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THOUGHTS ON CANCER.*

BY THE HON. SIR WM. HINGSTON, F.R.C.S., MONTREAL.

WHATEVER may be the state of our knowledge in other departments of the healing art, we must admit we know but little of the etiology of tumor formation generally, and especially of those forms we are accustomed to call "malignant." These are still, as Kelchnack observes, "shrouded in darkness and mystery." Yet at no time in the history of surgery has cancer occupied a greater share of thought than at the present. France and Germany have long been pursuing diligent investigations to unravel its hiddenness. In Great Britain a Cancer Research Fund has been recently established, and the function of General Superintendent of Cancer Investigation has been created: to supervise workers; to collect statistical, dietetic, topographical, and other information; to organize a system of correspondence with Home, Colonial, Indian, and foreign laboratories; to invite the Colonial Offices to assist in obtaining information as to the relative prevalence of cancer in the various colonies of the British Empire; and to trace, if possible, any connection with the mode of life, food, habits, environment, and so forth, of the inhabitants. How much will be accomplished by organized investigation of this character and how much by the unobtrusive, individual worker in the quiet of the hospital and the laboratory, time alone will determine.

A few months ago the Cancer Research Fund of the Royal College of Physicians and Surgeons made its first report. It consisted of three papers, the first, "The Zoological Distribution of Cancer,"

* Read at meeting of the Ontario Medical Association, Toronto, June, 1904.

showing the disease to exist in most of the domesticated animals, in many of the wild, and in several of the fish tribe; the second dealing with the "Transmissibility of Cancer," establishing without a doubt—at least in the case of mice—that carcinoma can be transmitted from animal to animal; the third taking exception to the view that cancer consists of a change from normal tissue to malignant, or, as stated by Campbell, "that cancerous growth is caused by the degenerative reversion of epithelial cells to a germinal type, in association with a local irritant, and in the presence of an abundant blood supply."

In other parts of Great Britain private charity comes to the aid of a local research fund. Thus, in Liverpool, for instance, one person leads off with a subscription of \$50,000. The Liverpool Royal Infirmary furnishes a ward for facility of observation and experiment, and its University has placed five large rooms at the disposal of the research fund for the same purpose.

It is quite beyond the scope of this paper to discuss the nature of cancer. That aspect of the question is as yet incomplete. One writer expresses the view that the disease is due to a pathogenetic organism belonging to the numerous yeast family; another, that it is an animal organism; a third, that it is in any case a parasite; a fourth, that it arises from some (not always recognizable) disturbed action of the natural component parts of the body. At the present time the tendency of thought is towards the theory that the origin of cancer is extrinsic—that there is, as Meyer observes, an extrinsic cause, and that it remains only to discover it.

If cancer has a parasitic origin, has it a micro-organism of its own? If it has, so soon as the nature of that organism is understood we may indulge the belief that a specific cure of cancer may ultimately be found. So far, however, there has not been successful cultivation, outside the body, of those micro-organisms which have been supposed to be of malignant growth, and this notwithstanding what the French style "Cancer deux," an accident so extremely rare as scarcely to deserve mention. But where attempts have been deliberately made, as by Alibert upon himself, his medical friends and students, the result has been invariably negative.

So far, therefore, it may be said, the origin of cancer remains an enigmatic secret. For my part the conviction is forced in upon me from bedside observation, that the cause of cancer is perverted action, possibly inflammatory, without, at first, the usual evidences of inflammation; or, in other words, that it is perverted nutrition. This view I have held for many years.

But while every diligence is being exerted to unravel the causes and nature of cancer, something less problematical, something less doubtful, is forced upon our notice—its increase.

Cancer is greatly on the increase, and reliable statistical information is at hand in support of that opinion. "After all the necessary corrections," says the *British Medical Journal*, "there is an enormous increase in the registered mortality from malignant disease in all civilized countries having a complete register of causes of death."

"In London alone," says Dr. Caldwell Smith, "the cancer death rate has increased from 65 per 100,000 to 95 per 100,000 in five years; in fifty years it more than doubled. Observers have remarked that the increase is chiefly from visceral cancer."

The cancer death rate in England and Wales has increased between four and five times in fifty years.

On this side of the Atlantic the question of the increase of cancer has been carefully gone into by Warren, of Boston, and Roswell Park, of Buffalo—and no men in America, you will admit, are more competent to conduct an investigation of this nature—and the conclusion arrived at by both, independently of each other, is in favor of increase.

The State Board of Health of Massachusetts says: "Every year there is an increase in the reports to the State of the number of deaths from cancer, even when allowance is made for age and greater population." And Professor Roswell Park, speaking of his native State, says: "If for the next ten years the relative death rates are maintained, we shall find that ten years from now there will be more deaths in New York State from cancer than from consumption, smallpox and typhoid fever combined."

Statistics in Canada are as yet too incomplete to be of much value, but the experience of hospital physicians and surgeons is to the effect that cancer in Canada is greatly on the increase. It has been said by those who do not share this view that "a surgeon's personal experience is often misleading, as cases in which he is specially interested are constantly being sent to him by friends and former pupils, and one case brings another from among the public." That view I have taken carefully into consideration, but I am the more impressed as to the greater frequency of cancer than formerly, and as to its steady increase, from observation outside of my own special field of labor.

And while the fell disease is on the increase, medicine has effected little save by co-operating with surgery, to enable the knife, with all the safeguards asepticism can secure, to penetrate parts of the body hitherto regarded as beyond its reach.

The internal specific treatment of cancer, either local or general, has rarely been without claimants to the possession of some special knowledge of a remedy—knowledge claimed to have been acquired, inherited, or revealed. I should not be disposed to treat at all seriously the claims of those who pretend to cure

cancer by the internal administration of remedies, for, notwithstanding the certificates of cure which are daily appearing in the public press and elsewhere, it may be safely stated that hitherto, internal remedies have been found to be without any value whatever.

And what can be said of the claims for excellence put forth on behalf of those external applications which are imposed upon a credulous and easily deceived public? *Pari passu* with the admittedly occult nature of the disease, the treatment, it is contended, is not within the usual bounds of ordinary medical knowledge. And thus the cancer curers, by plasters and unguents of mysterious action, have increased in numbers and in presumption. The ordeal to which patients sometimes subject themselves at the hands of ignorant but pretentious quacks, for the removal of supposed cancer, and the suffering and disfigurement which sometimes result, are conditions we occasionally witness, from the use of plasters long since discarded by the profession as unsafe, unscientific, unsurgical and uncertain. I once saw a woman who had had a wart on the back of her hand. It was a harmless excrescence on the skin, but a cancer-curer assured her it was malignant. Contrary to the advice of her family physician, she permitted a plaster to be bound upon the part. On her arrival at the hospital a few weeks later not a vestige remained of the dorsal aspect of the hand, neither skin, tendon, ligament, nerve, nor blood vessel; the metacarpals, from carpus to phalanges, were black as charcoal, and dead. The cutaneous palmar surface, however, still retained vitality, and after a while the patient returned home, carrying with her a limp, flexed hand, without the usual bony support, but buoyed up with the assurance that while her hand had been lost, her life had been saved. If the charlatan knew nothing of surgery, he could form some fair estimate of the patient's credulity, and he plied her with a text which suited her case exactly: "*If thy right hand offend thee,*" and so forth; and was it not her right hand which had offended? Verily the text had been written in anticipation of her case.

I turn from esotericism and occultism to something more intelligible, where deduction from certain manifest qualities is the result of experimentation.

ITS TREATMENT.

The treatment of malignant disease by electrical methods has for some time attracted notice. Although success has not generally followed these attempts, yet patience and energy have sometimes been rewarded by marked improvement. "The healing of an ulcerated cancerous surface," says Lewis Jones, "has been observed in a certain proportion of cases; relief of pain in can-

cerous parts is a fairly common experience, and superficial nodules, undoubtedly cancerous in nature, will sometimes decrease notably in size under electric treatment."

The science of electricity, however, is yet in its infancy, and the technique of its application is imperfectly understood, while the reluctance of the surgeon to counsel treatment involving delay is and will be for some time, a hindrance to the more general use of electricity, save in those cases which cannot be easily reached by the knife. It is yet too early to speculate on the results of the electric treatment; some are of the opinion that they can bring about the painless removal of the slow-growing epitheliomas. I shall content myself with stating that the treatment which is said to be successful in causing diminution of hyperemia, inflammation, infiltration, and serous exudation, may, ultimately, be found to be of permanent value.

A new, a powerful, and as yet not thoroughly understood, and not always easily controlled, therapeutic agent, has been added to our armamentarium in the treatment of cancer and other diseases. By one or other of those wonderful deductions from light and heat, and from certain modifications of the electric waves, or from their analysis and separation, whether as the X- or Roentgen-Ray, the N-Ray, or Cathode Ray, the Rays of Blondlot, or the Alpha, Beta, Gamma Rays, the Finzen Rays, or the Rays of Charpentier, or that mysterious phosphorescent ray, likened to that which is developed during muscular action or mental effort—whatever name they bear and whatever the source of their potency—a power has been created to be utilized to our advantage.

Have these rays, or any of them, the therapeutic value claimed for them? The illustrations we find in medical journals on both sides of the Atlantic would seem to speak encouragingly of this painless form of therapeutics. The latest at hand is from the London Middlesex Hospital Cancer Research, where, after trying various remedies with generally unsatisfactory results, it says: "In rays we have an agent capable of doing more for superficial cancer than any other hitherto known." The work already done in Canada is evidence of intelligent and persevering effort. From personal observation I may state: Dr. Girdwood has effectually cured intractable rodent ulcer and benefited recurring epithelioma, and Dr. Leforest has effected the extensive destruction of hair follicles in bearded women without producing even an erythematous blush.

With the assumption—and it is so far only an assumption—that cancer is a micro-organism, the therapeutic value of some of those forms of electric force most amenable to control may yet be found capable of bringing a hitherto distressingly frequent

and cheerless malady under subjection. But it must not be forgotten that improvement occasionally noticed in the more superficial forms of cancer, as epithelioma, for instance, must not be allowed to lull the sufferer into dangerous security. I have many times, by the application of an escharotic, kept under subjection, for many years, epitheliomata of the eye-lid, face and lip, and have obtained their final disappearance without the use of the knife. But of the deeper form of cancer it may still be said with MacIntyre, of Glasgow, "that the serious deep-seated affections which, in the public mind at least, may be considered synonymous with the word cancer, have so far baffled us. The problem remains to-day as great as ever." Perhaps, in the future, the penetrative ray may be isolated from its surroundings and be sent on its errand of mercy deep through the normal tissues without affecting them, and attack the hidden morbid growth at greater or less depth, as, in our northern lakes and rivers, the sun's rays sometimes pass through the thickest ice without melting its surface, and establish centres of liquefaction in many places in the interior of the frozen mass.

So far the various forms of the X-Ray, whatever names they bear, act as stimulants and excitants, producing, at first, tingling; then as irritants and caustics, producing pigmentation, as in sunburns, erythema and other evidences of dermatitis; then, if continued, vesiculation or desquamation; then deeper congestion and stasis, leading to all the changes we may notice in burns. But these severer effects are begotten, in some measure, of inexperience in adjustment, on the one hand, or of accommodation on the other, and are becoming less frequent as the new power can be more intelligently measured, and the tolerance or power of resistance of the individual better understood.

I can only allude, *en passant*, to artificial fluorescence of living tissue, and wish for it more than has hitherto been vouchsafed to other methods.

The still more modern treatment by radium, it is claimed, has given promise of success. But reports, so far, as to its value as a therapeutic agent are not encouraging.

Notwithstanding the advantages sometimes resulting from the employment of the Roentgen or other rays, Symes' dictum of upwards of half a century ago remains as true as it was then, that in the treatment of cancer, when the disease can be wholly removed, reliance must still continue to be on the knife. But why the knife? Is cancer curable by operation? To this I unhesitatingly reply in the affirmative; provided the operation is done sufficiently early, permitting the entire removal of the disease, and that it is removed.

I now proceed, but most hurriedly, to deal with some of those

forms of cancer to be met with, and first of the digestive system. As to the tongue. Although sharing the opinion that its partial removal is wrong in principle, there are cases arising from local irritation where partial excision affords excellent, and in some cases, permanent results. In total extirpation it is marvellous what recuperative power is sometimes met with. I once removed a cancerous tongue down to the hyoid bone, separating it close to the epiglottis, pharynx and soft palate; and, with the tongue, I removed the whole of the lower jaw, as well as the sublingual and submaxillary glands on one side; yet the patient—an old man—made an uninterrupted recovery.

Concerning cancer of the throat. One might read Sir Morell Mackenzie's book on the late Emperor of Germany's fatal illness; and then the comments of the German surgeons, and of the German and British medical press, and decide as to what is and what is not cancer in those regions, and act, or not act, accordingly.

As to operations on the stomach for cancer, it may be said they will be satisfactory or otherwise in direct ratio to the care and prudence with which cases are selected for the knife, and the cases are few. The delay sometimes caused by medical treatment; the difficulty, often, of diagnosis when seen, and of deciding as to the extent of the disease, will always make operations on the stomach anxious, and too often uncertain. It is only when the disease is confined to the stomach itself—where it has not gone beyond that organ nor infiltrated into neighboring glands or organs—that any hope of success need be entertained.

Gastrotomy is yet on its trial, and the time afforded has not been sufficient to enable one to decide whether the operation introduced by Billroth, some years ago, possesses all the advantages claimed for it.

Let me guard you against an error which is too prevalent—the belief that disease of the pyloric end of the stomach from ulcer passes, after a time, into cancer of that organ. Ulceration, often with resultant stenosis, continues as such, and rarely, very rarely, becomes cancerous. Treatment should be based on this assumption, and should not be influenced by a dread lest the painful, but non-malignant gastric ulcer might eventually become the more formidable malignant affection.

I pass over gastro-intestinal operations hurriedly, as each case of malignant disease of the stomach and bowel has a law unto itself. But the cases are comparatively few where surgical interference is warrantable. When malignant disease is limited to the pyloric end of the stomach, and when its constricted condition interferes seriously with the passage onwards of the contents of the stomach, relief is often obtained from the junction of that

viscus with the duodenum or jejunum. But while relief is sometimes marked, it is often unhappily for a time, when, as Maylard observes, "vague but suggestive symptoms insidiously reappear," prompting one to ask: "Is it for the real benefit of our patient to rescue him after death, simply to die over again?" I should have been disposed to answer in the negative, but the recent address in surgery by that brilliant writer and operator, Mayo Robson, leads to the conclusion that, not only as a palliative, but as a curative measure, gastro-enterostomy must take its place among the regular operations in surgery.

Cancer of the large intestines, whether of the cæcum, ascending or descending colon, or of its hepatic, splenic or sigmoid flexures, may, in some few cases, demand surgical interference. But while contemplating operation on the lower bowel, it is well to bear in mind Jonathan Hutchison's recognition of exaggeration in two directions: "The danger of the operation," he says, "is put much lower than it really is, while the probable duration of life without it, and the possible freedom from pain are much underrated."

Although the diagnosis of cancer of the head of the pancreas may, with the aid of Courvoisier's law, often be made out—"deep painless jaundice and enlarged gall bladder"—the recognition of these conditions is sometimes insufficient as a safe prelude to surgical interference. In a case mentioned by Stewart of Leeds, where cancer of the head of the pancreas was found at the autopsy, "a prolonged search of over half an hour was made for the gall bladder, but none was present."

A considerable number of cases of cancer of the rectum having come under my notice, I may, perhaps, be in a position to express an opinion as to the best means of dealing with them. In general terms I may say: In the early stages, when the disease can be circumscribed, and its base well defined with the finger, Langenbeck's operation, called the low operation, offers many advantages. When the disease is not so limited, colotomy may, with advantage, be resorted to, or it may precede proctotomy. When, however, the disease is more advanced, Kraske's operation presents itself as a last—an almost forbidding—alternative. I have performed the operation with Bardenheuer's modification several times, and I am not enamoured of it. As the lower excision of the rectum is practicable in but a small percentage of cases, Kraske's operation is advisable in a still fewer number. There may be comfort, however, in knowing that cancer of the lower bowel, being usually a columnar carcinoma, as Rose and Carliss observe, is not so malignant as cancer elsewhere. Most of you will recall, no doubt, cases where well-marked carcinoma of the bowel existed for years without producing any great disturbance.

In suspected cancer of the womb, the early diagnosis of malignancy is of the first importance. The diagnosis clearly made—even sometimes by microscopical examination of scrapings of the curette—what operation should be performed?

Some surgeons give preference to the vaginal, others to the abdominal method. We should not be prejudiced adherents of either, although I have practised both. When the disease is clearly limited to the os and cervix, the vaginal method, it appears to me, is preferable, as being less hazardous to life. When disease is in the body of the uterus, with possible involvement of the appendages, the abdominal route, methinks, offers superior advantages. The extent to which the disease has spread when within the uterus should not deter from operating. In other parts of the body the lymphatic system is generally involved at an early period, whereas, in cancer of the womb, the lymphatics are not affected until the disease has advanced, by direct extension, into the adjoining parts. This circumstance seems to have led the editor of the *British Medical Journal* to state: "If cancer of the womb is only recognized early enough, it can be removed with small risk, and with a good prospect of years of freedom from recurrence."

In those inoperable cases where closing the vagina, draining through the rectum, ligaturing through the arteries, etc., have been proposed—methods, I am free to confess, I do not endorse—curetting offers, methinks, a much better result, especially when followed by the application of a proper caustic, or, perhaps, by one of the forms of the X-Rays.

Concerning cancer of the uterus and ovaries, the observations as to surgical interference are almost identical, for the risk of operating upon either is about equal. An early operation in cancer of the appendages, as of the uterus, is, when successful, usually attended by relief of the more distressing symptoms. Moreover, the differential diagnosis is comparatively easy, and the limits of the disease may be somewhat correctly defined.

What has been said of the ovary may be applied to cancer of the Fallopian tube. The difficulty, nay, the impossibility sometimes, of disuniting affections of these two organs, and the un wisdom of attempting, even were it possible of accomplishment, to remove the one and retain the other, renders it usually necessary to excise both or neither.

Perhaps I should notice, *en passant*, the operation of oophorectomy, not for disease of the ovary, but for recurrent or reappearing disease of the breast. It is not easy to explain how the removal of a healthy organ at a distance can destroy cancer germs in the organ involved, however intimate sympathy may be between the two. Besides, oophorectomy is not always the harmless operation

it is claimed to be by those who regard it as a cure, or even as a palliative, for cancer of the breast. The operation has been performed many times, and we have yet to learn a result which might be called satisfactory. Williams, of Clifton, goes so far as to say: "Not a single definite cure can be instanced unless one of Herman's cases may be so regarded." But even if a score or so of "cures" could be cited, the sources of fallacy are so numerous that little weight would attach to them in the face of the overwhelming preponderance of negative results. "In fact every new specific for cancer," says Williams, "has had no difficulty in justifying itself by far more convincing crops of 'cures' than any that has been adduced on behalf of castration."

I should not have alluded at such length to this mischievous meddlesomeness had it not been that the mutilation undergone for that and other purposes has been somewhat too frequently resorted to on this side of the Atlantic, where ovaries bid fair to be considered, ere long, useless and troublesome appendages to be got out of the way.

While I am speaking of cancer in different parts of the body, I am sure the minds of many of you travel, not to those more formidable affections of organs hidden in the interior of the economy which can be visited only by a limited and expert few, but to that more tangible form of the disease which so often afflicts the female breast. As it concerns the well-being of the mothers of our race, I shall deal with it at some length.

And first as to diagnosis. It is at the earliest moment that an examination of the breast is most valuable, and it is then it should be most thorough. As inspection sometimes conveys the earliest, and sometimes the only information, the whole chest should be freely uncovered, so that both breasts may be readily compared. The patient should stand or sit on a stool or chair without a back, so that the examiner may stand behind her, permitting the educated palmar surfaces of the fingers, not their extremities, to impinge upon the parts to be examined. Both hands should be used in the examination, one to support the breast if necessary. But the examination is not complete until the patient is afterwards examined in a recumbent position, the examiner being, at will, at the patient's head or at either side. These are elementary suggestions, but they are too often neglected.

A few words as to the mode of operating, the manner of which, as generally practised, has always appeared to me to be, in many respects, faulty. I am free to confess that for the first twenty years of my professional life, although I followed always the most recent text-book, I was not satisfied with my own way of operating, nor with that of others. Having before my mind the instructions of surgical writers to cut and dissect parallel with the mus-

cular fibres, the knife was used too freely—almost exclusively—and a doubt often remained with me as to the sufficiency of my dissection, on the one hand, and as to the needlessly extensive mutilation on the other. Gradually I learned to do less with the knife and more with the finger in the work of separation, and with greater satisfaction. Although sanctioned by very eminent authority, I could not regard the early separation of the skin from the subjacent mammary gland as a wise procedure. And here let me observe that an error has long been indulged in as to the form and attachments of the mammary gland. Anatomical works often describe the female breast much in this fashion: "Two hemispherical eminences, nearly circular, flattened, or slightly concave, on the posterior surface, convex on the interior aspects." The female breast sometimes sends off cusps above, below, and to the axillary region; sometimes to and across the sternum; sometimes even to its fellow on the opposite side. The breast gland, aptly called by Dennis a cutaneous sebaceous gland, is sometimes connected most closely with the skin, through fatty tissue of varying thickness.

To ascertain the form and extent of the mammary gland, my first incision down to and below the gland is usually at the most dependent part of the breast. I must see, and feel, the outer margin of the gland and then separate it from the subjacent pectoral with my finger, not with my knife, and thus throughout. If the separation takes place easily, I am satisfied the disease has not extended to the muscle beneath, and I do not remove it.

But when there is the slightest suspicion of adhesion and the large pectoral is to be removed, how should this be accomplished? Not by separating it at the wide circumference of its broad, fleshy, basal attachments to ribs, sternum and clavicle, but at its narrower tendinous attachment to the humerus. By turning forward the now liberated muscle, its freedom from or adhesion to the pectoralis minor may be established, and the preservation or removal of the latter follow.

When large quantities of skin and muscle are removed with the breast gland, leaving the ribs to a large extent uncovered, skin grafting may sometimes be resorted to with advantage, but when? I share the opinion of Le Dentu that it is better to wait till the wound has begun to granulate and has contracted somewhat, and to have recourse to Thiersch's method at a later period than is often practised.

To resume: is it advisable to go beyond the mammary gland when there is no evidence of disease outside of it? My practice, notwithstanding weighty opinion to the contrary, is invariably to confine myself to the mammary gland, when it alone is diseased, and to the elliptoid integument to be removed. I am confirmed in

that practice by having noticed that when the disease reappears it is usually in the cicatrix, and rarely in the axilla. The supply of lymphatics leading to the axilla is doubtless abundant, but the lymphatics above and beneath one mammary gland anastomose freely across the sternum with those of the opposite side, yet it does not usually occur to the surgeon to remove both breasts when one only is affected. Besides, removal of the axillary glands adds greatly to the patient's discomfort and to her risks, and is, I contend, in the vast majority of cases of early cancer of the breast, unnecessary.

To my mind there is no more reason to remove the axillary gland, when not diseased, than there is to remove the network of lymphatic glands which encircle the chest in all directions. I ventured to so express myself in Washington several years ago, and I have not since found it necessary to modify the views I then gave utterance to.

But should the disease again show itself, what then? As I am firmly of the opinion that it is a returning, or coming again into view, of what had been removed merely from sight and apprehension, but not thoroughly and entirely, I repeat the excision as completely as possible once, twice, thrice, or oftener, as often, indeed, as any appearance of the disease is visible, or as the anatomical relations of the parts will continue to permit. In this way I have had the satisfaction, sometimes, of being able to obtain final success after many efforts. But this success, it must be admitted, is only occasional; it is sufficient, however, to encourage the surgeon to repeat his efforts, even if frequent failure almost forces him to look at any effort on his part as to that of which there is but little hope.

In conclusion, Mr. President and gentlemen, it may appear to many of you that I have stated nothing which could not have been said by any of my listeners; but when I was honored with the invitation to address you to-day, it occurred to me that it might possibly interest you to view a few features in a disease which is attracting an unprecedentedly large share of attention, through the optics of one, who, during years not a few, has had exceptional facilities for clinical observation.

NEURASTHENIA IN SOME OF ITS RELATIONS TO INSANITY.*

BY CAMPBELL MEYERS, M.D., M.R.C.S.(Eng.), L.R.C.P.(Lond.)
Neurologist to St. Michael's Hospital, Toronto.

Mr. President and Members,—The disease upon which I purpose making a few remarks to-day, is so wide in its distribution, and, at times, so disastrous in its effects, that any contribution to its study, however slight, may be of some service to those interested in its nosology and treatment. In a paper read at the meeting of the Canadian Medical Association in Quebec in 1898, I pointed out that, contrary to the opinion then generally expressed by authors, neurasthenia in certain of its forms frequently terminated in insanity. Further experience has confirmed the opinion I then expressed, and I may add that certain symptoms, which are usually classed as neurasthenic, are really the incipient stages of mental disorder, and that their early treatment may avert an attack of insanity. To no members of the profession has the study of these conditions a greater interest than to the family physician, since it is under his observation that these cases always come in the early stage, the period when active treatment is of most avail, and when delays are most dangerous. While we have numberless excellent authors on insanity, the result of study of these cases after the boundary line has been passed, we are still much in need of further writings on the early history of these cases. This is due largely to the fact that so little has been taught in our medical colleges and hospitals about neurasthenia, and, as a consequence, medical men must learn by experience the symptoms and treatment of this important disease. That such experience is often costly, there can be no doubt, since the non-recognition of symptoms and the lack of proper treatment often leads to mental disaster. When we consider the large amount of insanity in this country in proportion to its population, the importance of any means which may avert an attack is at once apparent. In using the term "insanity" in this paper, I do so with reference only to the idiopathic insanities or those mental diseases without ascertainable pathological alteration of brain substance (the psychoneuroses of Krafft Ebing). These may be defined as acquired forms of mental disease, arising in individuals who have a sound mental constitution. I refer, of course, to mania and melancholia, but especially to the latter.

Time forbids any lengthened discussion of neurasthenia in

*Read before the Ontario Medical Association, June, 1904.

general; but the type of this disease to which I would like to-day to direct your attention is that of cerebraesthesia or brain exhaustion, arising also in an individual of sound mental constitution. In order to better study the relations which exist between neurasthenia and the idiopathic insanities, let us first consider the causes of both these troubles. In regard to the etiology of neurasthenia, we find chiefly mental over-work, especially when combined with excitement of a depressing character, such as worry and disappointment, vexation and grief; trauma, especially when combined with much emotional disturbance; psychical shocks, such as an unfortunate love affair or death of a well-known friend or relative; exhausting processes, such as are incident to the various fevers in influenza or to pregnancy and lactation; auto-intoxication from the absorption of toxins from the intestinal tract, as evidenced by the excess of the ethereal sulphates in the urine; all forms of dissipation and excess, such as alcoholism, drug habits, etc.

If we now turn to the etiology of the idiopathic insanities, we find precisely the same causes given for their development by the best authors on mental diseases. Hence we have exactly similar causes acting on the same nervous elements in both these conditions. With this short discussion of the etiology, let us now take up some of the symptoms of cerebraesthesia, and see what relation, if any, they bear to the symptoms of the idiopathic insanities. Among the chief symptoms of cerebraesthesia we find a diminution in the capacity for sustained intellectual effort, and this difficulty of concentrating the attention may be so great as to lead to an habitual state of distraction. The patient's ideas do not present themselves as readily or in as rapid succession as in health. His will power and energy are markedly lessened, and he has no confidence in himself. He is morbidly sensitive, and often feels intensely hurt by fancied neglect of friends. His emotional equilibrium is readily disturbed. The patient becomes introspective, and is habitually on the alert for suspicious symptoms, suffering from nosophobia. Mental depression is another marked symptom in most of these cases, the patient becoming gradually depressed from his inability either to continue his work or to find relief from his symptoms. A distinct loss of the sense of the proprieties is often visible, and these patients, from their introspection and morbid sensitiveness, will discuss their intimate ailments with non-medical persons in a manner that at times is distinctly repulsive. There is at times, too, a distinct lessening of the affection for near relatives, and a patient will say, "I no longer care for my children as I should," etc. The patient often experiences an apparently causeless fear, which, combined as it is with weakness, is only natural. These

attacks of fear may arise from visceral disturbances, and the terror of approaching death from heart failure, etc., may be overwhelming. Or fears may arise which are associated with certain definite ideas, such as the fear of open places, etc., due, probably, to the fact that the faculties are so weakened that ordinary surroundings give no sense of security. Another symptom which is most important, and often one of the earliest, is insomnia, which is often accompanied by the most distressing dreams. We have now and then peculiarities in the speech and handwriting, both being slurred and slovenly, especially in writing letters to friends, when syllables or words may be omitted.

With this enumeration of some of the symptoms of cerebraesthesia, let us now turn to the symptoms of the most simple form of the insanity under consideration, viz., simple melancholia. In the study of this affection, I think we find the same symptoms as have been described in cerebraesthesia, except that they are present in an intensified degree. The mental depression, which is the prominent symptom, becomes much more marked, so that a patient may sit all day long in one position. The patient, after repeated attempts to be relieved of his ailment, has gradually been forced to the conclusion that he can no longer be cured, and consequently it is useless to try. The constant introspection of an earlier date has steadily deepened, and he now becomes wrapped in his own misery and overpowered by the feeling of hopelessness and despair. The incapacity for intellectual effort is increased, so that thought is slow, and often a considerable time is taken to reply to a simple question. His fears of various kinds have added to his mental burden. His will power and energy have become more deeply implicated, and he can only be roused with difficulty from his torpor. The preservation of his reasoning faculties makes the mental pain from which he suffers only the more acute. A feeling of aversion to friends and relatives is, he feels, contrary to nature, but he cannot overcome it. With the concentration of his thoughts on himself, all his relations with the outside world gradually become obliterated. With the consideration of his condition, his hopelessness and despair, the conviction that he will never recover and that his life can only be a burden and expense to his friends, is it any wonder that his thoughts now turn to suicide to end his unhappy existence? During all this time his reasoning faculties may be perfectly good, except in regard to his own condition.

If we now take up the other more advanced forms of melancholia, we simply find an intensification of these same symptoms, but along with them the reasoning faculties become impaired. The patient begins to argue with himself as to why this dreadful calamity should come upon him, and the answer takes various

forms according to the condition of his mind at the time. He feels that he must have offended God, that he has committed the unpardonable sin, that he has committed some dreadful crime against humanity, etc., etc., and the suppression of his reasoning faculties makes this all the easier to be believed by him. The more profound derangement of the cells in the centres for the special senses leads to hallucinations of various kinds, and a fully developed attack of insanity results, taking either the form of melancholia or mania.

Having thus very shortly discussed the conditions leading to insanity, owing to the very limited time which, of necessity, is allowed for the reading of a paper, let me add by way of illustration two examples as quoted by Berkley in his excellent treatise on mental diseases: "(1) A mother loses her only son. She is naturally depressed, takes hardly any interest in her surroundings, the conscious mental pain is great and energy is lost. She does not, however, go so far as to become inattentive to the needs of her person; she remains capable of performing her most pressing duties, and when called upon in an emergency will cast aside her own woes and look after the welfare of others, finding relief from her own depression in the work of cheering the sufferers and alleviating their misery. This woman has not been insane; the depression has remained within physiological limits. (2) Another mother may, after a similar experience, not only become depressed and lose all interest in her surroundings, but may even neglect her dress and the imperative duties of daily life. It may be impossible to convince her that the death of the child was not due to some fault on her part, and she may sit day by day, brooding over her misfortune. Even when called upon in an emergency to rouse herself and assist others in the direst distress, her sympathies cannot be awakened, but she will remain inactive, enwrapped in her own loss, and overcome by the impellent delusions resulting therefrom. In fact, she is wholly incapable of mental or physical exertion. In this case the physiological limit has been overstepped; the woman is insane, and the danger of suicide may be great." Here we have a very good illustration of the difference between sanity and insanity; but what about the clinical aspect, which is the vital point? We have been, I think, too satisfied to stop with the terms "sanity" and "insanity," without going further and considering the clinical side of this disease. The two examples above quoted may, to my mind, be considered quite rightly as different phases of the same disease, but we have been too inclined in the past to consider that, having made the diagnosis of insanity, we had done our duty, and all that remained for us to do was to hand the case over to an alienist for asylum treatment. We have been

too inclined to consider only the apparent condition of the patient without studying the features of the disease which produced it.

I believe that, clinically, there should be no boundary line, and that this term should be reserved solely for its medico-legal usefulness. We distinguish by a separate title, in the disease of no other organ, a later from an earlier stage, then why do so clinically in an affection of the brain? Had phthisis been studied only after the stage of cavity formation in the lungs, where would our knowledge of tuberculosis have been to-day? Why apply the title insanity to an advanced condition of disease only, and leave the earlier stages of this same disease without a name, or with some designation entirely different? If we are, from a medico-legal point of view, to consider a delusion as the basis of insanity, as advocated by Dr. Wherry in the last *Alienist and Neurologist*, let such be the case from a medico-legal, and not from a clinical, point of view. Rather let us study the symptoms and treatment of brain exhaustion from its earliest symptoms to its final termination as a single clinical entity which has no boundary line. The disease does not begin when we apply the term insanity to it (often from a medico-legal standpoint), and yet this stage alone has constantly been studied as a clinical entity. When the period arises that a patient is described as insane, it simply means that his case has progressed beyond a certain point, and that the original disease has become intensified. A proper designation for this clinical entity would be most useful, although very difficult to discover. The term cerebrasthenia, while open to several objections, might, if the prefix "acute" were added to it, serve to distinguish this disease until a more satisfactory name were found.

That mental disorders rest upon a physical basis is well recognized, and that we may, with reasonable certainty, regard deranged function of the cells of the higher centres as the cause of all the symptoms mentioned in this paper, is assured. The time is past when any of these symptoms can be regarded as imaginary or chimerical, and the results of prolonged clinical study have shown that these symptoms increase *pari passu* with the more profound derangement of function of the above-mentioned nerve cells. The researches of Hodge and the later experiments of Van Gehuchten and Marinesco point to much that is interesting in this regard. Time, however, allows me only to add a few words in regard to treatment. Since the celebrated dictum of the immortal bard, "How minister to a mind diseased," the impression has remained with us that little could be done. In the past few years, however, a decided change has taken place, and we now rightly conclude that the cells of the brain are just as susceptible to treatment, and respond to treat-

ment equally as well as, for example, the cells of the liver, in view of the importance and function of these two organs. The first essential in treatment is isolation, without which treatment is often disappointing. The reason is apparent, in that the good which may be accomplished by drugs is more than counterbalanced by the irritation which still continues, while the patient remains in his accustomed surroundings. The question of travel arises, but, except in the very early stages, a much more satisfactory result is obtained by other treatment first and travel later, when he is able to enjoy it. Hydrotherapy is a most important adjunct at all stages of the disease, and massage and electricity also have their period of usefulness. When combined with isolation, the various drugs yield as good results here as in any branch of medicine, while rest and moral suasion play a prominent part in the successful treatment of these cases.

A word in conclusion. In regard once more to the urgent necessity of suitable treatment in the early stage of this disease, and before the development of any delusions, I am convinced, after an experience of more than ten years, devoted exclusively and under exceptionally favorable circumstances, to the study of nervous diseases, and especially of those of a functional nature, that in their early treatment we have a prophylaxis of insanity which, for practical value, can scarcely be overestimated.

Proceedings of Societies.

THE ONTARIO MEDICAL ASSOCIATION CONVENTION.

IN the new Medical Building of the University of Toronto, the Ontario Medical Association celebrated its twenty-fourth anniversary on the 14th, 15th and 16th of June. The spacious and comfortable lecture-room was tastefully decorated with palms and flowers, and, as President J. F. W. Ross remarked, it gave one a comfortable feeling to hold a meeting in such pleasant surroundings. There was a goodly sprinkling of members present when the president called the meeting to order, and these increased from time to time until upwards of two hundred were assembled. The secretary, Dr. C. P. Lusk, had all matters of business and papers carefully arranged, and everything went along rapidly and smoothly. The papers read were of a superior order, and subjects of general interest. Under the skilful direction of the chairman the discussions were prompt, brief and pointed. "Altogether," said Dr. Ross, as he was vacating the chair for his successor, Dr. Burt, "we have certainly had the most excellent meeting in the history of the Association."

Dr. C. J. Hastings, Toronto, gave a paper on "Myxomatous Degeneration of the Villi of the Chorion." The various theories advanced by the earliest writers to explain this condition were briefly considered. Early in the sixth century Amidi taught that each vesicle contained a living embryo. Later the echinococcus was blamed for the condition. Velpeau first showed the cysts to be distended villi.

Among the causes given for this condition are diseases of the blood vessels, disease of the lymphatics, and degeneration of the mucus in the villi. The whole chorion is usually diseased; sometimes the placenta alone is involved. Marshand demonstrated that it was the epithelial covering of the villi, more than the stroma, that was affected, and that both the syncytium and Langhan's layers of cells underwent profuse and irregular proliferation. The terminal blood vessels disappeared, the stroma degenerated, and the cells necrosed. (The fluid contents is not mucin, but serum.)

Etiology.—The causes are not known. Maternal causation is at present most favored. Syphilis, tuberculosis, and endometritis are mentioned as predisposing causes.

Symptoms.—Usually manifest before the tenth week; to the

usual signs of pregnancy there is added a sudden bloody discharge and a disproportionately large uterus, with no evidence of fetal life. Constitutionally, anemia and debility, with pressure symptoms and pain.

Diagnosis.—The enlarged uterus, the irregular flowing, with the absence of fetal signs, is suggestive. Exploration may be necessary. Twins and threatened abortion must be differentiated.

Treatment.—The indication is to empty the uterus at once, using the finger or the long-handled ovum forceps to remove the neoplasm. Firm contraction must be secured subsequently.

Morbid Anatomy.—The vesicles are characteristic; their mode of attachment to the main stem is by a pedicle. The embryo may or may not be found. Dr. Hastings further pointed out the fact that chorion epithelioma is frequently preceded by hydatidiform mole. He presented a series of three cases illustrating the condition.

Discussion.—Mr. Cameron called attention to this condition as illustrating an epithelial growth from the fetus to the mother tissue. He cited a case of a woman pregnant of an hydatid one year after the menopause, followed by abortion and a subsequent deciduoma malignum.

Dr. McIlwraith pointed out that secondary infections in deciduoma malignum frequently disappeared after operation.

Dr. John Sheahan, St. Catharines, presented a most carefully prepared paper on "The Treatment of Appendicitis in Pregnancy." The question as to whether or not the surgeon should interfere in these cases was ably discussed. Until quite recently non-interference has been the practice; now, however, in acute infective cases pregnancy must be considered no bar to immediate and radical operation.

CASE.—Mrs. B., aged 25, primipara, four months pregnant. No history of previous appendicial trouble—seized with sudden severe pain in the hepatic region. The following day temperature and pulse normal, frequent desire to urinate, with pain in the bladder and over the liver. Three days later a chill, followed by a temperature of 104, pulse 140, respiration 30, and some vomiting. Pain in hepatic region and tenderness over McBurney's point, with but slight rigidity. Two days later a thickened and inflamed appendix was removed, an uninterrupted recovery following. At the eighth month premature labor was induced for albuminuria, with the birth of a dead child.

A summary of one hundred cases prior to 1899 showed that abortion most frequently followed operation; when pregnancy went to full term the fetal mortality being fifty per cent.

Etiology.—The same causative factors as exist in uncomplicated cases, pregnancy itself affecting only those cases where the

appendix hangs over the pelvic brim, or where the enlarging uterus separates the adhesions of former attacks, or presses on an appendicular enterolith.

Pathology.—The frequent occurrence of abortion, estimated at forty per cent., is referred to the intimate vascular connections existing between the appendix and the uterine adnexa. Cases with abscess involving the uterus are most unfortunate, as the uterine contractions aid in extension of the pus.

Diagnosis.—The uterine tumor prevents palpation. The muscles are stretched and the intestines are pushed up. The following points are important: 1. A history of constipation. 2. The sudden onset of acute abdominal pain in the right iliac fossa. 3. The localization of the pain over McBurney's point. 4. Vomiting. 5. High temperature and rapid pulse. 6. Rigidity of right rectus. 7. Examination per vagina under an anesthetic is advisable. Conditions such as right tubal pregnancy, acute salpyngitis, cholecystitis, gall stone colic and kidney crises must all be carefully differentiated.

Prognosis.—In simple catarrhal forms, good without operation; all cases favorable if operated on early. Abrahams says the prognosis is gloomy. He observed sixteen cases with eight deaths, and an infantile mortality of eighty-six per cent.

Treatment.—An inflamed appendix is a source of extreme danger, and as its removal is attended by few additional dangers to the mother and fetus, Munde's dictum is, "Treat the case early, regardless of pregnancy." W. Meyer, of New York, lays down the following rules: 1. Operate within twelve hours in acute perforating appendicitis. 2. A rapid pulse (116 to 120) is an indication for operation. 3. In case of doubt, operation is better than waiting. 4. A sudden lull for ten or twelve hours is an indication for operation. 5. The recurrence of an old appendicitis during pregnancy also demands surgical interference.

Discussion.—Dr. Webster, Toronto, advised operation by the vaginal route in pelvic peritonitis during pregnancy. It entailed less shock to the patient. He reported a case of suppurating appendicitis with pelvic abscess opened by this route with excellent results.

"Occipito-Posterior Presentations" was the subject of a paper by Dr. A. A. Macdonald, Toronto. Since the advent of antiseptics and anesthetics a new era has arrived in obstetrics as in surgery. They are exceedingly useful in correcting faulty presentations. Occipito-posterior presentations occur in one and one-half per cent. of all labor cases. Formerly the single blade forceps were used to cause the head to rotate. Herman, in his "Difficult Labor," gives three directions for the use of forceps in treatment: (a) Pull, (b) Flex, (c) Rotate. The practice I advocate

is briefly as follows: If you are called to a case late, but before the membranes have ruptured, wait until the os is dilated, then introduce the hand and rotate one quarter turn, converting the case into an occipito-anterior. To do this fully, anesthetise the patient, sterilize the parts and your hands, insert the whole hand and grasp the head. The occiput being now anterior, flex the head and hold it in position until the forceps are applied and locked. There is no injury to the child's neck, as the turn is only one-quarter. With the forceps on, delivery is readily effected, and without laceration.

Discussion.—Dr. Barrick, Toronto, said that he endorsed the methods of Dr. Macdonald. In cases where the head is out of proportion to the pelvis, how can we use the forceps? The rotation or quarter turn may be impossible when the pelvis is narrow. My treatment is, where the child is viable, perform version, as it preserves the mother from injury.

Dr. A. F. McKenzie, Bracebridge, noted the importance of the paper, but took issue with Dr. Macdonald's percentage for posterior presentations. In his experience there was about 20 per cent. of such cases, but nature generally rotates them herself. He emphasized the importance of diagnosis; it is not always necessary to insert the hand, external palpation being sufficient, especially if the abdominal walls are thin. In vaginal examinations, if the anterior fontanelle is felt first, the case is generally left occipito-posterior presentation.

Dr. Hastings, Toronto, drew attention to the importance of strict asepsis, and emphasized the usefulness of abdominal palpation as an aid to diagnosis.

Dr. Todd, Toronto, said in his experience the method of introducing the hand and rotating the head was accompanied by a greater mortality to the child.

Dr. Hunter, Parkdale, advised leaving the cases largely alone and not meddling with them. Nature would nearly always correct the position and effect delivery.

Dr. Temple, Toronto, said that early anterior rotation forward is always the treatment for posterior presentations. He could see no reason for an increased mortality, provided surgical asepsis was maintained.

Dr. Mellwraith, Toronto, said that leaving these cases to nature for a time and then applying the forceps was a cause of increased mortality. He advised early anterior rotation.

Dr. Ross, Toronto, explained, on request of Mr. Cameron, his father's method of treatment in these cases. He passed two fingers in front during a pain and the head rotated itself on them.

Dr. Macdonald (reply) could see no reason for an increase of mortality by introduction of the hand. The following points

are essential: 1. Choose your time, *i.e.*, before the membranes rupture, the os being dilated. 2. Fully anaesthetise the patient. 3. Cleanse the parturient canal and your hands, rotate the head the quarter turn; rotate the shoulders by external manipulation. 4. Keep the occiput down and in position until the forceps are on and locked. Then make traction in the correct direction.

Dr. H. P. H. Galloway, of Toronto, then read his paper.

Discussion.—Dr. B. E. McKenzie, Toronto, said the diagnosis of congenital dislocation is usually easy; to exclude infantile paralysis is sometimes a difficulty. The value of X-rays in diagnosis is well illustrated by the excellent photographs presented by Dr. Galloway. Other reasons of failure in reduction are that sometimes the head of the femur is absent or is very small, or that there may be no acetabulum, or a very small one. The anatomical conditions are such as to render failure inevitable. He reported fifteen cases with three cures.

In the discussion on Sir Wm. Hingston's paper, appearing in this issue, it was moved by Mr. Cameron, Toronto, seconded by Dr. Harrison, Selkirk, that the hearty thanks of this Association be tendered to Sir Wm. Hingston for his most excellent paper. Carried with applause.

Dr. Dickson, Toronto, said that the electrical treatment of epithelioma of the face is accompanied by good cosmetic results. He advocated the establishment of a chair of electrical therapeutics in the University. He referred to the method of electro-metallic treatment with the decomposition of mercury and zinc in the tissue forming an oxychloride of mercury and zinc, as being especially useful in epithelioma of the tongue and sarcoma. He advised the ray treatment to follow operation on malignant cases, citing examples to show that the secondaries frequently disappeared under the raying.

Dr. W. Oldright, Toronto, gave an account of a case of amputation of the breast, in which he had not removed the glands in the axilla, with a good result. He believed that the glands should not always be removed.

Dr. A. McPhedran, Toronto, discussed the importance of early diagnosis in gastric carcinoma. The patient should be submitted to careful examination, with special attention to the age, pain and discomfort in the epigastrium, its nature and relation to food, etc. Many cases may be relieved if diagnosed sufficiently early.

Dr. John Hunter, Toronto, emphasized the importance of good hygienic and systematic after-treatment in these cases; it helped to prolong their lives.

Sir Wm. Hingston (reply) supported Dr. Dickson's electrical treatment. In operations he aimed to cut wide of the

growth, and considered it a great misfortune if, during the course of an operation, he should see the cancer. Never operate for purposes of diagnosis. Take time and exercise patience. The less experienced the man, the sooner he will operate.

Dr. Mellwraith, Toronto, then read his paper on "Placenta Previa." From a careful consideration of the various methods of treatment, the conclusion was reached that when you decide to interfere in these cases, *i.e.*, when the fetus is dead, or the mother in danger from hemorrhage, the best method of procedure is to do a combined or Braxton-Hicks version, bringing down a leg and then leaving the delivery to nature. The leg serves to check hemorrhage, whilst, by leaving the case to nature, you avoid post-partum hemorrhage from laceration of the cervix or rupture of the uterus. To perform version, dilatation of the os sufficient to admit of the introduction of two fingers is all that is necessary. When the os is not dilated, plug the cervix with iodoform gauze or a Lysol tampon, and repeat if necessary in from four to six hours. Champetier de Ribe's bag is not satisfactory. For rapid dilatation no instrument is equal to the skilled use of the fingers.

Discussion.—Dr. Holmes, Chatham, has tried and discarded most methods. The tampon has given him the best satisfaction in most cases. The patient should be in a hospital or under the constant care of a trained nurse. No patient should be left alone in the country with the danger of a hemorrhage coming on suddenly. The doctor related an instance in which he had spent a whole week in the country watching one patient. The tampon should be sterile, but in introducing it do not draw the uterus down, as when the tenaculum is taken off the uterus returns to its position, leaving a space between it and the tampon. Use a Sims' speculum, and introduce the cotton tampons one by one until the canal is packed full. The pains will come on rapidly, and the presenting part come down and check the hemorrhage.

Dr. W. J. Wilson, Toronto, would not risk the tampon if the waters have come away.

Dr. John Hunter, Parkdale, said it is important to resuscitate the patient before commencing delivery.

Dr. Mellwraith (reply) expressed his opinion that the tampon kills the child, and is not sufficient in checking severe hemorrhage.

Dr. N. A. Powell, Toronto, gave a very interesting and instructive demonstration of technique of intestinal anastomosis by elastic ligature and other devices. He first traced the history of intestinal anastomosis, making mention of Senn's bone plates, Murphy's button, and McGraw's elastic ligature. "The trend of opinion to-day is to do away with complex devices, the surgeon endeavoring to become more proficient in manipulation." The

doctor performed two gastro-jejunal anastomoses, illustrating the method of employing the elastic ligature, and the later improvement by means of the triangular stitch introduced by Drs. R. S. Weir and J. W. D. Maury, of New York.

Dr. Geo. Hodge, London, in an exhaustive paper, reviewed the causes and diagnosis of pain in the upper abdominal zone. Among the causes noted were pleurisy, pneumonia, gastric crises, caries of the dorsal vertebræ, uremia, appendicitis in the early stage, cardiac cases (*a*) pericarditis, (*b*) angina, (*c*) aneurism, rheumatism, especially in children, subphrenic peritonitis following gastric ulcer, hyperacidity of the stomach, hypersecretion with spasmodic vomiting, gastric ulcer, carcinoma of the stomach, chronic gastritis. In the liver, abscess, carcinoma, Hanot's hypertrophic cirrhosis, cholecystitis, cancer of the gall-bladder, cholelithiasis. Of the spleen, movable spleen, infarct, abscess, splenomedullary leukemia. In the pancreas, acute pancreatitis, chronic pancreatitis, cystic disease, and cancer. In the intestines, duodenal ulcer, impacted feces in the transverse colon. In the kidney, enteroptosis, nephrolithiasis, abscess, tuberculosis, and malignant disease.

Discussion.—Dr. H. A. McCallum, London, complimented Dr. Hodge on his masterly paper. He drew attention to the difficulty of diagnosis in cholecystitis, reciting a case with pain over the gall-bladder with rigidity, following typhoid. It proved to be suppurating cholecystitis.

Dr. McPhedran, Toronto, also complimented Dr. Hodge on his excellent treatment of this important subject, in which mistakes in diagnosis are extremely numerous. He drew attention to the fact that many abdominal lesions were accompanied by identical symptoms, the pain in the early stages being practically always referred to the umbilicus. He called especial attention to diaphragmatic pleurisy complicating central pneumonia, and to a tender area just to the right of the eleventh dorsal vertebra, described by Boas, and occurring invariably in cholecystitis. In faulty conditions of the gastric secretion, especially accompanied by an excess of hydrochloric acid, the pain is extreme and is not relieved by food or the administration of antacids; this class of patients, moreover, are neurasthenics and bear pain badly. The stomach contents varies greatly; it may be scanty, or copious if associated with pyloric spasm.

Dr. Oldright, Toronto, said that the pain of appendicitis and perforation of the intestine was frequently referred to the upper abdominal zone.

Sir Wm. Hingston, Montreal, was pleased to note that Dr. Hodge, in his most exhaustive enumeration of causes, had not forgotten to mention that most important condition, uremia. He

instanced a case in which he and a confrère had been puzzled by this condition for some days.

Dr. Holmes, Chatham, gave the history of an interesting case. The patient had been sick for three or four years with pain in the right side, extending from the iliac region to the liver. Paroxysms of severe pain, with acute suppression of urine, followed by a copious discharge of pus in the urine, occurred at various intervals. The diagnosis lay between appendicitis, movable kidney, and suppurating cholecystitis. An exploratory incision over the region of the gall-bladder revealed a tongue-like projection of the liver, which in some mysterious way pressed on a suppurating kidney, and under certain conditions prevented the discharge of pus. He was at a loss to satisfactorily explain the mechanism of this action. The patient was immediately turned on his side, a nephrectomy done, perfect cure following.

Dr. Marlow, Toronto, called attention to small hernial protrusions of fat in the linea alba, sometimes producing severe pain. He had seen two cases.

Dr. Webster, Toronto, said that pain may be due to dislocation of the spleen, with rupture of the gastro-splenic omentum. Tumor of the ovary and herpes zoster were other causes of pain.

Dr. C. B. Shuttleworth, Toronto, in an able paper, gave a complete and critical review of the subject, "*Lithotomy versus Litholapaxy.*" From statistics of all the large hospitals available, the writer concluded:

(a) Litholapaxy is certainly the operation of election in all simple cases of stone in the urinary bladder.

(b) When the stone is too hard or too large to be crushed through the urethra or removed by the lateral method without injury, the suprapubic method should be adopted, or, perhaps better, perineal lithotrity.

(c) When the stone is encysted or associated with a tumor of the bladder or prostate, choose the suprapubic route and remove both at the same time. The mortality of a large number of cases is about 20 per cent. by the suprapubic method.

(d) Where there is a tight, deep, urethral stricture, especially when fistulæ exist, requiring a long operation to overcome, select the suprapubic or median perineal operation.

(e) In ankylosis of one or both hip joints, which interferes with the use of urethral instruments, and excludes all perineal operations, do suprapubic lithotomy.

(f) In the presence of foreign bodies in the bladder, which may form the nucleus of a calculus and resist the lithotrite, perform one of the perineal methods.

(g) Although the litholapaxy applied to children is very successful in the hands of experts, for the present lateral lithotomy is the safer operation for the general surgeon.

(h) Litholapaxy should be carried out, whenever possible, when senile degenerations exist, or when there are morbid changes in the genito-urinary apparatus, and the necessary treatment afforded to the complication either before or after litholapaxy.

Discussion.—Dr. Cockburn, Hamilton, said that as a matter of practical importance we do not get a sufficient number of cases to afford the necessary practice to become expert in the operation of litholapaxy. The suprapubic method has undoubtedly a bad record, but is an easy operation to perform, and with no chance of blank lithotomy. The safest method is perineal litholapaxy, but I consider the method of dilating the prostatic urethra with the finger, as advised by Reginald Harrison, a dangerous proceeding. The surgeons should practise the operation on the cadaver.

Dr. Powell, Toronto, drew attention to the importance of litholapaxy as a method of extracting stones from female children. He instanced two cases; one, a girl five years old, from whom he removed a large and a small calculus, weighing 241 grains, by litholapaxy. This was some years ago, and, so far as he knew, was the first instance of the method being employed in female children. At the request of Dr. Bigelow, these cases were published; the first may be found in full in Skene's text-book on the diseases of women. The method has now become the established procedure. "I have never been able to overcome my dread of the suprapubic route, based on the mortality reports of the large hospitals. So far, I have only removed 107 stones by the suprapubic method—it is only fair to say, however, that 106 of these came from one case. On the whole I prefer the lateral section when the case is not suitable for litholapaxy."

Dr. Primrose, Toronto, regretted that he had not heard the whole paper, but considered the suprapubic method quite as difficult as the perineal operation. He told of a case where the surgeon attempted litholapaxy and failed; then anaesthetised the patient and attempted the suprapubic method, which was given up after wounding the peritoneum twice; the patient was finally put in the lithotomy position and the stone extracted with the greatest ease by lateral section. He took issue with Dr. Shuttleworth's tables of mortality of the various methods, pointing out that the more difficult cases, those with prostatic complication, were the subjects of suprapubic section. Consequently the mortality compared unfavorably with the simpler cases in which the other methods were employed.

Dr. Ross, Toronto, had recently visited Mr. Freyer in London, and had seen some of his work. Mr. Freyer had become so skilful in litholapaxy that he now practically never cuts for stone.

Dr. Webster, Toronto, wished to know which method would be employed with encysted stone.

Dr. Shuttleworth (reply) thanked the gentlemen for the interest taken in the discussion. His statistics had been gathered from a great number of cases in large hospitals, and embodied the results of operations on all cases.

Dr. Perry Goldsmith, Belleville, was then called upon for his paper, "The Treatment of Ophthalmia Neonatorum."

Discussion.—Dr. Trow, Toronto, did not consider that Dr. Goldsmith should call his treatment unorthodox; in fact, he considered it quite the orthodox method. He emphasized the importance of the careful treatment of the cornea. Argyrol is a god-send in many cases; a 20 per cent. solution may be dropped into the eye, and, if the child is lying down, will reach all parts of the conjunctival sac. No thickening of the conjunctiva results, as with the old painting method in which abrasion of the cornea was so dangerous. Cocaine should be used with caution; it hardens the cornea, and causes some proliferation of the epithelium. Bichloride does this also, and should not be used in eye work. Protargol has not the advantage of being painless, as is argyrol.

Dr. Goldsmith (reply)—Theoretically, the bichloride is of no use, as it precipitates with mucus and forms an insoluble albuminate of mercury.

Dr. Parfitt, Gravenhurst, presented an account of the work done by the Free Hospital for Incipient Tuberculosis, recently opened in Muskoka by the National Sanitarium Association. He appealed to the members of the profession for a fuller recognition of the importance and need of this work, pointing out that the hospital was dependent upon the charity of the public, and that the medical profession could do a great deal towards keeping its doors open to the needy poor by their co-operation. He presented statistics of the hospital, showing that excellent results followed the systematic out-door treatment, and closed his most interesting paper with a hearty invitation to the members of the Association to visit the Free Hospital and see for themselves the out-door treatment in active operation.

Discussion.—Dr. Elliott, Gravenhurst, joined with Dr. Parfitt in inviting more of the profession to visit the sanatorium. He assured them of a hearty welcome, and was quite convinced that the visit would be of profit to themselves.

Dr. Goldsmith, Belleville, had visited the institutions, and could testify to their excellent work, especially in laryngeal cases. The patients were under the constant supervision of the resident physicians, and received treatment, inhalations, applications, etc., once or twice daily, if necessary. He had no hesitation in advising patients to go to the sanatorium.

Dr. Milner, Toronto, said that from his experience in exam-

ining for life insurance, he was convinced that the early diagnosis of phthisis, in which stage it was favorable for sanatorium treatment, was often overlooked. He considered it the duty of every family physician to examine carefully at least every six months those of his patients with a phthisical tendency. He should pay special attention to hemic murmurs, and the character of the breath sounds.

Dr. Trow, Toronto, related the experience of a patient, a neurasthenic, phthisical, sallow-faced book-worm, who lived in a tent at Gravenhurst throughout the summer and through most of the severe winter months, coming back to Toronto robust and healthy.

Dr. Parfitt (reply) regretted to say that laryngeal cases usually do badly unless the patient be in otherwise good health. He was sorry that doctors would continue to send to the sanatorium patients in advanced stages of the disease with only a few more months to live. He would much prefer to have patients sent merely on suspicion, as they were prepared to make most delicate tests by means of tuberculin and the injection of sputum into guinea-pigs.

Dr. Wm. Oldright, Toronto, exhibited specimens of tumors removed, in which the diagnosis had been complicated. He related the history of these cases, and gave a *resume* of the differential diagnosis.

Discussion.—Dr. Perfect, Toronto Junction, asked how Dr. Oldright would control vomiting following abdominal section.

Dr. Oldright said that vomiting after operation is often difficult to control. Washing out the stomach is useful, and a hypodermic of morphia over the epigastrium successful in stubborn cases.

On Wednesday morning a very excellent series of papers dealing with the various phases of life insurance as it more especially interests the doctor, was read by the following gentlemen: Dr. H. R. Frank, Brantford; Dr. F. Le M. Grasset, Toronto (Canada Life); Dr. R. J. Dwyer, Toronto; Dr. Edw. Ryan, Kingston (Canadian Order of Foresters); Dr. H. C. Scadding, Toronto (Canada Life); Dr. B. L. Riordan, Toronto; Mr. Percy C. H. Papps, A. I. A., Toronto (Actuary, Manufacturers Life).

A vote of thanks was moved by Drs. Harrison and Davison to Mr. Papps for his interesting and instructive paper.

Discussion.—Dr. J. L. Davison, Toronto (Imperial Life)—While it may be true that adolescence is especially the age of tuberculosis, and old age that of cancer, yet it must be emphatically understood that no period of life is exempt from tuberculosis. Concerning the influence of heredity on cancer, at the present day not much attention is paid to it, the report of the

recent German committee of investigation being that cancer is not hereditary. In regard to syphilis, I hold that three years of active treatment, as advised by Jonathan Hutchison, is the only safe method. The patient should not be considered cured until he has remained free from symptoms for a period of ten years, and even then he cannot be certain of complete safety. Examining physicians should be more careful of their reports, and should not hesitate to write confidential letters to the medical director explaining obscure points. As to the examination of the blood vessels, any degree of sclerosis, or visible pulsation in the radials, is of great importance, often of more importance than the existence of a heart murmur.

Dr. Machell, Toronto (Crown Life), suggested that owing to the excellence of the papers and their importance to practitioners in general, they should be published in book form and distributed to members of the Association.

Dr. Ferguson, Toronto (Excelsior Life), held in regard to syphilis that Sir Wm. Gowers was right. "It damages the vitality of the system, and paves the way for the entrance of other diseases, such as tabes, aneurism, and paresis." The descendants of long-lived parents are not necessarily good risks. Alcoholism is an evidence of neurosis—50 to 60 per cent. of neurotics having alcoholic tendencies. In reference to tuberculosis, I hold that without the seed there is no crop. The nature of the soil is also important, some soils being much more favorable to the growth of the germ than others. The following points are important: (a) Family history; (b) Personal condition; (c) Past history; (d) Collateral influence of occupation, habits, etc.

Dr. Hay, Toronto (People's Life), emphasized the importance of completely exposing the chest. In a recent case, a woman objected to exposing the chest, and upon insisting, he discovered that one breast had been removed for malignant disease, and the other one showed infection also. The woman was even at that time under the care of a surgeon who proposed to remove the remaining breast.

Dr. Oldright, Toronto, considered that some cases of mitral regurgitation with good compensation were as deserving of acceptance as were many other cases which were shoved through. Moreover, that a man operated on for appendicitis, with a good, clean, well-healed scar, should be accepted without difficulty.

Dr. Free, Stouffville—We have heard much good advice from the medical directors, but I would like to speak a word in behalf of the unfortunate examiners. (Applause.) The difficulty of getting correct answers cannot be over-estimated; especially is it almost impossible to get accurate information concerning the habits and history of the applicant.

Dr. Britton, Toronto, considered that the examiner who was on the spot, and frequently personally acquainted with the applicant, was in a much better position to judge of the acceptance of the risk than the medical referee. He considered that the referees should pay more attention to the examiner's answer to that question.

Dr. Hunter, Parkdale, considered that the pay was much too small for the trouble to which the examining physician was oftentimes put. Recently he had made three attempts to examine an applicant, and on the occasion of the third visit the man informed him that "he hadn't time to be examined then, as his wife had some friends in to a card party."

Dr. Webster, Toronto, wanted to know if it was true that some physicians in Toronto were examining applicants for life insurance at twenty-five cents apiece.

Dr. Scadding, Toronto, said it was true that the doctor was not sufficiently paid in some cases, but the applicant paid the doctor's fees, and in many cases these were poor patients who could not afford to pay more. Moreover, the fees were cash, with no difficulty in collecting accounts.

Mr. Papps said that if the doctors are not sufficiently paid, it is largely their own fault. There are physicians who are willing to accept the present fee, and as long as the company could get the services of such men, they could not be expected to pay more.

Dr. Sheard, Toronto, read an excellent paper on "The Relative Importance of the Clinical and Bacteriological Evidences in Diphtheria," as follows:

I have not thought it wise to present to you a set paper this evening, but shall submit some ideas with the object of eliciting an expression of opinion from those members of the profession assembled here. Many physicians imagined that the discovery of the Klebs-Loeffler bacillus and the proof by injection into guinea-pigs and cats of the production of diphtheria, settled the question beyond further discussion. But I make bold to state that the physician who imagines we know all about diphtheria is confronted with difficulties and troubles at every turn. I am fully convinced we cannot depend exclusively on the findings of bacteriological examination in these cases. There are many cases which present no physical signs, but in which the bacilli are undoubtedly present, and the generally accepted opinion that when the Klebs-Loeffler is present we have diphtheria is not always true. Whether the absence of symptoms is due to a personal immunity or not I am not prepared to say.

There are four distinct varieties of the Klebs-Loeffler bacillus: the long forms, the short, the attenuated, and the pseudo-bacilli. They produce soluble toxins, and are sometimes associated in

their action with pus organisms—these toxins produce the symptoms which we designate diphtheria.

I have a series of seven cases diagnosed as posterior fibrinous rhinitis, in which not one but a series of bacteriological examinations failed to reveal the presence of the Klebs-Loeffler, but each case was followed by paralysis. We generally admit with paralysis we have diphtheria. The virulence of diphtheria varies much according to the seed, the mortality being sometimes over 90 per cent. I remember a man from Buffalo with diphtheria who stopped at the Brown Hotel; seven new cases developed from exposure, of whom six died. Some time ago a Russian family of nine set out for Toronto; two of them died at sea of diphtheria, two more in Montreal, and two others in Toronto. All this bears out the teaching that diphtheria is due to a particular form of vegetable organism, and as such is subject to the laws which govern the growth of all seed in various soils.

1st. The sequelæ are due entirely to the toxins, the extent of the membrane being of no consequence in this connection. If we have cellulitis, and no adenitis, the condition is most serious, the toxins entering the nerve trunks and destroying their vitality. The sequelæ may be expected at any time from the third week to the third month.

2nd. Many conditions are due to the associated pus organisms, such as the secondary eruptions, which are identical with those of septicemia, and in no way dependent upon the Klebs-Loeffler.

Another form of bacterial diphtheria is the post scarlatinal type, in which during the second week of the fever the patients have the Klebs-Loeffler, but exhibit no symptoms; they invariably get well and are not infective. I have records of sixteen such cases. Again we have the association of scarlet fever and diphtheria, the diphtheria not following the scarlet fever, but both diseases existing simultaneously in the same patient as the result of two separate exposures—the incubation period of scarlet fever being four days, whilst that of diphtheria is about six days. At the Isolation Hospital we have a separate ward for these mixed cases. Again we have those cases of post-diphtheritic scarlet fever where the scarlet fever follows closely on the heels of the diphtheria, and where, in spite of any form of treatment, we have a mortality of over 80 per cent. And as these cases occur as frequently in private houses as in hospitals, they cannot be accounted for by infection from one hospital patient to another. A frequent experience at the Isolation Hospital is to have whole families sent in, half of whom are suffering from diphtheria, the other half from scarlet fever; showing the correctness of Sydenham's contention that there exists a far greater intimacy between these two diseases than the private physician would care to admit.

I can report several cases in which, after weeks of most energetic treatment the bacilli could not be gotten rid of, and though such cases were discharged, no new cases have been known to result from them. One patient in the scarlet fever ward developed otitis media, in the discharge from which the Klebs-Loeffler bacilli were found. He was discharged, and no cases resulting have been reported. From these experiences I am convinced that when the bacillus of diphtheria exists in pus it is innocuous and non-virulent.

In conclusion, these questions naturally arise: 1st. Is scarlet fever antidotal to diphtheria? The answer appears to be in the affirmative. 2nd. Does not diphtheria aggravate scarlet fever? The answer again is "Yes." 3rd. Is the difference in the two diseases due to the evolution of a soluble toxin by the Klebs-Loeffler bacillus? Osler once said to me, "If the rash appears, disappears, and re-appears, it is in all probability a septic rash." The scarlet fever rash, we know, does not disappear and re-appear, but there are many septic cases, such as recurring erysipelatous rashes, all closely connected clinically with diphtheria and scarlet fever.

Dr. McMahan followed Dr. Sheard with a masterly paper upon "The Uncertainties of Diagnosis and the Necessity of Early and Vigorous Treatment of Diphtheria." He emphasized the importance of the early injection of adequate doses of antitoxin in all suspected cases, even before the results of a bacteriological examination could be obtained. He called attention to the great reduction in the mortality, especially of laryngeal cases, since the introduction and the general use of antitoxin. In his own practice he was pleased to report that since he had adopted the rule of early and efficient treatment with antitoxin, he had not had a single death. From the reports of the Hospital for Sick Children, he was convinced of the effectiveness of immunizing doses of antitoxin, and advised that members of a family in which a case occurred should each receive adequate immunizing injections.

Discussion.—Dr. A. R. Gordon, Toronto, strongly verified Dr. McMahan's statements, and expressed himself in favor of the early, abundant, and fearless treatment with antitoxin.

Dr. Allan Baines, Toronto—I must congratulate Dr. McMahan upon his happy experience with antitoxin. I wish it to be emphatically understood that I am a believer in antitoxin, but I can report no such good results. . . . In one case I injected 4,000 units, followed in four hours by 2,000 units, in four hours more by 2,000 more units; in all 8,000 units in eight hours, but in spite of this the patient died. Pure cases of diphtheria are undoubtedly benefited by antitoxin, but those cases of

mixed infection, with the streptococcus and the staphylococcus, are not cured by antitoxin. It is just ten years since this question was thoroughly thrashed out in the Pediatric Society at New York, when this same conclusion was reached.

Dr. W. J. Wilson, Toronto—My experience is the same as Dr. McMahon's. My practice is to inject antitoxin early, make swabs in all suspicious cases, and make my own cultures, in which case I have a report in eight hours. I believe calomel fumigation and intubation to be valuable adjuncts in the treatment of laryngeal cases, but my rule is, "When in doubt, use antitoxin." A difficulty we encounter is that when the swabs are sent to the Health Office on Saturday evening, no report can be received until the following Tuesday morning.

Dr. John Ferguson, Toronto—I endorse Dr. McMahon's position. I use antitoxin freely and early, and in young children rather increase the size of the dose than diminish it, as their tender constitutions have little power in producing self-immunity. Concerning the cases of mixed infection, with the staphylococcus or streptococcus present, I maintain that if you control the Klebs-Loeffler bacillus, you materially aid the child in its struggle. I am pleased to report that I have not had one death since using antitoxin; in all I have had nine intubation cases, three before the period of antitoxin, and all died, and six since the introduction of antitoxin, and all recovered.

Dr. B. Z. Milner, Toronto—I wish to call Dr. McMahon's attention to the fact that there is diphtheria in the Sick Children's Hospital at the present time, and that recently when I wished to operate on several cases, I was informed that they were in the isolation ward with diphtheria.

Dr. Sheard, Toronto—I would like to ask Dr. Machell concerning fifteen cases in the Children's Home. Did these all receive immunizing doses?

Dr. Machell, Toronto—As far as my memory serves me, I believe all did not receive immunizing doses before being ill, and that but one or two cases occurred in those patients where immunizing doses had been given. . . . Diphtheria varies markedly in epidemics. In some epidemics all die, in others all get well.

Dr. F. N. G. Starr, Toronto, pointed out that the cases at the H. S. C., where the present epidemic commenced, were in children from eight to ten years old, and that the ordinary immunizing dose of 500 units for a child of two or three years was not sufficient for these older children.

Dr. John Hunter, Parkdale, expressed the opinion that the mortality was greater with the use of antitoxin than without it.

Dr. Webster, Toronto, has never seen any good result follow the use of antitoxin after the child once has diphtheria. Of four

cases in one family, sent to the Isolation Hospital, one only received antitoxin, and she died; the other three received no antitoxin, and all recovered.

Dr. A. A. Macdonald, Toronto, believes in the effect of immunizing doses, but that in most cases the dose is too small. Do the thing early and do it thoroughly. "Is not your experience the same as mine in laryngeal cases; formerly did not practically all our laryngeal cases die, while is it not now your experience that the child suffering from marked dyspnea after the injection of the antitoxin, soon commences to breathe freely and easily?"

Dr. McMahon (reply) reiterated his former statements, and said that if Dr. Webster had used antitoxin immediately, the little girl would not now be under a small mound on the hillside.

Dr. Sheard (reply) wished to be understood that there were other things in the treatment of diphtheria besides antitoxin, such as cleansing sprays and swabs; and moreover that laryngeal cases will die in spite of antitoxin, not from the toxemia, but from laryngismus stridulus. He doubted the immunizing effects of antitoxin.

On Wednesday afternoon the Association held their annual luncheon. The affair was a most enjoyable one, excellent speeches being given by Premier Ross, Hon. Mr. Harcourt, Dr. Harrison, of Selkirk, and Dean Reeve. Immediately after the luncheon, through the kindness of the Automobile Club, the members of the Association were treated to a ride around the city.

"The Treatment of Prostatic Hypertrophy" was the title of a paper by Dr. T. K. Holmes, Chatham.

From a careful consideration of the subject, Dr. Holmes concludes that castration and vasectomy are of little value; that the Bottini operation, while not in general favor, has many good points, and is deserving of a more careful study and a wider employment; that suprapubic prostatectomy is difficult in fat subjects; the perineal method is the one most generally useful. The gland is drawn down into the wound by means of Sims' rubber bag, and carefully enucleated from its capsule. If it is desirable to avoid damage to the ejaculatory ducts, Dr. Young's (Baltimore) device for pulling down the gland and performing the operation visually is recommended. Dr. Holmes gave the history of two successful cases; in one he employed the Bottini operation, in the other median perineal prostatectomy was done. In conclusion he warned the profession against the constant use of the catheter, as it almost invariably resulted in cystitis. "There are one hundred men in this room, and probably twenty of us will have to seek relief for an enlarged prostate. We should advise to others the same treatment that we ourselves would like to receive."

Discussion.—Dr. Bruce, Toronto, preferred the suprapubic operation, although he had not acquired the dexterity of Mr. Freyer, who shelled out the prostate in two minutes. He had never met with any special difficulty in reaching the gland in fat patients. Within the last month he had operated on one very stout gentleman, and by pressing the prostate forward from below had experienced no difficulty in removing it.

Dr. Powell, Toronto, had not intended to take part in the discussion, but was drawn into it by the good-natured raillery of one of the speakers. He was pleased to say that, although he dreaded the suprapubic route, he had as yet no mortality in the operation. Statistics from large centres, however, showed the operation to be attended by a mortality of about 20 per cent. He cited a recent aggravated case, and had just that day received a letter from the patient announcing that "he was able to dispense with his catheter."

President Ross told of a recent visit to Mr. Freyer, in London, and gave short extracts from letters of rejoicing nobility, upon whom Mr. Freyer had operated for enlarged prostate. "Duke — writes, 'Dear Dr., . . . I can now pump ship like a two-year-old.'" "Earl — writes, 'Dear Dr., . . . I tell you I can now make the pot hum.'"

Mr. Cameron, Toronto, was pleased to have heard Dr. Holmes' interesting and able paper. He agreed that the older perineal route was the better method. It was not absolutely necessary to damage the urethra in all cases. He took exception to the expression "the anatomical middle lobe," as there is no middle lobe to the prostate. He regretted to report a serious mortality by the suprapubic method. He did so, however, out of the hope that those present might benefit from his misfortunes. Within the last year and a half he had done fifteen suprapubic sections, with five deaths. Two of the fatalities could not be attributed to the operation, one being from facial erysipelas and bronchitis, the other from hemiplegia; but the other three, who were promising and otherwise healthy patients, died suddenly; one acutely insane in twenty-four hours, who was perfectly well twelve hours after the operation; one unaccountably, without either hemorrhage or shock, in about twenty hours, having been in excellent condition twelve hours after the operation; and the last in about forty-eight hours, of albuminous edema of the lungs, the pulse and temperature having been normal and the general condition excellent twelve, twenty-four, and thirty-six hours after the operation. With the old perineal operation he had had no mortality.

Dr. McKinnon, Guelph, operated wholly by the suprapubic method. He considered it much easier, involving less danger of wounding the rectum, and rarely followed by fistulæ. His mor-

tality had not been great. The perineal route is simple, involves less shock to the patient, but is frequently followed by fistula. He reported a series of cases with successful operation and recovery, in patients from 65 to 83 years old. He had only had two deaths.

Dr. Olmstead, Hamilton, said that all methods are simple to those practised and skilled in the method of their choice. On the continent the perineal method was used almost exclusively and with great success; in England and Canada the suprapubic route was the method of election and enjoyed the same success. He advocated the more frequent use of the cystoscope. Freyer was able to announce good results, and he was surprised that, with the immense amount of material at his disposal, he did not announce more of them, because he was able to carefully select his cases. We in Canada here could not so pick and choose, but were forced to do our best to relieve all sufferers. In his mind the one objection to the suprapubic method was the poor drainage obtained.

Dr. Holmes (reply) strongly advised more careful study of the Bottini operation. No general anesthetic was required, and he believed it had a great future before it.

Dr. Bingham—The contracted bladder was easily raised by the hand in the rectum. The bladder should be sutured to the abdominal wall before opening.

Dr. J. Campbell Meyers, Deer Park, read a splendid paper on "Neurasthenia in Some of its Relations to Insanity." We print it in full in this issue.

Discussion.—Dr. McKenzie, Bracebridge, emphasized the importance of the subject, stating that neurasthenics were frequently met with in country practice. These cases fall easy victims to the quacks. It was a matter of great difficulty to carry out isolation in many cases.

Dr. Ferguson, Toronto, said that neurasthenia and the earlier forms of insanity are several links in the same chain; the exact situation of the boundary line is beyond human judgment. Pronounced cases of neurasthenia or insanity are easy of diagnosis, but between these there is a series most puzzling to us all. The question is one of physical disturbance, the great feature being that the slightest mental effort produces exhaustion. Again, the nerve system becomes so depleted of all energy that physical exertion is impossible. The condition is a nutritional change first, followed later by an anatomical one. The dendrites fail to absorb sufficient nutriment from the brain matter, and the slightest possible effort exhausts this limited supply. Disorganization sets in and the sickly, weakly, though normal, cell becomes a morbid and pathological one, and ultimately disappears. The

conditions producing these effects are: 1. Prolonged worry; 2. Sudden mental shock; 3. Over-work and no rest; 4. Some toxemia which affects the brain, destroying the nerve cell.

Dr. Hunter, Parkdale, would like to know the position hydrotherapy occupied in Dr. Meyers' treatment. A woman under his care, suffering from a pronounced form of neurasthenia, for whom he had prescribed a cold bath every morning (preferably at 5 a.m.), followed by a brisk bicycle ride, was now a perfect picture of ruddy health.

Dr. Bruce Smith emphasized the use of hydrotherapy in treatment, the etiological value of toxemia, and the importance of early recognition of the symptoms in neurasthenia. "Insanity," he concluded, "is the culmination of nervous derangements in the patient, undiscovered and uncorrected."

Dr. Holmes, Chatham, said that women are born with unstable nervous systems, and later in life misfortunes overtake them which lower their vitality and produce the symptoms of neurasthenia. We must search carefully for the cause; it may be a movable kidney, an inflamed gall-bladder, faulty position of the uterus, inflammation of the ovary, laceration of the cervix, or eye-strain. The correction of these conditions, he believed, would, in most cases, result in the entire disappearance of the nervous symptoms. In a case of puerperal insanity recently under his care, he repaired a torn cervix, and the insanity disappeared. Many cases also were due, he believed, to auto-intoxication from the alimentary canal.

Dr. McPhedran, Toronto, said that cases on the borderland between neurasthenia and insanity are difficult of diagnosis. Neurasthenia should include all cases of nerve prostration; *e.g.*, in one patient weakness of digestion may be the prominent feature; another patient cannot sleep or rest; still another may have disturbed cardiac action; but all are neurasthenic. He believed that there should be better provision for more careful attention to the incipient insane. There should be one or more stations for the temporary treatment of such patients, and wherein incurable and curable cases could be separated. This would materially relieve the asylums and save the patient from the stigma attached to the inmate of an insane asylum. There are such institutions in Europe and the United States. An inherited difference in the vitality of tissue is responsible for the easy break-down in neurasthenics. Some have poor vitality of brain, of kidney, or of stomach, with the result that these organs are readily exhausted.

Dr. W. J. Wilson, Toronto, agreed with Dr. Holmes that putting all the organs right and changing the environment of the patient would accomplish many cures. He deprecated the wholesale removal of ovaries for trifling causes, the ultimate result being bad.

President Ross could not agree with Dr. Holmes. Some years ago, through the kindness of Dr. Beemer, of Mimico Asylum, he operated on a number of women patients, repairing lacerations, correcting uterine displacements, etc., with no change in the mental condition of the patients. They were insane before, and they are insane yet, and will probably remain so.

Dr. Meyers (reply)—Any pathological condition should certainly be treated, but improvement in the mental condition could not be expected to follow. He could see no reason why an operation on a woman's uterus should influence the condition of her mind.

Dr. McPhedran discussed some forms of skin disease.

1. *Impetigo Contagiosa*.—The disease is contagious, most commonly occurring on the face or pubic regions, and due to the streptococcus or staphylococcus (or some believe to a specific organism). The disease tends to recur from time to time.

Treatment.—Cleansing, and the application of antiseptic ointments, such as ung. hyd. amm. chlor., or, better, Resorcin, 20 to 30 grains in an ounce of Lanolin. The principle in the treatment of all skin diseases is, cleanse and apply antiseptic, soothing, or stimulating applications.

2. *Erythema Multiforma*.—The trouble commenced in March, four years ago, as a vesicular eruption, occurring on the hands, face, and neck, *i.e.*, the exposed parts only. The eruption lasted all summer, faded in the fall, leaving no mark. It returned in March of the following spring, and went through the same cycle. The lesions are first vesicular, then pustular, and finally coarse crusts, which drop off in a few weeks, leaving faint marks. No inflammation precedes the vesiculation. It is, doubtless, purely a congestion with a serous exudate, followed by an exudate of leucocytes and ultimate crusting.

3. *Acne and eruption on the leg* (syphilitic or tubercular).

Treatment.—Acne, difficult in phlegmatic types. Stimulate until slight desquamation, and then soothe. He prescribed Resorcin, 20 gr.; B. naphthol $\frac{1}{2}$ dr.; sulphur, 2 dr.; green soap and vaselin, aa, 1 oz. To soothe the leg ulcer use Unna's paste: zinc oxide 1, gelatine 2, glycerine 3, aqua 4. Add, if necessary, Ichthyol 2, 3, 4, or 5 per cent.

4. *Tinea Tonsurans*.—Difficult to cure, as the microsporon is deep down in the hair follicles. Two principles to be observed, thoroughness and perseverance, *i.e.*, use any parasiticide and keep it up. He prescribed sulphur, 2 dr.; Lanolin, 1 oz.; or thrysarobin, 1 dr. to the oz.

5. *Cycosis non-parasitica*.

6. *Leucoderma* in a man with pernicious anemia.

Dr. H. B. Anderson, of Toronto, followed Dr. McPhedran.

1. *Urticaria pigmentosa*.—Present since birth. Small wheels, leaving yellowish or brownish pigmentation spots; recur at intervals in the same spot, leaving a deeper stain. Pigmentation due to the escape of red blood corpuscles and deposit of their pigment.

2. *Weeping eczema*.

3. *Psoriasis*.

4. Exhibition of cholene crystals from the blood of a nerve case, prepared by Dr. F. H. Scott, according to the method of Dr. Haliburton.

5. *Molluscum fibrosum*.—A man with many hundreds of small cutaneous tumors.

Dr. H. B. Anderson then read a paper on "Strain in Heart Disease." The influence of severe bodily exertion in inducing rupture of the heart or blood vessels, in patients with arteriosclerosis, or in those unused to physical exertion, was illustrated by the exhibition of a number of specimens, with a short history of each.

1. A patient dropped dead on the street, following rapid walking. The specimen showed rupture of the aorta. Presented by Dr. Powell.

2. A woman, aged 60, died suddenly during the passage of a stomach tube. Specimen reveals rupture of the left ventricle.

3. Captain on a boat attempted to carry a heavy tie, fell unconscious, suffering from tachycardia. Died nine months later, aged 55. Specimen shows rupture of the sinus of Valsalva, with aneurismal dilatation pressing on the right heart.

4. Patient a moderate drinker, good liver, no history of syphilis. After a week of unusual exertion was seized with a sudden pain and sense of weakness, and died the same night. The autopsy showed a dissecting aneurism involving the whole of the descending aorta down to the bifurcation of the iliaes. The blood had burst the middle and inner coats of the aorta, making a false passage for itself under the adventitia.

Dr. J. H. Elliot, Gravenhurst, gave an illustrated paper on the advantages of a pictorial record of chest examinations. By means of lines, circles, dots and crosses, he represents the degree of dullness, adventitious sounds, the nature of the breath sounds, pleuritic rubs, etc. The method commended itself for ease, simplicity and efficiency to all present. Dr. Elliot very kindly offered to explain the details of the system, with illustrations, etc., to anyone who cared to communicate with him.

Dr. R. N. Fraser, of Thamesville, then read his paper, and reported a remarkable group of cases of malignant disease occurring in members of the same family and attendants who waited on them.

Discussion.—Dr. W. J. Wilson, Toronto, recited the case of a gentleman in Germany, who by mistake drank the stomach contents from a patient with gastric carcinoma, and he himself died of cancer some months later. Another case, where a physician by mistake sucked up the stomach contents of a cancer patient from a tube, he himself dying of cancer some fifteen months later, was mentioned.

Dr. Ferguson, Toronto, referred to the excellent record of family cases of malignant disease reported in a recent number of the *British Lancet*.

Dr. Marlow, Toronto, asked if the undescended testicle in No. 5 of Dr. Fraser's series had been found to be cancerous.

Dr. Fraser (reply) did not wish to give the impression that he held cancer to be infectious. It is probably auto-infectious. He could not answer Dr. Marlow's question, as the gland had not been examined.

Dr. A. Primrose, Toronto, then read a paper on "The Surgical Relief of Epilepsy."

Dr. Primrose presented the history of two cases of traumatic epilepsy operated on with good results so far. The first patient was a young lad, about 20, who gave a thrilling history of shipwreck and exposure at sea, after which the fits developed. The seizures always commenced in the first two fingers of the left hand; the wound, however, was on the left side of the head. Was this, then, a case where the pyramidal tracts did not cross, or had there been a lesion on the right side, owing to bursting as a result of the blow on the left side? The left Rolandic area was first trephined, and electrodes applied in the hand area, causing immediate movement of the fingers of the right hand. This proved that the pyramidal tracts did cross. An opening was immediately made on the right side, which revealed a thickened dura mater, and but little other change. Some of this was removed, tension relieved, and the wounds closed up. The patient had two or three fits the night after the operation, but since then (some six months now), has been free from them. The second case was the result of a depressed fracture involving only the inner table of the skull, the result of a pitch-fork wound. The operation revealed an abscess, which was opened and drained. The patient has since been free from seizures.

Discussion.—Dr. Dickson, Toronto, explained the method of localizing motor centres in the cortex by electrodes from a Faradic current. Experimenting should not be done, as it involves great shock to the patient. Fine platinum electrodes are inserted into the cortex and the current turned on gently.

Mr. Cameron, Toronto, said that a lesion giving rise to cortical irritation should be removed. Epilepsy is a discharge of:

nervous energy from the motor centre in which the cells go off at halfcock. He believed Case 1 of Professor Primrose was a hystero-epileptic, probably a disciple of Captain Marryat's. There is no use operating unless you find some focal symptom. Personally he had not met with much success in the operation; the patients were better for about a year, but the epilepsy almost invariably returned.

Dr. Ferguson, Toronto, said that statistics show that less than 5 per cent. of epileptics are relieved by surgical procedure. Idiopathic cases, with focal symptoms, and especially Jacksonian epilepsy, are most favorable. Cases operated on almost invariably recur, owing to the contraction of cicatricial tissue, and the last condition is worse than the first. He reported a case of depressed fracture, operated on with complete recovery.

Dr. Bruce, Toronto, reported a case of traumatic epilepsy in which he had removed some of the cortex corresponding to the hand centre. At first there was paresis of the hand, but this recovered, and later on the patient developed epilepsy on the opposite side. "So I transferred him from a right-handed to a left-handed epileptic," said the surgeon.

Dr. McConnell, of Las Cruces, Mexico, read a most instructive and interesting paper on "Climatology and its Influence in the Cure of many Cases of, especially, Chest Trouble."

Dr. Oldright, Toronto, complimented Dr. McConnell on his excellent paper. Was always pleased to meet their former students, and learn of their successes. He asked Dr. McConnell to explain the action of the alfalfa in stopping dust.

Dr. Wishart, Toronto, said that we should congratulate ourselves on the information gained from this paper. It will be of great assistance in directing patients to suitable health resorts. He asked the doctor about the winds and the feeding in the arid zone.

Dr. Hunter, Parkdale, had visited the arid regions and could add his testimony to that of Dr. McConnell. The medical men in those districts were prominent physicians from New York and other large cities, forced to live in these health resorts. "Do not load your patients down with directions how to live, but place them in the hands of resident medical men." He would like to know about the disinfection of houses and the removal of patients in Pullman cars.

Mr. Cameron highly complimented the writer; the paper was as full of pabulum as an egg, and might be well taken as a model.

Dr. Webster, Toronto, said that many consumptive people have but limited means, and cannot afford to take long journeys and live in expensive resorts. Lots of them are able to get well right here in Toronto.

Dr. McConnell (reply) said that the alfalfa meadows were effective barriers to the dust. Patients did better to provide themselves with tents, and then they ran no risk of infection from houses. One could live comfortably on \$10 a week.

Dr. Burnham, Toronto, then read a paper on "Inflammations of the Lachrymal Apparatus."

Inflammation of the lachrymal sac is the result of struma, violence, or the entrance of irritating fluid, or, most commonly, stricture of the nasal duct. This last condition results in insufficient drainage to the duct, and a chronic blenorrrhea is set up. This mucocele is attended by much suffering and constant disturbance, and demands effective treatment. Initial leeching, calomel, etc., usually fail to abort the attack; hot linseed poultices and free incision on fluctuation are necessary in the acute stage. To remove the cause, and consequently relieve the condition, Dr. Burnham operates as follows: Having slit the canaliculus into the sac, he introduces by means of a syringe a 5 per cent. solution of cocaine, and passes probes Nos. 1 and 2 only. He then irrigates freely with adrenalin, followed by potassium permanganate, 1 in 12,000; and last of all he passes a silver style, which is allowed to remain in position. In three or four days the style is removed, the cocaine, adrenalin, and permanganate irrigation repeated, and the style replaced. This method of treatment is much less painful and much more effective than the old method of passing the largest probe possible and using no medication. During the process of healing, little fibrous bands appear along the floor of the divided canaliculus, which act as dams, preventing the free exit of the tears, and which must consequently be divided.

Discussion.—Dr. Wishart asked Dr. Burnham if the inferior turbinate was not frequently enlarged close to the outlet of the nasal duct, and if cauterization was not indicated? Would like Dr. Burnham to explain more fully what he meant by the constriction bands in the canaliculus lachrymalis.

Dr. Burnham (reply)—Where the turbinate was enlarged, it should certainly be treated. By the constrictions he meant little cicatricial bands, 6, 8, or 10 in number, which prevented the free passage of the probe into the lachrymal sac, and had to be divided time and time again until no obstruction was offered.

Dr. D. J. Gibb Wishart then read his report of a case of double otitis media, with mastoid involvement. Operation and termination in fatal purulent leptomeningitis.

Dr. Wishart reported a case of mastoid involvement which presented no symptoms except pus in the middle ear, which seemed to well up through the opening in the drum, and some indefinite headache. The man was under the careful observa-

tion of both himself and the family physician, a careful record of temperature having been kept, which showed at no time any marked elevation. The patient did not improve, however; was sent to the General Hospital, the mastoid opened, but fatal leptomeningitis followed. The interesting feature of the case is that at no time did the patient exhibit the usual symptoms of mastoid trouble; at no time was there local pain or tenderness, nor any elevation of temperature nor rigors.

Dr. B. Z. Milner, Toronto, read a paper on "Lympho-sarcoma." The tumor occurred in a young man about nineteen, a strong, athletic fellow. It was situated in the neck, and examination showed it to be a round-celled sarcoma. It was removed by operation, but the glands in the neighborhood were found to be involved, and the growth recurred. The patient was treated with X-rays, with no apparent improvement. Coley's fluid was then used, and after a thorough trial was abandoned, no benefit having resulted. Finsen's rays also proved useless. The patient was seen at various times by Dr. Powell, Toronto, and Dr. Coley, New York. It was now about a year since the first appearance of the trouble, and the patient was in bad condition. As a last resort X-rays combined with quinine-fluorescence (the quinine being given internally before the raying), were tried. Under this the growth made no further progress, and some improvement even was noted. The patient, however, was so exhausted that he succumbed.

"Some of the Newer Methods of Diagnosis in Kidney Cases as applied to Renal Surgery" was the title of a paper by Dr. W. A. Hackett, Professor of Genito-Urinary Diseases, Detroit.

Dr. Hackett briefly reviewed the more important devices and methods introduced since 1885, pointing out the use and advantages of each. Chromocystoscopy is a useful method of determining the activity of the kidneys. The patient is given a dose of methyl blue or indigo carmine, which are normally excreted by the kidneys in fifteen to thirty minutes. By watching the urethral openings with a cystoscope, the exact time of the appearance of colored urine from each kidney can be determined. If one is manifestly slower than the other, it is evidently the diseased kidney.

Urethral catheterization and segregation enable us to collect the urine from the individual kidney. The former method, while becoming more and more popular, is expensive, and demands skill and patience on the part of the operator. Segregation is open to the objection that the bladder may be diseased.

The history of cyroscopy, or the determination of the freezing point of urine, and the application of Dr. Coppet's law, that the lower the freezing point the greater the concentration, was

considered in some detail. The method combined with segregation has been shown to be a most valuable aid in diagnosis, and has removed the fear of the surgeon after nephrectomy to a large extent.

Phloridzin Test.—After the hypodermic injection of phloridzin a diseased kidney is found to excrete sugar less rapidly than a normal one. . . . Electrical conductivity of urine, X-rays and various bougies were briefly mentioned also. In concluding, the writer explained that these new methods of diagnosis are gradually replacing the old exploratory operation.

Dr. R. D. Rudolf, Toronto, followed next with a paper on "Diagnosis of Functional Heart Murmurs."

Functional murmurs, as first described by Laennec, are soft and blowing in character, occur most commonly in the position of the pulmonary area, opposite the second left costal cartilage, and are in no way connected with valvular diseases. They are due, not to the anemia, as so often taught, but to a condition of hypotonus of the muscles of the circulatory system; that is, there is a relaxation of the sphincter muscles guarding the mitral and tricuspid orifices, and permitting of a leakage. In the pulmonary area, the fibrous band around the orifice permits of no dilatation, but the muscular structure of the pulmonary artery permits it to dilate, and consequently we have a condition in which the blood stream flows from one chamber, that is, the right ventricle, through a relatively constricted orifice, into the dilated pulmonary artery. This is the most favorable arrangement for the production of a murmur. Dr. Rudolf laid down the following rules to aid in the diagnosis of functional from organic murmurs:

1. They occur in adolescence and young adults.
2. They are more common in males than females.
3. They all occur during ventricular systole.
4. While the pulmonic area is the most common situation for functional murmurs, it is a rare site for organic murmurs (congenital stenosis being the only one found).
5. Functional murmurs are heard in the neck; *e.g.*, bruit de diable.
6. As the general health improves, functional murmurs tend to disappear; organic murmurs, on the other hand, tend to get louder with increasing strength.
7. Functional murmurs are soft, and accompany rather than displace the first sound.
8. They are not so widely propagated as are organic murmurs.
9. They vary under certain conditions; *e.g.*, they are louder after exertion, and are especially increased on lying down.
10. The pulmonic second sound is accentuated early, even

before the murmur is heard; this is not so in organic pulmonary stenosis.

11. They are accompanied with little signs of dilatation or displacement of the apex.

12. Cardio-respiratory sounds are sometimes mistaken; ask the patient to hold his breath and they will disappear.

13. Signs of failing compensation are rare in functional cases.

14. The patients are not conscious of the existence of the murmur. An analysis of the patients in the surgical wards of the H. S. C. showed that in 60 per cent. functional murmurs were present. An analysis of a number of wards in the Toronto General Hospital and St. Michael's Hospital showed the existence of functional murmurs in 50 per cent. of the patients.

15. Fever gives rise to functional murmurs. They occur in 66 per cent. of scarlet fever cases, and are apt to recur in rheumatic fever. A useful rule in this connection is, "Functional murmurs tend to occur late in fever (*e.g.*, rheumatic fever), while endocardial murmurs appear within the first ten days."

16. Pressure has not much effect as a rule in altering functional murmurs.

Finally, we are all too apt to conclude that there is organic disease when we hear a murmur, and we are too easily soothed into believing the patient organically sound when no murmur can be discovered.

Dr. Chas. Hodgetts, Secretary, Ontario Board of Health, read a capital paper on "The Diagnosis of Modified Smallpox," which will appear in next month's number.

Dr. Hodgetts employs the word "modified" to designate those cases where the course is in any way atypical, not to cases modified by vaccination—the so-called varioloid.

About five years ago the disease appeared in Essex County and Northern Ontario, and was variously diagnosed as chickenpox, impetigo and syphilis. The spread of the affection and the fact that those unvaccinated were its victims, soon, however, established the nature of the epidemic. Since then the disease has continued from year to year, with the maximum number of cases in January and the minimum during the summer months. The virulence of the contagion has been variable, during the early stages (preceding pustulation), but slightly contagious, and in many mild cases the contagion seems slight throughout. The regulation incubation period of twelve days has been the rule, but many cases of fifteen, sixteen and eighteen days have occurred, necessitating the period of quarantine being extended to eighteen days.

The initial symptoms have varied all the way from a passing malaise to severe headache and backache, accompanied by nausea and vomiting. The initial temperature has been from 100 to 102 F. The mildness or severity of the onset, however, has been no indication of a mild or severe attack. The fever drops with the appearance of the characteristic rash in about seventy-two hours. The rash runs through its regular series of macules, vesicles, pustules and crusts.

The affection is most frequently mistaken for chicken-pox, impetigo and pustular syphiloderm, and in the differentiation the following points are important:

Chicken-pox.—1. A disease of childhood. 2. Runs a rapid course; lesions are papules, vesicles and scabs in twenty-four hours. All over in a week. 3. Premonitory symptoms slight or none. 4. Temperature appears with the rash. 5. Vesicles soft and irregular. 6. Eruption occurs on covered parts. 7. No scar or pigmentation left.

Impetigo.—1. No elevation of temperature. 2. No initial stage. 3. Begins as a vesicle or vesicular pustule. 4. Occurs on the face, hands and exposed parts. 5. Unsymmetrical and superficial, large blebs. 6. Crust friable, leaves no scar. 7. Finger-nails carry the infection.

Pustular Syphiloderm.—The large indurated base of the vesicle, which lacks umbilication, and the history and persistence of the symptoms should prevent mistake.

“Enlargements of the Prostate Gland” was the title of a paper by Dr. F. W. Marlow, Toronto.

Dr. Marlow gave a very comprehensive account of the anatomy of the prostate, explaining most carefully the position and variations of the anatomical middle lobe.

Prostatic enlargement, he said, does not necessarily mean prostatic obstruction; according to Sir Henry Thompson, while 30 per cent. of men beyond the age of 55 have prostatic enlargement, but 5 per cent. have obstruction. The etiology of the condition is still obscure; two theories most in vogue at the present time are: (a) Prostatic enlargement is a local result of a general arterio-sclerosis (held by Guyon and the French school). This is opposed by Freyer, Casper, Bruce, Clark, etc., who regard arterio-sclerosis as conducive to atrophy and not hypertrophy. (b) On account of similarity in the structure of the prostate and the uterus, Velpeau claims the existence of an analogy between prostatic enlargement and fibromyoma of the uterus.

The enlargement may be uniform or more frequently asymmetrical, the enlarged portion raising the vesicle outlet, stretching the urethral walls and forming a pouch in which residual

urine collects. The symptoms of the trouble are increased frequency of micturition, due first to irritation of the growth, but later to diminution of the bladder capacity. There is difficulty in starting the stream, which is small, without its normal projection curve, and followed by dribbling. With proper attention to the history and symptoms, and careful digital examination, the diagnosis should be easy.

Dr. G. A. Bingham, Toronto, read a paper on "Surgical Treatment of Enlargement of the Prostate."

The methods employed will depend entirely upon the individual case. One man with no symptoms but increased micturition may be carefully and scientifically introduced to catheter life. While in another case with overflow, cystitis and probably pyelitis, drainage by median perineal cystotomy, done under a local anesthesia, is demanded. Between these extremes are a number of cases amenable to radical treatment, and for these the following operations have all been done: (a) Orchidectomy. The shock is severe and the operation not generally useful, and is now abandoned. (b) Vesicotomy. Slow and uncertain, and applicable to but a limited number of cases. (c) Perineal and suprapubic prostatectomy. Of these the most rational and scientific procedure is the suprapubic. In this the field is freely exposed, the gland readily reached, and easily shelled out of its attenuated capsule. The results are usually most satisfactory.

Dr. E. Clouse, Toronto, then read his paper, "Notes of an Uncommon Case of Rectal Surgery."

Dr. Clouse recounted a remarkable instance of a patient's unfortunate adventures with hemorrhoids. The patient, a prominent clergyman, fell into the hands of a quack, who attempted to do Whitehead's radical operation, but was so unfortunate in the result that the mucous membrane and the skin outside would not unite. Shortly after, having moved to British Columbia, he came under the care of a friendly jeweller. This ingenious individual invented for the hapless minister a manner of stem pessary, by means of which the rectum was kept in position. The clergyman wore this device for six long years, suffering the inconvenience and discomfort of having to remove it once or twice a day. Dr. Clouse now saw him again, and had in consultation several other prominent surgeons. They decided that nothing could be done to relieve the situation except a colotomy. This the patient refused, and again besought Dr. Clouse to do something for him. Dr. Clouse consented to try what could be done, and, with the patient under an anesthetic, discovered that by snipping the skin just beyond the red border he was able to relieve the tension on the bowel, and a perfect cure was wrought.

Dr. J. H. Peters, Hamilton, prepared a paper on "Anomalies in Fetal Development, with Specimens."

The Secretary read Dr. Peters' paper, which gave an illustrated account of a fetal monstrosity exhibited. The specimen was what Hirst calls a celosoma and of the type agenosoma. The liver and bowels are exposed, with an absence of the genital organs. This is one of the two or three cases of agenosoma reported.

MOTIONS, RESOLUTIONS, ETC.

Moved by A. McPhedran, seconded by N. H. Beemer, That in the opinion of this Association there exists an urgent need for the establishment of hospital accommodation for the temporary reception and treatment of suspected and incipient cases of mental alienation. The establishment of such institutions offers the only efficient means for the cure of such cases, and would save many of them from the stigma of having been incarcerated in an asylum for the insane. Carried.

Moved by W. H. Smith, and seconded by F. Fenton, That the thanks of this Association are to be extended to the Automobile Club of Toronto for the kindness exhibited to the members in the very pleasurable ride about the parks of the city. Carried.

Votes of thanks were also passed to the President and Senate of the University of Toronto for the use of the Medical Building; to the retiring President, the Secretary, the Assistant Secretary, and other officers of the Association for their painstaking work in arranging for this excellent meeting.

The motion of Drs. Cameron and Thistle, that the Ontario Medical Association be changed to constitute a branch of the British Medical Association, was, on motion of Drs. Powell and McPhedran, referred to a committee to be named by the incoming President and Mr. Cameron, which committee should report to this Association. In connection with this Mr. Cameron pointed out that the membership fee of one guinea to the British Medical Association included the subscription for the *British Medical Journal*. By constituting this Association a branch of the British Medical Association, we would in no way interfere with our own autonomy. Dr. Bingham pointed out the difficulty already existing in getting men to attend the Ontario Medical Association meetings, and that the matter was one of too much importance to be passed over hurriedly.

The following officers were elected for the ensuing year: President, Dr. W. A. Burt, Paris; 1st Vice-President, Dr. J. L. Davison; 2nd Vice-President, Dr. George Hodge, London; 3rd Vice-President, Dr. Edw. Ryan, Kingston; 4th Vice-

President, Dr. T. H. Middleboro, Owen Sound; General Secretary, Dr. Chas. P. Lusk, Toronto; Assistant Secretary, Dr. Samuel Johnston, Toronto; Treasurer, Dr. Fred T. Fenton.

The following names were elected by the Nomination Committee to serve on committees: Credentials—Dr. Olmstead, Hamilton; Dr. Boyd, Bobcaygeon. Public Health—Dr. Trimble, Queenston; Dr. Fraser, Thamesville. Legislation—Dr. H. D. Livingstone, Rockwood; Dr. Chas. Sampson, Windsor. Publication—Dr. Alex. Taylor, Goderich; Dr. W. J. Charlton, Weston. Ethics—Dr. H. A. McCallum, London; Dr. T. McKeough, Chatham.

ONTARIO COLLEGE OF PHYSICIANS AND SURGEONS.

THE members of the Council of the College of Physicians and Surgeons of Ontario assembled on the afternoon of June 28th in their board-room in the Medical Council Building, for the first session of their annual five-days' convention. There was a full attendance of members, and the proceedings of the afternoon were marked by expedition and harmony. The prosperous year which the College has enjoyed, was indicated by the treasurer's statement, which showed receipts of \$36,200.19, and a cash balance, after disbursements had been made, of \$5,127.91.

On the meeting being called to order, the resignation of Dr. Thorburn was laid before the members. Dr. Thorburn said that as Toronto School of Medicine had surrendered its charter, he did not consider that its representative had any longer a right to a place on the Council. In accepting the resignation, the members of Council expressed regret at losing such a useful and esteemed colleague as Dr. Thorburn.

Dr. J. A. Robertson, of Stratford, the retiring President, in delivering his annual address, welcomed the members of Council to the labors of another session. He referred feelingly to the death of two valued members, Dr. W. H. Moore, of Brockville, and Dr. Sangster, of Port Perry, and extended a welcome to their successors, Dr. Herald, of Kingston, and Dr. Bascom, of Uxbridge. He spoke also of the retirement from active life of Dr. W. B. Geikie, Dean of Trinity Medical School, and expressed the hope that he would long continue to enjoy health and prosperity. He congratulated the members on the satisfactory showing of the treasurer's report, and on the fact that the Council's building had increased in value as an asset. Dr. Robertson said that he had personally attended the examinations, and he was

convinced that the methods in vogue were quite on a par with those of the profession in the Mother Country. In concluding, he thanked the members for their assistance and consideration, and called on them to name his successor.

Hon. Dr. Sullivan, of Kingston, was the only name placed in nomination for the office of President, and his election was, therefore, unanimous. In taking the chair, he thanked the Council for conferring such an honor upon him. He said that he had spent nearly fifty years in the profession, and the longer he remained in it the more impressed he was by the nobility and usefulness of the calling. He feared that doctors did not fully recognize the possibilities for good which their work gave them. He said he was averse to the discussion of the physician's "tariff," as he believed that the doctor's services could never be measured by any money value. The doctor should regard his fee as an honorarium. He expressed the hope that the College would continue to maintain the high standing of the profession, not only by increasing fees, but by keeping up a rigid standard of qualification.

The other officers were elected as follows: Vice-President, Dr. A. A. Macdonald, Toronto; Registrar, Dr. R. A. Pyne, M.P.P., Toronto; Treasurer, Dr. H. Wilberforce Aikins; Solicitor, Christopher Robinson, K.C.; Auditor, Dr. J. C. Patton; Stenographer, Alex. Downey; Prosecutor, Chas. Rose.

The following committees were then appointed: Registration—Drs. Campbell, Lane, Johnson, Stuart, Thornton, Klotz, MacArthur. Rules and Regulations—Drs. Lane, Bascom, Adams, Hillier, Spankie. Finance—Drs. Henderson, King, Griffin, Brock, Bray. Printing—Drs. Temple, Stuart, King, Hardy, Hillier. Education—Drs. Moorhouse, Henry, Luton, Gibson, Spankie, Temple, Robertson, Herald, Britton. Property—Drs. Johnson, Campbell, Glasgow, Britton, Thornton. Complaints—Drs. Griffin, Hardy, Mearns, Glasgow, Johnson.

A communication was received which had been forwarded to Lord Minto by Hon. Alfred Lyttelton, Colonial Secretary, stating that a private members' bill had been introduced in the British House of Commons, providing that when any part of a British possession was under both a central and a local legislature, the King might by Order-in-Council declare any such part under a local legislature to be a separate British possession. The object of this measure was to enable reciprocal arrangements to be entered into under the Medical Act of 1886, with such provinces of Canada as desired to do so. The Colonial Secretary wished to have the views of Canadian Ministers on the measure. The Government had in turn forwarded it to the Provincial Secretary, who had transmitted it to the Council.

After a short, informal discussion, in which the opinion was expressed that Great Britain would be having decidedly the best of the bargain if such a measure became operative, the matter was referred to a special committee composed of the following members: Drs. Bray, Brock, Campbell, Hillier, Johnson, Macdonald and Spankie.

Communications regarding inter-provincial registration from the Nova Scotia and Quebec colleges, and one from Johns Hopkins University, regarding reciprocity in medical degrees, were referred to the same special committee.

A lengthy report on cancer research was received from the Imperial Government. It was forwarded to the Dominion Medical Association.

The following notices of motion were given:

That the Council consider the advisability of disposing of the college property.

That annual examinations be held at London similar to those held at Toronto and Kingston.

That legislation be sought compelling manufacturers of patent medicines to print their formulæ on the packages.

The Council adjourned to resume at 10 o'clock next morning.

SECOND DAY'S SESSION.

The special committee, consisting of Drs. Spankie, A. A. Macdonald and Britton, appointed by the Ontario Medical Council to secure all the information possible in relation to matriculation, presented their report at the session on June 29th. It was the first order of business taken up that morning. According to their recommendations, the requirements for passing the examination will differ little from those at present in vogue. Two changes will be effected. At present a minimum of 33½ per cent. appertains for those candidates who have passed the joint university examinations for junior matriculation in Arts, as conducted by the Ontario Education Department. It is recommended to raise this minimum to 40 per cent. At present this joint matriculation, with honors in two subjects, entitles the candidate to be passed by the Council. The committee advises that one honor subject suffice in future.

The following credentials will in future be accepted, if the committee's report be adopted:

"1. A certificate of having graduated in Arts in any university in His Majesty's dominions, or any other university approved of by the Council.

"2. A certificate from the registrar of any chartered uni-

versity conducting a full Arts course in Canada, that the holder thereof has passed the examination conducted at the end of the first year in Arts by such university.

"3. A certificate of having passed the joint university senior matriculation examination in Arts as conducted by the Education Department of Ontario.

"4. A certificate of having passed the senior Arts matriculation conducted by any chartered university of Canada.

"5. A certificate of having passed the joint university examination for junior matriculation in Arts, as conducted by the Education Department of Ontario, with an advanced percentage, as follows: 40 per cent. minimum on each subject, and 50 per cent. on the aggregate.

"6. A certificate of having passed the joint university examination for junior matriculation in Arts, as conducted by the Education Department of Ontario, with honors in any two departments.

"The matriculation fee will be \$20."

The case of Thos. J. Gray, of Kingston, who personated James McDowall, also of Kingston, at the recent examinations, was dealt with. Gray was suspended for two years, and McDowall for three years. This means that these gentlemen will be prevented from writing on any examination under the Council's jurisdiction for the term of their respective suspensions. It is not likely that any criminal prosecution will take place. Evidence was given that Gray had personated McDowall in the primary, intermediate and final written examinations this year, and in the oral examinations for primary and intermediate. In the latter he was caught, and confessed.

The Executive Committee reported the case of Owen B. Van Epp, a qualified practitioner of Ohio, who resides on Pelee Island, in the County of Essex, and who had a bill passed by the Legislature admitting him to practise medicine in that township only, on petition of seven hundred of the residents thereof. He is the only practitioner on the island. He passed the final examination of the Medical Council. Chairman Hon. Dr. Sullivan remarked: "I never heard of a doctor being chained upon an island before."

The matter of a complaint received of fifth-year students practising the art of healing, was brought up in the report of the Prosecution Committee, but no action was taken. Two cases of unprofessional conduct were referred to the Discipline Committee for consideration.

The report, after referring to these and several minor cases, went on to say:

“ Besides the above cases, I have had a large number of complaints against osteopaths, Christian Science healers, magnetic healers, and others of that kind, but owing to the fact that they prescribe no medicines, I have been unable to do anything further than giving their cases as much publicity as possible, and, until the Legislature in their wisdom see fit to amend the Ontario Medical Act so as to cover this class of ‘ healers,’ I am unable to protect the public against them.”

The Property Committee reported that, as directed, they had made enquiries of real estate experts as to the value of the College of Physicians’ building at the corner of Bay and Richmond Streets. Pearson Bros. had reported to them that the land, eighty-seven feet, five inches on Bay Street, by ninety-five feet on Richmond Street, was worth \$500 a foot, equal to a valuation of \$47,708; the building was worth \$58,000; total, \$101,708. In case the Council wanted to sell, therefore, they ought to be able to count on \$100,000. The report was adopted, but no decision was reached as to whether the Council would sell or not.

The Examination Committee reported that at the spring examination in the final year, 142 candidates had presented themselves, 93 of whom passed, and 49 failed.

Notice of motion was given that the subjects of medical jurisprudence and sanitary science should, for examination purposes, be made separate, and that separate examiners be appointed for each subject. Also that certain members of the Council be appointed to attend every examination and act as censors or assessors.

At the morning session a committee was appointed to consider the composition of various patent medicines and report at the present session with the view of laying before the Legislature the necessity, in the interests of the public, of having the formula of all remedies printed on each package.

Dr. Bray said that there was a general agitation for temperance, which was right. But if people were not to be allowed to drink lager beer, which contained only about $2\frac{1}{2}$ per cent. of alcohol, it was a great wrong to permit the sale of medicines containing alcohol running from 15 to 40 per cent. Lydia Pinkham’s Compound is said to contain 20 per cent. of alcohol; Ayer’s Sarsaparilla, 26 per cent.; Paine’s Celery Compound, 21 per cent.; Peruna, 27.5 per cent.; Parker’s Tonic, 41.6 per cent.; Hostetter’s Bitters, 44.3 per cent., and Warner’s Safe Tonic Bitters, 45.7 per cent. Worse than alcohol were the opium and morphine found in some patent medicines, which were the cause of forming the opium habit in the cases of many women in On-

tario. If the formula were printed on every package, the public would know what they were buying.

The manner in which some medical men in various parts of the province are said to issue orders (and which we do not credit) to liquor dealers, authorizing them to sell liquor to persons who would otherwise not be able to obtain it, has caused the Provincial License Department some concern. Of late the evil, they think, has become aggravated, and, with a view to preventing, or at least minimizing it, Mr. Eudo Saunders, chief officer of the Department, sent the following letter to Dr. R. A. Pyne, M.P.P., Registrar of the Ontario Medical Council, during its session on June 29th:

"The Provincial License Department has recently received a number of complaints from various parts of the province that medical practitioners in the districts in question are in the habit of giving prescriptions, or orders, to hotel-keepers or shop licensees to supply liquor to the holders of the orders, sometimes for indefinite periods, and often in absurdly large quantities, and it was thought probable that the Medical Council might see fit, if attention were called to the matter, to make an effort to minimize this evil.

"The Department would prefer not to give any names for publication, lest it should be prejudicial to the practitioners without being correspondingly beneficial to the public. I may, however, say that within the last few days three complaints have been received of this character. In one instance thirty orders had been given within ten days in a small place, mostly to persons whose maladies appear to have reached an acute stage on two successive Sundays. In another locality seventeen orders were given for alcohol, chiefly by the quart, and, what is worse, many of these orders were to bearer. In Woodstock, recently, a curious order was presented to a hotel-keeper, signed by a medical practitioner, authorizing him to supply the bearer, whose name was mentioned, with three or four glasses a day, in order that he might 'wean off.' The weaning-off process, as I understand it, is not generally accomplished in this way. This particular order was not subject to any limitation in point of time, and the hotel-keeper appears to have thought that it would hold good for several months. It should be stated, in this connection, that a notice had previously been served upon the hotel-keeper under section 125 of the Liquor License Act, forbidding him to supply the person in question with any liquor whatever.

"If you think it would be of any benefit to bring this matter before the Council, will you kindly do so?"

THIRD DAY'S SESSION.

The members of the Medical Council spent the major portion of their third day's session in considering the question of disposing of the College's building at the corner of Bay and Richmond Streets. The members were practically unanimous as to the wisdom of selling the property, but there was a diversity of opinion as to the value of the property, the estimates placed on it running as high as \$150,000. The land and building cost originally about \$88,000, but owing to the increased value of the land and the rise in cost of building operations, there has been a decided advance in the value of the building.

The matter was brought before the Council by a resolution moved by Dr. Henry, and seconded by Dr. Griffin, that the Property Committee sell the property at as early a date as possible, the resolution fixing a minimum price.

This motion was vigorously discussed. Dr. A. A. Macdonald, the Vice-President, objected to the fixing of a minimum price on the building. He thought the property was worth fully \$150,000. In this he was supported by Dr. E. E. King, who pointed out, however, that at present the income from the building was only \$4,743 per annum, while the maintenance charges, taxes, and interest amounted to \$7,733. He favored selling the property, and erecting a suitable building which would be devoted solely to the purposes of the College and the profession. He then moved, in amendment, that tenders for the purchase of the property be invited by advertisement. After further discussion, the motion was withdrawn, and the amendment was carried unanimously.

Dr. C. T. Campbell's motion that certain members of the Council be appointed to attend every examination to act as censors or assessors, was referred to the Education Committee.

Dr. Campbell also moved that the Finance Committee consider the fixing of salaries and allowances for the members and officers of the Council. This was carried:

The Registration Committee brought in a number of recommendations regarding unqualified candidates, which were adopted.

Dr. A. J. Johnson, chairman of the special committee appointed last year to consider a general tariff for professional services, brought in a report setting forth minimum and maximum fees. As the Council has no legal right to fix a tariff, it simply approved of the report, which contained also a recommendation that the practitioners of each division form separate associations, and adopt a general tariff.

The morning session was largely taken up with the considera-

tion of the report of the Matriculation Committee, which was presented to the Council on Wednesday afternoon. Among the criticisms levelled at the report were that it did not go far enough; that experimental science was not made compulsory; that senior matriculation should have been recommended.

The report was adopted on a division of 20 to 4.

Mr. Eudo Saunders' letter complaining that medical practitioners issued orders for liquors in large quantities for patients, was laid on the table, after being characterized by Senator Sullivan as an impertinence.

At 1 o'clock the members of the Council sat down as guests to luncheon, tendered them at the new Medical Building by Dean Reeve and the faculty of the school. The dean, in proposing the health of President Sullivan and the Council, expressed his conviction that that body would deal fairly by both the public and the medical institutions in the matter of medical education. The faculty of the school had been increased, but this was made necessary by the larger number of students in attendance since the amalgamation.

Senator Sullivan, in replying, referred to the advance of the profession, which was largely due to the improved facilities for acquiring knowledge. He proposed the health of Dr. J. H. Richardson, emeritus Professor of Anatomy, and the veteran teacher was honored with an outburst of hearty cheers when he rose to make a brief but sincere reply. He said he had always tried to retain the friendship of his students and fellow-professors, by treating them like gentlemen, and if he had succeeded in doing so, he felt amply repaid.

FOURTH DAY'S SESSION.

The Ontario Medical Council celebrated Dominion Day by remaining in session all day, and evolving ideas for the welfare of the public health and the medical profession.

The use, or rather the abuse, of patent medicines, was one of the chief matters considered. The report of the special committee appointed to consider the best methods of dealing with injuries resulting from the public's excessive use of proprietary medicines, declared that, in view of the large and rapidly increasing sale of patent medicines, including snuffs and cosmetics, and the unwarranted statements contained in advertisements of the same, steps should be taken to memorialize the Dominion Government, asking that a law be passed making it compulsory to have displayed on each and every bottle a complete and correct formula of ingredients. It should also be made a misdemeanor to state in any advertisement that an article

was a cure for any specific ailment, which statement the formula did not warrant.

The report further went on to state that the excessive amount of alcohol contained in the greater proportion of proprietary medicines made them injurious to the health of the public, and conducive to the alcoholic habit. Of some ninety-one separate tonics and bitters recently analyzed by the Massachusetts State Board of Health, seven contained below 10 per cent. of alcohol, fifty-four contained an average of 22.5 per cent. of alcohol, and twenty-seven contained over 30 per cent. of alcohol.

The Council unanimously endorsed this report.

The report of the Finance Committee showed a cash balance of \$5,120 on deposit in the bank. During the year, \$7,500 was paid off the mortgage on the Council's building. The estimated receipts for 1904-5 were placed at \$29,617, with an estimated expenditure of \$22,009. The total assets amounted to \$137,427, including \$125,000 for building and site. On the latter there is at present a mortgage of \$47,500. The Registrar's salary was placed at \$2,500, and the Treasurer's at \$600.

The Committee on Complaints reported that of forty-nine students unsuccessful at the recent examinations, twenty-four had appealed. Only one appeal was allowed, that of F. A. Aylesworth.

The date of the annual spring examinations at Toronto and Kingston was made the third Tuesday in May, instead of the second Tuesday, as heretofore. The subjects of medical jurisprudence and sanitary science were divided, for examination purposes, into two separate subjects.

The Committee on Discipline reported that Dr. H. B. Lemon's application for reinstatement had been granted, while that of Dr. H. E. Shepard had been refused. The charges of unprofessional conduct against Dr. H. E. Hett, of Berlin, and Dr. A. Crighton, of Castleton, were referred to the committee to investigate.

The special committee appointed to consider the communication from the Provincial Secretary respecting reciprocity in registration with Great Britain and France, reported that they had not sufficient information on the subject at present to bring in an intelligent report.

An address of appreciation was passed to Dr. Thorburn, who is retiring from the Council after many years of service.

FIFTH DAY'S SESSION.

The Ontario Medical Council concluded their sessions at 12.45 p.m., July 2nd.

The meeting was chiefly given up to the reception of reports.

An Executive Committee of the Council was appointed, consisting of Drs. Sullivan, Macdonald, and Henderson.

A motion was made by Dr. Klotz, seconded by Dr. Mearns, that the attention of the Dominion Medical Association and the various councils be called to the action of the Ontario Medical Council in relation to the desired restrictions on the sale of patent medicines. The motion was carried.

The report of the Education Committee was received. A change was made in the regulations by which fifth-year students will be allowed to practise under physicians for information and clinical experience.

An amendment was moved to allow fifth-year students to receive a certificate for having been one year in a hospital of over fifty beds, or for one year assistant to a doctor, instead of taking the fifth-year lectures. After some warm discussion, this was carried by a vote of 18 to 9.

Dr. Johnson's motion to provide separate instruction for medical jurisprudence and sanitary science was rejected.

Four months of clinical work was added to the four months' course in gynecology.

The Board of Examiners appointed for the coming year was as follows: Descriptive Anatomy, Dr. McKay, Oshawa; Theory and Practice of Medicine, Dr. Ryan, Kingston; Midwifery, etc., Dr. McCabe, Strathroy; Physiology and Histology, Dr. A. Primrose, Toronto; Surgery and Operative, Dr. W. T. Parkes; Medical, etc., Dr. Middleborough; Chemistry, etc., Dr. R. A. Pyne; Materia Medica, Dr. J. A. Sprague; Medical Jurisprudence, Dr. A. J. Sinclair; Assistant Examiner, Surgery and Diseases of Women, Dr. R. Ferguson, London; Assistant Examiner, Clinical Surgery, Dr. O'Reilly, Toronto; 1st Assistant, Medicine, Diseases of Children, Dr. A. Haig, Kingston; 2nd Assistant Examiner in Medicine, Dr. G. H. Field, Cobourg; Homeopathic Examiner, Dr. W. McFall, Peterboro'.

The Council then adjourned.

School Hygiene.

CONTAGIOUS AND SCHOOL WORK IN NEW YORK.

A VERY important branch of nursing is that of the "contagious nurses" in New York, and one that should be highly commended.

The staff is small, only four at present being in the field, but a great amount of work is accomplished. One nurse takes the diphtheria cases, and while it may seem almost impossible for one to look after all the needy patients suffering from this disease, still, if we consider that with the use of antitoxin very much less nursing is required, she can manage very well.

Two nurses devote their time to scarlet fever and are kept busy. Many complications are found, and the disease is long-drawn-out on account of the desquamation. A short time ago a girl, nine years of age, was found working on fancy braid that was being prepared for sale, and after being warned not to do so still persisted. The child was removed to the hospital at once until the "peeling" had stopped, and the house fumigated. This shows how watchful the nurses must be and how numbers of people, maybe many miles distant, are protected from contagion by their efforts.

The fourth nurse looks after those suffering with measles, and all precautions are taken, but the patients are never so ill as with scarlet fever.

The Department of Health provides this essential service for the sick poor of the city, and will increase it as the needs arise. This branch of service comes under the same supervision as the school work.

The school nursing continues to increase both in staff and area. A nurse has been placed permanently on Staten Island; one has been assigned to the Bronx and one in Long Island City, Borough of Queens. It was thought by some that the new administration would not be as much in favor of the work as was previously shown, but Dr. Darlington, our new Commissioner, is much interested, and has shown his efforts to continue its success by adding six more nurses.

The appropriation this year is \$47,000, an increase of \$17,000 over last year.

The number of schools now covered is 150. Some among these are parochial and industrial schools.

Communications are constantly being received from the principals, and from the local School Boards asking to have nurses sent to their schools. One quite recently came from the secretary of the Board of Education.—*The American Journal of Nursing.*

H. McM.

The Canadian Journal of Medicine and Surgery

J. J. CASSIDY, M.D.,

EDITOR.

43 BLOOR STREET EAST, TORONTO.

Surgery—BRUCE L. RIORDAN, M.D., C.M., McGill University; M.D. University of Toronto; Surgeon Toronto General Hospital; Surgeon Grand Trunk R.R.; Consulting Surgeon Toronto Home for Incurables; Pension Examiner United States Government; and F. N. C. STARR, M.B., Toronto, Associate Professor of Clinical Surgery, Toronto University; Surgeon to the Out-Door Department Toronto General Hospital and Hospital for Sick Children.

Clinical Surgery—ALEX. PRINROSK, M.B., C.M. Edinburgh University; Professor of Anatomy and Director of the Anatomical Department, Toronto University; Associate Professor of Clinical Surgery, Toronto University; Secretary Medical Faculty, Toronto University.

Orthopedic Surgery—B. E. MCKENZIE, B.A., M.D., Toronto, Surgeon to the Toronto Orthopedic Hospital; Surgeon to the Out-Patient Department, Toronto General Hospital; Assistant Professor of Clinical Surgery, Ontario Medical College for Women; Member of the American Orthopedic Association; and H. P. H. CALLOWAY, M.D., Toronto, Surgeon to the Toronto Orthopedic Hospital; Orthopedic Surgeon, Toronto Western Hospital; Member of the American Orthopedic Association.

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Medical Jurisprudence and Toxicology—ARTHUR JUKES JOHNSON, M.B., M.R.C.S. Eng., Coroner for the City of Toronto; Surgeon Toronto Railway Co., Toronto; W. A. YOUNG, M.D., L.R.C.P. Lond.; Associate Coroner, City of Toronto.

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W. A. YOUNG, M.D., L.R.C.P. Lond.,

MANAGING EDITOR.

145 COLLEGE STREET, TORONTO.

Medicine—J. J. CASSIDY, M.D., Toronto, Member Ontario Provincial Board of Health; Consulting Surgeon, Toronto General Hospital; and W. J. WILSON, M.D., Toronto, Physician Toronto Western Hospital.

Clinical Medicine—ALEXANDER MCPHERDAN, M.D., Professor of Medicine and Clinical Medicine Toronto University; Physician Toronto General Hospital, St. Michael's Hospital, and Victoria Hospital for Sick Children.

Mental and Nervous Diseases—N. H. BEEMER, M.D., Mimico, Insane Asylum; CAMPBELL NEVENS, M.D., M.R.C.S., L.R.C.P. (London, Eng.), Private Hospital, Dee Park, Toronto; and EZRA H. STAFFORD, M.D., **Public Health and Hygiene**—J. J. CASSIDY, M.D., Toronto, Member Ontario Provincial Board of Health; Consulting Surgeon Toronto General Hospital; and E. H. ADAMS, M.D., Toronto.

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Ophthalmology and Ology—J. M. MACCALLUM, M.D., Toronto, Professor of Materia Medica Toronto University; Assistant Physician Toronto General Hospital; Oculist and Aurist Victoria Hospital for Sick Children, Toronto.

Laryngology and Rhinology—J. D. THORBURN, M.D., Toronto, Laryngologist and Rhinologist, Toronto General Hospital.

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Doctors will confer a favor by sending news, reports and papers of interest from any section of the country. Individual experience and theories are also solicited. Contributors must kindly remember that all papers, reports, correspondence, etc., must be in our hands by the fifteenth of the month previous to publication.

Advertisements to insure insertion in the issue of any month, should be sent not later than the tenth of the preceding month. London, Eng. Representatives, W. Hamilton Mill, 8 Boulevard Street, E. C. Agents for Germany Saarbach's News Exchange, Mainz, Germany.

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NO. 2.

Editorials.

STRANGULATION OR INHIBITION.

"It is scarcely necessary to state, that all marks of violence on the body of a supposed strangled person should be accurately noted, as the questions respecting them, however slight the marks may be, are material. A witness will be expected to state whether they were inflicted before or after death; if before, whether they were sufficient to account for death, or whether they were such

as to be explicable on the supposition of an accidental, suicidal, or homicidal origin." (Taylor's "Medical Jurisprudence.")

The above remarks apply very well to the circumstances of the case we are about to relate. At the Assize Court, held at Sarthe, France, March 17th, 1904, a one-handed shoemaker, named D  z  l  e, was tried for murdering, by strangulation, a girl, eighteen years of age, named Emilienne Meunier. The result of the trial turned on a radical difference of opinion between experts as to the interpretation which might be put on the marks of violence found at the necropsy.

Dr. Blaise, a medical expert, had been instructed by the legal authorities to make the necropsy, and the external and internal marks found on the cadaver had enabled him to reach the conclusion that death had been caused by strangulation. According to this witness, the accused must have squeezed the neck of the deceased girl four or five minutes. Her tongue was swollen, and protruded beyond the teeth. Cyanosis of the lips, white foam flowing from the mouth, and congestion of the lungs were, in Dr. Blaise's opinion, so many proofs of death from asphyxia.

A second physician, Dr. Persy, who had assisted at the necropsy, was of the same opinion, except with regard to the length of time the murderer's fingers had compressed the windpipe of his victim. Dr. Persy fixed this period of time at from thirty to forty seconds.

Professor Brouardel, who also gave expert evidence at the trial, had not seen the cadaver; but, after a study of Dr. Blaise's report, he reached the conclusion that in this case death had not resulted from strangulation, but that it was a sudden death from inhibition. According to him, the deceased girl's death had resulted from a violent compression of the neck, which had produced a sudden stoppage of the heart's action. Evidently, if D  z  l  e had not throttled Emilienne Meunier, she would not have died when the assault was made, but her death was not caused by strangulation. According to Professor Brouardel, congestion of the lungs, white foam flowing from the mouth, cyanosis of the lips, a swollen tongue protruding beyond the teeth are not proofs of death from strangulation.

Dr. Persy closed the discussion between the medical experts by the following remark: "After what Professor Brouardel has

said, all we need do is to make a bonfire of the medical books placed at our disposal, because they contain scarcely anything but errors."

The court and the jury, however, adopted Professor Brouardel's opinion. The charge of murder was withdrawn, and, after an affirmative verdict on the subsidiary question that blows and wounds, inflicted by the accused, had caused the death of the deceased girl, without any intention on the part of the accused, Dézéléé was sentenced to three years in prison.

The defence appears to have rested on solid ground. The deceased girl was probably of a delicate frame, or of a timid disposition, so that, according to Professor Brouardel, her heart's action was inhibited shortly after Dézéléé's fingers clutched her throat. A sudden death then intervened, and prevented the full development of the classical marks of a death from strangulation.

According to Tardieu ("Ann. d'Hygiene," 1859, Vol. 1, p. 132), in a case where death resulted from strangulation, the lining membrane of the larynx and windpipe was more or less reddened from congestion. Sometimes it was livid, or of a dark red color. There was bloody froth extending into the air-tubes. The state of the lungs was variable. Contrary to what is generally alleged to be characteristic of death by asphyxia, Tardieu found these organs to contain but little blood. Sometimes they were congested; at other times normal. There were ruptures of the superficial air-cells, producing patches of emphysema, which were seen singly or in groups. This condition, which was rarely absent, gave to the surface of the lungs the appearance of being covered with white layers of thin, false membrane. When these patches were punctured, air escaped. There was an absence of that condition of the lungs which he observed in death from simple suffocation, namely, dotted ecchymosis on the surface immediately below the investing membrane (the pleura). Throughout the substance of the lungs, effusions of blood, varying in size, were, however, generally found, provided an early inspection of the body was made. When some days had elapsed, the lungs were found pale or congested, without any ecchymosed or mottled appearance. The ruptured air-cells, with air beneath them, were still visible on the surface. The heart presents no uniform con-

dition; it is sometimes quite empty, and at others it contains dark fluid blood. The brain is occasionally congested, but more commonly in its natural state. In one instance blood was found diffused in the brain, but this is an unusual appearance. It has also been stated that a congested state of the sexual organs, both in males and females, was one of the appearances connected with strangulation, but this has not been confirmed by careful observers. M. Tardieu met with nothing to call for notice in this respect in the numerous cases which he examined. The involuntary discharge of feces, urine, and seminal fluid, described as one of the characteristics of death by hanging, may equally occur in death by strangulation. No importance can be attached to this as a sign of death from asphyxia in any form. It frequently occurs in sudden and violent death from any cause, and there are many instances of death from asphyxia in which it is not observed.

In the act of strangulation a much greater degree of violence is commonly employed than is necessary to cause death, and hence the marks on the skin of the neck will be, generally speaking, more evident than in hanging, where the mere weight of the body is the medium by which the windpipe is compressed. If much force has been used in producing the constriction, the wind-pipe, with the muscles and vessels in the fore part of the neck, may be found cut or lacerated, and the vertebræ of the neck may be fractured. The face is commonly livid and swollen, the eyes wide open, prominent, and congested, and the pupils are dilated. The tongue is swollen, dark-colored, and protruded; it is sometimes bitten by the teeth, and a bloody froth escapes from the mouth and nostrils. The principal external signs of strangulation are seen in the marks on the neck, produced either by a cord or manual pressure. Tardieu also describes numerous small spots of ecchymosis upon the skin of the face, neck and chest, as well as on the conjunctivæ of the eyes. These parts present a dotted redness, which has, however, been met with in other cases besides death from strangulation. (*"Annal. d'Hyg."* 1859, Vol. 1, p. 125.)

Several instances of laceration and rupture of the windpipe in death from strangulation are quoted by Dr. Chevers. (*Taylor's "Medical Jurisprudence."*)

A summary of the signs of death by homicidal strangulation,

according to Tardieu, would be: Reddening from congestion of the larynx and windpipe; bloody foam, extending into the air-tubes; patches of emphysema on the pulmonary surfaces; effusion of blood in the substance of the lung; marks on the skin of the fore part of the neck, and severe injury to the larynx, with sometimes fracture of the vertebræ of the neck; face livid and swollen; eyes wide open, prominent and congested, with dilated pupils; tongue swollen, dark-colored and protruded.

Some of these marks were discovered at the necropsy of Emilienne Meunier, but not all, and the more important ones were not mentioned by the witnesses for the prosecution. That a certain amount of choking had been done to the deceased girl was admitted; that death had resulted from strangulation was denied; and the verdict of the jury was based on the latter opinion.

J. J. C.

RAISING THE MATRICULATION STANDARD OF THE COLLEGE OF PHYSICIANS AND SURGEONS OF ONTARIO.

Up to the present time the junior matriculation in Arts of the University of Toronto has been accepted as the standard for matriculation in the Ontario College of Physicians and Surgeons, the minimum in each subject, for a pass, being $33\frac{1}{3}$ per cent. At the meeting of the College in June of last year, the matriculation standard in medicine was very fully discussed, and so dissatisfied was the College with it, that a resolution was adopted, by a large majority, declaring that senior matriculation in Arts should be made the standard in future instead of the junior one. The resolution meant, in effect, that a medical matriculant in Ontario would require to receive a training in non-professional subjects equal to that possessed by a student who has passed the first year's examination in the department of Arts.

Consternation immediately began to prevail among Ontario High School masters and their pupils who were preparing for the matriculation examination in medicine. After much discussion between medical men and educational authorities, the Executive of the College of Physicians and Surgeons decided that the obnoxious resolution should not be enforced at the examinations

of 1904. The Educational Committee of the College, who had been responsible for the resolution, were also instructed to reconsider the question and to report again in 1904. This committee consists of Drs. Britton, Spankie and Macdonald, and their report was presented June 29th, 1904. It provides for a 40 per cent. minimum in each subject, and 50 per cent. in the aggregate. A regulation was also added that honors would have to be obtained in two subjects of the examination. The fee for the examination is \$20. The report was adopted by the College by a vote of 20 yeas to 4 nays.

As this matter now stands, therefore, the would-be medical matriculant will have to obtain a minimum of 40 per cent. in each subject, instead of $33\frac{1}{3}$ per cent., and an aggregate of 50 per cent. Honors are required in two subjects, and as third-class honors range from 50 to 66 per cent., the matriculant must also obtain at least 50 per cent. in two subjects. The outcome of this regulation will probably be that with the advent of stiff papers a few more rails will be added to the neat fence which guards the approach to the temple of Esculapius in Ontario. Probably the fence will be made as high as it ought to be in reason. No one will question the wisdom of making the Ontario medical students a scholarly class of men. Even the least cultured people expect that a medical student should be well educated, in the common, everyday acceptance of that term; and if he has learned something about the language and literature of Rome and of Greece, if he has sound knowledge of his native language, as well as fair acquirements in history, geography, arithmetic, algebra, geometry, physics and chemistry, so much the better.

By carrying out the new standard mentioned above, the Ontario College will secure a fair measure of non-professional education in their matriculants; and it seems to us, that further than that they have no right to go. If a medical student wishes to obtain a complete Arts course and the B.A. degree, the road is open; but even though he should be quite successful in his educational venture in Arts—a prize winner, even—his subsequent success in medicine may prove to be mediocre. "Poeta nascitur non fit," and the Latin proverb is just as applicable to the doctor as to the bard. The present-day leaders of the medical and surgical professions in Toronto, the men

who earn the large fees, are not remarkable for knowledge of ancient or modern languages. Not one of them has ever attained fame for any achievement in literature, art, or mechanics outside of what falls within the category of a medical career. They have achieved success, by earning it, in their chosen vocations, and it is very doubtful, that more Greek and Latin, greater fluency in French and German, a more accurate knowledge of mathematics, would advance their prospects among their patients in the slightest degree, or place them in a more advantageous light in relation to their professional brethren.

To put spokes in the wheels of incompetent medical students is one thing; to design a scheme of study which may help to evolve a Pepper or an Osler, is beyond the might of the best committee of the Ontario College.

J. J. C.

EDITORIAL NOTES.

A Strange Form of Parasitism Carried by the Larvæ of Insects.—It is well known that the eggs of insects are deposited in flowers and vegetables. Thus the female of a little fly of the group *Anthomyzinæ* and the species *Anthomya canicularis*, deposits its eggs on certain vegetables or on the earth. This insect also frequents all kinds of flowers, but has a predilection for the *synantheræ* and the *umbelliferæ*. These vegetable families include a certain number of plants—artichoke, lettuce, parsley, dandelion, chervil, carrot, etc.—which are often eaten in the raw condition. One can thus understand how the larvæ of the fly, which may have been laid on the vegetable, may be swallowed with it when the raw vegetable is eaten. Last summer Dr. Lorber, a French physician, practising at Fesch-le-Chatel, treated a young lady for a strange form of parasitism caused by the larvæ of the insects mentioned above. For a considerable time the patient complained of pain of an obscure character in the region of her stomach. These pains began when she rose in the morning, sometimes lasting for a few minutes, and sometimes for several hours. During the attacks she became pale, nerveless, and had a strong inclination to vomit, and looked as though she were going to faint. She complained, besides, of a continual itching of the skin, a slight cough, and an excessive

secretion of saliva. These symptoms lasted up to September 15th, 1903, when, after repeated attacks of vomiting, the patient brought up a considerable quantity of living insect larvæ. These larvæ, preserved in spirit, were subsequently examined by M. Florentin, Professor of Zoology in the University of Nancy, who identified them. The eggs of *Anthomya*, which are deposited in vegetables used as food, not being noticed owing to their small size, are swallowed with the leaves or roots in the uncooked condition. These eggs, swallowed in great number and at a time when they were near the hatching period, produced the larvæ, which, being provided on the surface of their bodies with a multitude of small sharp thorns, attached themselves to the walls of the mucous surface of the stomach, or of the esophagus, and were thus enabled to maintain their position without being carried away by the passing food. Their prolonged sojourn in the digestive tube of the patient was said to be due to the fact that the larvæ possess considerable reserves of fat, which enable them to subsist without seeking for food, and also because of their tracheal system of respiration which enables them to resist asphyxia. Dr. Lorber ascertained that, some time before his patient began to complain of the first symptoms of her trouble, she had eaten a considerable quantity of salad made from dandelions, which she had gathered in the fields.

Typhoid Fever Mortality in Toronto and Filtration of the Water Supply.—The mortality from typhoid fever in Toronto is remarkably low. The population of Toronto is 225,000 souls, and the mortality from typhoid fever during the first six months of the current year was as follows: January, 1; February, 3; March, 1; April, 3; May, 2; June, 3; total for the half year, 13. Just as in other cities situated on the shores of a lake or river, from which the water supply is taken, Toronto citizens run the risk of drinking contaminated water. More particularly is this true in times of flood, when excremental filth is washed along the natural declivities and the streets, and carried far out by rain or melting snow to the source of the civic water supply. The simplest way to rectify the difficulty would be to purify the water taken from Lake Ontario by sand filtration. At the present time there seems to be an arbitrary standard in the methods of water purification. That is to say, methods are extensively used which

make the cost of purifying a million gallons of water, including interest and sinking fund charges, somewhere in the neighborhood of \$10, and which are sufficient to remove 99 or 99½ per cent. of the bacteria of the applied water. This may fairly be called the best practice to-day. A purification like this serves to furnish a water from the Merrimac or from the Hudson in every respect as good, and perhaps better, than is obtained from the best upland sources. The daily cost of filtering 30,000,000 gallons of water for Toronto would, therefore, amount to \$300; the annual cost of the same would be \$109,500. Quite an expense, indeed! Admitted; but consider the result. The triumphs in the past have been great. The typhoid fever death rates in a number of American cities have been reduced by the installation of filters by 70 or 80 per cent., or more. The general death rates have also been reduced by amounts which correspond to much more than the reduction in the typhoid fever rates. It is true that the Toronto water supply of to-day is not a bad one; but it will not improve, if left severely to the alchemy of nature, particularly in flood time. With the growth of a desire for cleaner and purer water, the consideration of the filtration of the water supply of Toronto will come to the front, and the practical application of water filtration will be accompanied with the greatest benefit to this city.

J. J. C.

The Prevention of Consumption.—The fifth general meeting of the members of the National Association for the Prevention of Consumption and other Forms of Tuberculosis was held on March 10th, afternoon, at 30 Hanover Square, London, Eng. Sir William Church, in seconding the adoption of the annual report, said that the whole medical profession was watching with extreme interest the results of compulsory notification at Sheffield, as they were watching with great interest what might come out of the voluntary notification which was going on in many other parts of the country. Many persons who had an unreasonable dread of the infectiousness of tubercle, kept themselves at a distance from the tubercle bacillus, imagining that that was all they need do, and neglected the proper hygienic measures, which placed them in a condition to resist the attacks of the enemy. The Association had placed these two lines of defence side by

side and hand in hand, as they should. General hygienic measures had always been recommended, but, at the same time, they had indicated the means by which they might specially protect themselves and the public from the dangers of infection. He had been pleased to see how very strongly the Association had expressed the view that sanatoria should be inexpensive buildings; and he thought a useful purpose might be served if the Council could become a sort of advisory body for county councils, boards of guardians, and other public bodies, upon the construction, site, and situation of sanatoria. It was regrettable that large sums should be spent on bricks and mortar, when inexpensive buildings would not only fulfil the same object but, in his opinion, fulfil it very much better.

The Inefficiency of Filters.—The *Chicago Bulletin of Health*, May 26th, 1904, says: "The common tap filters are not only worthless, but are actually harmful, because they do not stop any of the bacteria—only the organic matter, such as vegetable and animal detritus. Now, when the water is shut off, a few bacteria remaining upon this animal matter find it to be a suitable food, and, as a result, they increase enormously in numbers, so that the next water drawn through the tap filter washes them out; and the longer such a filter is used the more bacteria are found in the water which it filters. Stone or porcelain filters are of value, but only if properly cleaned. During the first few hours such a filter is used, the bacteria, being so small, pass through the pores of the filter. These pores finally become clogged with bacteria. Then, after a number of hours, depending upon the pressure, the water will be free from bacteria, but after a day or so the bacteria grow through the filter, and the water is again contaminated. Therefore, the first water coming from such a filter should be rejected, and the filter itself should be boiled and thoroughly cleaned every two or three days." From these remarks it can readily be seen that even the best filters are worthless, unless properly cared for. The trite old instruction given by sanitarians in times of typhoid epidemic, "to boil the water," is productive of most satisfactory results in the matter of rendering water safe to drink. At the second quarterly meeting of the Provincial Board of Health for this year,

Dr. Amyot, bacteriologist of the Board, gave the results of the analysis of water that had been passed through an ordinary hot-water boiler, attached to a range. The bacterial counts were, he said, decidedly altered for the better, the water being nearly always practically sterile, although it may not have boiled.

Relations between the Ear and the So-called Naso-Genital Zone in Women.—A. Heiman (*Gaz. lek.*, 1903, No. 38) has treated several unmarried young women, of ages ranging from eighteen to twenty-seven, and whose complaint consisted of obstinate ear-ache of unknown origin, which could not be relieved by any of the numerous means employed for the purpose. One of the patients having drawn his attention to a coincidence in her case between the pain in the ear and the occurrence of the menstrual period, Dr. Heiman examined her nose, and, finding that the mucous membrane of the part was swollen, he swabbed it with a 20 per cent. solution of cocaine. Immediately the pain in the patient's ears diminished, and after a few more treatments completely disappeared. Cauterization of the inferior turbinated bones by means of the galvano-cautery not only cured the ear-ache, but also the abdominal pains which accompanied the menses. Similar results were obtained in two other cases. On the contrary, in cases in which neuralgia was not of menstrual origin, swabbing the nasal mucosa with cocaine produced no effect. Dr. Heiman concluded that if ear neuralgias are cured by the use of cocaine, the trouble is seated in the naso-genital zone. When this treatment fails, the cause must be looked for in another direction.

Is it Dangerous to Get Out of Bed in a Hurry?—Lauder Brunton mentions, in *The Action of Medicines*, that he was consulted once by a physician about what he thought was an epileptic fit. "One morning he had jumped up suddenly out of bed to pass water, and the first thing that he knew afterwards was that he was lying on the floor of his bed-room, with the chamber pot broken in pieces. He thought this was an epileptic fit, and he was in a state of great anxiety about it. It was not an epileptic fit, but it was simply a condition of syncope brought about by suddenly jumping up from the horizontal to the upright position; the effect of this being still further increased by the diminution in the blood pressure in his abdomen through his emptying

his bladder." We notice in an editorial in *The Indian Lancet*, April 18th, 1904, that a middle-aged man, who had sprung out of bed very quickly, almost immediately staggered and fell to the ground. He died from heart disease, and a physician stated that if the man had got out of bed quietly, instead of with a rush, he would be alive still.

PERSONALS.

DR. BURNHAM, 134 Bloor Street East, left the city on July 6th, and will return to resume his practice on September 2nd.

CONGRATULATIONS are in order to our esteemed confrere and collaborator, Dr. J. M. MacCallum, on the birth of an heiress on July 3rd.

News of the Month.

CANADIAN MEDICAL ASSOCIATION.

THE thirty-seventh annual meeting of the Canadian Medical Association is to be held this year in Vancouver, on the 23rd, 24th, 25th and 26th inst. Victoria joins hands with her sister city in extending the hospitality of the Pacific Province to all the members of our great national medical organization. In the thirty-seven years of its history, this is the first time a meeting of the Canadian Medical Association has been held in British Columbia; and the opportunity to visit Victoria, an Outpost of Empire, and Vancouver, the Pride and Glory of the West, should not be lightly passed by. Indeed, the entire West is a "panorama of beauty" and a "scene of bustle."

There will be no special train. No arrangements are in force to return *via* California, Salt Lake City and Colorado, as none could be secured, so far as the Canadian Medical Association is concerned, but below will be found information which will cover that route in returning, same being an open rate not requiring special certificate for purchasing transportation. Under the arrangements made, tickets will be good going *via* Canadian Pacific Railway direct, *via* Port Arthur, *via* Sault Ste. Marie, St. Paul, thence Soo-Pacific Route, Great Northern or Northern Pacific, or Grand Trunk *via* Detroit or Port Huron to Chicago, St. Paul, thence Soo-Pacific Route, Great Northern or Northern Pacific, returning same route or any other of the above routes. Lake route, Owen Sound to Port Arthur, may be taken one or both ways on payment of \$4.25 additional each way. Boats leave Owen Sound, Tuesdays, Thursdays and Saturdays.

It is also proposed to allow variation to St. Louis *via* St. Paul and Chicago on return trip, when tickets are routed on return trip *via* those points, on payment of \$10 additional. Secure return tickets if return is to be made other than Canadian Pacific Railway *via* the Northern Pacific Railway to St. Paul; Chicago and Northwestern, from St. Paul to Chicago; Wabash, Chicago to St. Louis or Chicago to Detroit, either Wabash or Grand Trunk; Illinois Central, Chicago to St. Louis and return. Through sleeping car accommodations from St. Louis *via* Chi-

icago to all points in Canada on Grand Trunk Railway; or from St. Louis *via* Wabash to Detroit direct, or to Chicago and thence to Detroit.

The Intercolonial Railway joins in the arrangements in force for the Maritime Provinces and also in Quebec.

Transportation arrangements are as follows: To Vancouver and Victoria, from Port Arthur, Fort William, Rat Portage, \$50.00; from Winnipeg, Emerson, Grand Portage la Prairie, Brandon, Indian Head, Winnipeg to Boissevain, Winnipeg to Carrol, Brandon to Hartney, and Weyburn to North Portal, \$45.00; Rapid City Junction, \$45.85; Gladstone, \$46.05; Neepawa and Minnedosa, \$46.85.

The above blankets pretty nearly all of the important points in Manitoba, but to make rates from points not shown above the one way first-class rate to the nearest point shown is to be added, but not to exceed the rate from a point more distant on the direct line. From points in the North-West Territories and British Columbia, Qu'Appelle and west, round trip tickets to Vancouver and Victoria will be issued at single fare. Passengers ticketed at stations Medicine Hat and east have the option of going *via* the main line, and returning Crow's Nest, or *vice versa*, as they may decide when purchasing their tickets. Tickets will be issued to either Vancouver or Victoria, where the same rate applies to either place; but if, as is the case from some far western points, the rates are higher to Victoria than to Vancouver, then tickets to Victoria will be issued only at the Victoria rate.

From all points in Ontario and Quebec, tickets will be on sale from the 15th to the 21st of August, inclusive, and from points east of Vanceboro', Me., August 14th to the 20th. The final return limit is October the 23rd, which means that all must be home on that date.

Stop-overs will be granted west of Port Arthur on going and returning journey, and west of St. Paul when tickets are routed on return journey by that point.

The Calgary Medical Association is desirous of extending an entertainment during the course of one day on the way out to Vancouver. This entertainment will be a typical Western one, and will take the form of an Indian gathering in costume, Indian races and games, roping and cowboy feats. Those who would like to stop over at Calgary for this entertainment so kindly offered through the Calgary Medical Association, should notify the General Secretary without any delay, so that if there would be sufficient number, same could be forwarded in time for proper preparation of the entertainment.

In Vancouver arrangements have been made for various ex-

ursions, yachting trips; steamer, rail and tram to surrounding points of interest; receptions, private and public; a dinner or a ball. On one of the days of the meeting the delegates will be taken by tram to New Westminster, visit the asylum there and other points of interest, then take the boat down the mighty Fraser to Steveston, visit some of the canneries, so that visitors will have the opportunity of verifying the stories of the salmon industry; then take the train back to Vancouver—a trip of great interest from start to finish.

In Victoria a committee is arranging a series of entertainments there, viz., reception at Government House, conversazione at the Parliament Buildings, a visit to Esquimalt and William Head Quarantine Station, beside other excursions to points of interest in and about Victoria.

For those who would like to extend their visit, special rates are arranged for to Nanaimo, where they will have an opportunity of seeing the vast coal fields of British Columbia. Arrangements can be made for stop-overs at Kaslo and Golden, the Board of Trade of the latter having issued a special invitation to the members of the Association to visit that thriving city. Other side trips have been arranged for to Skagway, Atlin, *via* Yukon and White Pass Railway to Dawson City.

For those who would like hunting excursions, full information can be secured from the local secretary at Vancouver as regards game laws, and excellent sport is promised. Hunting parties can be made up at Vancouver, and reliable guides furnished.

Guides can also be supplied for those who want to do mountain climbing.

The following are the rates for hotel accommodation: Vancouver Hotel, \$3.00 to \$5.00 per day; Badminton Hotel, \$2.00 to \$3.00 per day; Leland Hotel, \$2.00 to \$3.00 per day; Commercial Hotel, \$2.00 to \$3.00 per day; Metropole Hotel, \$2.00 to \$4.00 per day; Dominion Hotel, \$1.00 to \$2.00 per day.

Board and rooms can also be arranged for at private houses, a complete list of which can be obtained from the local secretary.

The Pullman rate from Toronto to Vancouver is \$17.00 each way; from Montreal, \$18.00 each way. Meals for five days about \$12.50.

Yellowstone National Park is situated mostly in the State of Wyoming, in its north-western corner. Those contemplating visiting this "Wonderland" after the meeting in Vancouver, should see that their tickets are routed on return journey *via* the Northern Pacific Railway. From Vancouver the return trip is made over the Canadian Pacific Railway to the boundary where

the Northern Pacific is taken at Sumas. Thence through Auburn and Spokane to Livingston, where change is made for Gardiner, at the entrance to the Park. A six-days' trip by stage-coach through the Park, including meals and lodging at the hotels, which are all first-class, will cost \$49.50. The Park is sixty-two miles from north to south, and fifty-four miles wide. The General Secretary will be glad to hear from all those intending to take in this trip on return journey, having been assured that a party of from twenty-five to fifty will receive better attention than smaller ones.

As announced above, the Canadian Medical Association has no arrangements in force for return *via* California. For the benefit of those, however, who wish to return that way to St. Louis, the information may be tendered that there will be in force at the same time as our own convention an open rate of \$70.25 from Toronto to San Francisco, good going *via* Canadian Pacific Railway to Vancouver, allowing liberal stop-overs in each direction; final return limit, 23rd of October. No certificates are required for this trip, as it is an open rate to all. In taking this trip, members of the Canadian Medical Association going to Vancouver should be routed on return *via* Southern Pacific, Portland to San Francisco or Los Angeles; Southern Pacific, San Francisco or Los Angeles to Ogden; Union Pacific to Kansas City and St. Louis. Mr. H. F. Carter, T.P.A., Union Pacific Railway, 14 Janes Building, Toronto, will supply any further information regarding this route.

The fee for membership is \$2.00, and may be paid to the Treasurer, Dr. H. Beaumont Small, Ottawa, when registering at the meeting. For the information of those who have not been elected to membership, the same rates apply to them as well, and they are instructed to ask for application forms when registering.

All delegates must have for themselves, their wives and daughters, if going, a special certificate from the General Secretary, in order to secure reduced transportation rates.

Should any one require any further information as to accommodation at Vancouver or Victoria, side trips, hunting, etc., they will kindly address the Local Secretary, Dr. W. D. Bryden Jack, Vancouver, B.C. For certificates and general information, address the General Secretary.

The following are some of the papers to be read:

President's address—Simon J. Tunstall, Vancouver.

Address in Surgery—Mr. Mayo Robson, England.

Address in Medicine—Dr. ———.

Address in Gynecology—Dr. E. C. Dudley, Chicago.

Paper, title to be announced—Dr. A. McPhedran, Toronto.

Paper, title to be announced—Dr. J. H. Elliott, Gravenhurst, Ont.

Surgical Treatment of Trachoma—Dr. G. Sterling Ryerson, Toronto.

Paper, title to be announced—Dr. A. Armstrong, Arnprior, Ont.

Paper, title to be announced—Dr. A. E. Garrow, Montreal.

The Operative Treatment of Spina Bifida—Dr. E. R. Secord, Brantford, Ont.

The Business Aspect of the Medical Profession—Dr. James E. Hanna, Ottawa, Ont.

Paper, title to be announced—Dr. D. J. Gibb Wishart, Toronto.

Paper, title to be announced—Dr. J. W. Stirling, Montreal.

Paper, title to be announced—Dr. B. E. McKenzie, Toronto.

Hernia of Bladder Complicating Inguinal Hernia—Dr. Francis J. Shepherd, Montreal.

Gastric Ulcer and its Treatment—Dr. J. B. McConnell, Montreal.

La Syphilis Canadienne et Différents Facteurs et Gravité—Dr. D. E. LeCavelier, Montreal.

Case Reports—Dr. Robert H. Craig, Montreal.

Paper, title to be announced—Dr. James S. Edwards, Grand Rapids, Mich.

Paper, title to be announced—Dr. Henry Howitt, Guelph, Ont.

Chronic Cystitis—Dr. J. O. Camirand, Sherbrooke, Que.

Intelligence, with a Report of Three Cases—Dr. Maud E. Abbott, and Dr. F. A. L. Lockhart, Montreal.

Actinomyces—Dr. James Bell, Montreal.

Paper, title to be announced—Dr. Ingersoll Olmstead, Hamilton, Ont.

Prostatectomy Under Local Anesthesia—Dr. H. H. Sinclair, Walkerton, Ont.

High Frequency Currents in Functional Disease, more particularly Functional Neuroses—Dr. S. F. Wilson, Montreal.

Therapeutic Hints from Bacteriology—Dr. G. R. Cruickshank, Windsor, Ont.

Paper, title to be announced—Dr. C. H. Mayo, Rochester, Minn.

In addition there will be a number of papers from Western men, whose names have not yet been received.

Any further particulars required will be gladly furnished by the General Secretary, Dr. George Elliott, 129 John Street, Toronto.

ITEMS OF INTEREST.

Honors for Canadians.—On the occasion of the visit of the British Medical Association to Oxford, on July 27th, the honorary degree of D.S.C. will be conferred, among others, on Dr. Roddick, of Montreal, and Dr. Wm. Osler, of Baltimore.

A Splendid Booklet.—The firm of C. J. Hewlett & Son, 35 to 42 Charlotte Street, London, E.C., England, have recently published a splendid surgical instruments and druggists' sundries list, and are prepared to send a copy of it, free, to any Canadian physician on application.

Resident Physicians.—The following have been appointed resident physicians at the Hospital for Sick Children for the year commencing 1st July, 1904: Dr. Bruce Courtney Whyte, of Millbrook; Dr. Melville H. Embree, of Parkdale; Dr. K. D. Panton, of Milton, and Dr. Walter W. Wright, of Toronto.

Milk in Typhoid Fever.—A booklet bearing this title has recently been issued by the firm of Smith, Kline & French, Philadelphia, Pa., and is intended for free distribution among the medical profession. It will be sent by the publishers on application, and is worth while having, as it is most interesting, and written in a thoroughly scientific manner, showing that the constituent properties of milk are such that it is even a more valuable form of food in many diseases than some practitioners think. We would recommend our readers to secure a copy and peruse it.

The Mississippi Valley Medical Association.—The Thirtieth Annual Session of the Mississippi Valley Medical Association will be held at Cincinnati, Ohio, October 11th, 12th and 13th, 1904, under the presidency of Dr. Hugh T. Patrick, of Chicago. The headquarters and meeting places will be at the Grand Hotel. The annual orations will be delivered by Dr. Wm. J. Mayo, of Rochester, Minn., in Surgery, and Dr. C. Travis Drennen, of Hot Springs, Ark., in Medicine. Request for places upon the programme, or information in regard to the meeting, can be had by addressing the Secretary, Dr. Henry Enos Tuley, Louisville, Ky., or the Assistant Secretary, Dr. S. C. Stanton, Masonic Temple, Chicago, Ill. The usual railroad rates will be in effect.

The Physician's Library.

BOOK REVIEWS.

Progressive Medicine. A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by HOBART AMORY HARE, M.D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College, Philadelphia. Assisted by H. R. M. LANDIS, M.D. Philadelphia and New York: Lea Brothers & Co. \$6.00 per annum.

Volume I., 1904, issued March 1st, 1904, includes articles on Surgery of the Head, Neck and Thorax; Infectious Diseases, including Acute Rheumatism, Croupous Pneumonia and Influenza; the Diseases of Children; Laryngology and Rhinology; and Otolology.

Volume II., 1904, issued June 1st, 1904, contains articles on Surgery of the Abdomen, including Hernia; Gynecology; Diseases of the Blood; Diathetic and Metabolic Diseases; Diseases of the Spleen, Thyroid Gland and Lymphatic System; and Ophthalmology.

It is impossible in a short review to refer to the many excellent points contained in the several chapters of each volume. It may be sufficient to state that, on the whole, the articles are short and practical, and that they contain the latest information available, presented in a most readable and satisfactory manner.

A. E.

Special Diagnosis of Internal Medicine. A Handbook for Physicians and Students. By DR. WILHELM v. LEUBE, Professor of Medicine and Physician-in-Chief to the Julius Hospital at Würzburg. Authorized translation from the sixth German edition. Edited, with annotations, by Julius L. Salinger, M.D., late Assistant Professor of Clinical Medicine in the Jefferson Medical College, and Physician to the Philadelphia Hospital. With five colored plates and seventy-four illustrations in the text. New York and London: D. Appleton & Co. 1904. Canadian agents: Geo. Morang & Co., Limited, Toronto.

Dr. v. Leube's work, dealing as it does with special medical diagnosis, is very useful to the true lover of medical science, for diagnosis being truly made, treatment suggests itself.

We have referred to it in a case of traumatic neurosis, hemiplegia, and have been gratified with the manner in which that difficult subject is presented, the clearness with which the diagnostic points are brought out. The work is clearly not a rival to well-known works on the practice of medicine, but it may be fitly regarded as complementary to the best of them—an authority on internal medicine, which a practitioner will consult with eagerness and will resort to as a friend in times of difficulty. The translation has been so well done that one would think the original work had been written in the English language. Dr. Leube should be pleased at the considerable number of friends and patrons in the English-speaking world who will be enabled, through Dr. Salinger's work, to avail themselves of the storehouse of knowledge which he has created.

The publishers' work has been very satisfactorily done.

J. J. C.

The Doctor's Recreation Series. By CHAS. WELLS MOULTON, General Editor. Arranged by Porter Davies, M.D. 1904. Akron, O., Chicago and New York: The Saalfield Publishing Co. Vol. I., "The Doctor's Leisure Hour," facts and fancies of interest to the doctor and his patient.

As announced in our columns a few months ago, Vol. I. of this exceedingly interesting series has just come out and each will follow the other at intervals of one month. Though only in our hands ten days, and we have not had time to read more than half-way through the first volume, we bespeak for the series a very hearty reception. It is just what the profession wants, especially during the holiday weather, there being too great a tendency to stick to heavy medical literature. To read "The Doctor's Leisure Hour" is a great rest to one who leads a busy life, many parts of the book referring to the relations of the doctor and patient being very amusing indeed and highly entertaining. The series consists of twelve volumes in all, and is sold by subscription only. It can be secured in two bindings, cloth and half morocco, at \$2.50 and \$4.00 respectively. Doctor, if you are going away for a vacation add to its enjoyment by taking "The Doctor's Leisure hour" in your grip.

W. A. Y.

Golden Rules of Anesthesia. By R. J. PROBYN-WILLIAMS, M.D., Anesthetist to London Hospital, etc. "Golden Rules" Series, No. XIV. Bristol: Jno. Wright & Co. London: Simpkin, Marshall, Hamilton, Kent & Co., Limited.

A very handy vest-pocket volume, a *vade-mecum*, in fact, full of "pointers" as to anesthetics and their administration.

W. A. Y.