

The Canada Lancet

VOL. XLIX.

TORONTO, JULY, 1916

No. 11

EDITORIAL

THE ONTARIO MEDICAL ASSOCIATION.

The thirty-sixth annual meeting of the Ontario Medical Association has passed into history, but its influence remains with the profession of this province. It can be said with perfect confidence that it was much the best annual meeting of the association now more than a third of century old.

During the forenoon of 31st May, Dr. E. E. King presented his report on the Workmen's Compensation Act. His report was full and exhaustive and was laid before the meeting in an able and forceful manner. He pointed the way in which the Act is unfair to the medical profession, and the direction in which it should be amended in order to remove these unfair features. His report should be carefully studied, as printed copies were distributed. Any one who wishes a copy should secure one without delay. It is an all important matter and ought to receive the attention of every practitioner in Ontario. Nothing, however, short of a very united effort will obtain a good result.

Dr. R. A. Reeve presented his report on Legislation. In the clearest possible terms he set out what the representatives of the Ontario Medical Association had done. He explained the manner in which the case of the profession had been laid before Mr. Justice Hodgins, the commissioner who had been charged with the task of hearing the various bodies who sought to practise medicine or some branch thereof, and reporting thereon to the government of the Province. The claims of the medical profession was ably set forth and the contentions and pretensions of the irregular cults, such as osteopathy, chiropractors, optometrists, etc., as ably reported. Every one ought to secure a copy of this report, and make himself thoroughly familiar with its contents.

The adoption of the report was seconded by Dr. John Ferguson, who took the ground that all should stand firmly by the position that there should only be one portal of entry to the medical profession, or to secur-

ing of the right to practise medicine or any branch thereof, regardless of the special name chosen by the practitioner. All should take the full course of study and pass the regular and stipulated examinations. He may then dub himself an osteopath, a chiropractor, an optometrist, or a Christian Scientist, if he will; but first he must qualify on all subjects, as does a scientific aurist, ophthalmologist, or gynaecologist of to-day. There should not, and must not be any short cuts to the right to treat disease or injury, and to charge for such treatment or advice.

Another subject that engaged the attention of the convention, was the best way of organizing the profession. It was urged by nearly all that there should be a society in every county. It was very ably argued that every practitioner ought to become a member of his local society, which in turn should become a branch of the Ontario Medical Association. A portion of the fee should be forwarded to the treasurer of the central body. By this means the whole profession of the province would become organized, and the Ontario Medical Association would be placed in possession of the requisite funds for the issuing of reports and information to the members. Further, it was pointed out that one of the important duties of the county societies would be that of the tendering to the member of the Legislature from these counties of proper information on all medical, sanitary, and health topics. This is the true foundation upon which to build. In this part of the work before the profession, the efforts made by Dr. W. K. Colbeck and G. S. Cameron must have their due meed of praise.

During the afternoon of the first day, Professor A. D. Blackader, of Montreal, read an unusually able paper on "Drugs and Medical Agents, considered from the professional, economic and national stand-points." This address will be published in full. It was the worthy effort of a worthy member of the profession.

Dr. J. F. Percy, of Galesburg, Illinois, gave an address on "The Problem of Heat as a Method of Treatment in Cases of Inoperable Uterine Cancer." The lecture was illustrated by means of lantern slides, and was listened to by all with the keenest interest. From what Dr. Percy said one may safely assume that by his method of using heat in such cases, a distinctly advanced step has been made in therapeutics. Those who did not hear this address missed a rare treat. On this we shall have more to say on a future occasion.

Dr. Justus Matthews, of the Mayo Clinics, Rochester, Minn., gave an interesting talk on "Tonsillectomy with its General Results." He discussed the methods of operating on the tonsils, and contended that the complete removal of the gland was the proper one to select. He explained his methods of painless and bloodless procedure. He considered at some length the local and general indications justifying the

removal of the tonsils; and gave an array of statistics setting forth the beneficial results. The address was much enjoyed both from its pleasing delivery and its valuable information.

In the evening, Dr. H. B. Anderson, the president, delivered his address. It would be impossible to attempt any epitome of it, as it was so replete with matter. We give it in full and urge for it a most careful study. There is not an unimportant section in it, nor a weak sentence throughout it.

Sir James Grant, M.D., K.C.M.G., of Ottawa, now 85 years of age, in moving a vote of thanks, paid an eloquent tribute to the merits of the address, and to what Canadian doctors and nurses were now doing, both at home and at the battle front.

Dr. Elliott P. Joslin, of Boston, followed with an excellent and instructive paper on "The Treatment of Diabetas Mellitus." He argued that one of the main objects of treatment was to prevent the disease from passing from the mild to the acute and severe form. This could be accomplished in the majority of the cases. In the regulation of the diet he paid special attention to the necessity of restricting the fats, as it was these that were responsible for the production of acidosis. After some preliminary treatment along this line, there should be a careful and gradual reduction of the starches and sugars; but that proteids should not be too severely reduced. By this method the patient was placed on a system of moderate fasting with distinct benefit. This very scholarly and interesting paper was highly appreciated, and an appropriate resolution of the thanks of the Association tendered to Dr. Joslin.

Dr. H. B. Anderson stated that he had received notice from the Federal Government to the effect that it purposes revising the patent medicine act, and advising the association to make representations to the Government along such lines.

For this purpose the following committee was appointed: Dr. R. D. Rudolf, Dr. C. P. Lusk, Dr. John Ferguson, Dr. Third (Kingston), Dr. Paul Scott and Dr. Mullen.

The forenoon of June first, was occupied with papers and discussions in the sections of medicine, surgery, obstetrics and gynaecology, and ear, eye, nose and throat. These papers covered a wide range of subjects, and were in most instances of an original and very practical character. We hope in due course to publish some of them.

During the afternoon Professor Dean Lewis, of Chicago, gave an illustrated lecture on "Cystic Mastitis." He set forth his methods of operating for these conditions and also for cancer of the breast.

"The Treatment of Pneumonia" was taken up by Professor Solomon Solis Cohen, of Philadelphia. The essential feature of his method

lies in the administration of large doses of quinine given intramuscularly. Relating his experience during twelve years, he said he had given larger doses of quinine than could be tolerated by normal patients, but under his treatment the mortality was only 16 per cent. He did not desire the profession to think that quinine was given outside the ordinary treatment, but he preferred to administer it by intramuscular injection rather than by the mouth. His belief was that quinine acted as a chemical antitoxin and neutralized the poison of the pneumonia organism. He looked forward to the time when there would be discovered an efficient antitoxic serum, but so far there was nothing in his opinion, which was as good as quinine in the treatment of pneumonia.

Dr. John L. Davison, who opened the discussion, said for many years he had used quinine by the mouth route in cases of pneumonia.

At this session the following officers were elected:—President, Dr. A. Dalton Smith, Mitchell; Vice-President, Dr. C. L. Starr, Toronto; Treasurer, Dr. J. H. Elliott, Toronto; Secretary, Dr. F. A. Clarkson, Toronto; representatives to the Canadian Medical Association, Dr. H. B. Anderson, Dr. H. J. Hamilton and Dr. G. S. Cameron, Peterboro'; Executive—Dr. D. J. Wishart, Toronto, and Dr. F. C. Neal, Peterboro'.

The members and ladies spent the remainder of the afternoon at Dentonia Park Farm, where a pleasant garden party was given by Mrs. W. E. H. Massey. Motor transportation had been arranged for all through the energy of Dr. Doolittle.

The reports of the committees dealing with county organizations and drugs were presented and adopted, and referred to the committees to press these matters forward.

The evening was occupied in hearing addresses on surgery by Drs. John A. Wyeth, John A. Bodine, and L. H. Chetwood, of the New York Polyclinic Hospital. These addresses were fully illustrated by moving picture films. Dr. Wyeth exhibited his bloodless method of amputation at the hip joint. He had succeeded in reducing the mortality to zero in his cases. Dr. Chetwood's operations for the radical cure of hernia and the removal of the kidney were observed with interest. Dr. Bodine spoke on the treatment of goitre by the injection of hot water. This caused the reduction of the gland without inducing sloughing. The technic in all these operations was beautifully shown by means of the moving pictures.

Weston A. Price, D.D.S., D.Sc., of Cleveland, gave an excellent lecture on "Mouth infections and some of the mechanisms by which they Produce Localized and Systematic Diseases." Dr. Price as an old Canadian received a genuine welcome. He mentioned that ninety per cent. of the infections of the body came from some source above the level of the collar bone, and sixty per cent. came from the mouth, mainly in

connection with the teeth. He pointed out how the infections caused stasis of the blood stream and led to the formation of thrombi and embolisms and the carrying of diseases to distant parts of the body. The lantern illustrations added greatly to the enjoyment of the address.

The thanks of the association were accorded these speakers in a most hearty manner.

During the forenoon of second June, the attention of the members was devoted to papers in the sections of medicine, surgery, and gynaecology and obstetrics.

In the afternoon there were a series of papers on military topics. These were as follows: "The Neuroses of Returned," by Dr. Goldwin Howland; "Cerebro Spinal Meningitis Among Soldiers," by Capt. Fitzgerald and Capt. McClennahan; "Effects of Poisonous Gas shown in Returned Soldiers, with X-ray Plates," by J. H. Elliott and Harold Tovill; "Medical Problems Involved in the Classification, Treatment, and Final Disposition of Invalided Soldiers," by Lt.-Col. Marlow, A.D.M.S.; "The Co-ordination of the Military, Medical, and Employment Aspects of the Returned Soldier Problem," by Dr. Alfred Thompson, M.P. These papers were ably and fully discussed, and threw much light upon the many and new problems arising out of the war. One thing was made clear by the various speakers that ample provision must be made for invalided soldier.

Sir John and Lady Eaton gave a garden party to the members of the association and ladies. From half past four to six. All enjoyed the hospitality of Sir John and Lady Eaton, and had an opportunity of seeing and admiring the beauties of Ardwold.

In the evening, Hon. Senator J. S. McLennan gave an address on "Problems and Plans of the Military Hospitals' Commission in dealing with Invalid Soldiers." He was loud in his praise of the part which the medical profession had played in assisting the Militia Department to send overseas battalions of men whose physique was second to none. He also complimented the medical profession for having interpreted the order-in-council relating to the returned men to read that the more they could do for those who had borne the brunt of battle the better for their country.

The duty of every man in Canada, said Dr. McLennan, in speaking of the problem of the returned soldier, was to help to create influences which would make returned soldiers self-reliant and self-supporting, but the first duty of all devolved upon the medical profession to bring about physical restoration. This was not so hopeless a task as the lay mind might believe, for curative surgery had made such an advance that 80 per cent. of men seemingly totally disabled could be made more or less able to contribute to their own support. It was the endeavor to

the best medical science the task of giving back to a soldier as far as possible the same physical capacity which he enjoyed before he took the field and so far great success had attended the effort. In Toronto would be established an institution where soldiers would not only be fitted with artificial limbs, but where soldiers would also be taught to make artificial limbs. Men under the care of the Government would not be permitted to be idle, and as a result of plans based on experience men wherever necessary would be educated to follow new occupations.

Of 200,000 men who had gone from Canada, said Mr. McLennan, only six had returned totally blind and only five wholly unable to work. Not more than 10 out of every 100 wounded would require re-education. Much of the early talk about tuberculosis among soldiers had been without foundation. The commission had provided for 1,700 consumptive men, but the hospitals had never been more than two-thirds full. To the medical profession in Ontario the Government looked for much help in a worthy cause, said Mr. McLennan, and if they failed in numbers it was because they had so many representatives in the firing line.

Stephen Leacock, Professor of Political Economy in the University of McGill, had for his subject "The Economic Problems by the Treatment and Disposition of Returned Soldiers." He hoped that the people of the Dominion will lay down as the first principle of Canadian citizenship the duty of properly and unstintingly providing for the future welfare of the disabled and maimed Canadian soldiers upon their return to Canadian shores. Let us be kind first and wise afterwards, and hand out our bounty to the Canadian heroes without a stint, in the sense that it will be a badge of honor.

In a vein of fine humor he said that in dealing with such a question before a body of medical men it appeared to him that he had been "called in," that the Ontario Medical Association was his first patient, and that he lingered over the fact with pleasure.

The political economy of war is a problem of enormous proportions," proceeded Prof. Leacock. "The question to be considered is, How are we going to dispose of the disbanded army of over twenty millions representing the allied nations after the war, a problem unparalleled in the history of the world? When these armies are disbanded and return again to civil life, what will be the consequences, and to what extent will the economic machinery of the different nations stand the strain?"

Our Government has done marvellously well with the current problem before us, but we cannot always expect that the Government should assume the position of giving a lead to the people. That is not fair. Whatever difficulties may arise in the future in the adjusting of this great problem, it is our duty as citizens, it is every man's duty in his own particular sphere of life to move in the direction of creating sound

public opinion which must be the basis of sound democratic government.

This whole question is one that has been too little thought of. While the older economists have always contended that war meant destruction of profit and money, it is the feeling of many that the present war has brought with it a strength and unbelievable prosperity. It is an era of prosperity. However, apprehensive of the hard times that will follow the war, there is no question as to the good times that we are enjoying. At the same time the meaning of war prosperity becomes very difficult when you talk of it in terms of money, which becomes more perplexing. Consider the making and breaking up of communities and the destruction of long and useful accumulative effort which has been wiped out during the present war. As a consequence of this war—the most colossal the world has ever witnessed—poverty will inevitably follow, but we are laying down certain fundamental principles of right and justice.

Prof. Leacock predicted that after the war there would be an enormous migration from Europe to Canada and the United States, the large bulk of which will be directed towards Canada, at a time when our soldiers will be coming home. It would be absolutely imperative for us to find employment for our people first, before dealing with others. In referring to the question of pensions, he stated that he believed that the ever-increasing resources of Canada would, be capable of maintaining the whole charge of pensions given returned soldiers.

Hearty votes of thanks were given Senator McLennan and Professor Leacock for their splendid addresses.

On different evenings dinners were given the members by Drs. A. McPhedran, H. A. Bruce, and H. B. Anderson.

It was decided to have a special executive session in the autumn to dispose of the reports that had been referred to various committees, and such other matters as may arise in the meantime. Running all through the convention were the sentiments of Whittier:

The weapons which your hands have found
Are those which Heaven itself has wrought,
Light, Truth, and Love; your battle ground
The free, broad field of Thought.

FACIAL ERYSIPELAS.

Nobécourt claims to have obtained excellent results in the treatment of this condition by the continued application of a 5 per cent. solution of mythylene blue. The solution is applied by a camel's hair brush or a cotton swab to the diseased surface and for an inch beyond on the surrounding healthy tissue. The application is renewed twice daily, morning and night.—*Journal de Médecine.*

ORIGINAL CONTRIBUTIONS

ONTARIO MEDICAL ASSOCIATION: PRESIDENTIAL ADDRESS.

BY H. B. ANDERSON, M.D.

IN accordance with the Constitution of the Ontario Medical Association, it is the duty of the President to address the annual meeting, setting forth the condition of the profession in the province. The difficulty confronting one at this time is not to find topics suitable for discussion, but rather to select from among the multitude of important matters which suggest themselves, those of most immediate and pressing interest, and attempt to consider them with due regard to their relative importance. While I deeply esteem the honour of having been elected to the presidency of this Association, one cannot but appreciate the difficulty of doing justice to the position, or of rising to the responsibilities and opportunities of so critical an occasion in our national and professional history.

We are meeting at a time pregnant with the most momentous issues since the dawn of the Christian era, under the shadow of the greatest calamity in history, with our Empire and her Allies engaged in a death struggle to uphold the cause of freedom and justice against a military despotism, which, in the guise of Kultur, seeking world power with the ethics and by the methods of the barbarian.

Those who have admired, perhaps too highly, German learning, scientific achievement, energy and genius for organization, have lived to see all of these directed by an ambitious and cruel autocracy, abetted by subservient professors, clergy and publicists, and prostituted to the basest of material ends. As members of a profession which has acclaimed German discoveries that have saved thousands of human dere-licts, we must hereafter charge the autocratic system which encouraged their scientific achievements with the subordination of all the resources and capabilities of the nation to an aggressive war, which has led to the slaughter of millions in the flower of manhood; and reflecting on this we shall in future be more appreciative of the blessings of democracy, even with its attendant muddling and inefficiency. Well may we pray to be delivered from the blessings of Kultur and efficiency if they must be acquired by the sacrifice of freedom, of honour, and of those principles of religion, ethics and morality which have served in the past as standards by which men and nations are judged.

In the presence of these great events monopolizing the attention and absorbing the energies of our people, all other interests fade into

insignificance. And yet we must not neglect "the daily round, the common task," as we look with confidence beyond the present struggle, but prepare ourselves in every department of our national life for the stern competition of the period of reconstruction and advancement which will inevitably follow.

On this occasion we miss the familiar faces of many of our colleagues who in answer to their country's call are now on duty overseas, in the Motherland, in Flanders, France, Greece and Egypt, and we are proud of their record. "The members of the Canadian Army Medical Corps," as recorded by the official historian in describing the battle of Ypres, "rivalled in coolness, endurance and valour the men of the battalions who were their comrades."

Important duties also have fallen to those who are left behind, in organizing and manning the medical services of units preparing for active duty; in ministering to the medical necessities of the dependents of our soldiers, and not least, in giving their services for the restoration to health and usefulness of the sick and wounded who are returning from the front. The burden cheerfully undertaken by the medical profession of Canada has been a heavy one, and we believe has been creditably borne.

I feel assured indeed that I express the feeling of every member of this Association in saying that we regard it not only as a duty, but a privilege to do what we can toward the restoration to health and usefulness of our brave countrymen now returning, whose heroic deeds have won imperishable fame for themselves, and shed enduring lustre on our country. To them Canada may fittingly apply the words of the poet of the Yukon:

"I will not be won by weaklings, subtle, suave and mild,
But by men with the hearts of Vikings and the simple faith of a child;
Desperate, strong and resistless, unthrottled by fear or defeat,
Them will I gild with my treasure, them will I glut with my meat."

An unusual feature of the present meeting will be the military session arranged with the collaboration of the Military Hospitals Commission and the officers of the Army Medical Corps in this district. While there will be a number of papers on medical topics of present military interest, the chief purpose of the session will be a discussion of the "invalided soldier problem" in all its bearings, so as to bring before the doctors of the province the importance of the question and the aid which they can render toward its solution. That our efforts so far are not unrecognized is evidenced by a letter recently received from the chairman of the Military Hospitals Commission in which he says—"that the Government of Canada is indebted to the Ontario Medical

Association for its interest and to the medical profession for the splendid spirit which they have shown."

If our deliberations assist in co-ordinating the military, medical, vocational and employment aspects of the situation, and in evolving a more efficient and uniform system of management in the various Military Convalescent Hospitals and subsidiary institutions, an important object will have been attained.

The war has brought us many disillusionments, has impressed many stern lessons, given us a wider national perspective, a keener vision of the responsibilities of citizenship and stimulated a wholesome spirit of sacrifice to the common good. Those who have seen the beneficial influence of military training on the development of the physique and discipline of our young men, whatever may be their views regarding compulsory service, are unlikely hereafter to overlook the advantages to the nation, not only in a military but in a material way, of compulsory military training. A properly trained and disciplined manhood will not only increase individual efficiency for civil duties, but will go far to solve the problem of national preparedness.

We are indebted to Professor Blackader for having brought forward another lesson of the war, viz., the question of drugs and medicinal agents from the national, economic and professional standpoints, a matter which should receive the serious attention of the Association. Who can estimate the influence on the present war of the amazing lack of foresight which permitted Germany to appropriate to her advantage the discovery of the aniline dyes by Sir William Perkins? This one shrewd deal added a billion dollars a year to the national wealth of Germany, increased immeasurably her scientific prestige, gave her first place in the world's trade in drugs and dyestuffs and assured her early in the war the advantage in high explosives. The responsibility for so great a blunder does not rest upon our profession, though we must admit that no feature of the centrally organized and far-reaching system of pan-German propaganda has been more successful than the exploitation of the university men of other countries in the interests of her campaign for military and commercial supremacy. No one will be disposed to speak lightly of the value to medicine of the scientific output of German laboratories, though we may properly plead for a more discriminating judgment in separating the wheat from the chaff, and especially for a less complacent acceptance of the literature of German commercial houses as the gospel of science.

Neither should we recognize a dual system of medical ethics under which state-controlled professors in German clinics may advertise in text-books and trade literature patented or trade-marked preparations,

in a manner contrary to our code, nor should we allow ourselves to second their efforts by prescribing those products as if there was some peculiar virtue attached to all things medical emanating from the fatherland. Now, when the spell of the superman is broken, when even our academic Olympians, beguiled by flattery or tempted by self-interest, are perhaps aware of the true inwardness of German intrigues, and when those who control our universities are awakened from their dreams of an era of scientific advancement under the direction of exchange professors approved by the Prussian Ministry of Education, will be an opportune time to consider more sympathetically the rights, interests and scientific possibilities of our own people.

More especially should we oppose the sale of common drugs, marketed in fancy packages under fancy names and at fancy prices. Some of these abuses can be controlled by legislation; some by a stricter adherence to our ethical code, or if necessary, by revising it so as to be fairer to our own manufacturers; much can be done by an educative campaign, not only for the benefit of the medical profession but the public, to make known the kind of competition we have to face and the best means of meeting it; and perhaps most important of all, by our medical schools giving to students a more thorough grounding in practical therapeutics, such that they may not be left after graduation to be instructed in the use of drugs by the literature and agents of manufacturing chemists. The medical and pharmaceutical professions should be more closely in touch with the manufacturers and exercise more control over their products, by encouraging their legitimate activities and enlisting their assistance in supplying real professional needs. I am fully convinced that a more sympathetic coöperation should replace the present aloofness of our professional and scientific men from manufacturing and commercial interests, and that this could accomplish much for the benefit of all concerned. The medical profession should learn, however, to place its dependence on the carefully appraised preparations in our national pharmacopœias, which should contain all really useful remedies, rather than in the commercially-biassed catalogues of drug houses, with their too frequent irrational polypharmacy. Other countries should not forget that in Germany everything is subordinated to military efficiency, and that in supporting even her legitimate activities, they are contributing to her aggressive designs.

In the task before us we should cultivate a self-respecting national spirit, avoiding equally the attitude of the superior cosmopolitan,

"The sturdy patriot of the world alone,
The friend of every country but his own."

and the reverence for antiquated inefficiency and smug self-confidence,

which at times parade as patriotism. Neither should we be so blind to our own interests as to neglect to profit by the lesson Germany has given us of the necessity for laborious study and investigation, of strenuous and concerted effort, scientific organization and coördination of national aims, and the value of their direction by experts in the different spheres of activity.

Turning to matters of local interest, the most important are those being considered by the Commission on Medical Education, appointed last autumn by the Provincial Government. It is expected that the report and recommendations of the Commission will be made the basis for legislation which will settle many important questions that have been pending for some years.

Foremost among the questions being considered are all matters relating to education for the practice of medicine in the province. Recent years have witnessed a rapid evolution—the passing of the old proprietary schools, the lengthening of the course of medical study, the addition of many full time professors to the teaching staffs of our schools, the extension of laboratory facilities for the teaching of the fundamental sciences, the beginning development of libraries and the erection of commodious hospital buildings. As in other parts of the English-speaking world, the course of events with us has been influenced by the reports on medical education of the Carnegie Foundation and the Royal Commission of the British Government. The contention, on pedagogic grounds, that medical education should be considered an educational rather than a medical question, thus separating teaching more widely from practice, the movement for the appointment of full time professors in the clinical departments and the far-reaching schemes of Germany to create centres of propaganda in our universities, have all been lively topics of interest. In the midst of this evolutionary unrest the outbreak of the war has added to the confusion, and the most sanguine would scarcely claim that a satisfactory conclusion has yet been reached. Thus far we appear to have adopted a compromise between the British and continental systems, incorporating the worst features of both and the advantages of neither. The clinical branches in our hospitals still suffer from the lack of laboratories, properly equipped and manned for the study of the problems of the wards. Those having the interests of clinical progress at heart, however, will confidently expect the fulfilment of the Government's promise that the enquiry will be an exhaustive one, that all interested will have an opportunity of expressing their views, and that the Commissioner's report based thereon, will remove many defects in our present system of organization.

The position taken by the representatives of the Ontario Medical

Association and other medical organizations, regarding the legislative recognition sought by osteopaths, chiropractors and other cults, upholding the principle of a uniform standard of education and examination for all who wish to practise medicine in the province, is well known, and calls for no special reference on this occasion.

Never in the course of history has there been such a demonstration of the national importance of a thoroughly trained medical profession as during the present war. The service which scientific medicine has rendered in protecting our solidiers against typhoid fever, dysentery, cholera and other scourges of armies, has saved tens of thousands of lives and trebled military efficiency.

Ask our wounded soldiers who have been made oblivious to suffering during operations under ether or chloroform, or whose pains have been eased by morphia, what they would think of "drugless treatment" at the front? Should our colleagues then, who under danger and privation are rendering such services, at great personal sacrifice, have their interests at home unnecessarily jeopardized by the granting of special privileges to the uneducated or poorly trained output of foreign proprietary institutions, that are unable or unwilling to meet the requirements for preliminary education and professional training, exacted of the graduates of our own and other recognized universities? Let us remember, however, that it is not sufficient that we ourselves are assured that we seek only what is just, and in the public interest; we must be prepared to defend our cause, keeping in mind the words of Sir Thomas Browne "that a man may be in as just possession of truth as of a city, and yet be forced to surrender" if unprepared to back up his principles by intelligent action.

It would be well at this critical juncture in our professional history to recall the chaotic condition of medical affairs which existed in the province prior to the organization of the College of Physicians and Surgeons in 1866. At that time the public clamour for protection against the prevalent quackery forced the government to take action, and the universities and different medical bodies to unite in establishing a representative institution of the profession to control the curriculum, examinations and practice of medicine in the province. The lapse of time, and the criticism frequently directed against the management of our affairs by the College of Physicians and Surgeons, has caused some to forget too readily "the pit whence we were digged" and the large amount of valuable constructive work which we owe to that body. The medical profession of the province should be slow to admit its own incapacity for self-government. For this reason I believe the movement to make the medical degrees of our universities qualify the holders for the right to

practice, is to return to a system which has proved a failure in the past and from which the universities, the profession and the public at large all sought deliverance. We should, therefore, endeavour to maintain the *entente cordiale* and to coöperate for the general good, rather than by magnifying differences, cause a cleavage between the universities and the profession and thus leave ourselves more vulnerable to attack by the enemies of medical progress.

The adjustment of difficulties arising out of the present duplication of examinations should be possible without such radical changes as would endanger the rights and privileges of self-government now enjoyed by the medical profession.

In some of our universities, the non-clinical departments, those having in charge the fundamental scientific and theoretical rather than the practical aspects of the training of students, it is well known, exercise a preponderating influence, and clinicians and practitioners alike should view with misgiving any tendency to place the control of the profession more fully in the hands of those, who neither by training, experience nor circumstances, are closely in touch with the requirements for efficient practice.

Another live topic for discussion at present is the administration of the Workmen's Compensation Bill. This law has now been over a year in operation, and has occasioned much dissatisfaction and resulted in many protests from medical practitioners, who have been either inadequately remunerated or unpaid for their services. The injustice of the Bill has not yet been fully experienced, because many manufacturers still pay the medical attendant for his services to employees, as they did before the inauguration of the present law.

It is satisfactory, however, to state that both the Compensation Board and the Government, aware from experience elsewhere that the hearty coöperation of the medical profession is essential for the success of the scheme, have shown a willingness to consider fairly the grievances complained of and to adjust matters on a more equitable basis. The failure to pay property for medical attendance has naturally resulted in a large surplus in the first year's operation of the scheme, which makes it imperative for us to press for fair consideration at this time. It would be regrettable if any avoidable friction arising from a sense of injustice should impair the usefulness of a progressive and necessary measure.

The question of medical fees, a subject of perennial interest to both the public and the profession, is one of the matters being considered by the Commission on Medical Education, and I may, therefore, be pardoned for referring to it. Whatever truth there may be in the com-

plaint against excessive fees charged in individual instances, it can be stated without fear of contradiction that the remuneration of the great body of practitioners has not begun to keep pace with the expense of acquiring a proper medical education and the increased cost of living in the province. A comparison with tariffs published in Toronto in 1839 and 1886 will prove that in many cases fees are actually lower now than at those periods. Nor have ordinary medical fees increased in proportion to the cost of maintenance in the public or private wards of hospitals. One cannot but sympathize with the burden imposed on people with moderate incomes, in procuring proper medical and surgical attendance, hospital accommodation and nursing under present conditions, but the fault lies with the other developments of modern practice more than with the doctor.

It is well known that no body of citizens has laboured so unremittingly for the promotion of preventive medicine and the public health, regardless of their own financial detriment. The medical profession also has borne without complaint, the burden of attendance the indigent sick, and too frequently as well, on impostors, who pass as such, in order to escape their financial obligations. We may justly claim that mercenary motives have always discredited a man in the eyes of his professional colleagues, and that he who would make the acquirement of gain the chief object of his calling would be well advised to seek another field for his labours.

In no class of illness is the financial hardship so apparent as in the management of nervous and borderland psychopathic cases, in which the usual prolonged duration, the necessity for constant attendance of nurses and the procuring of suitable accommodation, often tax the resources of the family to the utmost degree. I believe that general experience warrants the statement that one of the most urgent needs in the province at the present time is the provision by the government of suitable accommodation, at a moderate price, for the proper control and treatment of borderland nervous cases, incipient or temporary insanity, inebriates and drug habitues.

The complaint is heard occasionally among our more prosperous citizens that, like the butcher and baker, the doctor should charge the same fees to rich and poor, but if they would recall the fact that the poor to a considerable extent receive free treatment, the impossibility of adopting such a rule would be obvious.

I hope I may now be pardoned for referring to something more in the nature of a family affair, viz., the disproportion between the remuneration of the surgeon and specialist as compared with the physician and general practitioner. This is freely admitted by all, and the opin-

ion was embodied in a report adopted by the Ontario Medical Association a few years ago. This disparity is undoubtedly one of the causes underlying the pernicious custom of fee-splitting, by which less scrupulous members of the profession arrange a secret adjustment of the difficulty; a practice we believe never very common in this province, and of which happily even less is heard in recent years.

There seems no good reason why the present inequality should continue. The basis for remuneration of physician or practitioner and surgeon in a case should be the relative value of services rendered. The present custom, in cases requiring surgical operation for their relief, tends unduly to exalt the mechanical or technical phase of the operative procedure, and to minimize the importance of the preliminary investigation, the diagnosis and the after treatment. This is certainly not in the interests of either medical or surgical progress. The properly trained practitioner or physician to whom the patient first applies for relief, should be the one most competent by training as well as circumstances, to direct the latter aspects of the procedure, recalling the surgeon for consultation, if in his judgment the interests of the patient require it.

Under such a plan it could be arranged to have the fee charged in a given case cover the whole procedure of preliminary investigation, diagnosis, operation and after treatment, and the remuneration of practitioner and surgeon determined by a previously considered and established value attached to each part of such a procedure. Under all circumstances the interests of the patient should be considered of first importance; there should be no secrecy, and the relative remuneration of each attendant should be determined by the services actually rendered and in accordance with a generally accepted rule. I suggest this merely as a possible equitable and ethical basis of adjustment in keeping with the interests of the patient, and fair alike to medical and surgical attendants.

In reviewing the present condition of medical affairs one cannot overlook the nursing problem, which is one of increasing difficulty, especially in private practice. Training schools for nurses connected with hospitals throughout the province, have accomplished admirable results in raising the standard of training and supplying highly quality professional nurses.

One must regret, however, a tendency, especially among recent graduates, to limit their professional work to hospital or other selected practice, where the work is easier, rather than to answer the call of duty wherever it may be. This is not in keeping either with professional ideals or a correct sense of duty, and if continued, will assuredly tend to lessen the usefulness of the nursing profession and lower it in the

public esteem. It is a custom which should be discouraged alike by hospitals, training schools and the profession at large. I would suggest a lower scale of fees for those who will undertake only selected work, as a practical means of remedying the difficulty.

Important progress in the domain of public health may be reported during the past year. Through the generosity of Col. A. E. Gooderham, the Department of Hygiene of the University of Toronto has been enabled to undertake the manufacture of various antitoxic sera and vaccines, and by the enlightened and public-spirited action of the Provincial Government, arrangements have been made for the gratuitous supply of these products through the profession. In this way will be placed more readily at the disposal of medical men, the means provided by modern scientific investigation of dealing with different infective diseases.

It is also worthy of note that a local manufacturing company is now furnishing a product—diarsenol—which experience has shown to be a satisfactory substitute for diarseno-benzol. The commendable attitude of scientific and clinical men of the university staff in promoting this enterprise, stands in pleasing contrast to a lack of encouragement heretofore frequently complained of, and we trust marks the beginning of a new era in the evolution of a policy of general application, rather than being merely one of the vagaries of the fairy godmother.

It is a matter of satisfaction to the profession that arrangements have been completed during the past year providing for reciprocity in medical registration between Great Britain and this province.

In order that we may be able to bring the corporate influence of the profession to bear in maintaining the status of medical practice, in directing aright the many problems now in course of adjustment, and in guaranteeing to the people the increasing benefits of modern practice, it is essential that we be well organized. I am glad to report that much progress has been made in this direction during the past year, and that we now have a fairly complete provisional organization throughout the province. Thirty-five local city, town or county societies are at present in existence, and ready to affiliate with the Ontario Medical Association. A provisional constitution has been drawn up to be submitted for the consideration and approval of the Association. There is still in some quarters a remarkable apathy to matters of crucial importance, but signs are not wanting of an awakening, which it is the duty of this Association to hasten.

We are pleased to have with us on this occasion the Executive Council of the Canadian Medical Association, and trust that our combined meeting may help to remove misunderstandings, and to strengthen the bonds between the two Associations.

May I also express to our distinguished American visitors the great pleasure their presence affords us, and how much we appreciate the readiness they have shown to contribute to our programme, especially at a time when we are handicapped by the absence of so many of our own members. We take it as a further evidence of the feeling of kinship, common interest and sympathy existing between our countries, and which is so happily marked this year by the celebration of a century of peace.

It may be of interest to you gentlemen from the neighboring Republic to know that there is now in this city a regiment of eleven hundred of your countrymen preparing to enter the fight to uphold those principles of freedom and justice, dear alike to your country and our own.

We in Canada share a common belief that, after the war, the great centre of scientific medical interest and activity will be on this side of the Atlantic—American in the widest application of the term—and those who have watched the wonderful progress which medical science has made in the United States in recent years will have no misgivings as to your qualifications for leadership.

To our fellow countrymen who have come back after winning distinction in medicine under another flag, we extend a hearty welcome. You will not find the Canada you left a few years ago, the Canada of to-day, but a country chastened by recent experiences, conscious of great responsibilities, purged of many faults, yet quickened in every fibre of her national life, proud of her sacrifices for the Empire and humanity, and confident of her future.

It is a part of our national creed that what the nineteenth century was to the great neighboring Republic, the twentieth century will be to Canada.

The foundations of medicine in Canada were laid a century ago by the army surgeons who saw service in the war against Napoleon, and we may look for a similar influence in our further evolution, to be exerted by those of our number now in service in the greater struggle against the Kaiser. The spirit of freedom and love of liberty which has called them to duty overseas will return with them accentuated by their experiences, to withstand injustice and tyranny from whatever quarter it may appear, to oppose weak submission to wrong and to assist in promoting a worthy national sentiment.

In conclusion, may I express to my fellow officers of the Ontario Medical Association my deep sense of obligation and gratitude for the loyal support and co-operation accorded me in arranging for this meeting, under difficult and at times discouraging circumstances.

RELATIVE MERITS OF THE STEEL PLATE, AND OF THE
AUTOGENOUS BONE GRAFT, IN THE OPERATIVE
TREATMENT OF SIMPLE FRACTURES.*

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THE Treatment of Fractures of the long bones by Operative means, is a subject, which has been very much to the forefront in the surgical literature of the past ten years. To-day one can hardly pick up a journal, which does not contain some article dealing with one or another phase of this interesting and important branch of surgical endeavour. And whereas a few years ago, the steel plate, popularized by Sir Arbuthnot Lane and his followers, was the almost universally used medium of "Internal Fixation," one now finds a tendency in the more recent writings to lay great stress on the dangers of leaving unabsorbable foreign material, "Hardware," in the tissues, and to advocate the use of bone grafts, usually autogenous, for the fixation of the fragments. In his recent work on this subject Albee states that in his practise "No metal appliances of any kind are ever employed for the internal fixation of broken bones."

It is not my intention, at this time, to enter into any discussion of the merits of the operative treatment of fractures, or of what particular fractures are best treated in this manner, but it is my desire to sum up briefly the arguments for and against the steel plate, as opposed to the bone graft, and to determine which should be the method of choice for the practical working surgeon.

In the first place I would wish it to be clearly understood that these remarks apply only to the treatment of Recent Simple Fractures. The subject of Compound, of Ununited, or of Malunited Fractures, is a different matter, and will not be dealt with.

The chief objections to the steel plate advanced by various authors are that:—

- (1) It acts as a foreign body.
- (2) Metal has a destructive influence on bone formation, which may prevent the fractured ends from uniting.
- (3) A rarefying osteitis, or osteoporosis, or necrosis usually develops around the metal screws or nails, causing them to loosen and drop out.
- (4) Metal favors infection, absorption, and disintegration of the tissues.

* Read at the 36th annual meeting of the Ontario Medical Association, Toronto, May 31st, 1916.

(5) The plate does not answer the purpose for which it is employed because it bends or breaks.

(6) As a sequel to the above, the presence of the plate may cause the wound to break down, some time after healing is apparently perfect, necessitating a second operation for the removal of the plate.

The advocates of the bone graft claim that it produces bone itself, and stimulates the fractured ends to a more active osteogenesis, that it does not act as a foreign body, but as a living graft, which unites with, and becomes incorporated in the surrounding tissues. I am not going to enter into the discussion as to whether the graft lives, and itself produces new bone, or whether it dies, and acts simply as a scaffolding for the growth and spread of osteoblasts from the surrounding bone. Dr. Gallie has given this particular question much study, and he is strongly of the opinion that the graft dies, and acts as a scaffolding only.

Dr. Gallie has been kind enough to furnish me with the following personal communication with regard to his attitude on this matter:—
“Your suggestion that, as a result of experiments, Dr. Robertson and I have concluded, that all transplanted bone dies, is not quite correct, as we know that any osteoblasts on the surface, such as under the periosteum, or in the medullary cavity, or in the open mouths of Haversian canals, if placed in a good supply of lymph, do live and functionate, and thus make the autogenous, so called living, bone graft, of more value than a dead bone graft.”

Be this as it may, and not denying the advantages of the bone graft, it must also be recognized that it has many disadvantages, and that these are not dependant upon theoretical considerations, but on the experiences gained by actual use.

The first great objection to the use of the bone graft is the amount of manipulation necessary to obtain the graft, and to prepare a suitable bed for its reception. Every advocate of the bone graft has laid emphasis on the idea that the graft must be sufficiently long, must not simply bridge over the fracture line (Fig. 1). Now this means that, for instance, in the case of the humerus or the femur, almost the whole shaft of the bone must be exposed, especially if there is any degree of splintering or comminution. If the “Sliding graft” method is used it is certain that the fractured bone must be exposed for at least four or five inches on either side of the line of fracture, with a certain amount of coincident disturbance of muscular attachment, and periosteum. If the “Tibial transplant” method is used, the necessary exposure and manipulation are not quite so great, but another wound is added, with the possibility, even though slight, of infection here.

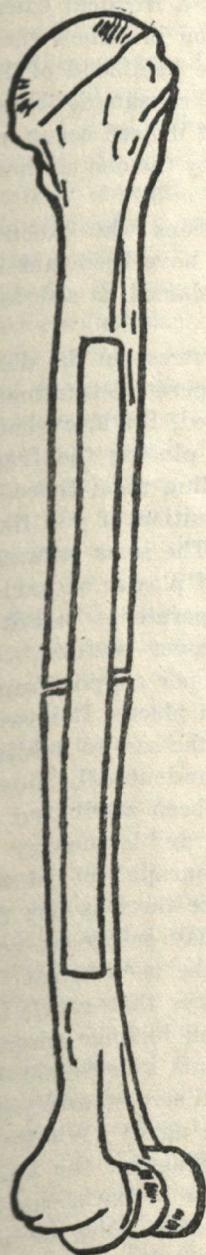


FIG. 1.—Diagrammatic representation of comparative length of graft, and shaft of long bone, advocated by followers of the "Inlay" method.

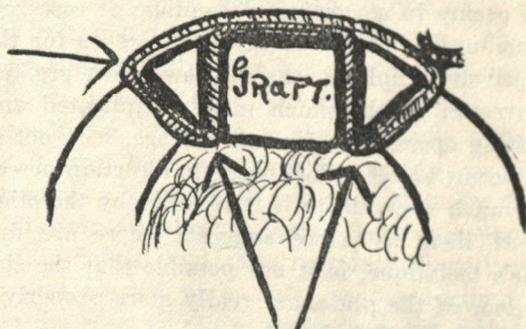


FIG. 2.—Diagram of cross section of long bone, with "Inlay" graft held in place by kangaroo tendon. The tendon will frequently cut at the points indicated by the arrows.

Having secured a suitable graft, and after much manipulation having transferred it to a suitable and accurately fitting gutter or slot, the next great objection to the graft arises from the difficulty of fixing it in place with any degree of security. It is evident that the graft will not stay in place of its own accord, will not of itself, afford any degree of "Internal fixation," even granting that by accurate inlaying, or as a carpenter would say,—mortiseing, some tendency in this direction may be produced. Albee advocates the use of kangaroo tendon passed through drill holes in the sides of the gutter, and looped over the graft, so as to force it down into its bed, when the tendon is tied. We have repeatedly found that, though the kangaroo tendon was perfect, and of good tensile strength, it broke when passed through these drill holes and tied with any degree of tension, because it cut on the sharp edge of bone produced by the drill hole. (Fig. 2.) If bone pegs are used instead of tendon, this difficulty is to some extent obviated, but the necessary manipulations and expenditure of time are much increased.

It follows as a necessary sequel to all this, that the time required for a bone grafting operation is considerable. While a reasonably expert operator can "Plate" a broken femur in half an hour, it will take him probably two hours to put in a bone graft. Albee says in his work "There are few surgeons who execute Lane's technique, therefore infec-

tion occurs in a varying percentage of cases, which is a frequent cause of non-union." Now if infection occurs for this reason in Lane's comparatively simple operation, how much greater is the likelihood of its occurrence in the much more complicated and time consuming bone-grafting operation. Understand me, I do not say that it need occur, or will occur, but if it does occur in a certain percentage by the one method, how much more likely is it to occur by the other?

If then, as Albee suggests, there are few surgeons who execute Lane's technique, is it not possible that the sins that have been laid at the door of the plate, are really more properly to be blamed on a defective or faulty technique?

In this connection I would like to lay particular stress on the danger of the term "Internal fixation" as applied to the operative treatment of fractures. I believe that whichever method is used, Plate, or bone graft, that this should be considered as a means of placing the fragments in their proper position, and temporarily holding them there,—a sort of artificial impaction in the exactly proper position, if you like, but not as the sole means of retaining them there. The same external support by well applied splints, (practically always of plaster of paris) should be given as if the fracture had never been operated. In other words, the operation puts the fragments in their proper position, the plate or graft temporarily holds them there, and proper support must be afforded by external fixation until union has taken place. It is well known that bone will absorb under pressure, and if the screws holding a plate in position are subjected to strain, they will undoubtedly loosen by the very process of rarefying osteitis which has been attributed to the presence of the metal itself. There is not an "X-ray" laboratory in the country that has not, among its records, radiographs of plated fractures, months or years after the operation, where there is not the slightest evidence of any osteo-porosis. Hence it may safely be concluded that some other factor than the presence of the metal must determine the occurrence of this rarefaction. Lane says that rarefying osteitis, in plain English, means "Dirty Surgery," and in some cases it may do so, but in many others it undoubtedly means insufficient external support, with resultant strain on the plates and screws, and pressure absorption of the bone. To quote from Albee again "Whatever be the mode of internal fixation, whether the Lane plate, or the Inlay graft, the limb should firmly immobilized in a plaster of paris cast in as nearly a neutral position as possible. If this be done, inlay or peg grafts, Lane plates or neck of femur spikes, will not bend or break during the period of post-operative fixation."

At the Brantford General Hospital during the past few years we have operated on a considerable number of fractures by both the plate

and the bone graft methods. We have never had to remove a plate, and have never seen any irritation result from its presence. We have radiographed all our cases subsequently, and have never seen any evidence of rarefying osteitis, or of loose, bent, or broken plates.

I would like just here to call attention to the essentials of a good plate. It is evident that it must have considerable rigidity, as well as tensile strength, in other words a plate which can be bent in the fingers is obviously a useless application on a broken bone. There are plates on the market which have this defect, and they certainly should not be used. It would appear that a good plate must be die-stamped from cold rolled steel, and that the cheaper plates made from hot rolled steel are useless. Moreover a straight plate with less than two screw holes at each end is not safe, and should not be used, as it is evident that a single screw at either end will in no way prevent lateral deviation, and consequently bad results will be secured, and blamed on the plate, when in reality they are due directly to faulty technique.

In regard to the operative work itself, there are three or four points on which I would like to lay special stress.

(1) The prevention of any contamination of the wound from the skin. As soon as the first incision through the skin and fat has been made, towels should be accurately sewn by interrupted cat-gut stitches to the skin edge on both sides, so that no skin is visible, or can be touched by hand or instrument during the succeeding work. The cat-gut stitches afford much more accurate fixation of the towels, and are much less in the way than any form of mechanical clip.

The knife used for the skin incision should be laid aside.

(2) The prevention of contamination of the wound by the surgeon's hands. The gloved hand should never be introduced into the wound, or in any way come in contact with the bone fragments. This may sound extreme and unnecessary, but in every country the surgeons of largest experience are laying more and more emphasis on this point. The necessity for special instruments for levering the fragments into place, for holding them there, and for holding the screws while they are being placed in position, is therefore evident. The Albee motor is of inestimable value in rapidly and accurately drilling the holes in the bone to receive the screws.

(3) The prevention of contamination of the plates and screws. All of these articles which may be required should be placed in a small bowl, and left in the boiling water in the instrument sterilizer until needed. The bowl, full of boiling water, is then removed from the sterilizer, and placed on a convenient table, and each plate and screw is lifted out by forceps as required, and placed in position. Accidental contamination is thus obviated until the last possible moment.

(4) In the application of the plate the subcutaneous surfaces of the bone should be avoided.

Conclusions.—It would seem that the use of the Lane plate is safe, simple, and expeditious, but that a most rigid technique must be followed both during and after the operation, and that the great majority of the failures after its use are due to faulty methods at the time, or a failure to understand what may be expected of Internal fixation in any form. That the bone graft can be made to perform the same function is granted, that its use has certain advantages is admitted, but that the difficulty of application and retention more than counterbalances these advantages seems evident.

I am, therefore, of the opinion that, in the operative treatment of recent simple fractures, the Lane plate remains the method of choice in the great majority of instances.

MENTAL HYGIENE.

With the co-operation of a number of physicians and educators, the Committee on Mental Hygiene of the State Charities Aid Association will shortly begin a campaign of education, through the medium of lectures, for the prevention of insanity. The committee is endeavoring to reduce the alarming amount of mental impairment in the State by making careful public statements as to the nature, cause and prevention of diseases of the mind and by securing more effective treatment in the home as well as in hospitals and dispensaries, for persons in the early stages of mental disease.

SPINAL ANESTHESIA.

L. L. Stanley has made observations on 280 cases of spinal anesthesia at the San Quentin prison, tropacocain being the agent employed. The series of cases includes operations for varicose veins, various operations on the legs, fistula in ano, hemorrhoids, operation on the scrotum, hernia, appendectomy, and gastroenterostomy. The writer describes in detail the method of procedure and, in commenting on the results, says: "In this series of 280 cases there has been no fatality. There has been comparatively little shock. Headache has occurred in only 8 per cent. of the cases. There has been no pneumonia following operations. There have been very few postoperative complications. There have been no permanent paralyses following the anesthetic. The period of convalescence has been shortened. With the relaxed muscles closing of the adominal muscles has fallen in most cases, but in the average case not to a dangerous degree. The height to which the anesthetic is effective is influenced by the length of time the patient is in the Trendelenburg position. The pulse rates is not influenced to any marked degree by trapacocain intra-spinaly."—*Jour. of the Am. Med. Association.*

CURRENT MEDICAL LITERATURE

BACTERIA OF GANGRENOUS WOUNDS.

H. R. Dean and T. B. Mouat (in *Brit. Med. Jour.*) have studied a series of 18 cases of gangrenous wounds, of which three only were fatal. Included in the series were 4 cases of tetanus, 1 of which was fatal, and 4 cases of gas gangrene, 2 of which were fatal. Of the 18 cases *B. oedematis maligni* was found in 15 and *B. aerogenes capsulatus* in 13. Both of these organisms are apparently possessed of powerful enzymes. The *B. aerogenes capsulatus* is peculiarly able to attack carbohydrates and the *B. oedematis maligni* proteins. Dorset's egg medium is an excellent medium for both micro organisms. The shape, size, staining reactions, and capacity for spore formation of these bacilli are profoundly influenced by the nature of the culture medium. The *B. aerogenes capsulatus* forms spores on Dorset's egg medium and inspissated serum, but not on media in which an acid reaction is produced. *B. oedematis maligni* forms spores less readily in acid media. The presence of *B. aerogenes capsulatus* and *B. oedematis maligni* is not necessarily associated with the development of gas in the tissues. Both of these micro organisms are essentially saprophytes. They have little or no power to multiply in living tissue. In dead tissue they grow rapidly and produce poisonous substances by which the adjacent living tissue is destroyed and rendered a suitable medium for the further multiplication of these bacilli. The *B. tetani* was not found in films made from the discharge in any one of the six cases of this series in which it was present. The recognition of the *B. tetani* by purely microscopical methods is complicated by the fact that slender Gram positive rods bearing an absolutely terminal spore may occasionally be found in pure cultures of *B. oedematis maligni* and *B. aerogenes capsulatus*. Moreover, pure cultures of tetanus bacilli, especially cultures on egg medium, contain many atypical forms. If broth is inoculated with material from the wound in a case of tetanus, and incubated under anaerobic conditions, the presence of *B. tetani* can often be satisfactorily demonstrated by animal inoculation. Such a broth culture should be examined at intervals, and two or three weeks may elapse before the tetanus bacillus can be demonstrated. The discovery of this bacillus in the wounds of a patient who has not developed tetanus is obviously an indication for one or more prophylactic injections of antitetanic serum. Indeed it is probable that the three organisms under consideration have probably a common source and the conditions favorable to their growth within a wound are probably identi-

cal, hence the discovery of either of these bacilli may with advantage be followed by a prophylactic injection of antitetanic serum.—*Medical Record*.

CANCER OF THE BREAST.

J. C. Bloodgood, Baltimore (*Journal A. M. A.*, Feb. 19, 1916), says that he is under the impression that during the last five years there has been a change in the relative proportion of the benign and the malignant growths of the breasts and that the latter are decreasing, and that this change is associated with a shorter duration of the disease and with an earlier seeking of advice and relief by women. He did not realize, however, that the change is as great as the statistics indicate. A study of 1,577 cases in the records of the Surgical Pathological Laboratory of the Johns Hopkins Hospital gives the following figures: "From 1889 to 1900, the percentage of benign lesions was 32; from 1900 to 1910, 41; from 1910 to 1913 it was 47, and from 1913 to 1915, 59, or from 1910 to 1915, 54. Therefore, in about six years as compared with the previous ten, the percentage has increased from 41 to 54 (13 per cent.). But in the past three years it has increased 12 per cent. over the previous three years." Only definite undoubted cases of benign lesions are included in the above. Inoperable cases are distinctly on the decrease. The figures also show other things, such as increase in certain types of adenocarcinoma, while malignant cystic adenoma seems to have decreased, and cancer cysts are apparently disappearing. Other forms that are decreasing in frequency are the malignant papillomatous cysts and colloid cancer. Adenocarcinoma of the duct-cancer type is increasing, but the type of adenocarcinoma in which there is the greatest increase is that which may develop in the so-called chronic cystic mastitis of the adenocystic type. Adenocarcinoma with areas of cancer is increasing, especially since 1913, and chronic mastitis not associated with lactation appearing as a somewhat circumscribed tumor shows a marked increase. The only way in which he can explain this is that a certain type of a circumscribed scirrhous tumor shows a greater decrease than any other form of malignant growth. Bloodgood's evidence seems to show that chronic cystic mastitis with large cysts has a tendency to disappear spontaneously so, that if women delay it will be less frequently seen, it will be otherwise, however, if they seek advice early. The benign form of chronic cystic mastitis without large cysts is distinctly on the increase and the percentage of the malignant form has increased. We have evidence, therefore, that cancer in the adenocystic mastitis is an early form of cancer, and if the patients seek operation early, as seems

to be the case, the percentage of cures will increase from 90 to 100. If women come early we shall find that the borderland group is large and the difficulties of diagnosis will be increased. It is Bloodgood's opinion, however, that if every case is carefully investigated the mistake of incomplete operations will never be committed, but the mistake of performing a radical operation for a benign lesion will occur in from 10 to 20 per cent. of the cases. He is quite certain, however, that when women appreciate the situation they will prefer the slightly mutilating operation to the danger of an incomplete removal of a malignant growth.

BACTERIOLOGY OF PROSTATITIS.

H. B. Culver, Chicago (*Journal A. M. A.*, Feb. 19, 1916), gives the results of a study of the bacteriology of chronic prostatitis and spermato cystitis with special reference to their relations to arthritis. He refers to the belief of the medical profession in the causal influence of chronic foci of infection in producing disease in various organs of the body and says that the prostate and seminal vesicles may be presumed to be such foci, but other foci, those in the head especially, must be carefully eliminated before such a diagnosis is made and the technic employed in securing the material must be carefully considered before estimating the value of the work. It has long been believed that the anterior urethra contains many micro-organisms while the posterior urethra is sterile, and he gives a view of the literature of the microbial infections of the prostate and vesicles. The only reference Culver has found to anaerobic organisms in this situation is in the work of Albarran and Cotter. In his own series of thirty-four patients the examinations did not include cases with a urethral discharge within six weeks and most of them had had none for several months or years or none at all. He describes his method of obtaining the contents of the organs, using healthy organs as controls. The method used seems to be fairly complete as regards sterile precautions, and the cultures were made on aerobic and anaerobic blood agar slants, ascites, glucose agar, shake, cultures, and ascitic bouillon and blood agar plates, incubated at 37 C. and examined daily for twelve days. Twelve patients with no history of genital urinary infection or symptoms were used as controls to ensure that any organisms left there are flooded with the serum that is drawn in to dissolve the salt. It is likewise pointed out in this paper that in or about 1905 the late Mr. Barnard advocated the use of brine enemata for abdominal cases, and White has frequently ordered them and has been satisfied with the result. Finally, attention is drawn to

the fact that for the obstinate constipation of eclampsia such enemata are very useful, as soap enemata may be retained and turpentine is absolutely contraindicated because of the renal condition.—*Medical Record.*

HYPERTONIC SALINE SOLUTION IN GYNECOLOGY.

Hypertonic saline solutions, Wright's solution, and others have been employed with a very considerable degree of success in the treatment of septic shell wounds, and Clifford White draws attention in the LANCET of October 30 to the value of such solutions in the treatment of surgical affections of the female pelvis. Since he returned to England some months ago he has used a solution made up of four drams of sodium chloride and one half dram of sodium citrate to each pint of water as a vaginal douche in all inflammatory and septic cases in which a douche was required, and has found that the effect was better than that of the antiseptic douches previously employed. In puerperal cases with sloughing of the perineum and vagina the effect is said to have been extraordinary. According to White, in puerperal sepsis, especially abortion cases, after cleaning out the uterus and douching it with saline solution it is useful to leave a few tablets of salt inside the uterine cavity and yielded no growth on any of the mediums. Material was examined from thirty-four patients, twenty-six with associated subacute or chronic arthritis. Care was taken to exclude patients with other definite foci of infection, but this is difficult in a charity hospital, and there may have been some doubtful cases with dental foci. Of the thirty-four patients studied, organisms were recovered from only twenty-four, but none of the remaining ten were examined more than three times. According to Notthaft, repeated culture and massage are needed before the infectious nature of some of the processes can be proved, and it is possible, Culver says, that some of the others may later reveal infection. Twelve different organisms were obtained from the twenty-four patients: staphylococci, streptococci, gonococcus and diphtheroid bacillus most frequently, though not in large numbers. Anaerobic organisms were isolated from four different patients, three grew alone and one with another organism. Their growth was slow, and as they were transplanted they became more and more aerobic. No relationship was noted between any one organism and any particular group of symptoms. The local symptoms were mostly those of bladder irritability. An attempt was made to ascertain by different immunologic reactions whether or not the patients reacted in any measure to the infections they bore, and this was carried out in twelve of the twenty-four patients, and, as in other

phases of the investigation, controls were used. The author concludes that anaerobic as well as aerobic organisms may cause chronic prostatitis and spermato cystitis. One sixth of the patients yielded anaerobic organisms, and this may help explain some of the failures in investigating the subject when only aerobic cultures are used. In 66 per cent. of the patients tested, the isolated organisms seemed to be specific for the infected individual, and the need of repeated examinations is demonstrated in the series. Chronic infections of the prostate and seminal vesicles seemed to be partly or wholly responsible for many of the cases of subacute and chronic arthritis. Drainage of the focus in the prostate or vesicles by expression or otherwise together with raising of the antibody content of the patient's blood by inoculation seems advantageous in the treatment of these conditions.

OLD AGE IN RELATION TO CANCER.

In the vexed subject of the etiology of cancer there are but few points that are really settled. One of these which is apparently beyond question is that old age predisposes to the development of malignant neoplasms. The difficulties in following the cellular changes which lead to tumor formation in man are many and obvious. A precancerous condition is almost impossible of absolute demonstration. A study on animals is also difficult since they often do not develop tumors or else there is little analogy between the growths to be found in animals and in man. Quite recently Goodpasture and Wislocki (*Jour. Med. Research*, 1916, xxxiii, 455) found multiple tumors in very old dogs which were autopsied, and they were led to examine fifteen old dogs which they were able to obtain. As far as could be told from the condition of the teeth, the presence of cataract, and the general appearance, the animals were approximately fifteen years old or older. In all of the fifteen dogs examined they found tumors in several organs, the liver, spleen, and adrenals being most regularly involved. In fact they never failed to find multiple tumors in every dog which they classified as old before autopsy, whereas in hundreds of normal younger animals they never observed a similar condition.

The uniform and coincident occurrence of these tumors, the fact that they were usually multiple in each organ, and a certain similarity in their mode of formation made the authors feel that they were an expression of a common cause, the picture varying with the character of the tissue in which they occurred. The process was followed best in the thyroid. "Here there is first a cessation of function in multiple foci consisting of a few acini. This is indicated by a disintegration of

colloid and shrinking of the acini. The epithelial cells become larger by an increase of cytoplasm which is more granular apparently than normal. In some of these acini, before their lumina have completely disappeared and while atypically staining granules of colloid still persist, we find evidence already of beginning proliferation in the increase in number of cells at points along the epithelial linings. Later the former acinus becomes a solid column of epithelium. The atrophic area is thus converted into a small tumor which increases in size both by proliferation of its own cells and by coalescing with other similar areas." Similar changes taking place at the same time in many parts of the body makes it probable that they are due to a common cause and the most probable one is senescence.

The others did not attempt to classify the tumors, and with one exception found no evidence of metastasis, so that the growths were, at least in this sense, benign. There were histological evidences of rapid growth to be seen in many of the tumors, so that there was always the possibility of rapid extension. Just how this observation will fit into the theory of cancer etiology it is impossible to say; nevertheless the observation seems to be an important one and one that will have to be considered in the evolution of that theory. Obviously it will not fit every instance of malignancy which one meets, and surely it is not the whole cause, but there is the possibility that it may be an important part of the cause.

THE INFLUENCE OF SYPHILIS ON THE CHANCES OF PROGENY.

N. Bishop Harman (*Brit. Med. Jour.*) in investigating the case-papers of over a thousand children whose blindness was the effect of parental syphilis obtained the family history of 150 families—that is, the history of the mother with relation to the number of her pregnancies and the results of them. In each of these families one or more of the children were undoubted sufferers from inherited syphilis. Besides the bone or joint conditions, Hutchinson's teeth were present in no less than 68.5 per cent. in the blind child of the family. Among eleven families to which only one child was born there were four illegitimate unions and the progeny therefrom; all these eleven were blind children and alive at the time of inquiry. Harman says that the history of these 150 families set out by themselves would provide a characteristic picture; and as compared with the history of 150 healthy families, the contrast is extreme. The comparison was made and the difference between the results of the fertilization of these two sets of women is remarkable; 150

syphilitic mothers had no fewer than 1,001 pregnancies, but of these only 390 resulted in presumably healthy children. On the other hand, 150 healthy mothers had 826 pregnancies, from which resulted 654 healthy children. The syphilitic mothers had about 17 per cent. more pregnancies than the healthy mothers. It is unnecessary to point the moral, the author says, for the figures speak sufficiently of the influence of parental syphilis on the chances of healthy progeny.—*Medical Record*.

RETINITIS OF PREGNANCY.

The important paper by Fisher, of London (*Proceedings of Royal Society of Medicine: Section of Ophthalmology*), July, 1915, page 127, is by no means easy to condense in the form of an intelligible abstract, and it should be read in the original.

An effort may be made to place his principal points before readers in the following manner:—

(a) The disease should be called Retinitis of Pregnancy, and not Albuminuric Retinitis of Pregnancy; or, better still, it should be called Toxæmic Retinitis of Pregnancy.

(b) The acute retinal changes are not the result of albuminuria and kidney disorder. Albuminuria is an effect not a cause of the trouble.

(c) Obstetricians now recognize that albuminuria of pregnancy, eclampsia, and pathological vomiting of pregnancy, are attributable to toxæmic products in the circulation. The toxæmia is something *sui generis*, its effects are found especially in the quality of the blood and in the blood-vessel walls.

(d) Such a toxæmia is surely the primary cause of the retinitis of pregnancy, a condition of the retina totally different in its onset, and usually in its appearances, and certainty in its sequel from what we know as "albuminuric retinitis."

(e) As regards the nature of the toxin. Many obstetricians have called the poisons syncytio-toxins, *i.e.*, the products of disordered disintegration of the syncytium cells. The syncytium cells are the products of the fœtus and connect the fœtal and maternal structures. These annectant cells cover the chorionic villi everywhere. Having performed their duty as annectant cells the syncytium cells in process of time disappear and no remains of them are demonstrable in the adult placenta. The products of their disintegration are discharged into the maternal blood stream. If the disintegration is normal, no disturbance to mother or fœtus results; but if their katabolism is perverted, the syncytium cells give rise to the toxæmia of pregnancy, which results in fatal

eclampsia. As this poison is not always present in sufficient dose to kill the mother, other severe disorders may arise, such as the pathological vomiting of pregnancy, non-fatal convulsions, albuminuria, and toxæmic retinitis.

Nine case histories are then related. The author considers that good recovery of vision is the rule, accompanied by disappearance of all acute manifestations in the retina. In this respect, the cases differ from ordinary renal retinitis cases. Where defects of vision are permanent they seem to depend chiefly upon changes in the walls of the retinal arteries or on an atrophic condition of the nerve, which, if it be an ascending atrophy, may well be secondary to changes in the ganglion cells resulting from imperfect blood supply. The patients may live for many years. The author makes the very important point, from the standpoint of prognosis, that a recurrence of retinitis is by no means necessary, perhaps not even probable, if subsequent pregnancies take place. That is to say, that if the process of disintegration of the syncytium cells in subsequent pregnancies is carried out in a normal physiological manner, no additional toxins will be poured out into the maternal circulation. But to arrive at a conclusion it would be necessary, with the aid of the obstetricians, to consider all the diseases attributable to the toxæmia of pregnancy, and not to deal with the retina alone.

In the discussion which followed, Hosford, of London, took up the question of the prognosis as to life. He had been much struck by the fact that out of sixteen cases carefully observed during fifteen years, only three were now alive. All the cases, except two, ultimately developed a star at the macula, and that he regarded as a very important point in diagnosis, and as an indication of a likely fatal termination.

Rockliffe (Hull), Attlee (London), Lawford (London), and Paton (London) also took part in the discussion.—*The Ophthalmoscope*, March, 1916.

PERSONAL AND NEWS ITEMS

Dr. J. T. Fotheringham, who has been serving abroad in the C. A. M. C., and who has held the rank of colonel, has been made a C.M.G.

After a year of exciting experiences overseas in England and at Galipoli, Capt. W. S. Pickup, of the Royal Army Medical Corps, who is well known in Toronto, has arrived in the city for a short furlough. Capt. Pickup is at the home of his brother, Rev. S. H. Pickup, 85 Dearborn Avenue. A member of the R. A. M. C., Capt. Pickup volunteered

his services as a doctor shortly after the outbreak of war, and proceeded to England just a year ago. Two months after his arrival in England he was sent to Gallipoli, arriving there in the thick of the Dardanelles fighting. Stationed at Helles, he was so close to the firing line that he could plainly see the bursting of the shells in the trenches and hear the terrific roar of the artillery.

Friends of Dr. Beland, member of the Canadian House of Commons, received a postal card dated in Berlin saying the doctor is now out of the internment camp and living in Holland. Senator Dandurand took the matter up through the Interparliamentary Union, and in February the Permanent Secretary of the Union wrote from Norway that the General Secretary of the German branch of the Union had written intimating that Dr. Beland's exchange would be effected.

Dr. Frederick Montizambert, Director-General of Public Health of Canada, had the Companionship of the Order of St. Michael and St. George conferred upon him.

The will of Dr. Horatio Charles Burritt, who died on April 21st, was submitted for probate in the Surrogate Court recently. Deceased's estate is set down as \$18,934.17.

Dr. B. E. McKenzie, of Toronto, who died on 21st April last, left an estate of \$84,000.

Dr. T. H. Hazzard, while crossing the Rouge River between Markham and Unionville, the automobile in which he was riding broke through the railing and fell a distance of thirty feet. The doctor received only slight injuries.

Dr. Allan Jamieson, president of the Royal College of Physicians, Edinburgh, and a noted authority on skin diseases, died recently at the age of seventy-seven.

Arthur E. J. Barker, F.R.C.S., Eng., died 1st April, from an attack of nephritis. He was on active service in the R.A.M.C. He was in his 66th year, and was a well-known surgeon on the staff of University College Hospital. When the war broke out he was given the rank of Lieut.-Colonel, and went into active service.

By the will of the late Mr. Charles W. Harkness, of New York, the Presbyterian Hospital of that city receives the sum of \$100,000 to be added to its endowment fund and the sum of \$250,000 to be added to the Harkness fund for scientific and educational work. The Harkness fund was established a few years ago by Mr. Harkness' brother, Edward S. Harkness, for the purpose of promoting research in the hospital in connection with medical education.

General Maxwell's despatches covering the Egyptian operations bring forward the following names of the members of the staff of No. 2

Canadian General Hospital: Lieut.-Col. Etherington, Lieut.-Col. Duff (deceased), Capt. Kidd, Staff-Sergt. Stevenson, Sergt. Sanger, and Privates F. Walsh, G. Bell, R. Whitaker, Lance-Sergt. M. C. Cree, Matron Willoughby and Nurses Armstrong and Finlayson.

The Simcoe County Medical Association at its fourth annual meeting held in Simcoe elected the following officers: President, Dr. Spohn, Penetanguishene; Vice-Presidents, Dr. Stevenson, Bradford; Dr. McKay, Collingwood; Dr. Wainwright, Orillia. Secretary-Treasurer, Dr. Arnall, Barrie.

By a curious coincidence three physicians had attained the distinction of being among the oldest living graduates of their respective colleges. Dr. David Fisher Atwater, of Springfield, Mass., was born in 1817, and was graduated from Yale University in 1839 and from the Yale Medical School three years later; Dr. Samuel F. Coues, of Cambridge, Mass., was born in 1825, and was graduated from Harvard College in 1845; and Dr. George A. Quinby, of New York, was born in 1831 and was graduated from the New York University Medical College in 1856.

Dr. Wallace Scott, who has been serving in the C.A.M.C. since the fall of 1914, has been made a full colonel.

Lt.-Cols. F. Etherington, S.H. McKee and E. G. Davis, all of the C.A.M.C., have been honored with the C.M.G.

The University of Toronto conferred the degree of LL.D., *honoris causa*, upon Lt.-Col. G. G. Nasmith, C.M.G., at the recent commencement.

Dr. A. McMichael, a Canadian, died at the age of 56, in Detroit, and Dr. R. M. Curts, originally from Ontario, died at the age of 45, in Paterson, New Jersey.

Dr. Arthur W. Mayberry has removed to 329 Bloor Street West, Toronto, corner Bloor and St. George Streets.

R. J. Snider has been admitted to the degree of Bachelor of Medicine. His name was omitted from the earlier list.

Major D. McGillivray, of the Medical Corps, has been promoted temporary lieutenant-colonel.

Mr. Frank Yeigh gave a delightful travel talk on Brittany recently in aid of military hospitals in France. The lecture was well illustrated.

Orton J. Newell and Miss Florence Elizabeth Jones were married in St. Paul's Church, Jarvis, June 7th.

Lt.-Col. F. W. Marlow, A.D.M.S., has been granted the temporary rank of colonel. Col. Marlow has well earned the promotion.

Dr. Thomas Chisholm and Mrs. Chisholm celebrated quite recently their golden wedding. They were married in Fergus in 1866. For

many years Dr. Chisholm practised in Wingham, and was M.P. for East Huron from 1904 to 1910. For the past six years he has resided in Toronto.

Mr. Arthur du Cross, of Hastings, England, has given \$35,000 to the extension fund of the London School of Medicine for Women.

By consent of the British and French Governments, \$500,000 worth of salvarsan was allowed to be shipped from Germany via Holland to the United States.

Sir James F. Goodhart, M.D., LL.D., died on 28th May. He was an excellent speaker and had a fine literary style. He contributed many articles to journals, but is best known by his book on diseases of children.

By the will of the late Dr. J. William White, of Philadelphia, bequests are made as follows: \$150,000 to the University of Pennsylvania, to be held in trust as a permanent endowment, the income from which is to be used for the establishment of a professorship of surgical research to be known as the J. William White Professorship of Surgical Research; \$10,000 to the University of Pennsylvania, to be held in trust and the income to be divided in three parts, to be used by the managers of the University Hospital as a prize for nurses, as a prize for resident physicians and for the purchase of Christmas presents for child patients; \$50,000 to the College of Physicians of Philadelphia.

OBITUARY

CHARLES M. SANDFORD.

Dr. Sandford graduated from Trinity University in 1886, after studying in Trinity Medical College. He located in Brighton, Ontario, where he continued in practice until his death on 11th April past. He acquired a large practice.

DR. YELLOWLEES.

How Capt. (Dr.) Yellowlees was drowned near Saloniki, is told in the following letter from a member of University Base Hospital, which says in part:

Captain Yellowlees, in company with Capt. Geo. Wilson, were riding across country at the time to view the wreck of a Zeppelin which had been brought down that morning. They had reached the Galiko River, some distance from the Monastir Railway bridge, and were proceeding in the direction of the estuary of the Vardar, where the skeleton of the Zeppelin could be seen.

They arrived at the stream and had proceeded but a few yards from the bank when their horses lost their footing and went under the water. Capt. Wilson managed to reach the opposite bank, but his companion could not swim. Capt. Wilson immediately turned back and had swam to within a few feet of Dr. Yellowlees, when he sank. Capt. Yellowlees was found shortly afterwards in an exhausted condition.

CAPTAIN W. R. HAIGHT, M.D.

General Guy Carlton Jones, director of the Canadian Medical Services at the front, has written Gen. Sir Sam Hughes as follows:

"I have learned to-day a ghastly story about Capt. W. R. Haight, the medical officer of the 1st C.M.R., British Columbia, who was reported missing. At first, when the lost ground was regained, the regimental post was found to have been filled with wounded and Haight to have remained doing his duty attending to the wounded. One and all, patients and medical officers, had been bayoneted and done to death in a most brutal manner. Captain Haight was a very excellent young officer and had won praise from all concerned."

This is German Kultur! This is the work of the nation that said God forbid that there should be any violating the Geneva or Hague rules of warfare!

LIEUT.COL. TURNER, M.D.

It is learned with great regret that Lt.Col. Turner, who was in command of the 10th Field Ambulance, was struck by a shell on 2nd June, at a dressing station near Ypres. General Jones states that in the death of Lt.Col. Turner the C.A.M.C. has sustained a heavy loss, and speaks of him as an officer of exceptional ability. He also states that "I am proud to say that throughout the fighting the medical services carried out their arduous duties under very difficult circumstances in a very efficient manner."

BOOK REVIEWS

ANAESTHESIA.

The Art of Anaesthesia. By Paluel J. Flagg, M.D., Lecturer in Anaesthesia, Fordham University Medical School; Anaethetist to Roosevelt Hospital; Instructor in Anaesthesia to Bellevue and Allied Hospitals, Fordham Division; Consulting Anaethetist to St. Joseph's Hospital, Yonkers, N.Y.; formerly Anaethetist to the Woman's Hospital, New York City. Philadelphia and London: J. B. Lippincott Company. Price, \$3.50.

The author gives a short account of the discovery of anaesthetics by

various persons. He seems, and we think correctly, to give priority to Crawford W. Long, who, in the spring of 1842, put his theory into practice by using ether on his patient, from whom he removed two small tumors. He deals fully with general anaesthesia, local anaesthesia, and mixed anaesthesia. He has judicious remarks to make on complete and incomplete anaesthesia. The chapter on complete general anaesthesia is full and lays down very clearly the stages, the symptoms, and the dangers of the various agents. He discusses at length the position of the patients. Much attention is given to the signs of anaesthesia. The safety and comfort of the patients will be greatly benefitted by a careful study of this section. Ether, ethyl chloride, chloroform, nitrous-oxide, nitrous-oxide with oxygen and ether are taken up and the best method of administration laid down. The usual methods of producing local anaesthesia are explained. Mixed anaesthesia is then considered. The preparation of the patient and the post-anaesthetic care receive due consideration. The book is a good one. It is splendidly illustrated. The publishers have used a very superior paper, and the typography and binding are such as would please the most exacting.

THE SEX COMPLEX.

A Study of the Relationships of the Internal Secretions to the Female Characteristics and Functions in Health and Disease. By W. Blair Bell, B.S., M.D., Lond.; Examiner in Gynaecology and Obstetrics to the University of Belfast, and to the Royal College of Surgeons of England; Gynaecological Surgeon to the Royal Infirmary, Liverpool. Sometime Arris and Gale Lecturer, Royal College of Surgeons, England, and Examiner to the University of Durham. London: Baillière, Tindall and Cox, 8 Henrietta Street, Covent Gardens, 1916. Price, 12s 6d net.

A work like this does not make the reviewer's task an easy one, as every page is weighted with many important facts. The first portion of the book takes up the morphological, physiological and psychological considerations. The second portion deals with the pathological consideration. He enters fully into the influences exerted by the ovaries, the thyroid, the thymus, the pituitary body, the pineal gland, the suprarenals, and the mammary glands, over the growth, health and function of the sexual organs. The author also discusses the changes that ensue upon disease or faulty development of the internal secretory glands. The book is well illustrated with full page plates, some of which are in colors. The inter-relationship between the various secretory organs is set forth with all the completeness the present state of our knowledge will permit of.

The book will richly reward any one who takes the time and trouble to study its pages. This subject has received much attention of late

years, and we can recommend most cordially this volume. The author brings the review of these glands well up to date. The book is also got up in attractive form.

GYNAECOLOGY AND PELVIC SURGERY.

A Manual of Gynaecology and Pelvic Surgery for Students and Practitioners. By Roland E. Skeel, A.M., M.S., M.D., Associate Clinical Professor of Gynaecology Medical School of Western Reserve University; Visiting Surgeon and Gynaecologist to St. Luke's Hospital, Cleveland; Fellow of American Association of Obstetricians and Gynaecologists; Fellow of American College of Surgeons. Two hundred and eighty-nine illustrations. Philadelphia: P. Blakiston's Sons and Company, 1012 Walnut Street. Price, \$3.00 net.

This is a handy volume of 680 pages; of 12 mo. size, of sober judgment. It is bound in limp cloth, and the main features of the art of book-making are strongly to the fore here. The text of the book shows that the author has had an extensive experience in gynaecology. He has also been a close student of the literature of this subject; for he mentions modern methods and gives them their due place.

But there is a cautiousness displayed in the treatment, both surgical and medical, which is wholesome at a time when there is a tendency to be heroic. We would like to see this volume have a large sale, as such sound teachings cannot fall into too many hands. We are very much pleased with this work.

FRACTURES AND DISLOCATIONS.

A Text-book of Fractures and Dislocations, with Special Reference to Their Pathology, Diagnosis and Treatment. By Kellogg Speed, S.B., M.D., F.A.C.S., Associate in Surgery, Northwestern University Medical School; Associate Surgeon, Mercy Hospital; Attending Surgeon, Cook County and Provident Hospitals, Chicago, Ill. Illustrated with 656 engravings. Philadelphia and New York: Lea & Febiger, 1916. Price, \$6.00.

We have here a new volume of nearly 900 pages. The subject of fractures and dislocations has been one on which many very excellent treatises have been written; and an author who brings out another work on this field of surgery must make it clear that he has a message for the medical profession. The present volume reveals much care in its preparation. The subject of Dislocations and Fractures is exhaustively discussed, and nothing is left to be desired in the matter of completeness or thoroughness. Every phase of this branch of surgery is well arranged and handled so as to be of greatest use to the practitioner. The author has made excellent use of his knowledge of pathology which he uses as a foundation on which to build his diagnosis and treatment. The author takes up fractures and dislocations of each region together.

This has its advantages: for example, fractures and dislocations of the wrist, or ankle, or spinal column are to be found in one place in the book. All the best methods of treatment are given. The experience of many are here collated; and to all this, the author adds his own quota of clinical observation. We congratulate the publishers on handsome book they have given the profession.

NORRIS ON BLOOD-PRESSURE.

Second Edition, revised and enlarged. By George W. Norris, A.B., M.D., Assistant and Professor of Medicine in the University of Pennsylvania; Visiting Physician to the Pennsylvania Hospital; Assistant Visiting Physician to the University Hospital; Fellow of the College of Physicians of Philadelphia. Octavo, 424 pages, with 102 engravings and 1 colored plate. Philadelphia and New York: Lea & Febiger, 1916. Cloth, \$3.00 net.

The importance of blood-pressure in diagnosis, prognosis and treatment is becoming more widely recognized every day, and with this recognition has come the creation of a literature devoted to this special field. Dr. Norris has given an adequate description of this important field, clearly elucidating the principles involved and carefully pointing out their practical applications. He has presented his subject in condensed form, and as definitely as the present state of our knowledge permits.

The first edition of this work was exhausted in considerably less than two years after publication. In the process of revision for the second edition an increase in size has been necessary in order to include a survey of the constantly growing literature on blood-pressure. Both the experimental and clinical data which have been available are included, for it is the combination of these two that the physician must rely upon when handling his cases. The author's method of discussing each part of the subject is such that his book is a well balanced presentation of the latest scientific information regarding blood-pressure and its clinical applications. It is probably the most complete and authoritative work in England on this extremely important topic. The illustrations are well chosen and a help to the easy understanding of the text.

CANCER MORTALITY.

The Mortality from Cancer Throughout the World. By Frederick L. Hoffman, LL.D., F.S.S., F.A.S.A., Statistician of the Prudential Insurance Company of America; Chairman, Committee of Statistics, American Society for the Control of Cancer; Member American Association for Cancer Research; Associate Fellow American Medical Association; Associate Member American Academy of Medicine, etc., etc. Newark, N.J.: The Prudential Press, 1915.

This portly volume contains 221 pages of reading matter, 44 pages

of charts, and 520 pages of tabular matter. The work reveals a vast amount of investigations and labor on its preparation. It is a veritable storehouse of information on the subject of cancer. An examination of these tables makes it clear that the death rate from this disease is steadily increasing, and varies much with age and locality. Under forty the rate is 70 per 100,000 in the District of Columbia, whereas over 40 it is 217. There is so much in the volume that is valuable all one can do is to recommend it.

GYNÆCOLOGY.

By William P. Graves, M.D., F.A.C.S., Professor of Gynaecology at Harvard Medical School. Octavo volume of 770 pages, with 424 original illustrations, 66 of them in colors. Philadelphia and London: W. B. Saunders Company, 1916. Cloth, \$7.00 net; half morocco, \$8.50 net. Sole Canadian Agents, The J. F. Hartz Company, Toronto.

The author states in his preface that "This work is designed both as a text-book and general reference book of gynæcology." When a new work of nearly 800 pages, octavo, on a special subject, makes its appearance, the first thought is to look into its merits as a justification for any consideration that may be given it, or for its purchase and study. The work is divided into three parts: (1) The Physiology of the Pelvic Organs; (2) the portion intended for the student; and (3) the portion devoted to technic of gynæcologic surgery an intended for the practitioner.

In the first section there are a number of chapters dealing with the function of the uterus and ovaries; and the relationships they bear to other organs, such as the thyroid, the hypophysis, adrenals, digestive tract, the blood, the nervous system, etc. The second discusses gynæcologic diseases, such as gonorrhœa, tuberculosis, inflammations, new growths, defects of development, special conditions, and general symptomatology. Under the third division the various operative procedures are taken up seriam. Each of these three sections has its special value. The section on the physiology of the pelvic organs lays down a sound foundation to build upon. We have rarely seen as fine a description. For a somewhat difficult subject the author has maintained a clear and terse style—no easy matter in handling so scientific a subject. This section of the book makes both pleasant and profitable reading. To this section 136 pages are devoted.

Following this we have 400 pages dealing with the diseases and injuries of the female genital organs. This portion can be recommended to the student as a sound and safe guide in the preparation for his examinations, and for the study of the third section. We have carefully

studied this section, and have only words of praise for it. The author is not merely a student and practitioner, but an experienced teacher, and knows what to put in his book, and how to put it there.

The third section occupies 220 pages. In this section treatment, especially operative methods, are given in a very lucid manner.

The illustrations are original and numerous, and shall we not say superb? The paper is a heavy quoted grade, and the type is clear and of good size. The binding is ideal. There has evidently been a keen rivalry between the author and the publisher as to which would do his part the better, and to both we say—well done. In bringing out this work, Professor Graves has not only earned distinction for himself, but has added to the reputation of the Harvard teachers, high though that was.

PROGRESSIVE MEDICINE.

A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by H. A. Hare, M.D., and S. F. Appleman, M.D. Vol. II., June, 1916. Philadelphia and New York: Lea & Febiger. Price, \$6.00.

The volume deals with hernia, surgery of the abdomen, gynecology, diseases of the blood, diathetic and metabolic diseases, diseases of the spleen, thyroid gland, nutrition and the lymphatic system, and ophthalmology. The contributors are John G. Clark, W. B. Coley, J. C. A. Gerster, Edward Jackson and Alfred Stengel. The volume maintains the high standard of the series to which it belongs. Each article furnishes a very reliable resumé of the state of our knowledge up to the present. The illustrations are numerous and clear, and the paper and typography everything that could be desired. No one would ever regret subscribing for "Progressive Medicine."

THE CLINICS OF JOHN B. MURPHY, M.D.

The Clinics of John B. Murphy, M.D., at Mercy Hospital, Chicago. Volume III., No. III. (June, 1916). Octavo of 176 pages, 42 illustrations. Philadelphia and London: W. B. Saunders Company, 1916. Price per year, paper, \$8.00; cloth, \$12.00.

These clinics have rapidly come to take a prominent place in the surgical literature of the day. Dr. Murphy is not only earning deserved fame through their publication, but he is placing the whole profession under a large debt to him for the advancement made to the cause of surgery thereby. We think that every surgeon should read these clinics.

THE CLINICS OF JOHN B. MURPHY, M.D.

The Clinics of John B. Murphy, M.D., at Mercy Hospital, Chicago. Volume V., No. II. (April, 1916). Octavo of 176 pages, 32 illustrations. Philadelphia and London: W. B. Saunders Company, 1916. Published bi-monthly. Price per year: Paper, \$8.00; cloth, \$12.00.

THE MEDICAL CLINICS OF CHICAGO.

The Medical Clinics of Chicago. Volume I., No. VI. (May, 1916). Octavo of 229 pages, 22 illustrations. Philadelphia and London: W. B. Saunders Company, 1916. Published bi-monthly. Price per year: Paper, \$8.00; cloth, \$12.00.

These companion publications give the latest word on surgery and medicine. The contributors make a special effort to deal with what is really of interest and value to the general practitioner. Every one who wishes to keep himself abreast of the times should peruse these publications. Authors and publishers are entitled to unstinted praise.

MISCELLANEOUS

HEALTH OFFICERS' ASSOCIATION.

Many interesting papers were read by prominent medical men at the fifth annual conference of the Ontario Health Officers' Association, was held in Convocation Hall, on 30th and 31st January. Captain A. W. McPherson, Peterboro, president of the association, is in France on military service, and in his absence Dr. A. J. Macauley presided. Dr. McPherson was unanimously re-elected president.

Dr. W. H. Park, director of the laboratory of the Public Health Department of New York City, gave an interesting address on "Modern Methods of Diagnosis and Treatment of Diphtheria." He held that the entire quantity of antitoxin required in the treatment of a case of diphtheria should be given at the first injection. It could do no harm to give the full dose at the outset, and it might do harm not to give a large enough one. Dr. Park said that in ordinary cases he favored the subcutaneous or intramuscular injection of the serum, and that in cases which it appeared might end in death he advocated an intravenous dose, with a small subcutaneous injection. By the Schick reaction, obtained by the injection of a small dose of diphtheria bacteria, it was possible to determine the susceptibility of an individual to infection. Eighty per cent. of the adults who had in Dr. Park's experience submitted to the test had been shown to be immune from the disease. It was possible, Dr. Park said, by the use of 1,000 unit injections of anti-

toxin to produce temporary immunity in a great many instances. By the use of an injection of diphtheria toxin, neutralized by antitoxin, however, it was possible, he said, to bring about active immunization of apparently long duration.

With the assistance of several charts Dr. Park described its uses in various stages and the results obtained, both in the cases of children and adults at ages ranging from two to twenty-one years, and upon animals. He stated that fully seventy per cent. of horses were diphtheria carriers.

Dr. R. A. Dales, of Stouffville, suggested that the association should discuss such subjects as the quarantine regulations. It might be wise to divide the organization into two sections, one for the discussion of the problems of cities and large towns, the other, for the consideration of the problems of small towns, villages and rural municipalities. He said that the Government had done well in creating health districts in the province. It could take another step forward by placing an expert at the head of each county, perhaps two in thickly populated counties, to educate the public in health matters. He suggested that the association should carefully consider whether or not the public should pay the wages of the breadwinner while under quarantine. In this connection he pointed out that the isolation of the individual prevented the spreading of the disease. Consequently the public is safeguarded, and, therefore, should make some remuneration to the man who has to remain idle.

"Auxiliary Aids in Public Health Work was the title of an extremely educational paper read by Capt. H. W. Hill, M.O.H. of London, Ont., and sanitary officer of the 1st Military District. Capt. Hill stated that public health was a business just as much as any other line of business. Doctors and nurses should study thoroughly how to control the spread of contagious diseases. Children in schools should be physically developed so that their systems would be strong enough to throw off the germs of disease, which are always around. In his opinion, it was necessary to have a thoroughly organized medical inspection. In speaking of the need for cleanliness in the handling of food supplies, Capt. Hill laid particular stress on the value of the newspapers in bringing facts to the attention of the public by short feature stories.

Dr. P. J. Moloney, District Officer of Health for Cornwall, read an instructive paper on the subject of "Rural Sanitation," embracing many matters of vital importance to rural municipalities. He said: "The country districts, as a whole, are largely populated by native Canadians, and most of our immigrants have crowded into the urban municipalities, or in the localities where industry or public works are in active progress. We therefore find that country homes, as a rule, are not overcrowded."

The speaker pictured the surroundings of the farmhouse and its interior in very trenchant language, alluding to the lack of cleanliness, the prevalence of flies and said the occupants must be educated, the women interested and made enthusiastic.

A paper on the "Methods of Collection and Disposal of Domestic Wastes in Small Municipalities" was read by Dr. F. A. Dallyn, Provincial Sanitary Engineer. He said:

"I would advise the extension of time in payment for local improvement work from 10 years to 30 years. It is a very feasible plan and works out to be much cheaper in the end. We find in a great many municipalities a water supply, but no sewage disposal plant. This state of affairs exists in several municipalities having a population up to 5,000."

Dr. Logan, of Niagara Falls, who introduced the subject of the prevention of tuberculosis in children, read an interesting paper in which he advocated the pasteurization of milk supplies, the isolation of sufferers from the disease and urged the need of fresh air and proper feeding for the young. Dr. Alan Brown who followed in the debate which ensued, took the position that steps to safeguard a child against infection should begin at its birth. The parents should be taught how to care for themselves and for their offspring and the mother should learn how to feed herself and her infant. He spoke of the number of deaths among the young from consumption and he supported his plea for the establishment of a sanitarium for infants suffering from the malady by the statement that such an institution would prevent and teach a great many things. Speaking of the infant mortality rate generally he said that Toronto had reduced its rate 60 per cent in the past two years.

"The death-rate from tuberculosis has dropped in Ontario from 148 to 85 persons per 100,000 in eleven years. I would recommend open-air schools for the strongly pre-disposed and the incipient cases."

The question of water supplies and sewage disposal systems in suburban districts was the topic of an able paper by Dr. J. B. Nelson, of Westboro, who described the proper methods of construction of wells and septic tanks. Dr. Nelson's address gave rise to a brief debate, in which Dr. Moloney took the position that to encourage the well-to-do to instal septic tanks might have the effect of making it difficult to introduce municipal sewerage systems.

"In my experience septic tanks are a curse," declared Dr. Vardon, of Galt. "Every city and town should have a proper municipal sewerage system." He agreed that the installation of septic tanks might have the effect of delaying the provision of a municipal system. To meet a situation in which it might be found that the citizens had to instal a septic tank or something more primitive, he said, there should be in every town a plumbing inspector who would not allow work to com-

mence without first referring the case to the medical officer of health. As to water supplies Dr. Vardon said: "We don't want any town to get into the position of Toronto, and have to chlorinate the water. It would be better almost to have a 'dry town' with nothing but local option beer and ginger ale."

Dr. Kidd asserted that 40 per cent. of the milk cows of Ontario were infected with tuberculosis and he declared that the Department of Agriculture of the province was doing nothing in his district at least to deal with that situation. He urged that an effort be made to teach those responsible for the milking of cows the necessity of cleanliness in order to prevent the pollution of the product. Dr. C. J. Hastings, Medical Officer of Health of Toronto agreed that from 25 to 40 per cent. of cows in Ontario were tubercular and said that commissions in Great Britain, the United States and Germany had found that 25 per cent. of cases of tuberculosis were due to infection from cows. He contended, however, that in pasteurization a means had been found to meet that condition without destroying the nutritive properties of the milk.

Dr. G. R. Cruickshank, Windsor, discussing tonsillitis, believed that even if the tonsils were in healthy condition in a child at the age of ten, they should be removed. He had no doubt but that they were responsible for a great many diseases which develop. He had traced diseases which undoubtedly had their origin from that source.

As a means of reducing the amount of tonsillitis, Dr. Cruickshank offered the following suggestions: The abolishing of the use of baby's comforts, which, convey a lot of unnecessary dirt into the mouth; the proper ventilation of sleeping apartments and schoolrooms and the proper care of the teeth.

The opinion that the tonsils should always be removed gave rise to a good deal of discussion. Many of those present disagreed with this view.

Two lectures illustrated by lantern slides were given at the public meeting in the evening. Major W. D. Sharpe, R.A.M.C., of Brampton, spoke on sanitation in Serbia, telling of the epidemic of typhus there and showing a great many interesting views taken in Salonica and in the Balkan States. Capt. Ruggles George, A.M.C., of Toronto, who went to the front with the 3rd Battalion, C.E.F., showed pictures of the first Canadian contingent, taken at Valcartier Camp, on the transports crossing the Atlantic, on Salisbury Plain and in France.

Answering questions before the meeting closed Major J. W. S. McCullough, secretary of the Ontario Board of Health, told some members that they could do no better work than that of inspecting schools and school premises, and that they should inspect cheese factories and slaughter-houses in their districts often enough to satisfy themselves that those places were in a sanitary condition.

The meeting adjourned, having elected officers and decided to meet again on the last Tuesday and Wednesday of May, 1917. The new officers are:—President, Dr. A. J. Macauley, of Brockville; Vice-President, Thos. A. Vardon, of Galt; Secretary, Major J. W. S. McCullough; Committee on Papers and Arrangements, the officers and Dr. W. A. Crain, of Crystler, Dr. J. McBain, of Rainy River, and Dr. Jas. Roberts, of Hamilton.

VITAL STATISTICS OF ONTARIO.

The epidemic of measles in the Province did not show much abatement in May as compared with the previous month, the figures of cases being respectively 2,980 and 3,206, with deaths from all communicable diseases shows a decided reduction, cases and deaths numbering respectively in May 3,686 and 136, and in April 3,973 and 225.

The following is the comparative table for May, 1916, and May, 1915:

Disease.	May, 1916.		May, 1915.	
	Cases.	Deaths.	Cases.	Deaths.
Smallpox	10	0	55	0
Scarlet fever	120	7	112	3
Diphtheria	170	7	191	13
Measles	2,980	14	659	9
Whooping cough	160	10	39	5
Typhoid fever	60	12	24	6
Tuberculosis	175	82	114	81
Infantile paralysis	1	0	0	0
Cerebro-spinal meningitis.	7	4	15	9
	3,686	136	1,209	126

HOSPITAL FOR SHOCK CASES.

The Provincial Secretary's Department will establish at Cobourg a hospital for the treatment of mental and shock cases among returned soldiers. This was provided for by an arrangement concluded recently between the Dominion Hospitals Commission and the Ontario Government.

The present institution at Cobourg will be immediately converted into a military hospital by the transfer of some 180 female patients to the new hospital for mental diseases at Whitby. It is expected that by the first week in July the Cobourg Hospital will be ready to receive fifty-five patients, and the number of cases will be increased thereafter as they are brought forward. The medical staff and nurses with the necessary facilities and organization for this hospital will be provided by the Provincial Secretary's Department, and preparation is being made to increase the accommodation by the erection of additional buildings should it be found that this is needed.

The need for special facilities for the treatment of mental and shock cases arising out of the war has imposed an unforeseen burden on the medical branch of the military organization of Canada. The Dominion Government will pay to the Province a maintenance charge of so much per day per patient, and the entire resources of the department will be made available for the purpose of securing for those who are sent to the Cobourg Hospital the best treatment known to science. The equipment at Cobourg will include hydro-therapeutic and electro-therapeutic baths and special wards to deal with the different classes of patients.

CANDIDATES PASS THE MEDICAL COUNCIL.

The following candidates have passed the Spring examination of the College of Physicians and Surgeons of Ontario:—William Harold Trevor Baillie, Toronto; James Everett Barry, Toronto; Norman Walter Bragg, Brantford; Percival Beckett Brown, Toronto; Byron Rayleigh Burwash, Baltimore, Ont.; George Milne Cameron, Hamilton; Duncan Corcoran, Toronto; Percy William Mark Curry, Trenton; Lowell Dindass Dales, Drayton; George Albert Davis, Toronto; James Archibald Dickson, Toronto; Herbert Barnes Freel, Stouffville; George Mackinley Geldert, Ottawa; Albert Earl Gillies, Port Hope; John Zachariah Gillies, Toronto; William Clarke Givens, Toronto; Edward Allan Goode, New York City; Stanley Galbraith Graham, Lobo, Ont.; Alfred Clayton Greenaway, Woodville, Ont.; Harold Craig Hagyard, Milton; John Edgar Hawkins, London, Ont.; Harry Brown Hetherington, St. Catharines; Lawrence Roland Hill, Toronto; Wilfred Ernest Hodgins, Lucan; Alonzo Bowen Hyndman, Merrickville; Allan Bart Jackson, Simcoe; Robert Merrideth Janes, Watford; Arthur Wesley Knox, Lougheed, Alta.; John Henry Leeds, Galt; Charles Terrell Lewis, Windsor; George Franklin Lewis, Windsor; Arlof Robert Lindsay, Toronto; Neville Hall Little, Trenton; Dalton McCarthy Livingstone, Collingwood; William Arthur Lowe, Haileybury; Arthur Jeffers MacCallum, Owen Sound; Ashley Roy MacDonald, Jarvis; William MacKintosh MacKay, Cornwall; John Archibald MacMurchy, Acton; Hugh Bethune Maitland, Toronto; Donald Charnoch Matheson, Kingston; Orland Wilbery Mitton, London; Archie McCallum, Toronto; Francis Leo McCarroll, Thornepayne, Ont.; John Edward McCorvie, Chatham; William Porteous McCowan, Toronto; John Clark McCullough, Waller's Falls, Ont.; John Laing McDonald, Toronto; Donald Cecil McFarlane, Dorchester, Ont.; William John McLean, Blind River, Ont.; George Duncan McTaggart, Hamilton; Arthur Herbert Naylor, Lindsay; Arthur Caven Norwich, Toronto; Olive Gair Patterson, Toronto; Edward Emanuel Phoenix, London, Ont.; Harry Overton Pope, Bothwell; Geo. Welling-

ton Renton, London; Russell Beattie Robson, Petrolea; James Gordon Ross, London; William Victor Sargent, Kingston; Percy Albert Sargeant, Barrie; Garner Scullard, Chatham; James Harold Sharpe, Toronto; Edward Earle Shouldice, Calgary, Alta.; Harold AlgaSimpkins, Thamesville; Thomas Alexander Sinclair, Walterton, Ont.; Roy James Snider, Toronto; Saul S. Soloway, Fort Francis; Frederick Spearing, Batteau P.O., Ont.; Austin Laverne Speers, Merton P.O., Ont.; George Herbert Stobie, London, Ont.; Bertrand Carlisle Switzer, Toronto; Edward Garnet Tanner, Sarnia; Robert Hobbs Taylor, London, Ont.; Frederick Fitzgerald Tisdall, Toronto; Charles Herbert Warriner, Toronto; Charles James McNeil Willoughby, Toronto; Frederick B. Gladstone Wilson, Toronto; Malcolm James Wilson, Toronto; Agnes Merle Young, Binbrook, Ont.; Donald Roy Young, Thamesford; Harvey Gordon Young, St. Mary's; William Lorne Yule, Logansport, Ind.

FIRST RADIUM BODY IS FORMED IN DETROIT.

Fourteen members of the American Medical Association, specializing in radium practice, held a dinner session at the Detroit Athletic Club, Wednesday evening, and organized the American Radium Association, for the scientific study of radium and its uses, the members to report annually on new uses and applications of radium. The organization is the first of the sort in the world.

Dr. W. H. B. Aikens, Toronto, was made temporary chairman, and Dr. R. E. Loucks, of Detroit, temporary secretary.

The next meeting will be held in Philadelphia, in October, when permanent organization will be effected.

All radium workers will be invited to become members. There are about 50 radium specialists in the country.

Ensuing meetings of the association will be held in conjunction with the annual sessions of the American Medical Association.

MEDICAL COUNCIL ANNOUNCES RESULTS.

Dr. R. W. Powell, registrar of the Medical Council of Canada, has announced that the following candidates have successfully passed the examination for the diploma of L.M.C.C., known as the Federal License of Medicine, held in Toronto during the past ten days:

J. E. Affleck, Glasgow Station, Ont.; C. M. Anderson, Ottawa; S. G. Baldwin, Vancouver, B.C.; W. S. Downham, London, Ont.; G. C. Ferguson, Winnipeg; J. W. Fraser, Whitby, Ont.; G. Hooper, Ottawa; W. T. Kennedy, Agincourt, Ont.; J. J. Knoll, Daysland, Alta.; D. M. Livingstone, Collingwood, Ont.; A. Y. McNair, Vancouver, B.C.; H. M. MacDonald, Kingston, Ont.; W. Morris, Winnipeg.