet once a month from October to April inclusive. There is also a regular monthly meeting of the academy at which general matters are discussed, and papers read.

The affairs of the academy are managed by a council of nineteen, namely, the president, the vice-president, the honorary-treasurer, the honorary-secretary, the immediate past-president, the chairman of the six sections, and eight representing the fellows. The custody of the realty, the library and the funds of the academy are vested in three trustees who are chosen annually by the council. The president, vice-president, honorary-secretary, honorary-treasurer, and immediate past president constitute an executive committee. The Library Committee has to do with the purchase of books and journals, the House Committee with the care of the buildings and furniture, while the Programme Committee arranges for the speakers and papers for the meetings.

The library is an important feature of the work of the academy. At the close of last year there were six thousand five hundred and seventy-six volumes, of which no less than four hundred and ninety-eight had been added during the year. Many of those volumes are very rare, going into the bygone centuries. It would be very difficult to place a value on such a collection of books, but one might safely say that it could not be replaced for \$25,000 or \$30,000.

The fees for the year 1914-15 amounted to \$3,882.30. At the close of the year there was \$1,462.88 in the savings account, and in the general account \$505.75. The total expenditures for the year amounted to \$4,684.42. To the income must be added the interest on the funds in

the savings account and from invested funds, amounting to \$409.74. The academy has invested funds to the value of nearly \$8,000.

---

### SOME IRREGULAR FORMS OF PRACTICE DEFINED.

At the present moment when the subject of medical practice is up for discussion, it may be well for all of us to refresh our memories on the important matter of definitions and what the irregular cults in practice set forth as the domain of their operations.

**Charopractic.**—This is derived from two Greek words meaning to do with the hand. It is defined in the International Dictionary as “a system, or the practice, of adjusting the joints, especially of the spine, by hand for the curing of disease.” One can see at a glance how very limited a phase of medical practice this is. It may be laid down as a definite law that the more limited any field of practice is, the more thorough should be the knowledge of diagnosis to enable the practitioner to apply his method correctly. For example: There would be no object in manipulating the spinal column for displacement of the uterus.

**Osteopathy.**—This word is formed by the combination of the two Greek words, *osteon*, bone, and *pathos*, suffering. Osteopathy is defined in the International Dictionary as “a system of treatment based on the theory that diseases are chiefly due to deranged mechanism of the bones, nerves, blood vessels and other tissues, and can be remedied by manipulation of the parts.” Here we have a system that is almost identical with chiropraxy. But just think of remedying an aneurism by manipulation, or abolishing the effects of a tumour of the brain by rubbing the head or rotating the neck! Further, however, it remains to be shown how the “deranged mechanism of the bones, nerves, blood vessels, and other tissues” have come about. This leads to the whole wide field of pathology, and demands a thorough medical training.

**Christian Science.**—The International Dictionary defines this system of practice as a “system of healing disease of mind and body which teaches that all cause and effect is mental, and that sin, sickness and death will be destroyed by a full understanding of the Divine Principle of Jesus’ teaching and healing.” The system was founded in 1866 by Mary Baker Glover Eddy,—the latter three names, and one more that might be mentioned—being taken from her various husbands. Judged in the light of the New Testament there is but little that can be called Christian; and in the face of the Great Book of Nature, as revealed by the researches of many noted scientists; there is nothing that is properly scientific. To permit any such travesty on medical learning, as the Jumble of old Dr. Quimby, revised by Mrs. Eddy, to be palmed off on

suffering humanity by those who shamefully commercialize Christianity and disgrace Science, is nothing short of a crime.

Optometrist, Optometry.—These words are modifications of optometer, which is an instrument for detecting the distance of distinct vision, or the accommodative scope of the eye, and is used mainly for the selection of eye-glasses. The word is derived from the Greek and means a measuring of the eye. In the statutes of the United States optometry is defined as "The employment of subjective and objective mechanical means to determine the accommodative and refractive states of the eye and the scope of its functions in general." Surely this is blind view of ophthalmology. No knowledge here of general diseases and how they may affect the eye. It is not more scientific, and vastly more dangerous, than would be the custom of ignorantly handing out to every lame person a pair of crutches as the be-all and end-all of what medicine and surgery could do for these unfortunates. The immense background of general medicine to the diseases of the eye is of no moment to the optometrist.

---

#### TUBERCULIN TESTS.

From a study of the tuberculin reaction in Colorado children, G. H. Cattermole, Boulder, Colo. (*Journal A. M. A.*, Aug. 28, 1915), concludes that children who are infected with large numbers of tubercle bacilli such as those living in crowded tenements, or in close association with active pulmonary cases anywhere develop a hypersensitiveness which causes a positive tuberculin reaction. It is possible that all children are exposed to infection, and when the number of bacilli is small and the resistance good, as is the case in Colorado, they do not react, are not infected or are immune. In the patients observed by him in Colorado, where nearly every family contains some tuberculous member, and the children are thus abundantly exposed, he believes that many of them have become immune, but this will require further study for actual proof. Possibly from three-sevenths to six-sevenths of the population acquire immunity to tuberculosis in childhood while the others succumb to the more acute conditions of childhood or later show the chronic pulmonary type of adults, which he believes never occurs except in those who have been affected and rendered partially immune in childhood. In the prevention of tuberculosis we should endeavor to protect infants from all exposure and other children from massive infection. Moderate and gradual infection in older children probably insures immunity. Animal experiments as well as clinical observations by Cattermole would seem to indicate this.

## ORIGINAL CONTRIBUTIONS

## THE MEDICAL PROFESSION AND THE WAR.—THE CANCER PROBLEM.\*

BY DR. W. H. B. AIKINS.

AT a time like the present when such momentous events are happening day by day on the continent of Europe, and the destinies of the nations of the world are trembling in the balance, most of us find it extremely difficult to concentrate our minds on any subject which is not directly or indirectly connected with the war. This is not to be wondered at when we consider that it is by far the most terrible conflict recorded in history, the result of which will influence the future course of events throughout the whole of the civilized world. The state of things in Europe has been recently very vividly brought home to us in Canada, owing to the fact that so many of us have already lost those near and dear to us on the battlefield or in that great tragedy of the sea, the sinking of the "Lusitainia," but we rejoice to know that our soldiers have worthily upheld the traditions of our race, and that this country has reason to be proud of her sons.

In no previous war has the medical profession, not only of the British Islands, but also of the overseas Dominions, played such an important part, and there was everywhere a prompt response to the demand of the army for civilian surgeons to supplement the work of those belonging to the service. Many of the senior students in the various medical schools also volunteered for employment as dressers.

As you all know the response from those of our profession in Toronto has been most gratifying. The Army Medical Service of the First Contingent took many of the Fellows, and with the subsequent Contingents, Clearing Hospital and University of Toronto Base Hospital, there has been an increasing depletion of our ranks. Sixty-one Fellows of the Academy of Medicine are now on active service. The medical student body of Toronto University has not been behind in their response to the call. Of the undergraduates in medicine, six officers and eighty-eight men have gone, while there are 252 men serving from the graduate body of the Faculty of Medicine.

You will remember that very soon after the beginning of the war the Fellows of the Academy of Medicine, pledged themselves as a patriotic duty to undertake without charge the professional care of the needy dependents of any men serving with the allied armies during the war

---

\* President's Address: Academy of Medicine, Toronto, 5th October, 1915.

now going on; and you have this evening listened to the report of the Patriotic Relief Committee, and can realize how well and truly that pledge has been implemented by the Fellows of the Academy. From the report of the Hospital Supplies Committee you have also learned how very active the Fellows have been in this matter.

From all parts of the country came offers from private individuals of accommodation for invalid soldiers and sailors, and of large country houses to be used as convalescent homes for the sick and wounded. Australia, New Zealand, South Africa, India, and our own Dominion of Canada, has given splendid and magnificent assistance in hospital equipment and personnel, and in the sermon preached by the Archbishop of Canterbury at St. Paul's Cathedral on August 4th, the Anniversary of the declaration of war, he says that "the temper of the whole of the British Empire has been worthily reflected by medicine. A firm resolution to endure to the end and a hope for the victory of the right are displayed in the hearty co-operation between or citizens in all parts of the world in the medical conduct of the war." The United States has also done much to help in the treatment of our wounded soldiers, and has made generous contributions in the shape of hospital equipment and personnel.

The war can scarcely fail to have a more or less arresting effect upon medical progress in some directions, in view of the fact that in all the countries concerned so many men engaged in medical investigation and research have, at any rate for the time being, been called away from their work. The interruption to the exchange of scientific data is also a serious obstacle to progress. Many medical meetings which were to have been held during the present year have been postponed. The next International Medical Congress which was arranged to meet in Munich in 1917, has suspended the work of organization, and in the *Deutsche Medizinische Wochenschrift* there is an editorial to the effect that it is probable that the feelings of hatred excited by the war will not have died out by that time, so that it would be difficult to welcome representatives of the countries now fighting Germany with any degree of cordiality. In fact Germany seems to be preparing for isolation from the external medical world, and it is announced that the German scientists have commenced a campaign against all medical words of English, French and Russian origin, and that a committee is to be formed for the purpose of framing a purely German medical nomenclature.

This isolation from the rest of the world may not be an unmixed evil if the opinion expressed by Dr. Greely in the *Boston Medical and Surgical Journal* of September 10th, 1914, is correct, namely, that in Germany the scientific side of medicine is over-developed, whilst the human side is greatly neglected.

The sublime ignorance of the facts in regard to the origin of the war shown in the extraordinary manifesto issued towards the end of last year by the German intellectuals, including such names as the late Prof. Ehrlich, some of the assertions in which are in direct opposition to the statements contained in the German White Book, cannot fail to discredit German science. Can we ever trust the German scientists again?

Soon after the beginning of the war we began to realize how dependent we were upon Germany for the supply of certain drugs, in the manufacture of which she had acquired a monopoly. These included a large number of extremely valuable drugs, which had displaced many of the older remedies, such as the whole range of synthetic drugs, analgesics, antipyretics, alkaloids, salicylates and potash salts. The fact that Germany possessed a monopoly in the manufacture of aniline dyes has caused a very considerable inconvenience. The manufacture of many of these products has originated in Britain, but had afterwards been applied by German manufacturers. One of the chief difficulties in manufacturing them ourselves was that hitherto Germany had had an exclusive supply of the raw material required. There has since been considerable progress in the manufacture of the products formerly supplied by Germany, but there are still many difficulties to overcome before this industry is established on a satisfactory basis.

It is sometimes asked if war offers any compensations for the harm it undoubtedly does in hindering the advance of science? Much has already been learnt in regard to the proper treatment of septic wounds, and as to efficacy of inoculation in the prevention of the diseases which have in previous wars caused more deaths than the actual battles themselves. The vigorous efforts taken in Serbia by the British and American doctors have been so successful that typhus, relapsing fever, cholera and smallpox are now almost stamped out, and so far the health of our troops in France, in England and at home has been extraordinarily good.

At the end of the first year of the war it may be said that the value of the medical work in the Army cannot be too highly estimated, and the practical absence of epidemic disease and efficient sanitary organization has meant a gain of innumerable lives to the allied armies. The heroism of the troops in battle has been equalled by that shown in the hospitals, and the wounded have been attended with courage, assiduity and success, often under the most trying circumstances. Very warm tributes have been paid to the courage and professional efficacy of the Medical Corps by the highest military and political authorities. They all agree that the medical men have rendered most heroic services, and that their courage and devotion is beyond all praise.



I quote the following paragraph from the "Daily Mail", which appeared soon after the battle of Neuve Chapelle: "A bright page in the story of British heroism in the battle of Neuve Chapelle is the conduct of the doctors. As always they distinguished themselves by their fearlessness under fire and their gallantry. Their losses were heavy for they exposed themselves without thought of danger."

Amongst the results of the war which are of special interest to us in Ontario is the establishment of medical reciprocity between Ontario and Great Britain. This became necessary on account of the necessity for those holding the license of the College of Physicians and Surgeons of Ontario to go with the Canadian Contingents to Great Britain and France, and therefore to work under the War Office. The Council of the College passed the enabling legislation in December last, the Lieutenant-Governor subsequently giving the Royal Assent. In *The Lancet* of September 4th, a notice appears from the Registrar-General of the Council of Medical Education and Registration of the United Kingdom containing the following paragraph: "That any person holding the licence or membership of the College of Physicians and Surgeons of Ontario, granted after examination in Medicine, Surgery and Midwifery, together with a licence to practise in that province, shall be entitled to register in the Colonial list of the Medical Register, providing he satisfied the Registrar regarding the other particulars set forth in Part II. of the Medical Act, 1886. Degrees in Medicine granted by the Queen's University, the Western University and the University of Toronto may so be registered as additional titles provided they are registered in Ontario."

It has been assumed by some that this war is likely to result in an enormous amount of more or less permanent nervous and mental suffering and incapacitation amongst the soldiers, but although there is no doubt that a certain number of them became unnerved by the horrors of the battle-field, time has shown that a large proportion of these recover after rest and suitable treatment. In an address recently given by Lord Bryce he states that the effect of the fighting on thousands of our men has been to sober them, to stir their deepest thoughts, and inspire them with an urgent desire for a more idealistic basis of living, and he holds that the spectacles of millions of men abandoning home, family, ambition and money, and laying down life for a principle is so glorious as to transfigure the pictures of mangled bodies and human beings gasping in the dark struggle against death. He believes that one of the eventual results of the war will be the great decrease in the amount of mental instability, and that people will return to a simpler life, partly from choice and partly from necessity.

Another fact of importance which we may here mention is that

neurasthenia and other neurotic conditions are apparently becoming less common, in spite of the anxiety and strain resulting from the war. This is not difficult to understand, as the experience of most people who have been accustomed to the treatment of nervous conditions indicates that it is not so much the great tragedies of life which are apt to upset the equilibrium of the nervous system but small daily worries persisting for long periods of time, and above all, lack of occupation and interest in life.

This war is certainly affecting the Fellows from a pecuniary point of view in that many people who have been accustomed to employ physicians and pay the ordinary fees can no longer afford to do so. The extent to which the war has affected the medical profession in this respect varies in individual cases, but there certainly seems to be no doubt that consultants and specialists are suffering more than the general practitioners, who in a few cases are benefiting more or less, due to so many of their colleagues having taken up military work of some kind.

Now as to the progress of the Academy since the last regular meeting was held, I may say, that twenty-seven new men have been elected so that counting in the sixty-one who are at present overseas the total number of resident Fellows is 404, Non-Resident Fellows 42, Life Fellows 5 and Honorary Fellows 4, making a total of 455. Ten additional names will be submitted at the next council meeting for election, and it is our earnest hope before the close of this Academy year the total fellowship may come up to the 500 mark by the addition of a number of very able men in Toronto who have signified their desire to join with us.

#### THE CANCER PROBLEM.

Until comparatively recently it was believed that cancer occurred only in human beings, but the researches which have been carried out have demonstrated the fallacy of the opinion, and it now appears to be definitely established that both benign and malignant growths may develop in any multicellular organism. In the Report of the Imperial Cancer Research Fund Bashford and Murray state that the results of their investigations indicate that all the histological types of cancer have been recognized both in domesticated and wild animals, although in the latter it is comparatively rare. As regards the domestic animals, it is most common in dogs, but it has also been observed in horses, cows, donkeys and cats, and in a few isolated cases has been observed in pigs, sheep and goats. In domestic birds such as hens and geese, it is fairly common, and the same applies to fish, more especially when they are artificially bred. It is much more rare in wild animals and birds, although there is evidence to show that they are by no means exempt from it.

As regards man, there is no doubt that it is one of the most terrible diseases which afflict the human race, and that it is responsible for a very large proportion of the deaths from disease in general. Whilst it is unwise to over-estimate the value of statistics, there is no doubt whatever that the endeavours which have been made during the last few years to obtain more accurate statistics in regard to cancer and its mortality have given most valuable information in regard to its geographical distribution. the comparative frequency with which it affects the different organs of the body, and the apparent influence of various occupations on its incidence. The results of these researches indicate that the view which formerly prevailed that cancer affected only civilized races, and that those living under primitive conditions of life and in certain climates were exempt from it, has no foundation in fact, and that it is prevalent to a varying extent amongst all races of the world and in all climates.

As regards the mortality of the disease, a study of the English statistics shows an alarming increase in the fatalities from it during the last few decades. In 1840 the reports show that one person in 5,646 of the total population of the country died from malignant disease; there was one death from it in every 129 deaths recorded, and there were 117 deaths due to cancer per million of the population. On comparing these figures with those for the year 1906 we find that one person in 1,131 of the total population died from malignant disease; that there was one death from it in every seventeen deaths recorded, and that there were 885 deaths due to cancer per million of the population.

On the Continent of America we also see a corresponding increase in the death rate from cancer. In New York the death rate from malignant disease in 1913 was 82 per 100,000 of the total population, whereas from the previous five years the average was 79 per 100,000, in Boston it was 118 per 100,000 as compared with an average for the previous five years of 110 per 100,000; in Pittsburg 79 per 100,000, as compared with 70 per 100,000 for the previous five years; in Baltimore 105 per 100,000 as compared with 94 per 100,000 for the previous five years; in Chicago 86 per 100,000 as compared with 81 per 100,000 for the previous five years; in Philadelphia 95 per 100,000 as compared with 88 per 100,000 for the previous five years; and in St. Louis 95 per 100,000 as compared with an average of 85 per 100,000 for the previous five years. The mortality statistics for the whole of the United States give in 1900 a death rate from cancer of 63 per 100,000 of the total population, in 1904 of 70.2 per 100,000, in 1909 of 73.8 per 100,000, and in 1912 of 77 per 100,000.

As regards Canada we find that in our own Province of Ontario

the annual death rate from cancer has increased from 1,253 in 1904 to 1,806 in 1913. This last figure is a fraction above four times as many as those from typhoid fever in the same year, and very nearly as many as those from pulmonary tuberculosis, which claimed 1,955 victims in 1913.

Werner, who has made an investigation of the vital statistics of Baden, states that during the last twenty-five years the yearly number of deaths from cancer has increased by about one-third in this part of Germany. Bertillon, who has made a similar investigation in regard to France and most of the other countries of Europe, states that it has been doubled in frequency during the last thirty years.

These figures are certainly alarming, and it is therefore not to be wondered at that a considerable amount of attention has recently been devoted to the problem of the most effectual means of diminishing the incidence and mortality of cancer. At the same time it should be borne in mind that there are certain factors which tend to modify this increase in mortality, and indeed some writers go so far as to say that in their opinion it is only apparent and not real. These modifying factors include the imperfections in the systems of vital statistics which are employed in different countries, and the recent improvements in methods of diagnosis of cancer and other diseases, which renders it probable that an accurate diagnosis is made of malignant disease much more frequently than was formerly the case. Further, it is a generally recognized fact that cancer is more apt to develop in people over forty years of age than in younger individuals, and as the average duration of life has increased, it follows that a larger proportion of people now live to attain this age. But even when due allowance is made for scientific progress and the changes in modern conditions of life there seems to be no doubt that the mortality from cancer is steadily increasing, and that if this increase cannot be checked its ravages in the future will be terrible to contemplate.

The problem of cancer is therefore one of vital importance to humanity in general, both from the point of view from prevention and treatment. Societies have been formed in practically all civilized countries in the world with the object of carrying out scientific investigations to determine its aetiology, but so far although the hypotheses advanced in this connection have been manifold, very little light has been thrown on it. The quest for its causative agent is analogous to that which was persevered in for so many years without result in the case of tuberculosis, and was at length rewarded by the discovery of the tubercule bacillus. We still remain more or less in the dark with regard to cancer, but there is no doubt that some day in the near or distant future this problem,

which is now occupying the attention of so many of our greatest scientists, will also be solved.

Contrary to many popular ideas, the investigations of the Imperial Cancer Research Fund have shown that cancer is prevalent amongst both civilized and uncivilized people, amongst all races of mankind and in all climates. It has often been assumed that certain countries, such as India, China and Japan, are comparatively immune to malignant disease, but the results of recent researches indicate that it is by no means so rare in these countries as has generally been supposed. Indeed the Japanese statistics for the four years from 1899 to 1903 give the average death from it as 0.49 per 1,000, which is higher than that of some of the European countries. Warner and Bertillon have published some interesting statistics with regard to the geographical distribution of cancer. Werner found that its prevalence appeared to be independent of climate, geological or similar conditions, and that areas in which it was very common and comparatively rare were frequently situated close to one another. In some instances it was rare in districts in which the proportion of the inhabitants over fifty years of age was small, and common in those in which there was a comparatively large proportion of individuals of advanced age. Bertillon found that it was much more common in the north than in the south of France, and that in the area of greatest mortality from this disease, which is situated around Paris, the mortality from it is from three to four times as great as in other parts of the country. The statistics of deaths from carcinoma in other European countries shows that the mortality from it in the Mediterranean countries in the year 1906 to 1907 was less than half that in the others. While it is probable that some definite peculiarities are at the basis of the difference in the geographical distribution of cancer, they have so far not been discovered.

I do not propose here to discuss the many theories which have been advanced from time to time to account for the origin of cancer, none of which affords a satisfactory explanation of the nature of malignant disease. The fact, however, that we are up to the present ignorant of its actual cause does not prevent our attacking the problem from the standpoint of prevention and cure. The researches which have been carried out have definitely shown that there are certain predisposing causes, the most important of which is chronic irritation of various kinds, dependent upon mechanical, physical, thermal, chemical or other irritants. In some exceptional cases which have been reported the irritation has not been chronic, but has been the result of a single trauma. In addition to local predisposing causes there appear to be certain constitutional peculiarities, which lower the resistance of the organism to this particu-

lar disease. Experimental work in mice and other animals has shown definite constitutional susceptibility to cancer, both of the natural and acquired type. People who follow certain occupations are also shown to be especially liable to the development of malignant disease. The fact that we now know that such predisposing cause are influential in setting up cancer indicates that desirability of keeping a careful watch for them, and more especially of removing all sources of chronic irritation, where it exists, and of all benign growths which are being subjected to irritation.

There seems therefore to be no doubt that chronic irritation sometimes of long duration followed by what may be termed a precancerous condition, does in a very large proportion of cases precede the development of cancer. This is most clearly seen in cancer of the skin and mucous membranes, a very striking instance being the development of cancer of the tongue on the basis of leucoplakia. Von Brunn was able to determine previous chronic irritation in 328 of 368 cases of superficial cancer which came under his observation. Lesions of the skin from which cancer may develop include warts, certain varieties of pigmented moles, chronic ulcers, sinuses and old scars from burns. With regard to the internal organs the connection between chronic irritation and cancer is not so easily demonstrated, and there is considerable difference of opinion as to the influence in this connection of ulcer of the stomach, gall stones and urinary calculi.

As has already been said, the increased incidence of cancer affects mainly the higher age periods, and that in the majority of cases it develops in individuals over forty years of age. It is said that after the age of forty, one woman of every seven and one man of every eleven, dies from cancer. The age of the patient is therefore of importance in making a diagnosis of malignant disease, and symptoms, which in people of an earlier age, may possibly be of slight significance, increase in importance as age advances. For example, vague and indefinite symptoms of gastric distress in a man of forty-five should not be ascribed to mere functional derangement without the most careful and thorough examination, with a view to excluding organic disease. Cancer below the age of thirty-five is rare, but it has been met with exceptionally in much younger individuals.

It is a well known fact that certain organs of the body are more liable to develop cancer than others, this predisposition of definite tissues varying according to sex. Thus in men the following are attacked in order of frequency: stomach, liver and gall-bladder, rectum, intestines, oesophagus, tongue, jaw, mouth, lip and breast. In women the order of frequency is as follows: uterus, breast, stomach, liver and gall-bladder, intestines, rectum, oesophagus, bladder and urethra, face, tongue,

jaw, mouth and lip. Cancer of the uterus and that of the female breast form by far the largest percentage of all cancers. The increase in the incidences of cancer as a whole, however, during recent years applies chiefly to cancer of the stomach and rectum, whilst that of the female genital organs has remained practically stationary, and is even said by some writers to be diminishing in frequency.

The investigations which have been carried out do not indicate that environment has much influence upon the incidence of cancer. The one exception to this general rule is that in certain occupations there appears to be a tendency of special parts of the body to the development of precancerous or cancerous conditions, owing to exposure to chronic irritation. This applies especially to workers in coal tar, soot, petroleum and aniline dyes. The returns of the Registrar-General for England and Wales show that the greatest mortality from cancer occurs in chimney-sweeps.

It is therefore beyond all doubt that malignant disease is on the increase. What is then the duty of the medical profession? Scores of workers are seeking the etiology of cancer. Others are devoting themselves to the discovery of some sure method of diagnosing the disease early enough to make our present treatment more potent. Still another band of scientists is searching out new remedies and methods of treatment, or improvements of those we already have. Till one or all of these groups are successful, the great body of the medical profession must be content *first*, to educate the public as to the early symptoms of the disease, so that the patient will present himself to the physician while the growth is removeable; and, *second*, to use every known means to diagnose carcinoma when these patients come to him.

We must look forward to the time, not far distant, when the laity are going to take as active a part in the campaign against cancer as they now do in the treatment and prevention of tuberculosis. I trust that when the public do become fully aroused to the dangers of this disease, the medical profession may be in a position to lead them up to the sanctuary of cure.

---

#### TREATMENT OF HYPOCHLORHYDRIA.

L. Pron, in *Revue de thérapeutique médico-chirurgicale* for July 15, 1914, states that in the treatment of hypochlorhydria of recent advent, unaccompanied by pain, all drugs tending to increase gastric secretion and motility may be employed, whether they are such as exert a chemical digestive action or not. Nux vomica, gentian, quassia, calumba, conduranga, pilocarpine, ipecac, and cinchona are all suitable. Sodium persulphate is a very active remedy, to be employed not over a week, as it may induce pain where the gastric mucosa is sensitive.

## THE MEDICAL COMMISSION.

BY JOHN FERGUSON, M.A., M.D., Toronto.

AT the opening of the new General Hospital, the late Sir James Whitney, then Premier of Ontario, made the announcement that it was his intention to appoint a commission to enquire into and report upon the various groups of persons who practised, or desired to practise, medicine in some form. This commission was to be vested with power to take evidence from every possible medical or pretended medical sect.

During the past few years the Legislature has been set upon almost every session by some one or other of these bodies for the purpose of securing special Acts to enable them to practise some feature or limited field of general medicine. There are, for example, the optometrists, who wish to treat the eyes, without taking a course in medicine; there are the Christian Scientists, who say there is no such thing as disease or pain in their system, and who can treat and cure all manner of ailments, all of which are delusions, through the mind; there are the chiropractors, who regard the teachings about infections as the vaporings of fools, and who can cure everything from a mole on the face down to an ingrowing toe-nail by replacing some nerve in the neck, that in some mysterious and ill-behaved way strayed from its proper place; then there are the osteopaths, who can do such wonders by the way they can twist and pull this strange body of ours until it has learned how to do its work properly. Pleurisy, neuralgia, a stiff knee, eczema, and so forth, come under the domain of osteopathy—the *pathy* of the *bones*. How marvellous all this seems!

Well, to try to adjust all this, and secure a measure of order out of this state of chaos, or rather brazen impudence based on the grossest ignorance, the Government has appointed Mr. Justice F. E. Hodgins, or the Supreme Court of Ontario, to take evidence from such bodies as may wish to be heard. The report of the commission will, no doubt, be made the basis of important new medical legislation. The terms of the commission issued to Mr. Hodgins are in the following words:

“To enquire into and report upon all or any matters relating to education for the practice of medicine in or affecting the Province of Ontario; the constitution, powers, duties and regulations of any body corporate or unincorporated and of any faculty or department thereof having any relation to medicine, the exercise of the same and the revenue



and expenditures thereof; the situation, legal or otherwise, of such bodies in regard to each other or to the Province; the establishment, creation, control and regulation of any new body intended to have relation to medicine; the existing or possible methods of examining, licensing or otherwise authorizing the carrying on by individuals of the practice of any methods having any relation to medicine and the standards prescribed and followed or proper to be established and followed; the present positions, status and practice of osteopaths, dentists, nurses, opticians, optometrists, chiropractors, Christian Scientists or others practising or professing medicine; the existing laws of Ontario in relation to any of the foregoing and their practical operation; any matter arising out of the foregoing which it is necessary to investigate with a view of the above inquiries."

Now is the time for the medical profession to show a united front. It must now place before the commissioner, and, through him, to the Legislature and people of Ontario, its preëminent claims to be regarded as *the* medical profession. There must be no division and no weakening. It must take the high stand, which fortunately is the true stand as well, that the medical profession of this Province has ever stood for the good of the people. It has led in the fight for preventive medicine, founded on the solid ground of scientific investigation. The truest friends the people have are the members of the medical profession, and no class of the community give so freely of their skill and time as do medical men. In all the charities and in very many homes of this Province, they are daily caring for the poor.

For fifty years, in the face of much opposition from the people themselves who were to be benefited, the medical profession has fought for higher standards of education, which meant greater efficiency; and the sick and injured are the persons who must profit by this. It would be a crying crime if the Ontario Legislature should now formulate any legislation that would undo in the least this good work; or, in any degree weaken the pillars that now support the medical edifice erected through so much toil and anxious care. The responsibility resting upon the shoulders of Mr. Justice Hodgins is truly great. The eyes of the educated are focussed upon him, and the welfare of the future lies now squarely across his path. The sacred claims of humanity demand that every phase of medical practice and medical education be weighed and studied with the utmost thoroughness. Duty demands this much. Wordsworth saw it when he said:

Stern duty, daughter of the voice of God!

O duty! if that name thou love,

Who art a light to guide, a rod

To check the erring and reprove.

The report of the commissioner must be the stern voice of duty, it

must be a light to guide in the securing of proper legislation, and it must be a rod to check the erring, or all such as would attempt to diagnose and treat disease without first, by long and ardent study, becoming acquainted with the best methods of searching out disease in its many hiding-places, and of applying "the proper balm to raise the sufferer from his bed of pain." The people cannot be trusted; for they are quite ready to call in the most ignorant empiric, where the most skilled would find the greatest difficulty in mastering the problem. The law must provide a thoroughly trained *healer*, so that whether the patient seeks the advice of a regular practitioner, or an osteopath, or a chiropractor, he will have the guarantee of the law that each of these had to conform to a high standard of medical education; and we contend that the standard for all should be the same.

It would be an impossibility to make a skilful ophthalmologist by giving him a medical education on the eye alone. That education might be thorough on the anatomy and physiology of the organ. It might cover all the details of the surgical procedures pertaining to the eye. It might go into the medical treatment of its diseases. It might discuss learnedly all about refraction. The whole system would go limping along, and ever stumbling into the most serious of pitfalls, to the disaster of the patient, because of the lack of the guiding light of a general education in medicine. How much more, therefore, does not this apply to chiropraxy, osteopathy and all such partial, broken, disjointed, distorted and fragmentary attempts at learning and practising medicine. These are but the little systems that "have their day and cease to be." Stripped of all idle and vain claims, chiropraxy and osteopathy are but methods of hand treatment, are only forms of manipulation, rubbing, pulling and friction. In some form they have been before the world from the earliest times and in more recent decades have been known under such names as bonesetters, and the Swedish movement cure, and so on. In the name of all that is sacred to science and the good of humanity, surely the day has not now come, when there is to be a lowering of our ideals; when Athena and Artemis must close their eyes with a shudder on what has been done to wisdom and the care of the sick; and when Apollo shall no longer see the sun at his zenith, but as he hastens to his setting, permitting the gloomy shades of night to spread over his beloved Delos.

Just as certain as any compromise with evil leads to disaster in the life of the individual and the nation, so must any compromise in the case of sound learning and science. Osteopaths and chiropractors have nothing to offer the public. They have added nothing to the sum of medical knowledge; and they seek a short cut into a limited amount of medical knowledge in order that they may practise a subsection of therapeutics,

without learning when that subsection would be useful, or might do harm. If these sort of practitioners are going to apply their method to the treatment of disease, and do this apart from the help of a regular medical practitioner, then the law must see to it that he be compelled to take such a course of training as will enable him to know when he may safely apply his method of manipulation and rubbing. The nurse cares for the patient under the direction of the doctor; but if she wishes to direct her own care of the patient and do her own prescribing, then she must qualify as a medical practitioner. Can there then be two opinions as to what the chiropractor should be compelled to do? If he is going to take it upon himself to tell his patient that a certain nerve has slipped out of its place, and that he can by certain delicate passes of his hands replace the said nerve, he should be given to understand that such feats in diagnosis and treatment may only be entrusted to those who have secured the diploma of the Medical Council, which guarantees a certain degree of learning that all should possess. Similarly as to the osteopath. Up to the present he is only a sort of masseur, and should come under the strictest regulations that if he is going to rub people and charge for it, as a means, not of mere massage, but for the treatment of disease, he must be able to detect disease, and do his massage, etc., in such a way as not to do harm. Just think of a certain osteopath who for months rubbed the head of a young woman who was the victim of dementia præcox, and is now in an asylum! A little learning would have avoided and prevented such an exhibition as this. It might have been that this worthy osteopath had in mind the ironical words of Prior:

From ignorance our comfort flows;  
The only wretched are the wise.

But we prefer to apply to him the scathing words of Shakespeare:

Man, proud man,  
Dressed in a little brief authority,  
Most ignorant of what he's most assured,  
His glassy essence, like an angry ape,  
Plays such fantastic tricks before high heaven  
As make the angels weep.

Yes, when our osteopath was hard at work rubbing the head of the poor victim of dementia, some angle perchance wept!

Has the plea made been fully argued? No! The Legislature of this Province, and the people of this Province, have expended vast sums of money on colleges, universities, hospitals and asylums for the promotion of medical science and the proper care of the sick and injured. Quite recently the Ontario Legislature has inaugurated an extensive system of preventive medicine. Generous individuals have been given money for the purpose of encouraging research. These are onward steps that came as the result of long years of toiling and sowing. Dur-

ing these years the medical profession has been gradually raising public opinion, and been steadily erecting a wall around the health of the people that might be looked upon as safeguarding it against the assaults of those who sought all sorts of short cuts to the making of gain out of the sufferings of their fellow man, and preying upon their credulity. Has the time come when we are to witness the fulfilment of the words of Longfellow :

For in the night, unseen, a single warrior,  
In sombre harness mailed,  
Dreaded of man, and surnamed the Destroyer,  
The rampart wall had sealed.

Let us strive that no breach shall be made in our medical educational system, and see to it that the day is not yet when "The Destroyer," under whatever name, "the rampart wall shall scale."

The most sacred duty of the state is to protect the individual members thereof. There are many walks in life that are so clear and self-evident, that but little guidance is required, and but little care need be expected by way of legislation. As we ascend, however, in the scientific achievements the relationship of the state to the individual is completely changed. But little legislation is required to direct the day's journey by means of the ox and cart; but, on the other hand, very careful legislation is demanded to regulate ocean traffic. So, when one comes to medical science, one of the most complicated of all sciences, and founded on vast inductions, the people are no longer able to judge for themselves, and the Legislature must see to it that all who would attempt to apply the principles of medicine to the healing of disease must be properly trained. The lawmaker who does not go this far is recreant to his duty—is a traitor to the safety of the people. The people are not capable of deciding whether they should call in an osteopath, a chiropractor, or a regular physician, and especially if all these are permitted to use the title "doctor." The one remedy is to make all take the same training, and thereafter be free to assume any name they choose for their school or sect.

Nor should the osteopaths or chiropractors object to this. They wish to treat the sick, and they wish to charge fees for their services. They should not object to be compelled to understand disease; and the people have the right that when they pay their fees they receive intelligent treatment. But no law can be framed by the skill of the ablest of men that will accomplish these results if any one is allowed to practise a part of medicine without first knowing the whole. Who among us could properly administer digitalis until he had first learned the physiology and pathology of the heart? Who could conduct a surgical practice without a knowledge of anatomy, hygiene, antiseptics, etc.? Who

could safely manipulate and rub a knee joint unless he first knew whether it was chronic rheumatism or tuberculosis? Nowhere in all the range of human experience is the saying truer than in medicine that "a little learning is a dangerous thing." Let us be great in this, and

God grant that we may never fail  
From craven fear of being great.

A word or two about the Christian Scientists. We have nothing to say against them as a religious denomination. This aspect may be left to the other denominations. What we may say has to do with their views on disease and its treatment. Disease, they tell us, is a delusion of mortal mind, and if one can only get his mind into a proper frame there is no disease. So it comes about that suggestion can cure all ailments. True, this suggestion comes along the lines of Christian faith. This is a very one-sided view. We are not saying a word against the resort of the Christian to prayer and the sustaining influence he may derive from his faith. We do condemn this being lowered to the base level of a mercenary system, and used as a means of blinding the eyes of the people against the great advances that medical science has made in the treatment of disease.

No drugs are given. For this let us be truly thankful. People who hold that the poison in the belladonna plant is there because we think it is there would not be safe persons to order the use of atropine. But a child is walking along the roadside and eats some of the leaves of the belladonna plant and is poisoned. The child knew nothing of the belladonna or the views of the Christian Scientist, nevertheless it is poisoned. But some ailments may be treated without drugs and some cannot. Syphilis cannot be treated without the proper remedies. No amount of suggestion would help the little cretin child. Here we must fall back on the preparations of the thyroid gland. All who hold the views on disease and therapeutics, held by the Christian Scientists, should be prohibited the right to treat the sick.

Centuries of strenuous effort look down upon the medical profession. It has become great in its long search after truth for the good of man. It holds no secrets and has no proprietary rights. What it has discovered, it has ever freely given out to the world. The science of medicine stands to-day unrivalled as the greatest of all the benefactors of the human race. Step by step it has won its way; and one by one it has made nature yield up her hidden mysteries. Medical science has fought against superstition, has fought for the rights of man, and has done it all with the olive branch of peace in her hand, and with the white-winged dove of mercy perched on her banner. There may be some who would say that it is now necessary, however, to meet the claims of the irregular schools to a certain extent. Earl Chatham, in

one of his great speeches, said that "necessity is the argument of tyrants, it is the creed of slaves." The medical profession is a slave to nothing but its own high ideals. It cares not how many enter its ranks so be it that they enter in the regular way. As Othello demanded long ago, it "sets down naught in malice, and naught extenuates." If it seeks to maintain a high standard it is not from a desire to keep others out, but that those who do enter shall prove worthy disciples of Æsculapius, and prove the truth of the lines:

A wise physician, skilled our wounds to heal,  
Is more than armies to the public weal.

In the struggle that is now on there is a contest between two ideals. One set of persons, dominated by the ideal of a high standard of education, have brought medicine to where it is to-day. The other set, or rather sets, seek to abridge that course of study, seek to qualify for certain aspects of practice in some easier way. This would be most retrograde. In this struggle let there be no compromise. If certain privileges are to be granted, let them be granted against the protest of the medical profession. A glorious defeat is better than an inglorious peace. But with firm adherence to our principles there will not and cannot be defeat. What we have we shall hold, but only in trust for the people. In the history of the medical profession of Ontario may the words of Lowell come true:

Once to every man and nation comes the moment to decide,  
In the strife of truth with falsehood, for the good or evil side,  
Then it is the brave man chooses, while the coward turns aside.

Every medical practitioner throughout Ontario must now do his full duty. He best knows what he can do and where he can place his influence. What all desire is good legislation, but this cannot be secured without an effort, "for the eagle of victory perches high." Every stage of the legislation dealing with medical affairs must be watched and fought to the last day of the third reading. Many years ago I heard an eminent statesman in this country address a meeting and the burden of his message to his followers was "organize, organize, organize." Every district should at once organize. The whole case should be submitted in the clearest manner to the member representing each district. Every medical man must become a trained archer, driving home the arrows of sound knowledge from the bow-strings of truth. Line up behind the various medical associations. If this is done with promptitude and vigor after the fight is over we will be able to exclaim in the words of Lord Bardolph:

O, such a day,  
So fought, so followed, and so fairly won,  
Came not till now, to dignify the times,  
Since Caesar's fortunes.

## CURRENT MEDICAL LITERATURE

---

### BLOOD UREA IN RENAL CONDITIONS.

Dr. A. J. Underhill, of Baltimore, in an exhaustive article on this subject in the *New York Medical Journal* for 25th September draws the following conclusions from his studies:—

1. Retention of urea is positive evidence of kidney incapacity.
2. The functional capacity of a large proportion of the kidney substance may be impaired without retention of blood urea.
3. As long as what remains is sufficient for the physiological needs of the body, under normal conditions retention does not result.
4. Retention is evidence of overwork on the part of the remaining functioning kidney cells.
5. In many instances the diet can be so regulated that the impaired kidney cells work well within their capacity.
6. The destruction of tissue protein with an impaired kidney capacity may lead to urea retention, as much so as the ingestion of too much nitrogenous food.
7. Diuretics and an active eliminative treatment are contraindicated when there is retention.
8. It is the most practical method of following the course of a patient with impaired kidneys.
9. It is more useful than the color or other tests in that it is an index to the actual conditions of the patient.
10. It can be used as a guide to the treatment of patients with impaired kidney capacity in preparation for operation.
12. A blood urea above one gram to the litre contraindicates operation.
11. A blood urea above 0.6 gram to the litre is an indication for caution before operation, when this is contemplated.
12. A blood urea above one grain to the litre contraindicates operation.

---

### TREATMENT OF DIARRHEA IN THE TUBERCULOUS.

A. Robin, in a recent issue of *Quinzaine thérapeutique*, is credited with the following combination for use in cases of persistent diarrhea in the tuberculous, where the diet imposed is responsible for the condition:

- ℞ Bismuthi subnitrat̄is . . . . . ʒss (2 grams)  
Tincturæ opii camphoratāe . . . . . ʒss (2 c. c.)

M. Sig.: To be taken in a glassful of water before each meal.

Where persistent diarrhea is due to actual functional disorder of the alimentary tract, the following powders are recommended:

- ℞ Bismuthi subnitrat̄is . . . . . ʒss (2 grams)  
Magnesii oxid̄i . . . . . ʒiiss (6 grams)  
Sodii bicarbonatis . . . . . ʒii (8 grams)  
Calcii carbonatis præcipitati . . . . . ʒss (16 grams)  
Sacchari . . . . . ʒss (16 grams)

M. ft. pulv. No. xxiv.

Sig.: One powder after each meal.

Whenever abdominal discomfort begins, the following powder may be taken:

- ℞ Bismuthi subnitrat̄is . . . . . gr. xv (1 gram)  
Magnesii oxid̄i . . . . . gr. xv (1 gram)  
Sacchari . . . . . gr. xxiii (1.5 grams)

M. ft. pulv. No. i.

In the diarrhea of true tuberculous enteritis, Robin administers one of the following combinations:

#### I.

- ℞ Sodii bicarbonatis . . . . . ʒss (2 grams)  
Zinci oxid̄i . . . . . gr. xlv (3 grams)

M. Sig.: To be taken daily in two doses, in a little water.

#### II.

- ℞ Hydrargyri chloridi mitis . . . . . gr.  $\frac{3}{4}$  (0.05 gram)  
Extracti opii . . . . . gr.  $\frac{3}{4}$  (0.05 grams)  
Iperacuanhæ pulveris . . . . . gr. iv (0.25 grams)

Divide in pilulas No. x.

Sig.: One pill every hour.

In addition, enemata of starch and opium may advantageously be employed, and the abdomen painted with tincture of iodine and covered with a firm supporting dressing.—*New York Med. Jour.*

### ENDOCARDITIS.

J. A. Oille, D. Graham and H. K. Detweiler, Toronto, Ont. (*Journal A. M. A.*, Oct. 2, 1915), report the results obtained in the heart clinic at the Toronto General Hospital with the use of Rosenow's method of blood culture. They have found a nonhemolytic streptococcus, usually, though not always, producing green on blood agar in twenty-six cases of endocarditis investigated. The first twenty-three cases are especially noted as representing a class of very mild endocarditis cases, from which it is thought that positive blood cultures had not hitherto been obtained. The last three are added for comparison as they conform to the variety, commonly called in the literature "subacute bacterial



endocarditis." Only in a small percentage of suspected cases could these cultures be made, owing to the lack of time and depletion of the staff on account of the war. The case reports are given in detail in the paper after the discussion and their general conclusions are summed up as follows: A. A streptococcus bacteriemia is present in the great majority of cases of active endocarditis and probably in all in some stage of the disease. 2. Endocarditis more commonly follows tonsillitis in children and young adult females than is generally believed. Possibly this accounts for the frequency of mitral stenosis in females. 3. This low grade streptococic endocarditis is much more common than the so-called rheumatic endocarditis. 4. A large number of persons showing symptoms of the neurasthenic type are really suffering from a subacute streptococic endocarditis. 5. Endocarditis may be active for considerable periods of time without symptoms. 6. A family incidence of tonsillitis and endocarditis (also appendicitis, gastric ulcer and other diseases which are often of streptococic origin) is of frequent occurrence. 7. The pulmonary systolic murmurs so frequently found in "run-down" and anemic individuals are rarely functional. On the other hand they usually indicate mitral regurgitation."

---

#### CANCER OF THE CERVIX.

S. M. D. Clark, New Orleans (*Journal A. M. A.*, Oct. 2, 1915), says that until Percy experimentally proved that cancer cells would be destroyed when exposed to a temperature of 113 F. for twenty minutes while normal tissues lived in a temperature as high as 131.9 F. the application of heat could not be established on an intelligent basis. Percy worked out a method of applying heat to cervical cancer on a more elaborate scale than had been possible before, and thus marked a brilliant epoch in the cancer problem. It does not seem to Clark, however, that it is a method to be used alone, but rather as a valuable adjunct, and he gives his experience with a procedure involving extensive ligation of the arteries, cutting off the uterus from any blood supply except through one ovarian artery, thus retarding the growth in combination with the heat application. He divides cervical cancer into four groups: 1. Incipient cases, ulceration not extending beyond the cervix and no constitutional disturbance. 2. Growth extending to vaginal walls and bleeding copious, the uterus still movable, but there is secondary anemia and the patient is constitutionally below par. 3. There is either a crater or a large cauliflower mass in the vaginal vault, and the vaginal wall is involved at least an inch from the cervix. Mobility is decidedly impaired, there is pain in the side and marked cachexia and anemia.

The fourth group is hopelessly advanced with metastases and general cachexia and anemia. The summary of his paper is as follows: "1. The heat method alone has doubtful curative properties, and should be viewed in the light of a valuable adjunct in the treatment of cervical carcinoma. However, in extremely obese women, it offers the best and only chance for a permanent cure. 2. Heat should be used as a routine in all types of cervical carcinoma, except in hopelessly advanced cases (Group 4). 3. The ligation of both internal iliacs and one ovarian possesses definite merit, and when combined with heat, furnishes the best means of converting the borderline cases into frankly operable ones. 4. It cannot be too strongly emphasized that the combined application of heat and ligation of the vessels, on the one hand, and total extirpation, on the other, in all except clearly operable cases, should be done as a two-stage operation. 5. In the combination of heat with starvation, we have a valuable means of markedly increasing the operability and of decreasing the primary mortality of radical extirpation. 6. Heat combined with extensive arterial ligation, followed by radical hysterectomy, offers the greatest possibilities for permanent cure."

#### TOTAL ARMY CASUALTIES.

In reply to Mr. Hogge, who asked for the total number of casualties for the first complete year of the war, and whether means had been taken to announce further casualties at regular intervals, Mr. Tennant said: The practice which has been indicated as desirable in regard to statements of total casualties has been to give them from time to time when the exigencies of the military situation permit, and not at regular intervals. There are still objections to making periodical announcements of the aggregate casualties; and my noble friend considers it desirable that discretion should be reserved to the Government as to when such statements may be made. Subject to the above remark, I may inform the House that the total casualties for the first year of the war—that is, up to August 21st—are as follows:

	Officers.	Other ranks.
Killed, died of wounds, etc. ....	4,965	70,992
Wounded .....	9,973	241,086
Missing .....	1,501	53,466
	<hr/>	<hr/>
	16,439	365,544
Total .....	381,983	

—*British Medical Journal.*

## TREATMENT OF OTORRHEA.

G. Laurens, in a recent issue of *Paris médical*, recommends that in simple otorrhea, the external meatus be filled with hydrogen dioxide solution, which is to be allowed to remain two minutes. This procedure should be repeated two or three times, both morning and evening. The meatus should then be well dried with cotton on an applicator and the following solution instilled:

℞ Acidi picrici ..... gr. xv (1 gram)  
 Aquæ ..... ʒvi (25 grams)  
 Ft. solutio. —*N. Y. Medical Journal.*

## THE HEART MUSCLE IN PNEUMONIA.

L. H. Newburgh and W. T. Porter, combat the widely held opinion that the heart muscle is seriously injured in pneumonia and that heart failure from this source is a frequent cause of death in this affection (*Journ. of Exper. Med.*, August, 1915). The experiments performed by them show that the cardiac ventricle from dogs that have died healthy dogs, provided the pneumonic muscle is fed with normal blood. When a normal ventricle is fed with pneumonic blood the contractions are much impaired. If, however, the ventricle from a pneumonic dog is fed with pneumonic blood, the contractions are almost normal in extent and may be normal in duration. Thus, in pneumonia the heart muscle is essentially normal, whereas the pneumonic blood is distinctly poisonous to heart muscle suddenly fed with it. In the body, during the gradual course of the disease, the blood is progressively affected and the heart muscle gradually adjusts itself to the poison with striking success. The authors' experiments consisted of four series of ten dogs each. In the first series the normal ventricle was fed with normal blood; in the second the pneumonic ventricle was fed with normal blood; in the third the normal ventricle was fed with pneumonic blood; in the fourth the pneumonic ventricle was fed with pneumonic blood. The organism employed was the *Bacillus pneumoniae* (Friedländer). The method of administering the culture to dogs is described, and a table is given which shows the average duration of contraction and the total weights of the contraction areas in the four series of ten dogs each. (The conclusions reached by the authors from this experimental study are on all-fours with the clinical finding of Mdlle. Cottin (*Rev. méd. de la Suisse Romande*, May, 1915) that the adoption of the sitting position for four hours a day benefits pneumonic patients, especially those in whom the pulse and cardiac state appear to be very feeble.)—*British Medical Jour.*

## SERUM THERAPY IN CEREBROSPINAL MENINGITIS.

P. Menetrier and A. Pascano, in *Bulletin De L'Acadennie De Medicine* state that there is need to adapt carefully the serum used to the variety of causal pathogenic organism in each case. That such adaptation can be effected even without differentiation of the organism present by bacteriological methods—often unavailable—was shown in a case reported by the authors. The patient was a child of fifteen months, in whom symptoms of cerebrospinal meningitis appeared and whose cerebrospinal fluid, obtained by lumbar puncture, contained numerous cocci presenting the morphological features and staining reactions of meningococci. An intraspinal injection of twenty c. c. of a mixture in equal parts of antimeningococcic serum and antiparameningococcic serum was given, with slight benefit. After a second injection of the same mixed serum, two injections of antimeningococcic serum alone were given, with resulting distinct aggravation, the benefit from the preceding injections being lost. Three injections of twenty c. c. of antiparameningococcic serum alone were then administered, with the result that on the day succeeding the first treatment, the temperature dropped to normal. The fluid withdrawn at the second and third injections was found clear, free from diplococci, and with the cells for the most part lymphocytes. The child forthwith recovered. It is held, therefore, that a proper treatment of meningitis may be applied even in the absence of a polyvalent serum. The use of large doses is also deemed important. —*N. Y. Med. Jour.*

---

## NEW TESTS OF DEATH.

It is quite natural that the subject of the speedy and accurate diagnosis of death should receive increasing interest in those countries in which the business of killing seems to have supplanted all other forms of human activity. Three methods of determining the cessation of life are discussed in *La Clinica Medica Italiana*, 1915, No. 3. The first of these is the ether test. A drop of ether is instilled into the conjunctival sac of one eye. If this is followed by a reddening of the conjunctiva it affords proof that the circulation is intact and that life is still present. The other eye is used as a control. The second test has recently been proposed by Icard. It consists in the subcutaneous injection of fluorescin, which, if the individual is still living, is soon followed by a yellowish coloring of the skin and mucosa. The conjunctiva and the mucous membrane of the mouth, and particularly of the frenum of the tongue, show this coloration most distinctly. The test consists in the injection of

8 to 10 c.c. of a solution of 20 grams of fluorescein and 30 grams of sodium carbonate in 100 grams of distilled water. A negative result is obtained in cases of marked slowing or enfeeblement of the circulation, as during the agonal condition. The third test has recently been proposed by Halluin. It consists in direct exploration of the heart by means of a stilette. This is introduced through a small incision in one of the intercostal spaces. Any movement in the heart is communicated to the stilette. In some instances of suspended animation it is possible to arouse cardiac activity by means of gentle movements of the stilette, combined with artificial respiration.—*Medical Record*.

---

#### NOVOCAIN IN EPIDIDYMITIS.

Asch (*Amer. Journ. Surg.*, June, 1915) reports good results from the injection of novocain in acute gonorrhoeal epididymitis; 6 c.cm. of a sterile 1 per cent. solution of novocain were injected directly into the epididymis with an ordinary hypodermic syringe with a very fine needle. The fluid was evenly distributed throughout the inflamed area by reinserting the needle in different parts without withdrawing it through the skin. One injection of 6 c.cm. was usually sufficient, but in some cases two were given. Pain ceased directly, and the temperature became normal in forty-eight hours. The swelling subsided in two or three weeks. The author claims that this method is painless, and can be carried out without confining the patient to bed.—*Brit. Med. Jour.*

---

#### TREATMENT OF HYPERCHLORHYDRIA.

L. Pron, in *Revue de thérapeutique médico-chirurgicale* for July 15, 1914, states that to decongest the gastric mucous membrane, especially in cases with a rheumatic tendency, the following combination is ordered:

##### I.

℞ Tincturæ iodi ..... ʒss (15 grams)  
 Mentholis ..... gr. xv (1 gram)  
 Solve.

##### II.

℞ Chloroformi ..... ʒiii (15 grams)  
 Iodi ..... gr. xv (1 gram)  
 Solve.

Where paroxysms of pain between meals, with or without vomiting, are severe and do not yield to the antacid combination, recourse may be had to hot local applications and codeine.—*N. Y. Med. Jour.*

## CLINICAL VALUE OF SUBCUTANEOUS INJECTIONS OF OXYGEN GAS.

Mendel, in *Presse médicale* for July 4, 1914, is credited with the assertion that subcutaneous injection constitutes the most effective method of administering oxygen gas. Upon inhalation no very considerable amount of the gas is absorbed, and even the inspiratory efforts required for this purpose are often a burden to dyspneic patients. Subcutaneous oxygen injections are indicated, first of all, in mechanical anoxemia, due to physical conditions obstructing respiration. Thus, in a case of nasal obstruction associated with asthmatic paroxysms, the latter ceased as soon as injections of oxygen were given. Under the term dyscrasic anoxemia may be grouped a number of conditions also indicating oxygen injections, viz., poisoning by illuminating or coal gas, anemia, and in particular, toxemias due to impaired cardiac and renal functioning in cases of arteriosclerosis and high blood pressure. Finally, in pulmonary tuberculosis, which may belong at once to both of the preceding groups, the results obtained from oxygen injections are, according to Mendel, very striking. Delaunay treated successfully a case of syncope due to chloroform, and Loevy a case of asphyxia due to embolism, by the measure referred to. There are no contraindications to the procedure, and the injections are painless.—*N. Y. Med. Jour.*

---

## THE FUNCTION OF THE PINEAL BODY.

Until very recently the pineal body has been considered as a more or less interesting vestigial remnant of a third eye and devoid of any importance whatever. The latest interest of the medical profession, however, the study of the internal secretions or of the endocrine glands, or, as one active cultivator of this field would have it, hemadenology, has become so popular and has rewarded investigators with so many new and marvellous facts that the attempt has been made to include the pineal among those glands. Positive evidence has been lacking. A few cases showed precocious sexual development and, at autopsy, tumor of the pineal, but these findings were not regular, for only a small percentage of the cases of tumor of the pineal showed similar clinical pictures. The inaccessibility of the pineal body has up to this time offered complete obstruction to the experimental study of its physiology. Dandy, however, has devised an operation (*Jour. Exper. Med.*, 1915, xxii, 237) in which he approaches it through the corpus callosum. This procedure is accompanied by very small mortality, so that he was able to study the effects of the removal of the body in puppies. He removed the

pineal body from a number of puppies and followed the animals for varying periods of time, the longest being fifteen months. In all of his animals he was able to find no evidence of sexual precocity or indolence, no emaciation or adiposity, no somatic or mental precocity or retardation. His conclusion is that "the pineal is apparently not essential to life and seems to have no influence upon the animal's well-being." He used a sufficient number of animals and an adequate number of controls so that there appears to be no reason why his results should not be accepted. It is a relief to find that there is one structure which is not possessed of a mysterious power for good and evil in the economy, and we can therefore dismiss it definitely from consideration as an endocrine organ.—*Medical Record*.

---

### POLLEN THERAPY IN HAYFEVER.

BY J. L. GOODALE, M.D., Boston, Mass.

Methods of gathering and preserving plant pollens are discussed. A fourteen per cent. solution of alcohol was found to preserve the pollen for several months. When hay fever patients receive an application of the exciting pollen to a scratch of the skin, a definite reaction occurs, consisting of edema, hyperemia and itching. The application of this test enables us to determine the special causative plants for each case. The intensity of these skin manifestations may be sensibly diminished by the repeated parenteral administration of the proteids in question. Coincident with the diminution in skin reaction there seems to occur an increased tolerance of the exposed mucous membrane to the pollens of the plants employed. Pollen therapy in hay fever may be regarded at the present time as a promising method of treatment, but its value and the permanence of its results remain still to be definitely established.

Serebiologic methods have shown the phylogenetic relationship of the different plant orders and families. The application of these discoveries to the treatment of hay fever by injection of plant proteids promises to assist in the selection of the specific material required for a given case.

#### DISCUSSION ON PAPERS OF DR. CHAPPELL AND DR. GOODALE.

Dr. Burt R. Shurley, Detroit: I have been extremely interested in the working out of the question of sensitization to the pollens or ragweed and goldenrod, which are the only pollens I have been able to secure. The whole question of anaphylaxis and sensitization has been explained by Vaughan, of Ann Arbor, by the splitting of the proteids

and the elaboration of toxins, ptomaine and leucomains. His theory is very rational. He has shown that egg white will kill a guinea pig in a short time. A toxic dose after the ninth day is fatal.

A number of Dr. Goodale's observations I have been able to confirm as I have worked along. If the dosage is run too high the depression is great, resulting, perhaps, from the exhilaration of the toxin.

One laboratory has turned out, from the clinical standpoint, practically all the pollen toxins which can be used in hay fever. Fifteen doses, in ascending scale, may be found in the market. The clinical value of this I do not know, but it is claimed that fifty per cent. of hay fever patients are absolutely protected during the hay fever season.

Dr. Emil Mayer, New York City: The question of standardization is very important. Standard solutions, not stock solutions, should be employed. Standardization can be done and must be done, just as is the case with the pharmacopeia, in which a fluid extract represents so many grains. For this reason I resent the rushing in of a chemical firm and the presenting of a stock pollen. The work presented to-day is very gratifying.

Dr. Harmon Smith, New York City: The first patient mentioned by Dr. Chappell was a patient of mine, suffering from what I thought was eczema of the external ear, of uric acid origin. Since he was under my care he went to Dr. Chappell. He was a large man, of fine physical stature, weighing over one hundred and eighty pounds, and not at all neurotic. When I saw him he had a large welt on the arm, extending around about two-thirds of the arm. He was very sick, giving every evidence of great physical depression. The doctor mentioned in this paper I also knew very well. His reaction from the strawberry I am sure was produced absolutely by the protein in the fruit.

Dr. Max A. Goldstein, St. Louis: These reports convince us that we have been working in the dark for the last few years. Animal protends, vegetable proteids, and the whole series and ramifications of protend substances and their anaphylactic reactions, will have to be reduced to a system before any practical clinical work will be accomplished in hay fever. Standardization is necessary for practical purposes. Unless we can reach a more definite and limited basis we will never see the end of this tremendous field.

I have in mind the wife of a physician, an internist of unusual spoonful of a solution of one part of this salt in 150 parts of water may be given half an hour before meals. Magnesium chloride is a useful remedy, exciting both gastric and intestinal contractility and relieving constipation:



## ACANTHOSIS NIGRICANS.

Attention is called by A. J. Markley, Denver (*Journal A. M. A.*, Sept. 11, 1915), to acanthosis nigricans as an indication of internal malignancy, which is of more importance, he considers, than the rarity and striking character of the disease. Two distinct forms of the disease are recognized, the adult or malignant, characterized by some internal disorder, and the short duration, intensity and wide spread of the skin symptoms, and the juvenile, or benign type, in which the symptoms are less marked and after a short time become stationary. The mode of onset is sometimes an intense itching and pigmentation of the face and neck, but more commonly the first symptom has been an eruption of common warts over the back of the hands and the forearms. The development is usually rapid, and the growths vary from small hard warts to large soft masses in the axilla or groin, and long filiform projections on the tongue. The palms and soles may be involved in a diffuse horny thickening; the nails and hair show nutritional changes. The pigmentation is important and conspicuous and varies from a dirty gray to various shades of brown to black. The development of warty and condylomatous masses on the lips and in the mouth causes great discomfort and distress, but with the exception of itching there are no subjective sensations complained of. The juvenile form may persist indefinitely without untoward results, but the other form is usually terminated in a few months or one or two years by the associated malignant process. The percentage of malignancy is about 80 as given in statistics, but it probably is higher rather than lower. The internal organs affected are, in their order of frequency: the alimentary tract, the uterus, the breasts, and in one instance recently reported, the lung. Markley reports a case and discusses the theory of its etiology, laying stress on the probable malignant associations. The disease should be promptly reorganized on this account.

## ENZYMATIC ADAPTATIONS.

In 1912 Ugo Lombroso published the results of a series of experiments in which he showed that no changes in the enzymatic content of the pancreatic juice can be detected after meals rich in fats, carbohydrates, or proteins. In other words, he could not confirm the observations made by Pavlov and his associates that after such meals the pancreatic ferments corresponding to the various nutrients undergo a notable increase in amount. Lombroso reports the results of his further investigations along this line in *Lo Sperimentale*, July 14, 1915. He

finds that the normal defibrinated blood of the ox or dog has no hydrolyzing power when brought into contact with saccharose in vitro, but if either of the above animals has previously been treated with intravenous injections of saccharose, a slight inverting action in their blood serum can be demonstrated. The pancreatic secretion has no hydrolyzing action on saccharose, but acquires it to a slight degree after subcutaneous or intravenous injections of saccharose; and also after the ingestion of concentrated solutions of saccharose or of lactose, provided that this ingestion occurs on a fasting stomach. This circumstance considered in connection with the fact that small repeated doses of saccharose in the diet are not capable of evoking saccharose in the pancreatic juice, whereas they are capable of doing this if injected into the blood current, shows that the enzyme-evoking action of saccharose is not exerted upon the nerve terminals in the intestinal musosa, but through a direct action upon the blood. The production of saccharose can be evoked in the pancreas even after the latter is completely isolated from all nervous connections.

There is ample evidence, therefore, that the adaptive capacity of the pancreatic secretion is not dependent upon a nervous reflex, but is the result of a direct chemical reaction in the blood in which possibly a hormone plays an important part. But defibrinated blood in vitro will not produce an inverting ferment when brought into contact with saccharose, which suggests the hypothesis that the living endothelial cells of the bloodvessels are an essential factor in this production, or that certain glands of internal secretion elaborate the ferment and pour it into the blood current.—*Medical Record*.

---

#### INTRATRACHEAL ANESTHESIA.

C. H. Watt, Baltimore (*Journal A. M. A.*, Sept. 4, 1915), says that since the introduction of intratracheal anesthesia in 1909, it has been employed successfully in the Johns Hopkins clinic in all types of cases, but chiefly in operations about the head and neck and in the thorax and spinal canal. The distinguishing features of the method, as pointed out by Meltzer, are that pure air is brought directly into the larger bronchi, while the vitiated air is forced out by the returning air streams and the dead space of the mouth, pharynx, larynx and trachea is eliminated. A practically continuous recurrent air stream prevents the invasion of indifferent or infectious foreign matter from the pharynx into the trachea. In perhaps no domain of surgery is a quiet, uniform anesthesia so important as in that of the brain and cord, and a skilled

anesthetist is regarded as essential by many operators. The increased intracranial pressure embarrasses the respiration through its centre and cyanosis is likely to occur and may add enormously to the difficulties. Especially in cerebellar operations is this matter of cyanosis important. The anesthetist has been relieved almost entirely from the embarrassment due to cyanosis by the use of intratracheal anesthesia. Among the minor advantages of the method is that it permits ready manipulation of the head and the anesthetist may be entirely isolated from the operating field and, undistracted, give himself wholly to the general condition of the patient. Up to December, 1914, the insufflation method has been employed in the Johns Hopkins clinic 35 times in operations on the brain and cord. In all these, close attention has been given to all points in which it could be compared with the drop ether method. The difference in the effect on the pulse is marked. With intratracheal anesthesia the average increase was twenty-seven beats as against forty-seven with the drop ether. The average duration of the intratracheal anesthesia is two hours and thirty-four minutes; with the drop ether, two hours and twelve minutes. In one of the Auer-Meltzer anesthetics the period of administration was over five hours, and during the entire period the pulse at no time exceeded 120. In none of these thirty-five cases was there cyanosis, while in four of the drop ether cases it was so great as to cause apprehension, and in two of them the operation had to be abandoned, on account of hemorrhage and cyanosis. In one case in which the intratracheal method was used, the operation was abandoned twice on account of hemorrhage, attributed to a spongy and vascular condition of the bone. There was no other case of hemorrhage in the series, while there was terrific hemorrhage in six cases with the drop ether method. It was noted repeatedly that the patients regained consciousness much more rapidly than after the drop ether, and that the presence of a soft tube in the trachea rarely does harm was proven. There were no cases of postoperative pneumonia. Local anesthesia seems rarely used in this country for such operations, though it is frequently employed abroad. The intratracheal method has all of its advantages without its disadvantages. The chief point of advantage seems, to the author, to be the ease with which the intubation can be done. He sums up by saying that this method is much safer than the drop ether method, and the anesthesia is smoother and it offers the most efficient means of artificial respiration if needed; although its use is becoming more general it is not yet as popular as it should be.

---

## PERSONAL AND NEWS ITEMS

### PERSONAL AND NEWS ITEMS.

Dr. J. M. Robb, Blind River, has been selected by the Conservatives of South Ste. Marie, as the candidate for the Ontario Legislature.

The Canadian hospitals in France are reported as in excellent condition, and nowhere are the wounded soldiers receiving better attendance.

Lieut.-Col. Dr. H. R. Casgrain, of Windsor, who went overseas, and was stationed with a Canadian hospital at Alexandria, was recently reported as being seriously ill.

It is reported that a French Army Surgeon, M. Girow, sutured the spinal cord in a case where it was lacerated by a shell. The patient was reported as recovering.

Two more Woodstock doctors have received commissions as Captains, and will report at London in a few days for overseas service. They are Dr. Jupp, who will be connected with the Army Medical Corps, under Major Smith, and Dr. D. J. McKay, who will be attached to the Pioneer Battalion.

The University of Toronto Hospital, No. 4, has been sent to the Mediterranean, and has been located at Alexandria.

Dr. Jas D. Curtis, coroner of St. Thomas and Elgin County and surgeon-major of the 25th Regiment for the past fifteen years, has been notified of his appointment to the R.A.M.C., and has departed for England, where he will be consigned to one of the base hospitals. Dr. Curtis lately qualified for the rank of major in the 25th Regiment, and is to receive his appointment prior to his departure for the front.

Dr. Jas Gow, one of the best known physicians of Windsor, was painfully, though not seriously, injured in the early part of October, when his automobile was crashed into by another machine at Wyandotte and MacDougall Streets.

The appointment of Dr. R. G. Brett, of Banff, as Lieutenant-Governor of Alberta, has been announced.

Arrangements have been completed for a very well equipped and suitably located hospital on the Exhibition Grounds. The accommodation will be much better than that of last year. The ladies auxiliary will provide extra comforts for the sick men.

The new detention hospital which is now located at the old General Hospital on Gerrard Street, and which must move as the military want

their quarters, is to be located in Trinity House in the old Trinity College park grounds which is now owned by the city. The controllers this morning instructed the Property Commissioner to make the necessary repairs to the building and plumbing.

Major Dr. Thomas Copeland Savage, of Auckland, New Zealand, fell in action in the Dardanelles campaign. He was a gold medalist, and at one time house surgeon to Sir Victor Horsley.

Col. Edward Lawrie, so well known on account of his connection with the Hyderabad Chloroform Commission, and as the author of a work on chloroform, died recently at the age of 69.

Dr. Austin Flint, of New York, died in that city on 22nd September. He was in his 79th year. He was a son of the noted Austin Flint, who was so well-known forty-three years ago. The Austin Flint who died a few weeks ago was an eminent physiologist and a noted medical teacher.

Dr. E. E. Meek, of Regina, has accepted the position of medical officer of the 68th Battalion.

Dr. Neely, M.P. of Humboldt, has been appointed medical officer for the 28th Battalion, and is at Sewell.

The various Chapters of the Daughters of the Empire throughout Saskatchewan are engaged in equipping and financing the hospital unit of the province.

Dr. Daken, formerly superintendent of the Regina Hospital, is now serving in Cairo. He has been appointed to a hospital position there.

The Province of Saskatchewan has followed up the Australian plan of giving aid to women at the time of confinement. The province makes a grant of \$25 to the mother and pays the doctor a fee of \$15.

Lieut.-Col. E. C. Ashton, M.D., of Brantford, has been promoted to the rank of Brigadier-General.

Dr. O. C. J. Withrow, of Toronto, who served in the 96th Lake Simcoe Regiment, has been appointed medical officer for the 81st Battalion.

The employees of the Massey-Harris Company will establish a convalescent home in England, and will provide for its maintenance.

Dr. Alfred Haywood, assistant superintendent Toronto General Hospital, who was home on sick leave, has again returned to the front.

Dr. James Douglas, of New York, has been made Chancellor of Queen's University, as successor to the late Sir Sandford Fleming. He has given \$50,000 to Queen's and \$150,000 to McGill.

Dr. W. P. Manton, of Toronto, gave an exceedingly able and instructive address before the Toronto Academy of Medicine at the regular October meeting, on the subject "Marriage Rites and Obstetric Practices Among the Ancient Romans."

Dr. Charles F. Finley died at Havannah on 22nd August. He was known as the discoverer of mosquito origin of typhoid fever.

Dr. James Wheaton, Pawtucket, R.I., died on 14th August at the age of 92. He was said to be the oldest medical practitioner in the United States.

Dr. Warnock, M.P. for Macleod, Alta., is in charge of the Imperial Remounts of Montreal.

Dr. H. Oertel has been appointed Associate Professor of Pathology in McGill.

Dr. E. S. Bolton, sometime in Medicine Hat, has been appointed Medical Officer of Health for Brandon.

Capt. W. D. Sharpe, M.D., went to Serbia, and last August was in charge of the military hospital in Belgrade.

Dr. Seymour Ross, of Regina, has been taking a post graduate course on bacteriology at Cook County Hospital and the city laboratories of Chicago.

Dr. Helen MacMurchy, Dr. C. J. Hastings, both of Toronto, paid a visit to the Institution for Feeble-Minded Children in Waltham, Mass. It is thought that there may soon be adequate accommodation for these children in Toronto.

Dr. Charles R. Dickson, of Toronto, was made an Honorary Fellow of the American Electro-Therapeutic Society at its recent meeting.

Dr. Gilmour, son of Mr. Gilmour, of Brockville, was in Australia when the war broke out. He then went to South Africa and joined General Botha's Army. Afterwards he proceeded to England and entered the R.A.M.C. with the rank of Captain.

The following medical men were lost when the Royal Edward was torpedoed: Lt.-Col. J. H. Danber, Major J. Mowat, Capt. C. B. Marshall, and Lieut. T. H. Hayhurst.

Dr. David B. Lees, of St. Mary's Hospital, died on 16th August in his 69th year. He was a noted author, and had contributed papers advocating the use of sodium salicylatis in rheumatism and the ice bag in pneumonia. He was a physician of marked skill.

The trustees of the estate of Sir William Dunn have turned over to Guy's Hospital £25,000 for the purpose of endowing a lectureship at Guy's Hospital Medical School on pathology.

Dr. Joseph A. Andrews, of Indian Harbor, Labrador, in connection with the Grenfell Mission, states that he found beriberi there among the natives, due to the use of white bread when brown bread was substituted, the disease abated.

Dr. Richard P. Strong, of New York, who headed the campaign against typhus fever in Serbia, has returned home, and was decorated with the order of San Sara. The work of Dr. Strong's party was of immense value to Serbia.

The Crown Prince of Serbia decorated forty-three American physicians, who were working in the Rockefeller Foundation.

The mosquito pest was very annoying during the past summer in New York City, and in many other cities and districts. Dr. Goldwater proposes the formation of an interstate commission to fight the mosquito plague during 1916.

Dr. Joseph A. Blake, the well-known New York surgeon, has accepted the charge of the British Base Hospital, at Ris-Orangis, near Fontainbleau. Since the war began he has been chief surgeon at the American Hospital at Neuilly.

Dr. Taylor experimenting on gas bacillus gangrene at Neuilly was much in need of a pure case of the disease in which to test his remedy. Nurse Davies voluntarily injected herself. Dr. Taylor then injected his quinine solution with perfect results, and the treatment is now in general use.

It is reported from Geneva that Austria, Germany, and Russia have concluded an agreement under which the American Red Cross will be authorized to send twenty-five physicians and fifty nurses to Russia and Siberia to care for German and Austrian prisoners of war.

The Committee of American Physicians with Dr. F. F. Simpson, Pittsburg, Pa., treasurer, reports that up to the week ending 25th September \$7,866 had been collected.

The Commission in the United States for the relief of the Belgians have forwarded goods to the value of \$80,000,000.

The United States Department of Agriculture announces that it has condemned fifty proprietary medicines, as being sold under fraudulent advertisements and literature.

The State Board of Education for Newark, N.J., has decided that all children must be vaccinated before entering school. The anti-vaccinationists put up a great fight against this, but were beaten.

It cost \$1.42 per day per patient at the Berlin and Waterloo Hospital during the year just closed, the lowest average in many years. There were 752 patients admitted during the year, an increase of 167, and 50 births. A total of 484 surgical operations were performed, an increase of 174.

---

## OBITUARY

---

### LORNE GRAHAM.

Dr. L. Graham was a native of Wallacetown, near St. Thomas. About three years ago he went to Los Angeles, Cal., to study with his uncle. He enlisted for Overseas Service in the R. A. M. C. and was drowned when the Royal Edward was torpedoed in the Ægean Sea.

---

### ADAM LYND.

Dr. Adam Lynd died at his home, 70 Howard Park Avenue, Toronto, on 3th September. He had been ill for several months, and took a turn for the worse about a week before his death.

Dr. Lynd was born in Aurora, Ont., 70 years ago, and graduated from the Trinity Medical College, after which he practised medicine in Toronto for thirty-five years. He was always interested in civic affairs. He served as Mayor of Parkdale for three consecutive years, holding that office at the time of annexation to the city. Later he was a member of the City Council for several years, having served as alderman for Ward 6. He was a member of the A. O. U. W. and Dunn Avenue Presbyterian Church.

The widow, one son and three daughters survive.

---

### W. R. HALL.

Dr. Hall, of Chatham, died in the latter part of August. He was an ex-president of the Ontario Health Association, and took an active part in its meeting last May in Peterboro. For a number of years he held the office of medical officer of health for Chatham. He was born in Whitby Township in 1852.

---

### LACHLAN SINCLAIR.

Dr. L. Sinclair, of Walkerton, Ontario, died on 21st September, at the age of 77. He was a graduate of the University of Michigan. He had been so long in practice in Walkerton that he was regarded as a pioneer. He had a large practice and was held in high esteem.

---



## BOOK REVIEWS

---

### AMERICAN UROLOGICAL ASSOCIATION.

Transactions of American Urological Association, Thirteenth Annual Meeting at Philadelphia, Penn., June, 1914. Publication Committee, Hugh Cabot, R. F. O'Neil and G. G. Smith. Printed for the Association at Riverdale Press, Brookline, Mass., 1915.

This volume contains 330 pages. There are many very able papers in it, dealing with almost every phase of the specialty of urology. We can speak well of this report. It is in keeping with the others in the series, and does credit to the association. Such reports are destined to advance the standard of those who specialize this field.

---

### HUMAN ANATOMY.

Potter's Compend of Human Anatomy. Revised by D. Gregg Methany, M.D., L.R.C.P.E., and L.F.P.S.G., Associate in Anatomy, Jefferson Medical College, Philadelphia. Eighth edition, with 139 illustrations; also numerous tables and 16 plates of the arteries and nerves. Philadelphia: P. Blakiston's Son and Company, 1012 Walnut Street. Price, \$1.00.

This small volume, one of the quiz-compend, has now reached the eighth edition. It may at once be said that this is an excellent small work on anatomy. It is very complete in every detail, and will prove a good book from which to review the subject. It is an excellent manual for the student to read up before an examination, and a useful one for the general practitioner to refresh his memory by on any subject he may have under consideration.

---

## MISCELLANEOUS

---

### UNIVERSITY OF TORONTO, FACULTY OF MEDICINE.

The following are the results of the supplementary examinations in the faculty of medicine, University of Toronto:

Fifth Year—Pass—R. D. Cowan, P. V. Graham, J. B. Hanley, H. C. P. Hazlewood, H. G. Joyce, W. M. Martyn, A. J. McIntosh, xE. H. Stephen (clin. medicine, pathology and obstetrics), xE. Z. Stirrett (clin. medicine).

Fourth Year—Pass—W. A. Blake, A. Issacson, J. McKeown, J. R. Rehill, E. H. Stephen.

H. C. Nash is granted the examination in therapeutics on account of military service.

Third Year—Pass—W. W. Barraclough, T. W. Bleakley, S. Brisson, W. E. Brown, F. J. Elkerton, C. K. Fuller, A. Grisdale, Miss M. E. Johnston, C. V. Mills, J. H. Macdonald, xC. R. MacTavish (physiology), xG. K. Shirton (anatomy and pharmacology), E. H. Stephen, E. L. Stoll, E. C. Tate, C. E. Thompson.

W. I. Henderson is granted the examination in physiology on account of military service.

Second Year—Pass—R. H. Baker, F. W. Forge, Miss C. I. M. Kennedy, J. W. Leach, J. H. C. McClelland, J. M. Robertson, Miss L. H. Snider, B. C. Sullivan, L. Wagner, S. E. T. West, Miss M. E. Wilkinson.

A. J. Bromley is granted the examinations in anatomy and biochemistry on account of military service.

First Year—Pass—D. B. Avison, D. C. Bastow, J. H. Coliton, M. G. Dales, J. B. Deavitt, F. W. Graef, W. G. McCormack, xK. P. Rumball (biology), P. Saunder, W. L. Spratt, A. A. Thompson, L. E. Verity, G. F. Watson.

---

### CANADIAN OVERSEAS HOSPITAL.

Canada has established in Great Britain, France and at the Dardanelles no less than sixteen Canadian hospitals. And when I say Canadian hospitals do not understand me as meaning that they are for wounded Canadians alone. They are for all the forces of the British Empire. Eight of them are located in Great Britain, five are in France and three are at the Dardanelles. On the staffs of these hospitals we have 2,400 men and 525 splendid nurses, all of them Canadian young women. (Applause.) I desire here to say this further: I have seen nearly fifty hospitals while abroad, and I venture to say there are no hospitals on the continent of Europe to-day that are better equipped, better organized, or in which the wounded receive better care and attention than the hospitals which have been organized by the people of Canada through their Government. It is a great satisfaction indeed to know that the men who have gone through the battles of the Empire as our Canadians have done receive in the hospitals, whether British or Canadian, every attention possible.—Speech by Sir R. Borden.

## HEALTH OF THE CITY.

The following cases were reported to the Medical Health Officer this month, as compared with August and September last year:

	Sept., 1915	Sept., 1914	Aug., 1915
Diphtheria . . . . .	57	60	38
Scarlet fever . . . . .	41	12	29
Typhoid . . . . .	34	47	9
Measles . . . . .	110	24	134
Small pox . . . . .	0	0	1
Tuberculosis . . . . .	49	41	5
Chicken-pox . . . . .	11	7	7
Whooping cough . . . . .	28	19	44
Mumps . . . . .	6	40	5
Spinal meningitis . . . . .	2	1	2

## FOURTH YEAR MEDICAL STUDENTS RETURNED.

The names of the students who have returned are:

A. B. Jackson, A. E. MacDonald, 3 Hoskin Avenue; L. R. Hill, 264 Wright Avenue; A. R. Lindsay, 47 Ellesworth; J. H. Sharp, 87 Gertrude Street; P. A. Sargent, G. Scullard, J. A. Stanley, P. C. Norwich, 74 Sor-auren Avenue; W. B. Rutherford, W. C. Connell, J. E. Barrie, 501 Markham; A. Y. McNair, S. G. Graham, M. b. Wilson, 191 Spadina road; W. E. Hodgins.

## A HEROIC NURSE.

Among stories of the heroism of nurses and doctors at the front is one recorded on the authority of a giant Ulster trooper. He said:

Who is she? Heaven knows her name! But she's one of the grand lot working here as nurses. She's only a lassie, eh; but when many of us were gassed, and nearly done for, being as heavy as sacks of potatoes, when helpers were short, as so many of us had to be fetched, she stood to her guns amid the awful sights and did her very best! She carried McIlroy there to the ambulance; she worked like a Trojan; one poor chap actually died in her arms as she was carrying him! For weeks she's been going backwards and forwards night after night, through awful areas of "gas," and one time she never closed an eye for thirty-six hours! Her hands were bruised and bleeding. I saw them myself. And when she brought the last load to the hospital in the car, they tell me she tumbled down where she stood, that tired she was!

"Her name, and where she comes from? I don't know! We chaps here just call her 'The Angel,' and leave it at that."

## CANADIAN DOCTORS GOING OVERSEAS.

The list of doctors who will enter the Imperial Army Medical Service is as follows: Lieuts. C. C. McIntyre, A. R. Ridell, S. A. Walker, G. M. Dale, R. J. Harris, G. A. McLarty (all Toronto General Hospital), E. H. McVicar (St. Michael's Hospital), Dr. R. R. Young (Western Hospital), Lieut. J. Cunningham (medical officer from the camp hospital), Lieut. A. B. Moffatt (acting medical officer to artillery units in camp), Dr. C. E. Wilson (Muskoka Hospital), Gravenhurst, Capt. N. N. Ferguson, Lieuts. D. M. Kilgour, Wm. Robb, George Carleton, F. L. Thompson, Robert Home, A. M. Murray, W. W. Cruise, Drs. T. R. Phipps, E. Bryceson, J. J. Hurley, W. S. Grimshaw, P. P. Rogers, W. E. Dean, all of Toronto; Capt. M. H. Embree, Allandale; Lieut. F. A. Ross, Barrie; Lieut. D. A. Warren, Hamilton; Dr. V. E. Cartwright, Gravenhurst; Dr. W. A. McLeod, Elmsdale and Novar; Dr. A. E. McKibbin, Helen Mine; Dr. H. C. Sutton, Port Credit; Dr. J. Wheeler, Cornwall; Dr. A. W. Nixon, Georgetown; Dr. A. G. Wallace, Thessalon; Dr. H. B. Moyle, Burlington; Dr. W. B. Seaton, Clifford; Dr. N. B. Kyle, Fergus; Dr. George Cooper, Charlton.

## THE VITAL STATISTICS OF ONTARIO.

The general health reports showed a fair state of public health apart from a decided increase in the number of whooping-cough cases.

The detailed statement shows:—

Diseases.	1915		1914	
	Cases.	Deaths.	Cases.	Deaths.
Smallpox . . . . .	8	0	14	0
Scarlet fever . . . . .	76	2	49	2
Diphtheria . . . . .	140	12	158	15
Measles . . . . .	105	5	107	4
Whooping cough . . . . .	114	4	34	2
Typhoid . . . . .	148	13	140	22
Tuberculosis . . . . .	101	54	80	75
Infantile paralysis . . . . .	2	2	5	5
Cerebro-spinal meningitis . . . . .	4	3	3	3
	698	95	590	95

## SCOPE OF THE MEDICAL INVESTIGATION.

Copy of an Order-in-Council approved by His Honour the Lieutenant-Governor, the 29th day of September, 1915.

Upon the recommendation of the Honourable the Attorney-General, the Committee of Council advise that pursuant to the provisions of the

Public Inquiries Act, being Chapter 18 R.S.O., 1914, a Commission be issued under the Great Seal of the Province appointing the Honourable Frank E. Hodgins, of the City of Toronto, one of the Justices of the Supreme Court of Ontario, a Commissioner with the powers authorized by the said Act.

(1) To enquire into and report upon

(a) All or any matters relating to Education for the practice of Medicine in or affecting the Province of Ontario.

(b) The Constitution, powers, duties and regulations of any body corporate or unincorporated and of any faculty or department thereof having any relation to medicine, the exercise of the same and the revenue and expenditures thereof.

(c) The situation, legal, or otherwise, of such bodies in regard to each other or to the Province.

(d) The establishment, creation, central and regulation of any new body intended to have relation to medicine.

(e) The existing or possible methods of examining licensing or otherwise authorizing the carrying on by individuals of the practice of any methods having any relation to medicine and the standards prescribed and followed or proper to be established and followed.

(f) The present positions, status and practice of osteopaths, dentists, nurses, opticians, optometrists, chiropractors, Christian scientists or others practising or professing medicine.

(g) The existing laws of Ontario in relation to any of the foregoing and their practical operation.

(h) Any matter arising out of the foregoing which it is necessary to investigate with a view of the above enquiries.

(2) To make such recommendations in regard to the above as the Commissioner may think desirable.

The Committee further advise that the term "Medicine" in the said Commission shall include any science, plan, method or system with or without the use of drugs or appliances, and whether now deemed to be included therein, or not, for diagnosing, prescribing for, preventing, alleviating, treating or curing human disorders, illness, diseases, ailments, pain, wounds, suffering, injury or deformity affecting the human body or any part thereof, or its physical condition, or believed or imagined so to do, including midwifery, and any treatment prescribed or advised, whether administered to, operated upon or followed by, the patient himself, intended or professing immediately or ultimately to benefit the patient.

Certificated,

(Signed) LONSDALE CAPREOL,  
Clerk Executive Council.

“CHIROPRACTICS” IS PRACTISING MEDICINE, AND  
REQUIRES A LICENSE.

On appeal from a conviction of violation of Massachusetts Rev. Laws, Chap. 76, Sec. 8, by practising medicine without being lawfully authorized, the defendant contended that he was a chiropractor, and that his acts did not constitute a violation of the statute. The evidence tended to show that he kept an office in Boston, indicated by a sign on which was his name followed by the word “chiropractor”; that he practiced for pay; that he said that the basis of chiropractic is the adjustment of the vertebræ of the spine; that the vertebræ when not in their normal positions press upon the nerves at the spine; that the malposition of these vertebræ was the cause of abnormality and that the adjustment of these vertebræ to their normal positions would remove the pressure at the spine; that he said that he did not cure, that he simply adjusted. He testified that “chiropractic is the specific science that removes pressure upon the nerves by adjustment of spinal vertebræ; there are no instruments used; it is done by the hand only.” The treatment pursued by the defendant was to have those who resorted to him go into an inner room and remove their outer garments until they were stripped to the waist. The patient then took a sitting position. The defendant examined down the spine, beginning at the top, by feeling with his fingers to see whether each vertebræ was in its proper position. The method to discover whether a vertebræ was out of position was by making a gliding move of the three middle fingers of the right hand, which constituted the process of “palpation” where one vertebræ was compared with another. As a result if this “analysis” the defendant was able to tell whether vertebræ were out of alignment or out of their normal positions. In making “adjustments” the patient was placed face downward on a low table and the vertebræ which was out of condition was given a quick thrust or push by the hands of the defendant. The acts performed by the defendant constituted, first, an examination of the vertebræ of the spinal column and a determination whether they were in a normal or in an unnatural position; and, second, a manipulation of such of the vertebræ as were found to be out of position, so that they would become regular and correct with reference to each other. Although the defendant did not prescribe medicine, and testified that he paid no attention to the patient’s description of symptoms or disease, yet it was obvious that his purpose was to treat the human body in order to make natural that which he found abnormal in the narrow field of his examination. “Chiropractic” is defined as: “A system of healing that treats disease by manipulation of the spinal column.” (Webster’s International Dictionary). The court said that the defendant’s

manipulation was of a most important part of the body and related to a nerve centre. It might have been found that it could have no other aim than a prevention of disease or relief from existing disarrangement of body functions. That which the defendant did and its manifest purpose might have been found to be practising medicine within the meaning of the statute. Medicine relates to the prevention, cure, and alleviation of disease, the repair of injury, or treatment of abnormal or unusual states of the body, and their restoration to a healthful condition. It includes a broad field. It is not confined to the administering of medical substances or the use of surgical or other instruments. It comprehends "a knowledge not only of the functions of the various organs of the human body but also the diseases to which these organs are subject, and the laws of health and the modes of living which tend to avert or overcome disease as well as the specific methods of treatment that are most effective in promoting cures" (Knowlton, C. J. in *Com. vs. Jewelle*, 199 Mass. 558, 560, 85 N. E. 858). In order to practise medicine one need not cover the entire field of the science. If he devotes himself to a very restricted part of it he still may be found to practise medicine. It is matter of common knowledge that there has been great specialization in that profession in recent years. It was held to be of no consequence that the defendant abstained from the use of the words "diagnosis," "treatment," or "disease" in description of what he did, and employed the terms "analysis," "palpation," and "adjustment." The acts which he did and their manifest design were to be examined rather than the words used, in order to ascertain the true nature of the defendant's conduct. A physical examination of the vertebræ, a decision whether or not they were in normal position, and strong manual pressure upon them with the object of changing the position with reference to each other of those found to be irregular, and thereby relieving pressure upon nerves, may be found to have such relation to the cure or prevention of disease or the relief of pain as to constitute the practice of medicine. The statute was held to be constitutional. The protection of the public from those who undertake to treat or manipulate the human body without that degree of education, training and skill which the Legislature has described as necessary to the general safety of the people is within the police power of the State. This general purpose may be effectuated by requiring even of those who profess to confine their practice to a narrow specialty a much broader knowledge of the subject provided such qualification is regarded by the Legislature as necessary for the practice of any branch of medicine. The statute did not impair in any constitutional sense the liberty of the defendant. The protection of the public health is an object of such vital importance to the welfare

of the State that any rational means to that end must be upheld. The defendant was placed in no worse position than others. The circumstance that Section 9 of the statute to an extent exempts certain classes, such as osteopaths and pharmacists and those practising Christian Science, mind cure, massage and others, did not render the statute unreasonable as to the defendant nor deny to him the equal protection of the laws. The conviction was sustained.—Com. vs. Zimmerman, Massachusetts Supreme Court, 108 N. E. 893.—*Med. Record.*

---

## MEDICAL PREPARATIONS

---

### BACTERIAL-VACCINE THERAPY.

The treatment of infectious diseases with preparations derived from corresponding micro-organisms long since passed the experimental stage, and bacterial vaccines may be said to occupy an assured place in therapeutics. These vaccines, as is doubtless well known to most physicians, are suspensions, in physiologic salt solution, of killed bacteria. An important effect of their administration is to raise the destructive power of the patient's leucocytes against the specific living invaders. Injected into the human organism, bacterial vaccines have an effect similar to that produced on the horse by the introduction of toxins or killed cultures: they cause active immunity. In other words, the administration of a dose of bacterial vaccine stimulates the patient to produce an additional supply of antibodies, thus enabling him to resist the disease.

Bacterial vaccines have several advantages over the ordinary forms of medication. They are determinate or specific in the respective infections in which they are indicated. Their employment relieves the patient of the necessity of frequent "dosing." Being administered by the physician, or under his direct supervision, they enable him wholly to control his cases.

Some idea of the scope which bacterial-vaccine therapy has come to assume may be gathered from an announcement which Parke, Davis & Co. are making in current medical journals and which physicians will do well to consult. Twenty-three vaccines are listed in the advertisement. They are supplied in 1-Cc. glass syringes, 1-Cc. glass bulbs, 5-Cc. vials and 20-Cc. bottles, all sealed in a manner that guarantees the sterility of their contents. The syringes are designed for the use of physicians who desire to inject the fluid without first removing it from the original container.

Parke, Davis & Co.'s bacterial vaccines are scientifically prepared, and precise therapeutic results may be confidently expected from their administration.