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VOL. XIII, No. 3
[OLD SERIES]

VOL. VI, No. 3
[NEW SERIES]

Queen's Medical Quarterly

PUBLISHED BY THE MEDICAL FACULTY OF QUEEN'S UNIVERSITY.

CONTENTS.

APRIL, 1909.

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QUEEN'S MEDICAL QUARTERLY

Vol. XIII, No. 3. Old Series — APRIL, 1909. — Vol. VI, No. 3 New Series

Queen's Medical Quarterly is presented to the Medical Profession with the compliments of Queen's Medical Faculty. Contributions will be gladly received from members of the Profession and willingly published.

BUSINESS MANAGER: DR. A. R. B. WILLIAMSON.
This number is issued under the supervision of
DR. C. A. MORRISON.

Communications to be addressed to Dr. A. R. B. Williamson, Queen's University, Kingston.
Items of interest or original articles for publication solicited from members of the profession.
Office of Publication—Kingston, Ontario.

THE fifty-fourth session of the Medical School which has just closed has been a satisfactory one in point of attendance, and in the work done throughout the session. The registration was 213, there being 68 in the first year.

The new Laboratories Building was found to be perfectly satisfactory and its addition to the equipment really marked the opening of a new era in the history of the School.

During last summer the old building was remodelled and an office for the Secretary and a Faculty Room fitted up on the ground floor. A stone wall has been erected in the rear of the residences and the grounds have been so much improved that the "medical quadrangle" is now ready for visitors and is in keeping with the rest of the beautiful grounds.

The work of the session was very satisfactory. The examination results showed a lower percentage of failures than usual. Forty graduated out of forty-six in the final year. Out of sixty-eight in the first year, only seven failed in any subject. This is evidence of the high standard of preliminary education among those admitted to the School. Very few—only two during the past session—have been admitted *ad eundem* from other schools, and applications of this kind are discouraged.

In the new Laboratories the work for the Provincial Board of Health is being carried on and is constantly increasing in quantity and importance. Over fifteen hundred specimens have been examined free during the past year. This is of great value to the public and profession throughout the province.

The anatomical museum is growing steadily under the continued care of the Professor and his Assistants. The pathological museum is now well provided for so far as accommodation is concerned, but

there is a great deal to be done in preparation and mounting of the many valuable contributions that have been made to it.

It is hoped that all graduates, recent as well as old, will find opportunity to visit the School and see for themselves how much has been done by the Faculty to make it equal to any medical school in the country.

CONVOCATION.

THE annual Convocation proceedings of Queen's University, held on the afternoon of April 29th, 1909, were probably the most successful of their kind that were ever held. Favorable weather resulted in a record-breaking attendance. The affair marked the 68th annual Convocation for the Faculties of Arts and Theology, and the 55th annual event for Medicine. Grant Hall never looked better than it did on that day. The hall was filled largely by the relatives and friends of the students. Shortly after 2.30 the professors and other prominent personages entered the hall, headed by Chancellor Fleming and Principal Gordon. Among the out-of-town gentlemen on the platform were noticed Mr. J. S. Willison, of the "News," Toronto; Rev. Jno. Hay, Renfrew; Inspector Cowley, Ottawa; Dr. P. C. McGregor, Almonte; Rev. J. Cumberland, Stella; Dr. W. J. Clark, Westmount; Dr. Campbell, Montreal! Justice McLennan, Ottawa; D. B. McLennan, Cornwall, and many others. Rev. D. R. Drummond, Hamilton, opened the proceedings with prayer. Mr. G. Y. Chown, registrar; Rev. Dr. Ross, secretary of Theology, and Dr. A. R. B. Williamson, secretary of the Faculty of Medicine, announced the winners of the University prizes and scholarships. These were presented by various professors in the different faculties.

The following are the graduates and prize winners in Medicine:

DEGREE OF M.D. AND C.M.

E. J. Bracken	Ellisville.
J. E. Brunet	Clarence Creek.
L. L. Buck	Railton.
E. P. Byrne	Kingston.
D. R. Cameron, M.A.	Lancaster.
D. A. Carmichael, M.A.	Unionville.
H. E. Chatham	Stettler, Alta.
W. A. Claxton	Kingston.
J. W. Corrigall	Roslin.
P. O. Coulombe	Cheneville, Que.

W. H. Craig.....Kingston.
L. M. Dawson.....Ottawa.
C. S. Dunham.....Kingston.
Alexander Ferguson.....Williamstown.
J. E. Galbraith.....Chatsworth.
J. C. Gillie.....Chapleau.
T. J. Goodfellow, B.A.....Parham.
Irvin Hardy.....Davis, W.Va.
A. R. Heupt.....Melbourne, Australia.
C. A. Hughes.....Grenada, B.W.I.
J. B. Hutton.....Kingston.
C. H. Knight.....Georgetown, B.G.
H. M. Lermond, B.A.....Trinidad, B.W.I.
A. Letherland.....Glenvale.
T. N. Marcellus.....Williamsburg.
J. J. McCann.....Perth.
M. C. MacKinnon.....Whim Road Cross, P.E.I.
J. J. McPherson.....Uigg, P.E.I.
C. J. McPherson.....Metcalfe.
O. W. Murphy.....Portland.
J. S. Quinn.....Tweed.
A. L. Raymond.....Williamstown.
B. C. Reynolds.....Cornwall.
D. Robb, B.A.....Battersea.
A. J. Salmon.....Lucea, Jamaica.
J. C. Shillabeer.....Regina, Sask.
J. H. Stead, M.A.....Lyn.
W. G. Wallace, B.A.....Metcalfe.
B. L. Wickware.....Toledo.
H. C. Workman, B.A.....Kingston.

MEDALS AND PRIZES.

Faculty Prize in Anatomy.

W. E. Wilkins, Vernon.

Faculty prize, $25.00, for highest mark on second year examinations in Anatomy, Physiology, Histology and Chemistry.

R. A. Simpson, Chatham, N.B.

The New York Alumni Association Scholarship, $50.00, for highest mark in Honour Physiology and Histology.

F. Boyd, B.A.

Faculty prize for highest percentage of marks on second year examination in Materia Medica, Therapeutics and Pharmacy.

R. A. Simpson, Chapman, N.B.

The Dean Fowler Scholarship for highest percentage of marks on work of the third year.

S. M. Polson, M.A., Kingston.

Faculty prize for best written and practical examination in third year Pathology.

S. M. Polson, M.A., Kingston.

The Chancellor's Scholarship, value $70.00, *for highest percentage on four years' course, tenable only by those who take the examinations of the Ontario Medical Council.*

M. C. MacKinnon; next in order, J. J. McCann and D. A. Carmichael.

Prize of $25.00 *given by Dr. W. C. Barber for best examination in Mental Diseases.*

M. C. MacKinnon, Whim Road Cross, P.E.I.

Medal in Medicine.

J. J. McCann, Perth.

Medal in Surgery.

D. A. Carmichael, M.A., Unionville.

House Surgeoncies in Kingston General Hospital.

The following are recommended in order of merit: J. B. Hutton, C. S. Dunham, M. C. MacKinnon.

The presentation of the candidates for honorary degrees next took place. Professor H. A. Kennedy, M.A., D.Sc., of Knox College, Toronto, was presented by Rev. Dr. Ross, for the degree of D.D.

Mr. Alex. Graham Bell was presented for the degree of LL.D. by Professor Cappon, who expressed Mr. Bell's regret at not being able to be present.

Hon. Thomas Horace McGuire, K.C., ex-Chief Justice of the Supreme Court of the Northwest Territories, was presented by Principal Gordon for the degree of LL.D. Justice McGuire is a graduate of Queen's, having matriculated in 1866, and graduated four years later, winning the Prince of Wales Scholarship.

Professor Edward Emmerson Barnhard, of Yorkes Observatory, Williams Bay, Wisconsin, was presented for the degree of LL.D. by Professor Dupuis. Professor Barnhard is one of the most distinguished, if not the most distinguished, astronomer in the world to-day.

This ended the proceedings, prayer by the chaplain and the national anthem being the closing features.

At a meeting of the University Council of Queen's, held on April 27th, Principal Gordon moved a resolution approving of the action of Queen's in memorializing the Presbyterian Assembly in favor of such constitutional changes in Queen's charter as would remove denominational disabilities of the University. The motion was

seconded by Mr. John McIntyre, K.C., in a vigorous speech.

An amendment was moved by Mr. G. M. Macdonnell that Queen's was a national and ideal university as she stood and needed no change.

The motion of Principal Gordon was carried by a vote of 42 to 5.

At the meeting of Queen's Trustees, held April 29th, the resolution of the University Council was considered, and the Board resolved unanimously: That the Trustees of the University, having regard to the needs of the University and to the action of the University Council, as reported in the minute of the 27th inst., regarding proposed changes in the charter of the University, resolved as follows:

The Trustees desire to express their appreciation of the sympathetic and helpful interest manifested towards the University during its past history by the Supreme Court of the Church and by many of the members of the church. They recall how on previous occasions the church has assented to changes in the constitution of the University that tended to further its development and to increase its usefulness. They believe that it would be greatly to the advantage of the University to make further constitutional changes. They therefore respectfully ask that the Assembly will assent to the removal from the charter of such denominational restrictions as might impede the development of the University, and that the Assembly will appoint a commission to co-operate with the Board of Trustees in regard to such changes in the constitution of the University.

A REVIEW OF THE USES OF TUBERCULIN.

IN the use of certain specific "vaccines" or "bacterins," we almost invariably obtain results of striking rapidity, e.g. in their use in boils and carbuncles. This is not the case in our use of the tuberculins, and it is for the reason that their action is not spectacular that many have been disappointed in the therapeutic results—they have expected too much. It is the purpose of this paper to discuss in a brief manner the various uses to which the tuberculins have been put, as well as to report a few cases treated by tuberculin.

It is now nineteen years since Koch first offered his tuberculin to the world, when it was received with great enthusiasm, but we all know how disappointing it proved. This tuberculin is now known as Koch's Old Tuberculin, and was made from an abundant growth of tubercle bacilli in 4—6% glycerine broth, evaporated over a water-bath to one-tenth of its volume and filtered through a Pasteur-Chamberland filter, the filtrate being the crude Tuberculin. We, to-day, believe that the failures which followed on Koch's introduction of tuberculin were due to the fact that the dosage was much too large, and that the ill effects which followed injections of tuberculin were such as might follow from the introduction of an overdose of any drug into the system. Tuberculin acts like a powerful drug, and a very slight increase in the minutest of doses very often produces marked effects in a patient. We are not aware of the nature of the action of tuberculin, beyond that it is powerful. It is undoubtedly chemical, but its nature as well as the chemistry of immunity in general is unknown. It is well to bear in mind, in this connection, the dangers which might arise from the injection, by mistake in dilution, of an overdose of tuberculin ten or twelve days after the inoculation of a preliminary small dose. Experiments in anaphylaxis have revealed the dangers of subcutaneous inoculation of proteids. Hence one important quality of mind for those who use tuberculin is a wholesome respect for tuberculin[1].

Since, then, tuberculin is no new thing, what has been its history since its introduction to the field of therapeutics? Following the first disappointment, it dropped into disuse, and was only used generally for diagnostic purposes. A few like Trudeau, however, still had faith, feeling that the trouble lay in the mode of administration, dosage, etc.

The recent renewal of interest in tuberculin is no doubt due to Wright's discovery of opsonins, and the accentuation of the importance of phagocytosis in connection therewith, as an agent in combatting infections, etc. The undoubted success of vaccine therapy gives increased stimulus to another trial of tuberculin. There are many tuberculins in use at the present day—Koch's Old Tuberculin, Koch's New Tuberculin (T.R.), Koch's Tubercle Bacilli Emulsion (B.E.), Deny's Bouillion Filtrate, etc. Of these the Tubercle Bacilli

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[1]Trudeau, Am. Jour. Med. Sciences, August, '06.

Emulsion follows most closely the composition of Wright's vaccines, as made for other conditions.

Though the Tubercle Bacilli Emulsion is practically a Wright vaccine, viz., an emulsion of dead micro-organisms (pulverized), we must not forget that tuberculosis is quite different from other infections in the insidiousness of its onset, the chronicity of its course, and the evolvement by the tubercle bacilli of true endo-toxins, as well as extra-cellular toxins, which dissolve in the media in which the tubercle bacilli grow. It is very difficult to get a solution of the endo-toxin, because the ensheathing envelope of the tubercle bacillus is hard to break. No doubt if we had a solution rich in this endo-toxin, which is supposed to be the 'true' toxin of the tubercle bacillus in a vaccine, we should have a substance of strong potency in stimulating the body-cells to provide anti-bodies of various kinds to overcome the infecting agent. There is no doubt the various tuberculins do contain some of the true toxins of the tubercle bacillus in solution, and the results we obtain by their use may be truly ascribed to their containing such, but we are not at all certain which of the tuberculins is the best. By analogy, following the composition of Wright's vaccines, the Tubercle Bacilli Emulsion is the best tubercle 'vaccine' we have, but we should not forget that Koch in the manufacture of T.R. (Koch's New Tuberculin) was very painstaking and thorough in his pursuit of the true toxin of the tubercle bacillus, and the T.R. solution probably contains considerable quantities of it. The injection of emulsions of the whole organism is futile, as the enveloping capsule is so thick as to prevent absorption; and abscesses have resulted when this procedure has been tried.

Tuberculin in the diagnosis of tuberculosis.

Below are included the common methods in use at present:—

1. *By Subcutaneous injection.*—Old Tuberculin is used beginning with $^1/_{10}$ mgs., increasing if necessary to 3, 4, 5, or 10 mgs. The reaction manifests itself in four or five hours with a chill, and rise of temperature (100°F. or higher in some cases), pains in the limbs, and symptoms of malaise. The symptoms in a mild reaction last about 24 hours. There will likely be some local reaction. Previous to the test, the patient's temperature should be taken for several days. This is a reliable test.

2. *Calmette's reaction or Ophthalmo-tuberculin test.*—½ to 1% Koch's Old Tuberculin in .8% salt solution is used. A drop is placed

in the eye which is closed for one minute. The reaction manifests itself in 12 to 24 hours, sometimes delayed to 48 hours, in a hyperæmia of the conjunctiva, beginning at the caruncle and spreading out on the ocular conjunctiva towards the limbus of the cornea. Sometimes the reaction is so severe as to be classified as a conjunctivitis with chemosis, etc. Ulcers of the cornea and iritis have been reported as following the use of this test. The results obtained are not generally felt to be reliable, in that the conjunctiva being so exposed is easily sensitized. This would apply particularly to nurses, surgeons, and workers with tuberculin, who might easily have their conjunctivae sensitized by tubercular products, etc.

3. *Von Pirquet test.*—This is simply a vaccination with 25% solution of Old Tuberculin. Control scarifications are made with solutions used in diluting Old Tuberculin. In positive cutaneous reactions, redness appears after a few hours, usually reaching its highest intensity in 12 to 24 hours. It may be moderate, marked, or excessive, disappearing within a few days or lasting for weeks. Besides the hyperæmia, there may be exudation and infiltration, causing the formation of papules.

4. *Detre test*[2].—This is a modification of the Von Pirquet procedure and consists in applying to the skin at the same time three substances, viz.: (*a*) Concentrated Old Tuberculin, (*b*) Filtrate of a culture of human tubercle bacilli, (*c*) Filtrate of a culture of bovine tubercle bacilli. The test is for differentiation purposes, not merely for diagnosis, but also as a guide in the selection of tuberculin in treatment.

5. *The Moro test.*—The Moro ointment is made of equal parts of Old Tuberculin and anhydrous lanolin. About ½ gramme is applied to a cleansed abdominal skin area 2″ square, and rubbed briskly in for one minute. The reaction appears in 24 to 48 hours as a papular eruption, disappearing in a few days, leaving a pigmented patch, which desquamates and may persist for some little time. This test has not come into general use yet, but so far its results are rather promising.

Method of administering tuberculin as a therapeutic agent.

There are at present two methods in use in the administration of Tuberculin, viz., "the clinical method," or that followed by Tru-

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[2] Huber American Medicine. Feb., 1909.

deau and his followers, and the 'opsonic method' of Wright and his school. In the former the doses of tuberculin are gradually increased, the temperature and pulse being carefully noted at a few hours' interval. The onset of a 'reaction,' consisting of a rise of temperature and feelings of malaise, which may persist for a few days, calls for the discontinuance of the tuberculin inoculations, and upon resuming these, the dose used is very much smaller than the one given just previous to the 'reaction'; one practically begins again with the small dose and gradually increases. The dose used by Trudeau[3] to begin with is $^1/_{10000}$ mg. or $^1/_{20000}$ mg. solid substance, Koch's Bacillen Emulsion or $^1/_{100}$ mg. Old Tuberculin. The injections are made bi-weekly at first. A 'course in tuberculin' should last six months at least; a year or more is much better.

Some of Trudeau's statistics are rather interesting. Below are subtended a few[4]:—

A. In the *Incipient cases,* of those who had tubercle bacilli in the sputum 64% of the treated lost them; of the *Advanced casees* 44% of the treated lost the tubercle bacilli from the sputum, and 24% of the untreated. (Note: It must be remembered, that both the treated and untreated were under the same conditions and in the same environment; they were under the usual sanatorium treatment).

B. Comparison of 185 *treated and* 864 *untreated* (all who stayed less than 90 days excluded):

Incipient.

	Apparently Cured.	Disease Arrested.	Active.
Treated	56%	34%	10%
Untreated	50%	38%	11%

Advanced.

	Apparently Cured.	Disease Arrested.	Active.
Treated	27%	55%	18%
Untreated	6%	51%	43%

*Note percentages in advanced cases.

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[3]Trudeau, Am. Jour. Med. Sciences, August, '06.

[4]Trudeau, Am. Jour. Med. Sciences, August, '06.

C. *Comparison of* 135 *Treated and* 690 *Untreated*:

	Incipient.		Advanced.	
	Living.	Dead.	Living.	Dead.
Treated	79%	20%	61%	39%
Untreated	63%	37%	36%	64%

In the "opsonic method" of Wright and his followers the dose of tuberculin is gauged according to its effect on the opsonin-content of the blood-serum, or to speak technically, upon the rise and fall of the opsonic curve. Wright is quite content with the amount of tuberculin inoculated if the opsonic index is stimulated with each inoculation to rise above the normal line, providing that in the 'reflow' it does not fall back to its primary position. The succeeding inoculation is given at the beginning of the 'reflow,' and will be greater or less or equal to the preceding dose, according to the effect of that dose on the 'opsonic curve.' Once the dose is fixed there is but little variation, for Wright does not believe that it is at all necessary in the production of immunity to gradually increase the dose of tuberculin until the patient is capable of withstanding an immense dose. He believes the 'machinery of immunization,' residing within the body-cells and fluids is stimulated quite as well by small doses repeated at ten days to two weeks' intervals, as determined by variations of the opsonic index, and at the same time the patient is not subjected to the dangers and discomforts of a febrile reaction, which almost inevitably comes in the course of tuberculin treatment by the 'clinical method.' It is true that the determination of the opsonic index, or the opsonic-content of the blood-serum, does not reveal the amounts of antibodies in the blood-serum other than opsonins, and it might be argued on that account that the opsonic calculation is no measure of the degree of immunity of the patient, but we may infer that if substances, so closely concerned in the establishment of immunity as opsonins, are increased in amount, the other anti-bodies such as bacteriolysins, agglutinins, etc., are increased as well.

It has been my custom at the outset of treatment of tubercular cases to make two or three opsonic calculations, to determine whether or not the opsonic index in below normal. An initial dose of $^1/_{2000}$ mg. T.R. or B.E. is then given. The second or third day following, an opsonic calculation is made to see if there is a rise or not in the opsonic index. If there is a rise, a similar dose is given

on the twelfth to fourteenth day after the first inoculation. I am quite aware that Wright guides his treatment throughout by the opsonic index, but the time required in such calculations prohibits the general practitioner from making them. It is questionable, besides, after you have learned by a few preliminary calculations the size of the dose necessary to raise the index, if their utility, when employed throughout the treatment is commensurate with the labor involved. Hence it has been my use to give throughout the entire 'course' doses varying from $^1/_{2000}$ mg. to $^1/_{1000}$ mg. of the solid substance of Koch's Tuberculin R., and Koch's Bacillen Emulsion. In my choice of these, I am guided by the clinical course, changing from one to the other, if I find there is not the desired response.

Partial report of a few cases treated with Tuberculin:

I have had only a few cases in which I have been able to make use of Tuberculin. During the past two years, I have treated 19 cases of phthisis in various stages (7 of whom were patients in R——— Hospital); 5 cases of tubercular adenitis; 2 cases of tubercular arthritis; 1 case of tubercular periositis, occurring in a patient suffering from fibroid phthisis, and 1 case of tubercular abscess, having its origin in a necrotic os publis and ilium. I have excluded from this list a few cases, who came for inoculations once or twice and then ceased to come (evidently those of little faith). Of the phthisis cases (exclusive of the 7 patients of R——— Hospital, who are still under treatment) one has died. This patient was in an advanced stage of the disease, having suffered from tuberculosis for several years. She did well for a time under tuberculin treatment until she had an operation for hæmorrhoids, which had given her a great deal of trouble. Following the operation, the pulmonary focus became very active; she developed chills, fever, night sweats, etc., and succumbed in about ten weeks. The tuberculin inoculations were discontinued at the date of her operation. Of the remaining 11, 3 cases are apparently cured, 2 in which the disease has been arrested, 2 of whose condition I am not certain, but who at the time of discontinuance of treatment were such as might be put into the class "arrested cases," and 4 are still under treatment. Of the latter there has been remarkable and rapid improvement in 3. The remaining case has done very well under treatment, but as he is compelled to work at his trade, he has not done quite as well as he would otherwise have done in suitable environment. These cases were in the Incipient or Moderately Advanced class, no particular care being taken in the

selection of those for treatment, with the exception of excluding the markedly febrile cases (those whose temperature exceeded 100°F. in the evening).

Of the 5 gland cases, in 2 the glands have disappeared, in 1 they are much decreased in size (one of the cases with glandular involvement had also tubercular arthritis involving the knee and is included as well in this class). In one case, a female servant-girl residing in the country, who came at irregular intervals for treatment, the glands decreased in size for a time, followed by an increase necessitating an operation. (This operation was her fourth for tubercular glands!). Following the operation, the patient was married, and I have not seen her since. Her treatment, lasting over several months, was more or less spasmodic and entirely unsatisfactory to me, and forcibly impressed on me the advantage of better hospital facilities for the care of this class of case.

Of arthritis cases, two in which the knee-joint was involved have been treated. Immobilization of the knee-joint for five months was used at the same time, an opening being left in the cast opposite the patella to permit of inspection and examination of the joint daily. Hyperaemia was induced daily for varying periods (8-12 hours) by compressing the thigh with a rubber bandage above the cast. In one case there is apparently a complete return of the joint to normal. In the other, some ankylosis was present on her leaving the hospital some three months ago. Recently I have heard the knee is still stiff, but otherwise her physical condition is good.

The tubercular periostitis case made remarkable progress. I subtend a brief history of it:—

Mrs. C. F———, aet. 50. Farmer's wife. First saw condition on May 12, 1907. Condition diagnosed previously as tuberculous. Patient gave a history of trouble in leg lasting over a year. Patient had suffered from tuberculosis for some time—fibroid phthisis. Three sisters and two brothers died of tuberculosis.

The leg was swollen, considerably larger than the other. There was evidently a varicose condition of the veins of the leg. A large mass was present over the tibia, which it surrounded from just below the tubercle to 2" above the malleolus; it extended laterally on both sides and was well defined, hard, and tender when pressed on. Considerable pain was experienced at all times, the mass pressing on anterior tibial vessels and nerve. In spite of all ordinary local and constitutional medication the lesion progressed, the mass increasing in

size, and a large ulcer 1¼" in. diameter, with ragged, unhealthy edges, forming at one side of the mass. (This was doubtless partly due to the varicose veins). Patient at this time refused to have tuberculin injected. Early in September the patient, who was in a wretched condition of general health, partly from anxiety over her leg, went to Toronto for consultation. There a s skiagraph was made of leg and diag··osis of tubercular periositis with non-involvement of bone confirmed. On the 27th of September patient returned from Toronto and on that day received her first inoculation of T.R. $^1/_{1000}$ mg., the index taken the same day being ·7. Treatment was given regularly until Dec. 24th, '07, when the ulcer was healed, and almost the whole of the mass over the tibia had vanished. The patient had gained in general health and has been so ever since.

Note:—The mass was gone May 4th, 1908, when the patient resumed treatment, but ulcers have formed at various times since, owing to varicose condition of leg and active life of the patient (a farmer's wife).

My tubercular abscess case has not done well. No apparent improvement followed the tuberculin (T.R.) and staphylococcus albus vaccine injections. This case has been under observation over a year and the patient is at present in a very emaciated condition.

Of genito-urinary cases, in which the most signal results have been obtained by tuberculin injections, I have none to report. At the time of writing there is a case of tubercular cystitis under treatment.

Localized forms of tuberculosis do not in many cases belong to the sphere of surgery, and lately they have been drifting more and more into the hands of the physician. Even the surgery of tubercular glands is as a rule disappointing—recurrence almost invariably follows. Hence a need has arisen for better hospital facilities for this class of patient. It is to be hoped that as well as building sanatoria for the treatment and education of phthisical patients, the government will endow or establish a ward or wing in connection with our general hospitals for the treatment of localized forms of tuberculosis. It is true that hospitals do receive in their surgical and other wards these cases, but if due provision was made for them by the establishment of special wards, the need of the numerous sanatoria, which at present exists, would be much lessened. The localized forms of tuberculosis are amenable to treatment other than surgical, and the usual sequela—a pulmonary complication—might be prevented.

WILLIAM GIBSON.

SOME OBSERVATIONS ON THE USE OF LIQUID CARBON DIOXIDE.

FOR several years liquid CO_2 has been employed with varying success in the treatment of certain skin affections. It has been used largely in the form of a spray. The use of the CO_2 snow as suggested by Pusey is a decided advance on methods hitherto in vogue.

Technique:

The manipulation of the liquefied CO_2 is a matter of comparative simplicity. It will be remembered that CO_2 liquefies under about 50 atmospheres and that the snow represents a temperature of —79C. The liquid CO_2 is supplied in steel cylinders holding 50 lbs. each and tested to a pressure of 3700 lbs. to the square inch. It need scarcely be pointed out that the cylinder must be inverted or nearly so while withdrawing the CO_2.

The suggestion of Pusey to mould the snow in non-metallic ear specula we have found an excellent one. The vulcanite chest-pieces of an old stethescope will answer equally well. The foundation for the snow is best made by a firm plug of absorbent cotton. It is convenient to have moulds of various sizes, but by no means essential. The normal tissue may be protected by a strip of ZO adhesive. In the case of a nævus, however, it is better, we think, to have a mould the exact size and shape. In the treatment of rodent ulcers we refrigerate an area, two or three lines at least, beyond the apparently diseased tissue. Time will tell whether this is sufficient or not.

The two factors for consideration in all cases are first, the duration of the application, and secondly the degree of pressure. The length of time varies with the tissue to be treated. An angiomatous nævus on a child's cheek will require from 20 to 40 seconds with very moderate pressure. About one minute is the average for cutaneous cancer. Where there is much keratoid tissue the pressure must be firm and treatment may be repeated two or even three times.

Immediate effects:

The immediate effects of the application of the CO_2 snow to the unbroken skin is the formation of a bulla, and to the ulcerated areas, greatly increased exudate. The surrounding tissues become more or less œdematous as a rule. This œdema passes off in a few days and rarely requires any special treatment. In about two weeks

in the case of a nævus the size of a quarter of a dollar, the cure is complete and the scar, if indeed it can be called a scar, is excellent in every way. The scar following cutaneous cancer is almost as good, save in those cases where there has been extensive destruction of tissue before treatment was applied. It is rather surprising to find in the floor of a foul rodent ulcer in about 16 or 18 days after a single application of the snow, islands of vigorous normal tissue springing up.

Apart from a slight burning sensation at the time, the treatment is painless.

Results:

So far as our experience goes with nævi, the results are simply ideal. In the case of cutaneous cancer, in all but one patient, we have combined refrigeration and X radiance. The time of X-ray treatment is cut in two and the results appear equally good. On this point, however, some years must elapse before a definite opinion on the merits of the two, can be expressed.

It is well known that nearly all cases of cutaneous cancer, except perhaps those in most advanced stages, yield to X-ray treatment properly applied.

With lupus erythematosus our experience is limited to three cases. Two of these of about three years' standing yielded promptly to a single application of the snow. The cosmetic effect was good. The third—a most inveterate case—promises well, but is still under observation.

We are of the opinion a larger experience with CO_2 snow will justify its more frequent use.

JAS. THIRD.

SOME RECENT DEVELOPMENTS IN THE TREATMENT OF AFFECTIONS OF THE EYE, EAR, NOSE AND THROAT.

IT is the purpose of this article to briefly consider the newer features in the surgery and treatment of the affections of the Eye, Ear, Nose and Throat. In doing so, they will be considered from the view point of the general practitioner rather than the specialist, for to the latter many of these "newer" features will have been for some time old.

THE EYE.

Conjunctivitis.—Of later years there has been a marked tendency to use such substitutes for the nitrate of silver as argyrol, protargol and the other compound of silver and albumen, especially in opthalmia neonatorum and the gonorrhoeal conjunctivitis of adults. These preparations are less irritating, they are safter in the hands of the laity and nurses unexperienced in eye treatment, and argyrol especially can be used in all strengths from 5 per cent. to 50 per cent. and in all quantities without fear of doing harm. On the other hand, their mildness renders them of little value in a severe infection, and as compared with silver their use is expensive, a feature that has to be considered in hospital practice. Owing to the difficulty of growing cultures of the diplococcus of gonorrhoea, the laboratory experiments have been conducted on cultures of the staphylococcus and streplococcus, and with these the silver compounds have been found of very little value. Clinically, reports from the Egyptian military hospitals, the maternity and eye hospitals of the States, and the experiences of opthalmologists in general have been as favorable as the laboratory tests were disappointing. The best results have been obtained by using them in combination with silver, the nitrate in 5 to 10 per cent. solutions being applied to the lids once or twice daily by the surgeon and the nurse instilling the argyrol solution every half hour or so or four or five times a day.

The treatment of tubercular infection of the eyes by inoculation with new tuberculin is being gradually taken up. Several cases of tubercular iritis and tubercular conjunctivitis have been treated by this method with very encouraging results. The use of the opthalmo-tuberculin test of Calmette, which because of its simplicity promised much, has not been so satisfactory. As a test it gives a positive re-

action in from 80 to 90 per cent. of favorable cases and from 30 to 40 per cent. in unfavorable cases. Personally, I have seen no ill effects from its use, but a condition resembling phlyctenular conjunctivitis has been reported, and also ulceration of the cornea. It should not be tried in cases where there is already inflammation of the eye. There is no danger in inoculation with the new tuberculin. This treatment by increasing the opsonins has been successfully used in cases of recurring styes.

More attention is being paid to asepsis in intra-ocular operations, as for example the extraction of cataract and iridectomy. The delicate epithelium of the cornea and conjunctiva does not permit the use of strong antiseptics prior to operation, as in the surgery of other parts of the body, and the surgeon must be content to use simple lavage of the eyeball and lids with sterile water, salt solution or boracic acid. Many opthalmologists now insist on a bacteriological examination of a smear from the lower and inner cul-de-sac, and in the presence of a discharge from the lachrymal sac refuse to operate until they have corrected this condition by similar treatment. In Vienna, at the clinic of Meller, Fuch's assistant, if a cure is not effected by simple means, the sac is removed, and then later on the cataract extraction performed.

The great difficulty or complication following the cataract operation is the formation of a membrane in the pupillary opening, interfering considerably with vision and necessitating a second operation—needling—to make an opening for the light-rays. This membrane is formed from usually the anterior and occasionally from the posterior capsule of the lens. Major Smith of the Indian army has devised an operation—the extraction of the lens in capsule—which almost overcomes this complication. It gives a beautifully clear pupil, but even here we occasionally see cases where opacities have formed in the limiting membrane of the vitreous. The immense clinical facilities of Major Smith, combined with his natural dexterity, have made him very expert in this operation and his results compare favourably with former methods. Unfortunately, the application of pressure sufficient to dislodge the lens in capsule is apt either to produce a dislocation of the lens backward or a loss of vitreous, followed by detachment of the retina and subsequent loss of sight.

Major Smith has also devised another somewhat radical operation, the removal of membrane after the cataract operation, by seizing it with a fine pair of forceps and removing the entire capsule. It

has the great objection that his other operation has—loss of vitreous—and will probably meet with considerable opposition. In cases of simple cataract extraction—that is, cataract where an opeinng has not been made in the iris, an iridectomy is necessary before extracting the capsule.

Squint, and the tendency to squint, its correction by proper fitting glasses, by advancing the weaker muscle, by dividing the stronger, and by exercises calculated to strengthen the offending muscles, is still a matter of considerable discussion. Worth, of London, has devised an instrument, the amblyoscope, by which the "fusion faculty" is developed. In many children there is a tendency to squint; there is also a dislike to double images. If a child squints, the fixing eye sees the image at the fovea, the squinting eye at some other point near it. Hence two images are produced, and the "fusion faculty of the child prompts the youngster to put in action, unconsciously, the muscles which will bring these images together. If this "fusing faculty" be well developed the squint will disappear. Worth's amblyoscope, by exercising this "fusion faculty," is a valuable addition to the armament of the oculist.

The stereoscope gotten out by a German firm serves the same purpose, and, being very cheap, may be used by the child at home. The pictures used are of two objects which the child on looking through the instrument brings together. For example, one card shows a bird on the right hand side and a cage on the left. The child, on looking through, sees the bird inside the cage. With both the stereoscope and the amblyoscope the instrument is set at the squinting angle and then gradually adjusted so that the eyes are still in a straight line and still fuse the images into one.

In the fitting of glasses, the "toric" lens, and the Franklin lens made with no dividing line and apparently of one piece of glass, are the newer features. The former gives a better field than the old biconvex lens, and the latter gives the patient who requires, on account of age, two lenses together, a much neater glass. Both are slightly higher in price than the usual lenses.

Kröulein's operation, or the temporary resection of part of the outer wall of the orbit to gain access to tumors situated posterior to the eyeball, is a useful measure for removing these growths without destroying the eye.

The older method of using the X-rays is being superseded by the intermittent or "flash" treatment. From sixth to six hundred

flashes per minute are given, with the tube closer to the affected area and with a greater amperage than by the continuous treatment. To quote from an article by Finley R. Cook in the Medical Record of Nov. 14, '08: "The discovery by the writer of the regenerative influence of X-ray flashes in degenerative conditions of the eye, has led to its employment in more than a hundred cases which are now being prepared for publication. These cases include atrophy of optic nerve, detachment of retina, chronic glaucoma, cataract, keratitis, leucoma adherens, staphyloma, chronic iritis, iridochoroditis, and impairment of vision not associated with any specific local disease." My own experience of this treatment is confined to one case—a double detachment of the retina. The retina in each eye went back into place, patient getting normal vision, but after leaving hospital the retina in one eye became detached again.

In the localization of foreign bodies in the eyeball by the X-rays it is not sufficient to know that the foreign body is present. Sweet, Dixon and Weeks, of New York, have devised charts whereby the offending substance can be localized to within one or two millimetres.

Recent articles in the medical journals report cases of trachoma or granular lids successfully treated with the X-rays.

THE EAR.

This is a region to which considerable attention is being paid, especially in the surgical treatment of its diseases. In Vienna research work on animals and the caloric, galvanic, and "turning" tests, coupled with the former well-known symptoms of deafness, dizziness and nausea, have made accurate diagnosis of labyrynthine disease possible. With this has come the development of the labyrynthine operation and, with the perfecting of the removal of the labyrynth, many lives will be saved, formerly lost when the internal ear was the seat of a purulent inflammation, and meningitis, an unexpected sequel to the radical mastoid operation.

With the simple operation for the cure of acute suppuration of the mastoid, the best surgeons now insist on a complete removal of all the mastoid cells whether diseased or not. Almost every case of secondary mastoid infection shows cells which the operator had overlooked on his first operation and from which the infection has started. To secure the complete removal of these cells it may be necessary

to expose sinus and dura. In fact, in the special hospitals fully 60 to 75% of the simple operations will show exposure of these structures.

The radical operation for the cure of a chronic discharging ear while much safer than the disease its mission is to cure, is, on account of the dangers of facial paralysis and meningitis following and the long time of healing, a much discussed manoeuvre. Heath, of London, has devised a substitute, the meato-mastoid operation, which leaves the ossicles in position, closes the post-auricular wound, and by removing the posterior wall of the meatus, provides for drainage and lavage of the middle ear. In Ballenger, Heath has a warm supporter, but most of the American otologists condemn the opeartion as being "bad surgery" since it leaves considerable infected material behind. In the milder cases of chronic ear discharge the removal of the ossicles alone through the external meatus will often cure the disease, and this operation may be done under local anæsthesia.

The application of opsonic therapy to ear diseases is still in its infancy, but good work is being done. Obstinate furnucles of the auditory canal and tubercular discharges offer a good field for this work.

Bier's hyperæmic method in cases of chronic aural discharge is adopted in this manner. An elastic band, tight enough to compress the superficial cervical veins, is placed around the neck and worn constantly, or off and on, as the surgeon may direct. The ease of its application was its chief objection, for many patients were found to remove the band on leaving the clinic and replace it before entering the hospital on their next visit.

The new suction douche of Fowler, of New York, is a simple apparatus which when properly used ensures a much better cleansing of the ear than the old method, especially for home use. A combination of Bier's hyperæmic band, Fowler's douche, and patience resulted in the cure of many discharges which other methods had failed to relieve.

In connection with suppuration in the mastoid cells, both acute and chronic, there is either a marked increase in this disease of later years, or, what is more likely, mastoiditis is being more generally recognized. It is the history of appendicitis repeated in the case of the mastoid. The lessons learned in the operating theatre and autopsy room of a large hospital cannot be too deeply impressed. Case after case in which temperature, pain, tenderness, and swelling were slight or negative symptoms, has shown on entry into the antrum extensive

uncovering of the dura or sinus, and these structures bathed in pus, whose entry into the meninges was the cause of death or which must sooner or later have entered the cranial cavity. In any acute case of earache and running ear where a profuse purulent discharge has lasted over a week and douching has failed to cure, refer the patient to an otologist for observation. Better a mastoid operation than death or a chronic running ear ending in deafness.

Facial paralysis, due to disease in the temporal bone or injury in a mastoid operation, and where the application of the faradic and galvanic currents have failed to cure, the treatment being kept up for a year may now be improved although the operation is a delicate and difficult one. The facial nerve, as it leaves the stylo-mastoid faramen, is cut off and spliced to either the spinal-accessory or hypoglossal nerves.

NOSE AND THROAT.

Gustav Killian, of Freiburg, has probably done more, in recent years, to advance the work in this region than any other one man. His method of direct examination of the upper respiratory tract, and his instruments as improved by Chevalier Jackson, of Pittsburg, are coming rapidly into general use. In using Killian's tubes—the tracheoscope and bronchoscope—the operator illumines the field with the reflected light from a head-mirror. Chevalier Jackson's instruments directly illuminate the field with a small electric bulb at the distal end of the tube. In removing papillomata from the vocal cords and foreign bodies from the larynx, bronchi and oesophagus, the new method has decided advantages over the indirect way of operating from a picture in a mirror. To use these tubes, the patient is put in the "sword-swallower" position, and the various tubes, "laryngoscope," "bronchoscope," "gastroscope," passed into the larynx, bronchi and oesophagus in a similar manner to that used by the sword-swallower.

The submucous resection of the septum or of a spur from the septum is an operation that has been in vogue for some years, yet only the later text-books discuss it. It does not altogether displace the old Asch operation of molsing a horizontal and vertical cut in the septum and molding the bones into place with nasal splints. In the adult it can be done under local anæsthesia and is an excellent method to remedy deflections and spurs obstructing the breathing in one or

both nostrils. The operation may take from ten minutes to two hours, depending on the skill of the operator and the adhesions to, and deflections of, the bone.

In a suitable case the patient is left with free breathing space through both nostrils, a straight septum, and in a short time it is impossible to tell that an operation had been done. If a bridge of bone is left in front there is absolutely no danger of the "saddle nose" effect.

In operative work on the accessory sinuses of the nose—the Antrum of Highmore, frontal, ethmoid and sphenoid sinuses—Killian is also in the front rank. His operation for the radical cure of purulent disease of these sinuses, while very thorough, is, in the hands of a good operator, a very satisfactory operation and a comparatively safe one. Occasionally the slight scar and sinking in over the supra orbital region is objected to by the patient, but the majority prefer this slight deformity to the continuous frontal headache and menace to life of the disease.

Many rhinologists have been trying to find or devise an intranasal route by which the sinus can be drained and cleaned. Fletcher Ingals, of Chicago, with special boring instruments protected by guards and a "pilot," has up to date the best method, but the danger of piercing the cribiform plate and setting up a meningitis or brain abscess make this operation dreaded and avoided by many nose and throat surgeons.

The correction of "saddle-nose" deformities by paraffin injections is comparatively new and gives good results. Occasionally cases come to the clinic showing metastasis of the paraffn mass, requiring removal by operative interference. The hump of a broken nose and other deformities of this organ can frequently be removed or improved by plastic operations, and much ingenuity is displayed in this work.

The "opsonic" treatment can be applied here as elsewhere and also the "flash" treatment with the X-rays. The latter agent is also of great value in the diagnosis of suppuration in the accessory sinuses.

Rhino-Scleroma, a disease extremely resistant to treatment, and introduced into the States by Polish immigrants, is being successfully treated by both "opsonins" and X-rays.

Considerable investigation is being done on the relation of refractive errors of the eye to purulent disease of the ethmoid and

sphenoid sinuses. Cases of inflammation of the optic nerve have been reported which cleared up on providing free drainage from these cavities. When one considers the thin partition dividing the ethmoid and sphenoid cells from the orbit, ocular complications are not to be wondered at.

Atrophic rhinitis still remains the bugbear of rhinologists. Massage of the mucus membrane, and vaccine therapy, have been added to the long list of remedies.

The removal of adenoids and tonsils is being much more thoroughly done than the operation of a few years ago and there is a decided tendency to use the snare instead of the tonsillotome. Some operators are using specially made tonsil scissors and others are reverting to that very primitive instrument, the scalpel, and dissecting out the tonsil in capsule.

LEONARD W. JONES.

A PLEA FOR THE ROUTINE EXAMINATION OF THE NOSE IN ALL PERSONS AFFECTED WITH ASTHMA.

A GREAT deal has been written of late years on the relationship existing between asthma and diseased conditions of the nasal mucous membrane. It is not my intention to refer to the various published statistics of the frequency of nasal disease in those suffering with asthma, or vice versa, the proportion of asthmatics in those suffering from nasal obstruction, nor the effect of treatment of nasal lesions on the asthma, but merely to refer to my personal experience in the treatment of nasal conditions for the relief of asthma. For purposes of classification I will divide my cases into three groups:—

First—Those cases in which there was marked nasal obstruction.

Second—Those in which there was no obstruction to respiration, but in which sensitive areas were present in the mucous membrane covering the turbinal bones or septum nasi.

Third—Those cases where an infective inflammation was present in the nasal cavities.

Illustrating class I, I will briefly report a few cases.

Case I. M. M., a young lady, age 24, school teacher, referred to me by her family physician on Feb. 9th, '03. She gave a history of having had asthma since infancy. At first the attacks were of moderate severity and easily controlled, until about five years ago when they increased in frequency and severity to such an extent that her physician had to resort to morphia and atropia hypodermically in increasing doses, and still later had to administer a few whiffs of chloroform to control the spasms. Examination of the nose revealed an enormous amount of hypertrophy of the anterior end of the middle turbinate bone in each nostril. I removed the hypertrophy of the anterior end of the middle turbinate bone in each nostril. I removed the hypertrophy from the left nostril on the day of examination, and from the opposite one five days later. Her asthma disappeared after the second operation and has never returned.

This patient's brother consulted me about four months later. He also gave a history of asthma, but not nearly as severe as his sister. On examination I found a moderate amount of hypertrophy of the turbinal bones, the removal of which was followed by a complete, and so far permanent, cessation of his asthma.

M. P., age 29, sailor, consulted me April 3rd, 1904, giving a history of asthma since childhood. Examination of his nose disclosed a large spur on the left side of septum and an hypertrophy of the middle turbinate, which was also adherent to the septum. I removed the spur, but his occupation necessitated his leaving the city and I did not see him again until January 7th, the following year, when I removed the enlarged portion of the middle turbinate. I saw him one year later and his asthmatic seizures, which had occurred about twice a month regularly, had not returned since the last operation.

Case IV. D. H., age 61, farmer, consulted me November 1, '03. Had asthmatic attacks for the last year. I found both nostrils filled with large masses of polypoid tissue which I at once removed. Two weeks later I removed a few diseased ethmoid cells to more thoroughly eradicate the polypoid condition, but although the mouth breathing was relieved and his general condition improved, there was no change whatever in his asthmatic condition, in fact, if anything it was worse.

My records show seven other cases of polypi in asthmatics, removal of the growths being followed by relief in nasal respiration and improvement in the general condition, but in only one patient was the asthmatic condition relieved.

I have examined, I think, about eight children suffering from asthmatic symptoms, and in the most pronounced case I was unable to detect anything abnormal in the nose or throat. In five of the cases adenoids were present, and in three of the cases relief followed, but in one case improvement lasted only two years, the attacks returning not quite so severe, but in rather a mild form.

In the second group of cases I have a few recorded.

Case I. C. R., age 26, with a slight enlargement of the anterior extremities of the inferior turbinates in each nostril. Touching these parts with a probe was followed by sneezing and spasmodic coughing, the application of the cautery resulting in relief in the asthmatic attacks. This relief lasted only ten months, however, when I touched the inferior turbinal on the left side again and, as there was slight turgescence of the mucous membrane of the anterior part of the septum, I touched it lightly with the cautery. The cauterization was made very lightly, as I do not believe in the application of the galvano-cautery to the septum for any purpose save that to control a bleeding point. The attacks in this patient have not yet returned. In seven other patients I applied the cautery to the sensitive spots on the turbinals; in only five of those have I been able to follow up the history, and in two of the four, relief has been so far obtained now over a period of two years.

In the third group of cases—the infective variety—I have records of four cases, one of which I will report in full.

Miss N., dressmaker, has had an almost constant spasmodic cough for the past eight years. During this period her lungs have been repeatedly examined and she has taken the various expectorants and sedatives without relief, finally joining the ranks of the patent medicine followers. On examining her nose I discovered a well marked purulent inflammation of the ethmoid cells on the left side. I first removed the anterior part of the middle turbinal and then with punch forceps and curettes completely removed the anterior and some of the posterior ethmoidal cells. The suppuration, as in all ethmoidal purulent inflammations, required some further treatment before it finally ceased—its complete cessation being followed by the disappearance of the spasmodic cough which has not so far returned.

Treatment of the purulent condition gave partial relief in one case and gave no improvement whatever in the other two patients.

To summarize the results of nasal treatment of asthma, I would say that my best results have been obtained by the removal of the hypertrophy of the middle turbinals and the erectile tissue of either extremity of the inferior turbinal, especially the anterior. In eleven cases removal of the hypertrophied middle turbinal resulted in four cures. In nine cases with enlargement of the anterior tip of the inferior turbinal the removal was followed by cessation of the attacks in four cases and improvement in four of the remaining cases.

The removal of adenoids and polypi does not seem to produce the relief from asthma that we would expect when we consider the interference they cause to normal respiration. The cauterization of sensitive areas of the mucous membrane covering the turbinals and also the septum nasi in the region of the anterior and of the middle turbinal and also in the region of the tubercle of the septum, has not been followed by the relief in my hands that some others have claimed to have obtained.

In conclusion I would say that, while I do not wish to be classed with the over-zealous practitioners who think that every slight deviation from the normal in the nasal cavities should undergo surgical treatment, and while I believe that a large number of asthmatics have practically normal nasal chambers and also that asthma is comparatively rare in cases of marked nasal obstruction, still I feel that the results I have cited above are of themselves sufficient to justify the nasal examination of those affected with asthmatic conditions.

C. E. O'CONNOR.

CANADIAN MEDICAL ASSOCIATION.

FOR the forty-second annual meeting of the Canadian Medical Association in Winnipeg, on the 23rd, 24th and 25th of August, 1909, transportation arrangements have been completed. For delegates, their wives and their daughters (no others), from points east of Port Arthur the rate will be single fare plus twenty-five cents, for round trip tickets, provided fifty or more are present holding Standard Convention Certificates. These tickets will be on sale from August 14th to 21st; final return limit from Winnipeg, Sept. 25th.

If Ontario Lake route is used payment of the following arbitraries must be paid to the pursers of the Richelieu lines: During August, Toronto to Montreal, $8.00; from Kingston to Montreal, $4.50. During September, from Toronto to Montreal, $6.65; from Kingston to Montreal, $3.50. Upper Lakes: Going, $3.50 additional; returning, $8.50 additional. Side trips from Winnipeg one fare for the round trip, Aug. 25th to Sept. 24th, inclusive. Alaska-Yukon-Pacific rates will apply for side trips to Pacific Coast points. Side trips to interior points in British Columbia will be announced in the annual circular issued in June or July 1st. Local Convention plan arrangements will prevail for the west as far west as Laggan and Coleman, Alberta. Lowest one-way first-class fare from British Columbia, date of sale tickets being August 16th to 19th, inclusive, with final return limit Sept. 25th.

OBITUARY.

DR. CHAS. R. MOXLEY, '05.

We regret to announce the death of Chas. R. Moxley, M.D., C.M., which took place in the Royal Victoria Hospital, Montreal, on Saturday, March 20, 1909. Dr. Moxley was born in Burt, Iowa, on October 23rd, 1882, and was educated in the Kingston schools. Matriculating from the Collegiate Institute, he entered on the study of Medicine in Queen's Medical College, graduating therefrom in April, 1905. Immediately after graduation, Dr. Moxley was called to take the practice of Dr. Porter, of Powassan, who was then ill. On the recovery of Dr. Porter, he went as assistant to Dr. Edw. Richardson, of Sturgeon Falls, looking after his Cache Bay practice. While engaged in the performance of his work, he was stricken with typhoid fever, and was removed to the Kingston General Hospital, where he was confined for four months.

After recuperating for a year, Dr. Moxley again attempted to enter practice, going into partnership with Dr. McMurchy, of North Bay. In November last, Dr. Moxley was taken to the Royal Victoria Hospital, Montreal, suffering from appendicitis. He was operated on, but his strength had been spent, and he never recovered from the effects of the operation. He lingered until March 20, 1909, when death put an end to his sufferings.

Dr. Moxley was a general favorite among his classmates and friends, and his early demise at the threshold of what we believe would have been a bright future is sincerely regretted. To his sorrowing mother and relatives, *The Quarterly* extends profound sympathy.

MORTIMER LUCAS DIXON.

Born July 1, 1864. Died March 17, 1909.

The late Dr. M. L. Dixon was born in the village of Frankville, Leeds County, Ontario. He received his primary education at the public school of that village, and at Farmersville (now Athens) High School. After a few years spent as a school teacher, he entered upon the study of his chosen profession, in Queen's Medical College. Throughout his scholastic life he gave abundant evidence of the superior intellectual ability which in after years made him a physician and surgeon of high rank. His college course was particularly brilliant. He graduated in 1886, winning the gold medal for general proficiency, as well as every other prize offered by the Faculty, including the House Surgeoncy of Kingston General Hospital.

He at once entered active practice in his native village, and from the very outset won success. In a few years his practice became so extensive that he found it necessary to enter partnership with Dr. W. H. Bourns. Dr. Dixon's fame as a physician and surgeon spread far beyond the natural boundaries of his practice and his services were sought throughout the County of Leeds and adjacent counties. As a consultant, he was much sought by his brother practitioners, who valued his knowledge, his skill, and his integrity. In every instance, he did his whole duty to the patient and to the consulting physician. As a general practitioner, he had few equals and no superiors in Eastern Ontario.

Apart from his professional life he was revered by all who knew him, for he was a thorough gentleman. Naturally of poor physique and worn by constant work, he succumbed to a virulent attack of appendicitis. His funeral was under the auspices of the Masonic order, of which he was a valued member. The Rev. Dr. Crummy, of Toronto, a classmate and life-long friend, performed the last sad rites.

The profound sympathy of the members of the medical profession goes out to the widow of our late co-worker, friend and brother.

H. H. ELLIOTT.

PERSONALS.

R. A. Scott, '07, after spending a year—six months as interne and six months as Superintendent—at the Western Hospital, Montreal, has located at Cavalier, North Dakota.

H. B. Longmore, B.A., M.D., who has practised for the past two years at Glamis, Bruce County, has removed to Campbellford, Ont.

Dr. Meikle, Lansdowne, has resumed practice after a month's illness.

Dr. A. J. Lalonde, '04, has opened an office in Cornwall, Ont.

Dr. W. H. Ballantyne, '06, has removed from Verona to Vernon, Carleton County.

Dr. Jas. G. Dwyer, '05, has returned to Kingston after completing his term of service on the staff of the Manhattan Eye and Ear Hospital, New York.

Dr. L. W. Jones is now located with Sumner Hayward, 84 East Avenue, Rochester, N.Y.

The marriage of Dr. W. T. Shirreff, '03, of Ottawa, and Miss Grace Ballantyne, of Kingston, took place on April 27th, 1909, in Kingston.

Dr. S. Quinn, '09, enters the Hotel Dieu as House Surgeon on June first.

Dr. C. Laidlaw has returned from London, Eng., and has been appointed Bacteriologist of St. Luke's Hospital, Ottawa.

Dr. Colin Graham, '06, Panama, has been spending a few holidays in the city.

BOOK REVIEWS.

The Surgery of the Ear. By Samuel J. Kopetztsy, New York. Rebman Co., New York. 349 pages. Cloth, $4.00 net.

A concise and up-to-date work, intended for otologists, general practitioners, and students, but in our opinion more adapted to the needs of the first class.

The newer features of surgical otology, such as operations on the labyrinth, on the blood vessels, on the facial nerve in post-operative paralysis, lumbar and ventricular puncture have been given particular attention. The careful summing up of the opinions of many eminent surgeons, American and European, and a very complete bibliography, should render this book of great value to teachers and to those preparing articles for medical societies.

L. W. J.

"Orthopedic Surgery for Practitioners." By Henry Ling Taylor, M.D., Professor of Orthopedic Surgery and attending orthopedic surgeon, New York Post-Graduate Medical School and Hospital; assistant surgeon, Hospital for the Ruptured and Crippled, New York. D. Appleton & Company.

The purpose of this book is set forth in the preface, "an outline of the essential facts in regard to deformities and crippling affections, for daily use in general practice." It is a concise, thoroughly up to date manual and deals with the subject from the point of view of the general practitioner rather than the specialist, believing, as the author does, that it is the general practitioner rather than the psecialist who has the privilege of detecting crippling affections in their incipiency, when the application of comparatively simple methods of treatment may save many from deformity and death.

For convenience as a book of reference, the work is divided into general, special, and technical parts. In the general part the author describes the more important crippling affections. In the special part the affections of each part of the body are discussed, special attention being given diagnosis, prevention, prognosis and treatment. The technical part is devoted to the theory and practice of splinting.

The book is profusely illustrated, containing 254 illustrations founded on the work of the author, Dr. Virgil P. Gibney, Dr. Royal Whitman and other eminent orthopedists. Taking it altogether the book fulfils a long felt want, of the general practitioner, and no doubt will find its way into the libraries of many who have avoided orthopedic study for want of time to devote to the many extensive complicated works on the subject.

C A. M.

THE RECENT GRADUATES.

The following statement shows where 29 of the 40 recent graduates in Medicine of Queen's University will practice their profession or pursue post-graduate courses:

Dr. J. E. Galbraith has been appointed House Surgeon in the Western Hospital, Montreal.

Dr. A. Letherland has gone to Seton Hospital, Sputen Duyvil, New York, where he will be House Surgeon for a year.

Dr. J. J. McCann will spend a year in a Chicago hospital.

Dr. J. B. Hutton has entered on his duties in the Kingston General Hospital.

Dr. B. L. Wickware will be assistant to Dr. Balfe in Hamilton for the next year.

Dr. J. E. Brunet has been appointed House Surgeon in Water Street Hospital, Ottawa.

Dr. J. C. Shillabeer has been appointed House Surgeon in St. Luke's Hospital, Ottawa.

Dr. J. H. Stead has commenced work as assistant physician in the asylum at Brockville.

Dr. A. L. Raymond was successful in the examinations at the Western Hospital, Montreal, and will be House Surgeon there for the next year.

Dr. J. S. Quinn is House Surgeon at the Hotel Dieu, Kingston.

Dr. A. J. Salmon has returned to Jamaica, where he will practice.

Dr. M. C. MacKinnon has accepted a partnership in a large practice in Idaho.

Dr. A. R. Heupt has returned to Australia and will practice in Melbourne.

Dr. Claxton has been appointed House Surgeon in the Protestant Hospital, Ottawa.

Dr. C. S. Dunham is under appointment to the General Hospital, Kingston.

Dr. E. P. Byrne will go to New York and enter one of the large hospitals.

Dr. H. Lermont will spend a year in Edinburgh.

Dr. W. H. Craig has gone to Alberta to enter on private practice.

Dr. W. G. Wallace will begin practice with his father at Metcalfe.

Dr. J. J. Macpherson has charge of the Medical wards in the Kingston General Hospital.

Dr. I. Hardie has returned to Virginia.

Dr. Chatham has commenced railroad contract work in Alberta.

Dr. J. C. Gillie has been appointed House Surgeon in St. Mary's Hospital, Rochester, N.Y.

Dr. H. C. Workman, after the Council examinations, will undertake hospital work for a year.

Dr. C. H. Knight will spend a year in Edinburgh.

Dr. L. M. Dawson will be House Surgeon in St. Luke's Hospital, Ottawa, for a year.

Mr. R. J. Ellis and Mr. T. M. Galbraith will be House Surgeons at Rockwood Hospital.

Dr. L. L. Buck will go to New Work for a year.

Dr. F. Ferguson will go to Seattle.

Cataplasm of Kaolin. By Paul Caldwell.

Probably no preparation of the Pharmacapœia has received as much attention from pharmacists as the cataplasm of kaolin. As yet there seems to be no one who has been able to so manipulate the official formula for it as to produce a satisfactory product. I have before me extracts from papers on it, written by six different men eminent in pharmacy, and no two of them agree on a plan of procedure, and only one is of the opinion that the Pharmacopœia is right. —Abstracted from *The Druggists' Circular.*

It is a matter of small moment whether or not pharmacists can make this preparation, as it is at best but a poor imitation of Antiphlogistine, for which is it recommended as a substitute. Up to date no one has successfully imitated a $20 gold piece, and the same may be said of Antiphlogistine. As long as the Denver Chemical Mfg. Company maintains the high standard it has set for its product there will be little necessity for the druggist to worry over methods of manufacturing Cataplasm of Kaolin.—*Ed.*