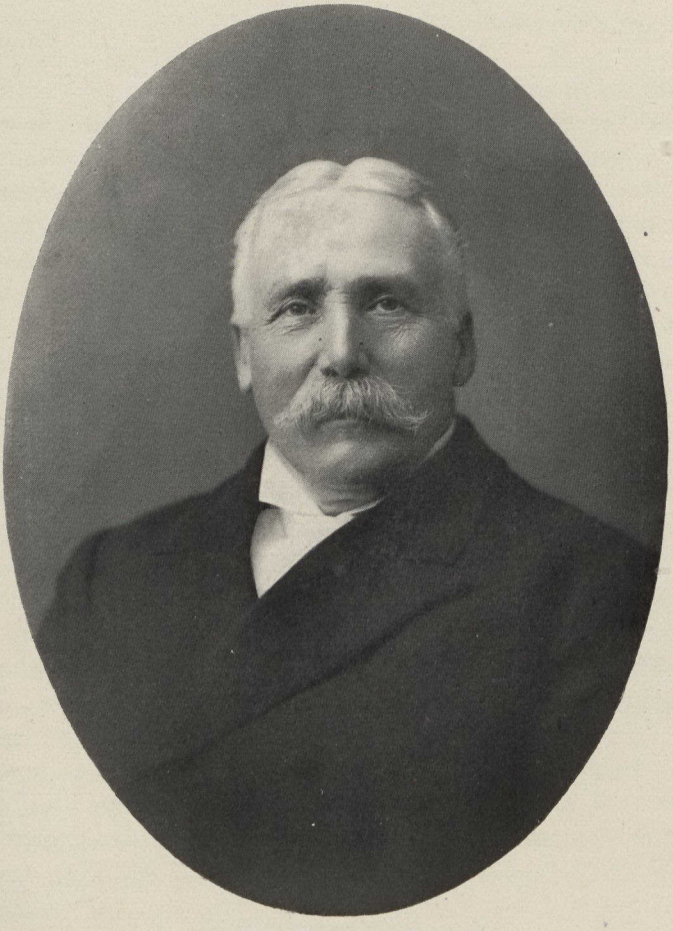

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PHYSICIANS RATED BY POST-GRADUATE WORK.

By JOHN HUNTER M.B., Toronto.

IN industrial and commercial life there are agencies in which the ability and financial standing of those engaged in such pursuits can be ascertained. According to what is known as the "rating" of such agencies men are judged. In medicine, there are no such special agencies for "rating" its members; and yet, there are influences at work that do very accurately define the progress being made in medicine; and "rate" physicians — individually and collectively — as to their financial, literary, social and professional status.

MEDICAL PROGRESS.

We have abundant evidence, in private practice, in our hospital work and hospital equipments, in the work of our health boards, in the more recent text-books, in medical journals, and in the curricula of our medical colleges, to establish our "rating" in technical knowledge and skill as being the peer of that of any other calling. Whether any other calling can show as high a "rating," in these respects, as the medical profession can, I am not prepared to say, perhaps the editor can, but in any event we have a status of which we can justly feel proud, and one that has been carried by faithful, intelligently-directed toil.

LITERARY STATUS.

"In the good old days, the doctor was the best loved and most important man of his community. Wisest of philosophers, broadest of thinkers, best and truest of friends was he. He was the social and intellectual beacon of the social system in which he worked. He was a centre of influence from which all things radiated, and he was appreciated by his clientele. They regarded him as the world of science did Darwin—as "a mighty intellectual ocean toward which all rivers ran." In the literary world he was one of a privileged class, a member of a learned profession. To-day, the physician occupies no such standing in public estimation. Such is the immense amount of technical knowledge to be acquired, that the medical student is practically obliged to give up

all literary work as soon as he matriculates. His brothers and sisters go on and take a much more advanced course in the collegiate institutes, or graduate in Arts at a university. These, and now-a-days their number are legion, know the meagre literary attainments of medical students; and, therefore, can never have very much respect for "the learning of the doctors." Less than a quarter of a century ago, the literary "rating" of the doctor was on a par with that of the university graduate; now, he can only be graded with the higher forms of our public schools, and intermediate classes in the collegiate institutes. This low literary "rating" of medical students, is not the result of any desire on their part to be less erudite than their former classmates; but it is entirely due to the enormous progress made in medicine. Compare the medical curricula of to-day, with those of thirty years ago—the length of the course is practically doubled, and the amount of technical work quadrupled. Then, too, higher education was the privilege of the few; now, it is the boon of the masses.

FINANCIAL STATUS.

The income of the average practitioner is, probably, as large now as it was a few decades ago, when he was looked upon as "a man of substance," whilst the fees of the specialists are, doubtless, much larger than those obtained by the most eminent men of those days: yet, the medical man is no factor, in reality he is completely ignored now in the financial world. We have not, far to look for this apparent anomaly. Fifty years ago, such were the limits of trade, that industrial and commercial firms could easily distribute all their goods with one wagon. In our day, individual manufacturers and merchants have combined their capital, formed strong joint stock companies, and have laid the whole world wide tribute to fill their coffers. Formerly, the financial "ratings" of these men were by the tens of thousands; to-day, by the millions. What chance is there for doctors to compete for riches under such commercial expansion as now exists? The financial "rating" of the average physician is simply on a par with that of the better class of skilled artisans.

SOCIAL STATUS.

Any rapid increase in wealth creates a class who have leisure and social distinction. Physicians and their families formed quite an important factor of this privileged class in the first half, or more, of the past century. This was due to the doctors' literary, financial and social status in that age. Now, however, owing to the "output" of our colleges and universities, any hostess of social distinction can fill her

drawing room with scores of literary people who can discuss novels or give readings with far more effeminate grace and elegance than the busy practitioner can, whilst the plainer attire of the physician's wife and daughters is simply submerged under the lustrous jewels and rustling silks of the wives and daughters of these commercial "kings of finance." The latter occupy all the space in the social columns of our daily papers. And not alone in his literary and financial status has the doctor's decline been noticeable, for has not the social distinction that went with his title for centuries faded away since the abbreviation "Dr." is emblazoned on the door plates of a score of diverse crafts? The social rating of the doctor, or more accurately, of the feminine portion of his household is on a par with the average church member of good standing.

The medical pessamist may look upon his literary, financial and social status with gloomy forebodings, and justly so, if these elements were the main factors in a doctor's life. There is another picture to present in which the great mission of the physician's life is portrayed. In the same decades in which the above mentioned changes were taking place there were accomplished many of the greatest achievements to be found in the whole history of medicine. Turn back the pages of its history and see the fearful ravages on human life made by plagues, the helpless, hopeless condition of the physically deformed, and the intensity of suffering for which there were no means of alleviation. Compare all this with present conditions and see—in the prevention of disease, in the abbreviation of its course, in the removal of deformities and in the mitigation of suffering—achievements which, in greatness of results and in beneficence of character, far overshadow any achievements that have been won in literary, commercial or social life. What wots the old hero, of his torn garments, scarred features, or maimed limbs, when he has held the fortress or "scaled victory's heights?" or why the physician bemoan the loss of some literary frills, the want of riches or social distinction, when he, too, can achieve the most splendid victories over disease—one of man's greatest enemies. He has this consolation, also, that the public ask no questions about the examination marks, amount of wealth or social distinction obtained by a Lister, a Virchow, a Koch or an Osler, nor will they ask about his status in these fields if he imitate the example of such men as these.

PROFESSIONAL STATUS.

Whatever the physician may, in regard to his status as compared with that of a member of any other calling, it should be a matter of vital importance to him to stand high in the estimation of the members

of his own profession. Their estimate of him, is after all, the only true gauge of the real character of his life and work. The only wand with which he can conjure his fellows is merit, efforts to conjure with anything less worthy belong to the domain of the charlatan, and therefore is unworthy of notice. The question that now arises is, what are the factors, that give a physician his rating in his own calling. There are many, but space will only permit of a very brief reference to a few, and out of these, the following are selected, viz., worth and work.

WORTH.

Worth is to be defined as moral character and the statement is simply axiomatic, that without a high moral character there can be no such thing as true success. This phase of the question need not be elaborated further than to state what is included in the term worth. It includes, in addition to a strict fidelity to truthfulness, honesty, purity, charity—the cardinal virtues—the possession of a courteous manner, æsthetic tastes, business ability, and a consecrated devotion to his profession.

WORK.

The high standard demanded of the graduates of any reputable medical college, is a sufficient guarantee that the young physician has the necessary technical knowledge and skill to enable him to enter the ranks of his professon. Physicians, in so far at least, as their education and skill, are concened, begin practice on about a common equality. This being the case they must depend upon the character of their post-graduate work for their 'rating'. Amongst their fellows, what factors can help the young physician in his work? Each reader, will doubtless have in mind some things that he would suggest, as being of especial value. However, it is only possible to deal with one or two of the common and most essential factors in a brief article like this one. Of these, the following deserves consideration: 1st. A full and truthful record to be kept of every case. This is an emperative duty for many reasons. These records are indispensable as references. It is a work that gives an inspiration to the desire for accuracy. It is a splendid educator, in the way of helping a physician to express himself in technical and intelligent terms. How much the interest in a case is affected by the manner in which it is described. It is of inestimable value to the physician in helping him to estimate the progress he is making. A faithful record of successes and failures is the crucial test of progress or retrogression. Those of us, and the list, it is to be feared, is altogether

too long a one, who have been dilatory is keeping a trustworthy record of our cases, have failed, in so far as we have been negligent, to secure the full benefit of one of the best auxiliaries the physician can have to help improve the character of his work.

EQUIPMENT.

In equipment as in education there is a pretty uniform equality amongst physicians when they begin practice. Some office furniture in the way of a table, lounge, chairs and a book-case containing his college text-books, and a limited supply of instruments. His street or road outfit consists of a cane, a bicycle or a horse, a silk hat and a grip. Five or ten years later we find that certain changes have taken place—the silk hat has been abandoned or only worn for esthetic effects, it is no longer looked upon as an essential part of his outfit. The brand-new grip has lost most of its polish, has become, if the owner uses a horse, flavored with the aroma of the horse-blanket and grimy from the dust of the foot-board. The contents of the grip have degenerated *pari passu* with itself—an aged pair of obstetric forceps with rusty locks and blades depleted of every vestige of nickel plating, a pocket-case bereft of its lining as well as of many of its instruments, a few packages of by no means aseptic gauze and absorbent cotton, a half empty pasteboard box of ointment, some ergot and other drugs. Let us now take a glance at the average medical library after the physician has been in practice a decade or more. A few antiquated text-books, perhaps a number of the bound volumes of a medical journal and a heterogeneous collection of simple journals, and excerps from commercial firms booming their wares. Could anything else produce a deeper blush of shame that should never come off the physician's cheek, than his wonton neglect of his library? Hundreds of honest, hard-working physicians go through life with a grip and a collection of instruments, little if any better than the outfit of a nondescript tinker, and a library only the famished skeleton of what it should be. It may not be true that a good outfit will make a good doctor, but it is true that proper equipment is an immense aid to any man. Can't we learn something from the progressive farmer, manufacturer or merchant. There are farmers who spend more on a dozen of eggs, and ten times more on a well bred calf, sheep or pig, than his family physician does in a year on instruments or books. In large cities, individual industrial firms may spend more on one new machine than all the doctors put together do on their equipment. The result of this wise expenditure in these callings is seen in the trade returns. These returns used to be counted up by hundreds

of thousands, now by hundreds of millions. How can a physician expect a high rating in his profession if his skill is impaired by defective instruments, and if he allow his brain to stagnate and starve for want of suitable medical literature?

POST-GRADUATE COURSE.

In the preceding paragraph an effort has been made to point out the value of equipment in the way of instruments and books. These, by no means supply all a physician's needs. He must supplement them with a post-graduate course, if he wishes to have a high professional rating. Until now doctors have been obliged to go abroad for a post-graduate course, and very interesting, as well as intensely amusing, are the stories of the efforts many of these men have had to put forth to obtain the necessary funds for such a course. They have traded horses, hunted up insurance cases, sold sewing machines, organs or pianos on commission, also practised much self-denial. These men say now that it is far easier for them, without resort to any special efforts, to raise five or ten times the same amount for a second course. The reason for such a change in financial circumstances is not hard to find. On their return from the first course, they found themselves, not only better equipped for their ordinary work, but that they were also able to do a greater variety of work, hence an improvement in professional rating, or if a more mercenary explanation be needed, they were capable of earning more fees and larger ones. The medical faculty of the University has taken the first step in the way of providing a post-graduate course. This is certainly a movement in the right direction and should receive the most hearty support from the profession of Ontario. In June, for two weeks, a special course will be given in laboratory work, whilst in the different hospitals, clinics will be held. Some of these hospitals have special features. Sick children's hospitals with its cots, nurseries and play rooms; the Orthopedic with its appliances for treating deformitories, and the Western with its elaborate tent system for the open air treatment of disease. Any physician will find this course profitable, but it will be of especial value and interest to rural practitioners and those in towns and cities not engaged in active hospital work. Physicians will not only see much and hear much that will be of great value to them in their work, but will also find much social enjoyment in meeting old acquaintances, and in forming new friendships. To study the characteristics of the people we meet, especially those of our own craft, should be a very important part of our education.

ONTARIO MEDICAL ASSOCIATION.

The meeting of this association follows the post-graduate course. In the person of Dr. J. F. W. Ross we have an ideal president, cultured, progressive, courteous, and tactful. Under Dr. Ross and his active assistants success is assured. This meeting promises to be the best of the series yet held. Seventy-five per cent. of the physicians of Ontario will be in attendance if they fully appreciate the duty they owe to themselves and to their professional rating.

NOTES ON "BIOGRAPHIC CLINICS."

BY J. T. DUNCAN, M.B.,M.D.,C.M.,
Ophthalmologist to the Toronto Western Hospital, etc.

IN the spring of 1903 a book with the above title appeared, written by Dr. G. M. Gould, of Philadelphia. The book was a startling one, and attracted wide attention from the lay press. It was startling because it purported to give the underlying cause of the illnesses of some of the greatest of modern authors and scientists, namely: Carlyle, Darwin, Huxley, De Quincy and Browning.

Up to the time of the appearance of this book no one had suspected that the illnesses spoken of were other than affections of the stomach liver, heart or nerves.

About two months ago the second volume of Biographic Clinics appeared. In the preface to this the author complained of the way in which the first volume was received by the medical press. The medical editors either kept silent, gave a perfunctory notice of the book, hinted dissent, or were down-rightly contemptuous. A few welcomed and assented, but there was "hardly one that summarized for readers a clear and satisfactory statement of the thesis, facts and arguments of the book." Therefore, the author thinks that medical men generally are not in possession of the facts.

The author of these books is not a man of no authority. He is the editor of one of the best of American medical journals, he is the editor of the splendid medical dictionary bearing his name, and an ophthalmogist of very high standing. The ideas of such a leader of thought should be known, and most respectfully considered by every medical man. To this end the books shall be summarized as fairly and as briefly as possible.

A word in the first place as to what is meant by the term "Biographic Clinic." Essentially this means the study of the whole life, the

biography of the patient. This would be the biographic method of discovering medical truth—a "biographic clinic." Dr. Gould thus deals with this subject:—

"Most physicians busy themselves with the single illness of which the patient presenting himself complains, and medical practice consists almost always of such treatment of the temporary and single complaint. The repetition of the affection at a later time is treated in the same way. There may be some vague connection noted by the physician between the two or more illnesses, but, at least in cities, the rapid elimination of the old-fashioned family physician, who attended one patient and family for a lifetime, is fast making even that poor overlook impossible.

"Concurrent affections, and those of organs treated by specialists, were, moreover, not noticed, and a dozen symptoms of minor diseases were not thought of, or were listed as discrete, and without casual or related nexuses. If any physician rose to a philosophic gathering of the facts of his individual patient's several illnesses, he hardly succeeded in looking over the entire life, and subjecting the symptoms and diseases of the whole personality to a rigorous analysis and co-ordination.

"Lastly, none has ever thought of bringing a large number of clinical life-histories into comparison and producing a composite photograph of the complete pathologic findings. And just this method, one would think, would have been early seized upon as that certain to bring to view medical truths otherwise remaining hidden from the observer. The method as applied to fourteen patients with one disease, has yielded unexpected discoveries and demonstrated a unity of cause and of diverse symptoms that was wholly unforeseen."

The above is the method which our author has adopted in studying the lives of fourteen of the world's great literary workers, both men and women. And with what result? He claims to have discovered that every one of these whose lives are noted in his two books, suffered from eye strain, due generally to some form of astigmatism.

This result is surely sufficiently startling to demand the attention of every medical man. And every one must be interested in the answer to the question—is it true that there are so many cases of eye strain not diagnosticated?

Dr. Quincy is said to have suffered from some neuralgic condition of the stomach which caused him to become an opium eater (at one period of his life he took 340 grains of opium daily). Carlyle suffered agonies from what he calls "this infernal disorder of my stomach." Darwin had palpitation of the heart and a supposedly chronic stomach

trouble being liable to a "bad form of vomiting." Huxley had dyspepsia, and, as he himself says "an absurd stomach," while Browning was a martyr to headaches.

Turning to the second volume, it contains biographic notes upon George Eliot, George Henry Lewes, Wagner, Parkman, Jane Welch Carlyle, Whittier, Margaret Fuller Ossoli, and Nietzche. These all suffered from headache, sick headache, dyspepsia, nervousness, melancholy, and insomnia, as did those metioned in the first volume, spoken of above.

Every modern ophthalmologist knows that the symptoms just mentioned are those seen in connection with eye strain. But these same symptoms are seen in connection with other conditions of the system not dependent upon the eye. How, then, can our author consider them pathognomonic of ocular abnormalities? It would be impossible in an article such as this to give all the reasons—but two may be mentioned.

1st. The headaches, stomach troubles, the migraines, the palpitations of the heart, etc., ceased to a large extent just when the eyes were not used for near work, but returned when near work was taken up again. 2nd. The troubles of the patient ceased usually after 60 years of age, that is, when the ciliary muscle had lost its power of accommodation. Speaking generally, these 14 men and women lived lives of happiness after the period spoken of.

We are now, I think, prepared to consider these three questions:

1st. Is it true that eye strain was present in all of these cases?

2. Were there, in any of them, other factors causing suffering besides eye strain?

3. Is it true that, by proper spectacles, all the suffering could have been removed.

The first question must be answered in the affirmative by an oculist acquainted with eye strain. In other words, let a patient present himself to an ophthalmologist with a history such as has been picked out by our author from the writings of the men themselves, and a diagnosis of eye strain would be made in probably every case. This would lead to a thorough examination being made, by which means the truth, or falsity of the diagnosis would appear.

An answer to the second question could only be given after an examination of each individual patient. While admitting the probability—judging by the remarkable results of the biographic method of study as brought out by Dr. Gould—of eye strain being the underlying cause, he would be a bold man that would declare that no other factors were pre-

sent in some, at least of the cases presented. Only, we believe, by the combined efforts of the attending physician and ophthalmologist could this question be answered satisfactorily.

To answer the third question we should first have to know what answer had been given to the second. If no other factor existed, in other words, if eye strain was the cause, the answer is yes. For, in the the vast majority of cases, the strain can be effectually relieved, and the outward symptoms will thus be removed.

Dr. Gould has, by the publication of these books, rendered a notable service to medical science. He has done this in two ways.

In the first place, by giving to the world a new way or method of discovering medical truths, namely, the biographic method.

In the second place, by his discovery of the fact that many of the literary men of the past century suffered from uncorrected astigmatism.

Which of the two discoveries will ultimately be of the greatest benefit to humanity is a question open for discussion. The one may primarily advance medical truth, the other will directly benefit suffering humanity. For although the evils of uncorrected astigmatism are now recognized in many quarters, in some they are not realized. The latter discovery of Gould's, and the forceful way in which it is put, will certainly bring to the minds of medical men everywhere the importance of eliminating eye strain as a possible cause of anomalous nervous conditions, and will thus be the means of lessening the amount of suffering in the world.

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ARTERIAL DEGENERATION.*

By GUTHRIE RANKIN, M.D., Glasg., F.R.C.P. Ed., M.R.C.P., Lond.,
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THE arteries being physiologically related to every tissue of the body, their inflammatory and degenerative disorders possess more than local importance, while their pathological relationships extend far beyond the limits of the vessels themselves.

Disease of the arteries is specially associated with morbid processes of a degenerative type; hence the truth of the aphorism, that, "a man is only as old as his arteries." It depends upon a large variety of causes, of which the most important are syphilis, gout, alcoholism, lead-poisining, mechanical overstrain, the infective diseases, and senility.

*The Edinburgh Medical Journal, May, 1904.

The situation of the disease is in some cases determined by the cause. Thus, gout produces its most marked artertial changes in the vessels distributed to the kidney; syphilis, in the vessels of the brain; and mechanical strain, in the larger arteries, particularly the aorta.

Clifford Allbutt differentiates three forms of arterial sclerosis—(1) *Toxic*, the effect of lead-poisoning and of certain infective diseases; (2) *involuntary*, the results of senile decay; and (3) *secondary* the consequence of arterial hyperpiesis. Though these varieties differ, from the point of view of causation, their symptoms are so interwoven that clinically they closely resemble one another.

The three tunics—the intima, the media, and the adventitia—which compose the arterial walls may, each or all, fall under the influence of inflammatory processes, which are partly degenerative and partly regenerative. It is important to remember that in the aorta the intima is thicker, and the adventitia thinner, than in the smaller arterial vessels; that in the brain the arterioles are enveloped by a perivascular sheath; and that a congenital smallness of the arterial system—hypoplasia—is conspicuously associated with chlorosis.

Degenerative changes occur most frequently after middle life, and are specially apt to happen in those who follow laborious occupations, who have lived freely, and who have contracted or inherited syphilis. Certain families display an unaccountable tendency to early arterial decay.

The acute forms of arteritis are not common; they mostly arise, when local, from inflammation in the neighborhood of an artery, or from infective embolism such as often occurs in malignant endocarditis; and, when general, from such specific diseases as influenza, enteric fever, or acute rheumatism. The chronic varieties are the most important, and derive their interest mainly from the complex pathological condition of atheroma, in which so many of them terminate.

By some authorities atheroma is regarded as a morbid condition totally distinct from arterial sclerosis. Pathologically it may be so, but etiologically they are closely allied, and clinically they can seldom be differentiated. In many instances, the one is the direct consequence of the other.

No vessel is exempt from the possibility of degenerative change, but those that suffer most frequently are the aorta, the coronary arteries and the arteries at the base of the brain. The gastric, hepatic, and mesenteric vessels usually escape.

An artery, the walls of which have become degenerated, is hard and resistant; it is of large calibre, its tension is increased, and, to the naked eye, it is prominent, tortuous, and locomotive. So far as the

deeper vessels are concerned, the diagnosis of their condition can only be a matter of inference; but the occurrence of otherwise unexplained disturbance in an organ should always suggest that similar changes to those visible in the superficial vessels have become established in its capillaries and arterioles.

In every case of advanced atheroma, the aorta is involved. This is manifest by abnormal dulness over the manubrium sterni; pulsation in the episternal notch, or in the second right inter-space; and a muffled systolic murmur, followed by an accentuated second sound in the aortic area.

In consequence of increased peripheral resistance, the heart is hypertrophied, especially the left ventricle.

Most chronic forms of arteritis are probably associated with an altered quality of the blood. This is often dependent upon impaired metabolism, which in its turn is frequently due to toxæmia. Hubard's contention, that there is a prodromal stage in which increase in peripheral resistance is the result of irritative spasm, without actual organic change in the vessel walls, is therefore not unlikely, and is worthy of attention, because it indicates a primary stage during which much may be done to arrest or delay the degenerative process. When sclerosis is once established, it is incurable, and always tends to be progressive. In spite of it, the patient retains good health, as long as the cardiac hypertrophy is sufficient to counterbalance the increased peripheral resistance; but he is all the while living on the brink of a precipice, over which the most trifling occurrence may suddenly project him. The organ or tissue in the vessels of which the disease process has advanced furthest is obviously in greatest jeopardy. Dangerous developments are specially to be feared in the heart, brain, kidneys, lungs or lower extremities.

1. HEART.—The compensatory hypertrophy of the left ventricle, to which reference has already been made, is a physiological provision for maintaining the equilibrium of the circulation under pathological conditions. It does so successfully, often over a period of many years, but the compensation may fail at any moment; and though this is brought about by many causes, none is more frequent than advancing atheroma of the coronary arteries, in consequence of which the cardiac walls are inadequately nourished, and subsequently undergo fatty or fibroid changes. The ventricle soon fails to overtake the resistance in front; it empties itself imperfectly, and so there arises increase of internal pressure, which, acting upon softened walls, leads to dilatation with all the evil consequences of backward obstruction consequent upon such a catastrophe. A slow or arhythmic pulse, with occasional slight attacks

of dyspnœa and pain in the chest, is always suggestive of coronary implication in a patient who is the subject of thickening and tortuosity in his superficial vessels.

Besides dilatation, other serious cardio-muscular phenomena are liable to follow. Of these the most important are:—

(*a*) *Coronary thrombosis.*—This may occur at any time, though it is most frequent in advanced stages of atheroma. It is often responsible for sudden death.

(*b*) *Aneurysm of the heart.*—The degenerated myocardium may, under the influence of a very slight strain, yield at some specially weak point. An aneurysmal bulging results, of which there may be no symptoms until death suddenly occurs from rupture into the pericardium.

(*c*) *Angina pectoris.*—There is no difficulty in recognising this condition when it presents the classical signs of sudden præcordial anguish, pain radiating down the left arm, inability to lie down, and a terrifying sense of impending death. But in milder cases the præcordial distress is less pronounced, and, if not carefully investigated, is too often misinterpreted and erroneously attributed to rheumatism.

(*d*) *Stokes-Adams disease.*—In this rare condition, the symptoms referable to the heart are accompanied by phenomena referable to the brain. All the cases so far recorded have happened in patients of advanced life with atheromatous vessels. The pulse-rate is always phenomenally low—usually between 20 and 30, and occasionally even under 20—and is associated with recurrent cerebral attacks, which are, in some instances, vertiginous in type, in others syncopal, and in others again epileptiform. They are liable to be induced by slight exertion, or by any other circumstance which adds to the work the heart is called upon to do, and they are never followed by paralysis or other important sequelæ. The pathological explanation is, probably, degenerative disease, simultaneously involving the arteries responsible for the nutritive supply of the heart and of the medulla.

(*e*) *Aortic aneurysm, or valvular disease.*—The symptoms of both these conditions are well known, and though inaugurated by various other causes besides atheroma, become, sooner or later, associated with retrograde changes either in the walls of the aorta or in the cusps of the valves.

2. BRAIN.—Cerebral symptoms are many and various. The loss of elasticity and partial occlusion of the arteries of the brain, together with the enfeebled action of the heart, predisposes to cerebral anæmia. At first this is temporarily induced by physical effort or mental excitement, and may produce only a passing vertigo, monoplegia, hemiplegia, or

aphasia. Vertigo is a specially common symptom, and may be either simple, or accompanied by a permanent slow pulse and intercurrent syncopal or epileptiform attacks (Stokes-Adams syndrome).

As the arterial disease increases, it tends to produce a more chronic and permanent type of anæmia, which is manifested by mental apathy, irritability of temper, tremor, slurred speech, loss of memory, and headache of varying intensity,—a combination of symptoms closely resembling those met with in general paralysis. In still more advanced stages, degeneration of the cerebral vessels become responsible for (*a*) A constant risk of hæmorrhage, from rupture of a miliary aneurysm. Such a rupture may occur anywhere, and the consequent symptoms will vary according to its situation, but the lenticular artery more frequently yields than any other, and the consequence is hemiplegia. And (*b*) cerebral softening, from necrosis of tissue throughout whichever area is deprived of its vascular supply by occlusion of the vessels distributed to it.

3. KIDNEYS.—Renal symptoms supervene in large number of cases of arterial disease, and correspond to those we are accustomed to associate with chronic interstitial nephritis. The urine is abundant, of low specific gravity, contains an intermittent trace of albumin, and is liable to become deficient in urea. The general health continues good, even over many years, but the patient is never free from the risk of an acute nephritis or of uræmia. It is often impossible to be sure whether the arterial or the renal disease is the primary pathological event; either seems to be capable of producing the other.

4. LUNGS.—The pulmonary symptoms which accompany arterial degeneration are those indicative of bronchitis and emphysema, with all the concomitant dangers of right heart failure.

5. LIMBS.—Atheromatous changes in the vessels of the lower extremities, especially in the popliteal and tibial arteries, are responsible for the development of senile gangrene, which is often preceded by persistent and obscure anasarca of the ankles and legs. The tissue changes which are produced by chronic arterio-sclerosis often terminate in fatty and calcareous alterations in one or more of the arterial tunics. The vessels become hard, inelastic, and tortuous, and their walls are the seat, first of proliferative and afterwards of degenerative processes. The pathological sequence of events is thus succinctly described by Mott:—"It is primarily defective metabolism and strain. Physiological compensation—that is, increased functional activity of the left ventricle to overcome the increased peripheral resistance in the arterioles and capillaries—ensues and leads to hypertrophy of the muscular structures engaged, and to dilatation of the elastic aorta and large arteries. In the

second stage, there is thickening of the vessel wall, mainly of the intima, proportional and compensatory to degeneration of the muscular and elastic tissues. In the third stage, the compensation process fails, so that, should the patient escape the danger of cerebral hæmorrhage, he may succumb in the final stage to blocking of his coronary arteries and consequent cardiac failure. Herein the general deficiency of nutrition, which alters the whole metabolism of the body, leads of itself to the failure of the physiological compensation which had been set up, and the insufficiently nourished muscular structure of the heart is unable to overcome the resistance in front. Dilatation of the left ventricle then follows, and mitral regurgitation, congestion of the lungs (frequently emphysematous), and dropsy, partly cardiac, partly due to changes in the capillary walls and the hydræmic condition of the blood, complete the vicious circle."

Arterial degeneration has established relationships with so many varieties of disease, that it cannot be looked at, from the prognostic point of view, as an independent affection. The outlook is always most hopeful for those who are sufficiently well off to be able to shake themselves clear of occupations which involve mental or bodily strain, who can escape from the rigours of cold and inclement weather, and who, at the same time, are sufficiently disciplined to make good use of their leisure and to avoid excess of all kinds. When there is evidence of tissue changes in the brain, heart, kidney, or other organ, the prognosis is rendered thereby correspondingly grave. The more extensively distributed such evidence is, the more numerous are the dangers by which the patient's daily life is beset.

There is no difficulty in recognising arterial sclerosis when it has become developed in the superficial arteries. The occurrence of functional organic disturbances justifiably warrants an inferential diagnosis of arterial disease when the vessels which come within reach of physical examination are manifestly thickened. Persistent increase of arterial tension is significant of commencing organic changes in the vessel-walls. A hard, resistant, tortuous temporal or radial artery throws a flood of light on the probable immediate cause of an apoplectic seizure, or on such cerebral symptoms as vertigo, ephemeral aphasia, loss of memory, mental dulness, or persistent headache; on such cardiac symptoms as dyspnœa, præcordial pain, anginal attacks, or palpitation; on such nephritic symptoms as a copious secretion of pale urine, of a low specific gravity, containing occasional traces of albumin; on such pulmonic phenomena as emphysema, breathlessness, and cyanosis; and on such peripheral symptoms as coldness, blueness, and ultimate gangrene of a limb.

The following points may be noted as of prominent diagnostic importance:—

1. The patient is past middle life or bears the stigmata of premature senility.

2. The superficial arteries are hard, prominent, tortuous, and locomotive.

3. The pulse is resistant, of high tension, of a variable rhythm and of diminished amplitude.

4. The heart is hypertrophied, especially the left ventricle. The second aortic sound is accentuated, and, if dilatation takes place to any degree, a systolic murmur becomes established either at the apex or in the left auricular area.

5. Organic manifestations are frequent and diverse. They vary according to the seat of maximal distribution of the diseased vessels.

6. There is, in a large proportion of cases, a history of syphilis, alcoholism, or physical strain. In many, the patient pleads guilty to all three.

7. There may be a family history of gout or of some other constitutional instability, which conduces to imperfect metabolism.

In the matter of treatment, the first recommendation which should be made to a patient suffering from degenerated arteries is that he should avoid stress of all kinds. He should lead a quiet and uneventful life, curtail his business responsibilities, avoid every form of dietetic excess, and take a reasonable amount of exercise in the open air. Alcohol is contra-indicated, and if taken at all, must only be indulged in with meals and in small quantity. The food should be varied and simple, and red meat is best minimised, especially in patients of a gouty diathesis. The bowels must be thoroughly evacuated once a day, and a course of simple tonics—quinine, arsenic, strychnine, phosphorus, iron, the mineral acids, etc.—given now and again to promote the maintenance of nutritional activity.

Apart from these general principles, each case must be dealt with according to its special indications. When anginoid attacks follow on vertigo and dyspnœa, and are accompanied by a high tension pulse, the patient should be kept in bed, fed on simple food, and ordered the following mixture, three or four times in each twenty-four hours:— Iodide of sodium 10 grs.; solution of nitro-glycerin, 1 per cent., 2 minims; Fowler's solution, 3 minims; decoction of bark, 1 oz. He should also have 1 gr. of calomel at bedtime, every night for a week, followed in the morning by a sufficient dose of sulphate of soda or sulphate of magnesia to ensure a satisfactory result. If compensation has broken down and

there is evidence of cardiac dilation, digitalis should be given, and its constrictive effect upon the arterioles may be counteracted by combination with nitro-glycerin; tincture of digitalis, 15 minims; solution of nitro-glycerin, 1 per cent., 1 minim; solution of strychnine, 5 minims; peppermint water, 1 oz. This mixture should be taken every six hours, until the regularity of the pulse becomes re-established; it may then be continued in half doses until the pulse-rate has become normal, when it should be replaced by some such combination as this pill:—Reduced iron, 4 grs.; extract of strophanthus, ¼ gr.; strychnine, 1-30 gr.; extract of rhubarb, ¾ gr.—To be taken three times a day after meals, Stimulants are necesary, as a temporary measure, and are best given in the form of champagne or brandy, in such amount as the necessities of the condition demand. If the cardiac failure has gone so far as to produce engorgement of the liver and lungs, with dyspnœa, cough, and cyanosis, venesection should be adopted without hesitation, either by the abstraction of 8 or 10 oz. of blood from the median basilic vein, or by the application of eight or ten leeches over the tender edge of the liver.

The treatment of cerebral manifestations, aneurysm, thrombosis, renal disease, emphysematous bronchitis, gangrene of the limbs, etc., must be carried out on general principles, but with a full appreciation of the leading etiological relationship in which arterial degeneration stands to each and all of them.

If it be borne in mind that persistent increase of tension in the arterial system is the constant forerunner of changes in the vessel walls, something in the way of preventive treatment may be possible of achievement. The patient should have his position fully and candidly set before him, and ought to be made clearly to understand that his future health is very much in his own hands. A life of careful and uneventful regularity, frugal meals with special moderation in the nitrogenous elements of food, freedom from excess of work and worry, and the maintenance of the ordinary bodily functions in normal activity, will do much to stave off the evil day of incurable atheroma. Where there is a clear history of syphilitic infection, short courses of iodide of potassium and mercury should, from time to time, be prescribed. If such a patient desires to give himself the best chance of a long life, he ought to abstain wholly from alcohol and tobacco. Note should be periodically taken of his pulse, and any excess of tension reduced by a few evening doses of calomel and short course of iodide of sodium and nitro-glycerin.

THE X-RAY TREATMENT OF CANCER OF THE SKIN.

By Dr. LEREDDE, Paris.

THE communication which I have the honor of presenting to the Academy of Medicine, is intended to show the utility of radiotherapy in the treatment of cancer of the skin and to mention some interesting facts deduced from 15 cases treated during the last few months.

The treatment of epitheliomata of the skin, by the x-rays, practised for some years in Germany, Austria, England and the United States, and which has met with an increasing favor in these countries, has now been accepted in France. It is well to make known both the advantages and disadvantages of this method of treatment, and to lay down the indications and contra-indications for its use. The literature at our disposal is sufficiently abundant to justify us in considering radiotherapy as an excellent curative agent in skin cancer and as being often preferable to all others.

I shall not dwell on the history of the subject, but shall merely mention that the bibliography is now considerable.

The x-rays may be dangerous if the technique of their employment is defective. In France, the fear caused by the accidents due to radiotherapy has been such as to render its study peculiarly difficult. But the technique has now become so perfect that the dose can be regulated and the action measured.

The therapeutic studies having been pursued at the same time as those devoted to the technique, we need not be surprised to find that the doctors who employed the x-rays remained for considerable time very cautious.

It is time to ask if the x-rays should always be employed in preference to all the other means which have been shown to be capable of curing cutaneous epithelioma. All sources of the x-rays can furnish rays of sufficient penetration to be utilised for radiotherapy.

The early observers were very soon in accord as to the necessity of employing soft tubes. The sittings were always long, and made at long distances, for example, 3 to 5 minutes each day at a distance of 20 to 30 centimeters. In these conditions, the cure of an epithelioma might take 6 weeks or 2 months.

Freund, in his recent book, declares that in the treatment of epithelioma as well as in that of lupus erythematosus, we may employ two methods: the one mild, the sittings being short and made at a long distance from the tube; the other strong, the sittings being long

and made by the patient being close to the soft tube. The first is preferred in lupus and epithelioma.

In the important discussion which took place at the 27th meeting of the American Dermatological Association, the speakers appeared mostly to employ the mild method, though certain ones remarked that in some cases the duration of the treatment might be very much shortened.

In the treatment of lupus, the choice between the two plans is often difficult, as the more intense method does not always secure the most rapid cure, because the injuries which it gives rise to, require a long time to get well. In the treatment of epithelioma the case is quite different, for experience has shown that the reparation has been more rapid just as the rays have been more freely used.

Brocq has published a method in which he employs a rapid technique of two sittings of 5 to 20 minutes. The sittings are afterwards resumed in a fortnight to accomplish a cure. The later treatments are short.

For my own part, in the therapeutic researches which I have made along with any assistant, Dr. Donat, I have come to the same technique, only that a few short sittings are made at the commencement at a great distance from the tube. Then a couple of treatments of 20 or 25 minutes are given at a day's interval, and 2 centimeters from a Villard's tube. It is possible in this way to obtain a cure in three or four treatments in some epitheliomata of adults.

It is possible that a cure might be accomplished in a single treatment in some forms of cutaneous epitheliomata. But to secure such a result it would be requisite to distinguish between the different clinical forms. There are some epitheliomata of the skin that are, to a certain extent, quite resistant to the x-rays, and it is important to know them. On the other hand, to act too energetically there is the risk of doing injury to the normal tissues adjacent to the neoplasm. It is much better for the operator, who is not absolutely sure of his technique, to avoid these injuries.

I have given the name of adult epithelioma to those neoplasms in which there exists an ulceration, covered or not by a crust and limited by a hard border. All epitheliomata of the skin may take on this phase, when it may become dangerous, invading and penetrating, though most frequently they remain mild. These are the epitheliomata which are remarkably relieved by radiotherapie.

When we sum up the matter some interesting effects are noticed according to the freedom with which the rays are administered. One of these is the exudation, sometimes considerable, which takes place. The

freer the exudate the more rapidly the induration disappears. I have seen a case with Dr. Donat in which there existed an epitheliomatous nodule the size of a large pea, on which there was a crust, improve at once; the crust fell off, the exudation was continuous, and the nodule disappeared in some days.

It is well to recall that pain and bad odor disappear if these are present. One of the best effects of the use of the x-rays, both in superficial and deep cancers, is the relief of pain, though we do not know the *modus operandi* by which this happy effect is accomplished.

Everyone knows that the x-rays act on the tissues without inducing painful phenomena, except in the case of acute radio-dermatitis. The total absence of pain during the course of treatment is of much importance and may induce the medical attendant to prefer radiotherapy to all other surgical proceedings, or the use of caustics. But in addition to the avoidance of an operation, which is very important to some patients, there is the valuable æsthetic results.

For one who studies the radiological treatment of cutaneous cancers it is curious to watch the reparation of the tissues under full treatment. In one case the patient presented an epitheliomatous ulceration on the side of the nose, sufficiently deep to admit the end of the little finger. As soon as the treatment was commenced there was an abundant exudate and the bottom of the ulcer gradually filled up to the level of the sound skin. The patient is cured and presents only a slightly depressed cicatrix, scarcely visible

In all the cases, the esthetic results are admirable. It is no exaggeration to employ this term. The perfection of the cicatrices, appear to me, to be very remarkable in epitheliomata of the nose. By no other means can we obtain equal results.

Of all the advantages of radiotherapy, the most important is the habitually definite character of the cure. This radical cure is not constant, as in some cases there is a return, but for the most part due to the too cautious or reserved employment of the rays. These cases are rare, according to the authors who have studied the question. Let us notice here to what extent the elective action of radiotherapy is manifested over epitheliomatous tissues. All the cancerous cells are eliminated or absorbed, as it appears, from a phagocytic process, and the smallest of the disturbing foci are destroyed.

If, in every case of cancer of the skin, one could obtain a definite cure of the lesions by a single treatment of radiotheraphy of 50 minutes, or an hour, the sitting being painless, even causing the disappearance of the pains due to epitheliomata to cease when these exist, with a perfect

æsthetic result, there would be nothing further required but to abandon all the former methods of practice. The question is not, however, quite so simple and among these methods some will point out their own indications.

In the first place, what ought one to do in epitheliomata complicated already by disease of the lymphatic glands? One may not know whether these glands are cancerous or not, and in this state of doubt it is right to intervene with the knife. It might be possible by vigorous efforts to treat the initial focus by radiotherapy. But for what good? Far better to remove all by a single operation.

The contra-indications as regards radiotherapy, at least as the exclusive method, appear to exist in the initial epitheliomata that are very dry, hard and rich in corneous substance. On this subject I shall recall an instance that interested me very much.

I was engaged to give some treatments by radiotherapy to a patient afflicted with vegetating epithelioma of the tongue. Of these epitheliomata, three in number, one was papillomatous, presenting no hard covering; the other two, on the contrary, were covered by a corneous case. Treatment by x-rays was given to all at the same time. In two or three treatments of 20 minutes, the first focus began to disappear, the epithelial tissue disintegrating. At the same period the other tumors had completely resisted the action of the rays, continuing to resist for several additional treatments.

I have had charge of some small, hard epitheliomata and the cure has been slow to obtain by means of the rays

These contra-indications deserve to be considered on account of their value Our experience with radiotherapy is not yet great enough to enable us to point out its exact limitations. It will be necessary first to study its action in all the forms, varieties and types of the disease.

American authors have insisted on the success of radiotherapy in cancer of the lower lip In some cases this treatment appears to ameliorate the progress of the disease. There are some instances of cure of these cancers by this method, but it is much better to have recourse in all these cases to surgical intervention.

Among the forms which are specially improved by radiotherapy, I would point out those which occur on the eyelids. However perfect may be to-day the surgical technique in these forms, there always remains some contraction of the ocular orifice, which can often be avoided by the use of the x-rays.

By reason of its elective action on epitheliomatous tissue, radiotherapy may be employed as a secondary method of treatment to destroy what might remain of the neoplastic foci. Ablation is almost always

when it is performed freely, sufficient to obtain a cure without further return. Yet in all cases of doubt the surgeon will do well to make use of the x-rays to complete the cure. Curettage and chemical and thermic caustics can often remove a small amount of diseased tissues, restraining the return for some months. The cure would be almost certain if the action of these was completed by the use of the rays. They can be used in the epitheliomata of which I spoke a moment ago, as all cutaneous cancers contain some tissues which disappear under their influence.

In fine, radiotherapy furnishes us with an admirable method of treating cancer of the skin, of which the techniqe is almost settled, whose indications and contra-indications are nearly determined, and which brings considerable progress to the therapeutics of this malady.

THE TREATMENT OF THE PARAPLEGIA OF POTT'S DISEASE.*

By JAMES K. YOUNG, M. D.,

Professor of Orthopaedic Surgery, Philadelphia Polyclinic; Instructor to Orthopaedic Surgery, University of Pennsylvania; Clinical Professor of Orthopaedic Surgery, Women's Medical College of Penna.

THE paraplegia which complicates Potts' disease is of great interest since it is an affection of rare occurrence, under efficient conservative treatment. In mild cases its course is extremely favourable, and even in the severe degree, recovery usually occurs if treatment be begun early. Without treatment, or where treatment has been inefficient, the progress of the disease is very distressing and the prognosis hopeless.

The characteristic symptoms of paraplegia of Pott's disease are those of compreson, myelitis, partial motor palsy, increased patellar reflex, ankle clonus, complete motor palsy, contracture of muscles, atrophy of paraplegic muscles, and loss of sensation. The Babinsky reflex may be elicited from the beginning of the increased patellar reflex, as long as sensation remains. In one patient under my observation, where it was equally present on both sides, and irritation of the sole of the right foot would sometimes produce a reflex of the left extensor of the great toe, although this unusually indicates degenerative disturbances of the motor tract, yet this patient has since entirely recovered from the paraplegia.

The latter stages, which are met with in neglected cases, are complete anæsthesia, incontinence of urine and fæces, pressure bed sores, chronic cystitis, septicæmia, and death from asthenia.

The pathological condition present has been very thoroughly studied. In many cases pachymeningitis and myelitis are present in the cord at the seat of the caries. In others, pressure myelitis occurs from

* The Therapeutic Review, April, 1904.

abscesses or tubercular masses pressing upon the anterior surface of the cord. Very rarely, indeed, is the cord lesion due to direct pressure of bone, the bony canal is seldom narrowed by the deformity, the paralysis may occur before the deformity, and some patients, with extreme deformity, do not suffer from this complication, especially where abscesses occur and discharge upon the surface of the body. In the cervical region dislocation of the odontoid process of the axis may occur.

The average proportion of causes would be about 78 per cent from compression, and 22 per cent. from such causes as meningo-myelitis, œdema, hæmorrhage, sclerosis or diffuse softening of the cord itself. The compression would be due in about 66 per cent., to caseous tubercular pachymeningitis, produced by contiguity, 10 per cent. due to dislocation of the axis, and only 2 per cent. to direct bony pressure from the deformity itself.

From the foregoing brief resume of the pathological findings in this affection it is evident that the condition requiring treatment is not always the same.

Prophylaxis.—The advent of palsy may often be prevented if the earlier symptoms of inefficient treatment, or the increase in the symptoms of the disease are recognized. The presence of pain, or "breath catch,' indicate the necessity for recumbency, and if the patient is put to bed at this time, palsy will often be prevented.

Recumbency.—The first symptoms of palsy, slight loss of power with exaggerated reflexes and ankle clonus, are an indication for recumbency. The patient should lie upon a firm mattress and the upper portion of the bed should be slightly elevated. Extension of the body should be made with a head extension apparatus, preferably of the Hilliard type, attached to a yoke and bearing a weight of from three to nine pounds, according to the age of the individual and the sensation of comfort given by the extension.

Instead of a firm mattress the patient may be placed upon a gas pipe frame, covered with canvas, so that he may be carried into the open air or placed upon a special wheel couch. The benefit of recumbency may be very much enhanced by making gradual extension of the spine backward by bending the frame upward at an angle. The patient rests upon the angular portion of the canvas and the extension backward is made by the upper and lower portions of the body. The direct extension of the deformity may be increased by the use of small felt pads, sand bags, or a small pillow of hair. When the disease is in the lower portion of the spine, extension from the legs is sometimes of advantage. If the patient rests upon a canvas covered frame it should contain a canvas portion, fitting the front part of the body, in order to secure the patient perfectly to the apparatus. In children an exact outline of the body may be made with

plaster of Paris, bandages applied to the back, with the patient in the supine position, and after this is hardened and trimmed, it may be used as a fixation apparatus.

Apparatus.—Since the occurence of paralysis is an indication of the inefficiency of the treatment, and in some cases of the fitting of the apparatus which has been worn, it is important that the apparatus should be suitable for the disease, and that it should be thoroughly fitted. The greatest difficulty with apparatus is that it usually permits of movement of the spine. A spinal apparatus for disease in the cervial region usually consists of two parts, a body portion and a head portion. The head portion should always be fixed so as not to permit of motion in the cervical region. Apparatus of this kind cannot be worn in bed with comfort, so that it is sometimes best to make an apparatus of felt enclosing the body, the neck, and the head. Too much attention cannot be given to the fixation of the neck in all cases where the disease is above the mid-dorsal region. If the disease is in the dorsal or lumbar region the apparatus should be carried as high up on the shoulders as possible, and the scapulae should be fixed by pressure pads. Apparatus for dorsal and lumbar disease may be worn in bed with extension, but in the lumbar region a plaster of Paris cast will sometimes prove quite as efficient as any other form of fixation apparatus.

Suspension.—When the disease has gone on to a loss of sensation, great benefit will be obtained by the use of suspension as applied by Charcot, Wood, and others. The patient may be suspended by the head and arms, daily, for from ten to twenty minutes. This is most useful in adults, but since the introduction of the gradual backward extension by means of the bent tray it has not been so much employed. When the palsy has reached the stage of loss of sensation the use of hot and cold applications to the spine, as practised by S. Weir Mitchell, will also be found of the greatest service. Large compresses wrung out of hot water are applied over the region of the deformity for from three to five minutes. The part should then be rubbed with ice for the same length of time, and each of these applications should be repeated once. The improvement in the circulation of the spine and the absorption of the œdema, are often very marked after the application of this form of treatment.

Massage of the spine and limbs is useful in the later stages of the disease, but is not of much benefit until after the sensation has returned. Electricity is also used in the later stages, and seems to hasten the recovery, but it is not of much benefit in the earlier stages.

The use of cod liver oil in the treatment of tuberculosis of the spine is quite as beneficial as in tuberculosis elsewhere. Its use should be

continued as long as the patient's digestion can bear it, or until the advent of warm weather, when it is best to substitute syrup of hypophosphites, calcium, potassium, sodium, manganese, etc. The iodide of iron, either in the syrup or in pill form, gelatine coated, will be found of benefit in conjunction with the use of cod liver oil.

The use of large doses of iodide of potassium is extremely satisfactory in the treatment of this palsy. The dose should be begun with from three to five grains three times a day, and gradually increased until from twenty to sixty grains are taken three times in twenty-four hours. At one time it was thought that iodide of potassium was not of much service where the disease was known to be of tubercular origin, but later experiences seem to prove that it is equally as useful where the tubercular diagnosis is established. The use of mercury and arsenic are sometimes of advantage, and the mercury may be given in the form of the bichloride in small doses combined with bromide of potassium When mercury is used it should be given on alternate weeks or an interval may sometimes be allowed to elapse between the exhibition of the two drugs.

When the power has returned to the limbs the patient should not be placed upon his feet too early. The persistence of ankleclonus is an indication that the time has not yet arrived for the patient to assume the upright position. The first efforts at walking may be aided by the use of a suspension apparatus or trolley extension. The use of crutches is not to be recommended because of the motion in the scapulæ and back muscles.

The advantages of sunlight and fresh air are always to be employed where it is possible, and to this end the patient's bed should be so arranged as to get the benefit of these elements, or if he is placed upon a small canvas tray he can be carried into the open air, or taken out upon a specially constructed coach.

A change of climate in some instances is of signal benefit, and a residence at the seashore is often advantageous. But the advantages of the seashore are not so great in cases of Pott's disease, suffering from paralysis, as in those suffering from abscess. When there is an abscess pressing upon the cord the improvement in the general health, from the beneficial effects of the air, may be manifested by the disappearance of the paralysis from the absorption of the abscess and the shrinkage of the sac.

Forcible Correction.—When the paralysis has existed for some time and has not improved under the methods which have been suggested, there remain two methods of treatment which are beneficial in some instances, forcible extension, and laminectomy. If the paralysis has existed for a year without any improvement, forcible correction of the

deformity may be undertaken with an anæsthetic, with a probability of improvement. The amount of force which is used need not be so great as was employed in the method of Calot, where great damage to the structures has sometimes resulted. The amount of force will be determined by the yielding of the deformity, and two or more attempts may be made before resorting to laminectomy.

Laminectomy.—If all the measures suggested have failed, removal of a portion of the vertebra may be considered. If the pressure be due to a mass of tuberculous matter pressing upon the anterior portion of cord, laminectomy will not prove of much value unless this mass can be reached and removed. If the pressure be due to an intra-spinal abscess, great benefit may result from the opening of this abscess after the cavity has been exposed by the operation. The occurrence of contractures coming on early may be considered as an indication for this operation.

Where the pressure upon the cord is the result of an abscess pressing upon its interior surface, the symptoms will sometimes indicate its presence. The angular deformity will show itself before any signs of paralysis are manifest, and the paralysis after its institution, will exhibit fluctuations which may be due to the changes in the tension of the abscess sac, and it sometimes suddenly disappears from the bursting of the abscess and the relief from pressure. Where the paralysis is due to pressure from a cheesy growth, it sometimes occurs before the deformity is evident, and the fluctuations do not occur but the disease pursues an even course toward the final destruction of the nervous functions.

If the operation be postponed until the cord has become disorganized, it will be of doubtful benefit, and for this reason, if the loss of sensation has lasted for some time, and marked rigidity has occurred, the operation should be considered earlier. Following the operation the improvement is not always immediate, and recumbency with extension should be continued. Where abscesses have been found, in addition to laminectomy, portions of bone may sometimes be removed and drainage be instituted from the anterior portions of the vertebrae.

The recovery from paraplegia is usually complete, but recurrence may occur two or more times in the same individual. In order to prevent recurrence, treatment should be continued for years. To this end, an elastic spine brace should be worn until full growth is attained, in order to remove the superincumbent weight, to strengthen the spine, to arrest the formation of secondary curves, and to render the spine more efficient. After the full growth has been attained, the height should be taken once a year, as suggested by Biggs, on the same date, at the same time, and under the same conditions, and any variation more than 1-32 of an inch would be an indication to consider the resumption of a support.

CURRENT MEDICAL LITERATURE

MEDICINE.

Under the charge of A. J. MACKENZIE, B.A., M.B., Toronto.

THE DETECTION OF EARLY TUBERCLE IN THE LUNGS.

In the *B. M. J.*, April 2nd, Owen, of St. George's Hospital, delivered a clinical lecture on this subject which is full of valuable, practical points and lessons, drawn from the author's experience. A few of these we note as follows: It is incorrect to use the terminology "stages" in speaking of diseased lungs, the marked histology of almost every specimen is a mixed one and each case will show parts in a variety of 'stages.' The progress of pulmonary tuberculosis in almost all cases is an intermittent one, it begins with a small lesion and at first spreads slowly by the lymph channels. Nodules tend to coalesce into larger masses which break down at the centre, caseous matter is unorganizable and, in large masses, unabsorbable, remaining permanently infectious. The extension from these masses is concident with a lowered condition of health and followed by a fresh accession of symptoms, as the disease goes on this becomes more frequent and we get a change from the intermittent to a remittent form. The initial attack we rarely see, and it is not till haemoptysis or some other symptom intervenes, that the diagnosis is made. The exception to this history is the broncho-pneumonic case.

Consolidation is the name applied to the condition produced in this way, and physical examination is a search for signs of this condition; the author's method is to follow inspection with stethoscopic examination, following this with percussion and palpation. The signs are tubular breathing, bronchophony and dulness. Tubular breathing indicates a consolidation of that part of lung tissue between the bronchi and the surface; very superficial consolidation which does not reach so far as the bronchi will not transmit this sound while deep consolidation may give it faintly. Mere prolongation of expiration does not indicate consolidation nor does harsh breathing in which the harshness is heard only in part of expiration, The pitch in tuberculous consolidation is lower than in pneumonia or pleurisy.

Vocal resonance is normally heard since the healthy lung transmits this on account of its loudness though failing to carry the sounds caused by expiration, and deep consolidation may give as its signs increased

vocal resonance though no tubular breathing is heard. the value of vocal fremitus in the diagnosis of early lesions is nil.

The results of percussion frequently do not agree with those of auscultation—where there are marked ausculatory signs of consolidation but no dulness. There may be compensatory emphysema, where the reverse is the case there may be a thickened pleura. The differences between light and heavy percussion will frequently give the solution of the difficulty. Temporary changes are still more puzzling but may be due to the extent to which an emphysemotous patch is dilated with air.

The determination of the character of the consolidated areas will depend on other signs, chief among these being crepitations and rales. These do not always indicate breaking down, they are frequently found in the zone surrounding an active focus, and are caused by exudation due to the inflammation. "Clicks" at the end of inspiration are formally diagnostic of tuberculosis. These signs are not conveyed far from their place of origin, hence the differentiation between them and sounds originating in the bronchi. Rhonchi, due to tuberculosis, remain in the same, those due to asthma appear and disappear. In the adult a rhonchus which changes pitch during the sound or is accompanied by clicks or creaking sounds is very suggestive of tuberculosis.

THE COAGULATION TIME OF THE BLOOD IN PREGNANT AND PUERPURAL WOMEN SUFFERING FROM ALBUMINURIA AND ECLAMPSIA.

Report LXXXI of the Scientific Grants Committee of the British Medical Association is made on this subject by Douglas regarding certain investigations pursued at the Glasgow Maternity Hospital, and it is reported in the *B. M. J.*, March 26th.

The pathiological changes associated with these clinical conditions have been described as minute capillary thrombi, most frequently in the liver, but also in brain and kidneys, and ascribed to an increased coagulability of the blood, due to the presence of toxins originating in the placenta. The most noticeable changes in the blood of women during pregnancy are briefly as follows :—

(1) The volume of the blood is increased one to two per cent.
(2) The percentage of haemoglobin is maintained or increased.
(3) The number of erythrocytes may be slightly diminished.
(4) The leucocytes are increased.
(5) The density of the blood is slightly decreased.

(6) The coagulation time has hardly been worked out at all. The author's examinations showed in the puerperium that the time was lengthened at first, till it attained a maximum, and then gradually shortened again. No difference of importance is to be found in those cases in which albuminuria or eclampsia was present during the puerperium or during pregnancy, the average time, 7.3 minutes, differing very little from that in healthy women. For this reason Dr. Douglas thinks that there is nothing to support the contention that the thrombi found in certain organs in fatal cases of eclampsia are due to increased coagulability of the blood.

LEUCOCYTOSIS.

In the University of Pennsylvania, *Medical Bulletin*, March, Silverman gives a report of a number of experiments in the induction of toxic leucocytosis by the injection of putrid serum. The most practical of his deductions is that the decrease in the number of leucocytes in the beginning of leucocytosis is due to their obstruction and imprisonment caused by the narrowing in the lumen of the capillaries, owing to the irritation of the endothelium by foreign toxic substances.

CERVICAL RIBS.

In the University of Pennsylvania *Medical Bulletin* for March, Riesman reports a case in which a supernumerary rib was found on each side in articulation with the seventh cervical vertebra. The right was larger than the left, coming forward as far as the middle of the clavicle, with the subclavian artery passing over it. The left did not come so far forward, the jugular vein passed just in front of it and the transversalis colli artery below it. There was no spontaneous pain on either side nor difference in the pulse, but pressure over the right if compressing the artery caused severe pain radiating down the arm.

Anatomical history and literature seem to show that the condition is not a rare one, the cases reported are more frequently on the left side and in women. A study of the literature shows that: (1) Cervical ribs may exist without producing symptoms. (2) When present the symptoms are local and functional. (3) The local symptoms are a hard prominence above the clavicle and a visible pulsation high in the supraclavicular fossa.

(4) The functional symptom are circulatory and nervous.

(5) The principal circulatory symptoms are feebleness oran absence of the pulse, coldness of the extremity, at times cyanosis and oedema.

(6) The principal nervous symptoms are pain in the distribution of the brachial plexus, together with paraesthesias, such as numbness and formication, and awkwardness in the use of the hand, in some cases weakness and atrophy.

(7) In cases of brachial neuralgia the possibility of the presence of a cervical rib should be considered.

(8) The treatment except in the mildest cases is excision of the ribs. This was done in 22 out of 45 cases and in the majority with success.

DIETETICS OF GASTRIC DILATATION.

In the Journal of the *A. M. A.*, March 26th, Turck discusses this subject from the physiological point of view, and arrives at some conclusions that seem rather novel.

Atonic dilatation is due to lack of tone or "tonus" which is a condition of continuous contraction in unstriped muscle fibre. Movements of the stomach are due to peristalsis; opening or closing of orifices may result in chemical stimulation, but movements of the stomach in common with those of all hollow viscera are due to tension, and this tension comes from fulness. The relation of the nervous mechanism is not, as yet, definitely decided.

The mechanical work of the stomach may be divided into three stages: (1) Distension; (2) Expulsion; (3) Relaxation. Increased work causes hypertrophy up to a certain point, beyond that—fatigue, atony, dilatation, and this is the effect of prolonged intermittent tension. Increased quantity taken does not proportionately increase the duration of sojourn of food in the stomach. To overcome fatigue, rest is necessary, and more rest—longer periods of rest when fatigue has been followed by atony and dilatation.

On these facts Dr. Turck establishes his theory of dietetics—instead of frequent small meals—he advises, at most, two meals a day as large as appetite demands; of course, of a suitable character. In some cases there is complete anorexia, and in these it has been found, in many cases, that they are revived and improved by a method of forced feeding, described as follows:—

"One hundred grains of meat are first ground and placed in water for a few hours. The extractives are pressed out by a meat press and discarded; part of the albumin is lost, but this can be made up. Discarding the extractives lessens the irritation of a meat diet; 300 c.c. of milk are coagulated with rennet and shaken up to a liquid state and heated. Crackers are pulverized; one or two hard-boiled eggs are finely

grated; bran is added sufficiently for "ballast." This is placed in a wide-mouthed bottle and thoroughly shaken. A cork is tightly fitted with glass tubes, a rubber atomizer bulb is attached to one of the glass tubes, the other fits into the stomach tube, and the food is forced into the stomach by air pressure, which also keeps the glass tube from becoming plugged. Thus solid food can be given. Weak, jaded patients with complete anorexia and apparently no digestive energy, endeavoring to exist on the spoonful system of diet frequently exhibited, will by this method of forced feeding begin at once to show a desire for food. The exercise of the stomach brings about restoration of the digestive functions, and the patient soon begins to take his food independently with a relish."

Moreover, by this system of longer intervals, there is an opportunity allowed the stomach for autosterilization.

In addition to this lavage, faradic and galvanic treatment. help to increase tonic and peristaltic activity.

TESTS FOR ALBUMIN IN URINE.

In the *B. M. J.*, April 16th, there is an article by Murray of Aberdeen, calling attention to the great possibility of error in the ordinary heat-acid test for albumin in urine. It is found that the addition of either too much or too little acid vitiates the result, as the precipitate formed is at once re-dissolved.

In a series of tubes on boiling these results were obtained: (albumin .2 per cent.)

A	10 cc. m. of urine	+ 1	drop	HNO_3	No coagulation.
B	"	+ 2	"	"	"
C	"	+ 10	"	Coagulation.	
D	"	+ 12	"	"	
E	"	+ 30	"	No coagulation.	
F	"	+ 40	"	"	"

Acid-albumin had been formed in A and B as could be proven by various tests. The albumin in the cases E and F were changed by the powerful acid to some different product as in the xantho-proteic re-action.

The explanation in the cases C and D is that acid-albumin is coagulable by heat in the presence of a considerable amount of nitric acid —a fact that is contradicted by most text-books.

To avoid this uncertainty of result one should use weak acetic acid (2-5 per cent.) or a 5 per cent. solution of acid sodium phospate added after boiling.

The author advises as a routine test a saturated aqueous solution of

salicyl-sulphonic acid, adding a few drops at a time in a very small test tube. If no precipitate occurs there is no proteid present, if there is a precipitate the tube is boiled to distinguish albumin, which does not disappear until it cools.

SURGERY.

Under the charge of H. A. BEATTY, M.D., M.R.C.S., Eng.
Chief Surgeon Canadian Pacific Railway, Ontario Division : Surgeon Toronto Western Hospital.

DIABETIC DIET.

In the Journal of the *American Medical Association* for March 26th Crofton gives a very valuable paper on this subject.

Starting with the familiar facts of normal nutrition, namely, that the normal adult requires 30 to 35 calories a day per kilo of body weight—or rather the amount of food required to produce this amount of same, of the classes whose value is as follows :—

1 gr. proteid furnishes - - -	4.1 calories.
8 gr. carbohydrate furnishes - -	4.1 calories.
1 gr. fat furnishes - - - -	9.3 calories.

We must deduct the amount lost in sugar in the diabetic. If the patient excretes 160 gr. sugar there is a loss of 656 calories, or a deficit in the ordinary food supply (150 gr. proteid, 190 gr. carbohydrates, 110 gr. fat, totalling in all 2417 cal.) of 339 cal. for a person of 60 kilo weight. These deficient calories must be supplied or the patient will waste, live on his albumin and fat, hence the emaciation we see in these cases and the palyphagia that is a frequent accompaniment.

If diabetics could use none of the sugar in their blood the problem would be a simple one. As a matter of fact, only the most severe cases are unable to use any, so we must determine the exact tolerance of the body in order to know how much carbohydrate. To determine the amount of sugar in the urine that is derived from the tissue we must equilibrate the nitrogen intake and output. From 150.9 proteid there is derived 24.09 N., if more than this is excreted in urine and fæces this represents tissue loss.

Normally the body disposes of sugar from two sources—from food and from muscle waste, by storing part as glycogen, burning part and transforming part. In a mild diabetic withdrawal of carbohydrate causes cessation of glycosuria, meaning an ability to dispose of the sugar from within, and perhaps of a certain amount more, as can be ascertained by finding the limit of tolerance. In severer cases the cessation of carbohydrate food does not cause the disappearance of glycosuria, showing that the case cannot dispose even of the sugar from the allowed source, and food albumin must also be reduced to such a point that less than

18 gr. but more than 10 gr. N. appear in the urine. One may speak of the severe form in which we must go further so that less than 10 gr. N. appear in the urine with or without cessation of glycosuria.

A popular method for determining the degree of glycosuria is the following: The patient is given what may be called the "diabetic test meal." This consists of a carbohydrate-free portion and a weighed portion of some carbohydrate food. The former may be composed of meats (about 350 g.), eggs, cream, cheese, spinach, asparagus, salad with oil dressing, meat broths, tea, coffee, claret. The latter consists of 100 g. of white bread, preferably administered in two portions of 50 g. each, in the forenoon and afternoon. At times it may be necessary to administer other carbohydrate food instead of white bread, because it may be of practical importance to determine the tolerance of the organism for other starchy foods and for the different sugars.

If the patient on this diet (carbohydrate-free meal + 100 g. of white bread) excretes no sugar, then we are dealing with a very mild form of glycosuria; the amount of bread should then very gradually be increased on successive days until sugar finally appears in the urine. Thus, if the patient on one day excretes no sugar after eating 3×50g.=150 g. of bread, and on the next day passes sugar on 4×50=200 g. of bread, then the "boundary of assimilation" (see above) lies between 150 and 200 g. of white bread.

If the patient excretes sugar on the test diet, then we are dealing either with the mild or the medium form. If after withdrawal of the 100 g. of bread the glycosuria stops, then it is a mild form. If the sugar secretion still persists, then the secretion is medium or severe. The food albumin must now be reduced, If the glycosuria stops after the albumin is reduced to such a point that less than 18 g. of N. appear in the urine, then the case is one of medium severity. If the albumin must be reduced so much that less than 10 g. of N. appear in the urine, or if it does not stop after the withdrawal of all food, then we are dealing with a case of severe diabetic glycosuria.

The fundamental postulate is to maintain the patient's nutrition, and this is essentially synonymous with maintaining what is called "the nitrogen equilibrium;" *i.e.*, the N. output must never exceed the N. intake; in other words, the albumin content of the patient must be jealously maintained. The patient, therefore, must receive food that, after the deduction of the sugar wasted in the urine, allows him to utilize at least 35 calories per kilo of body weight *pro die*.

A reduction of carbo-hydrates is then necessary, but they must be given to a certain extent, for two reasons, viz.: (1) The impossibility of adequately nourishing most patients on a meat-fat diet alone; (2) the

increased danger of acidosis and coma incident to the withdrawal of all carbo-hydrate.

We cannot make up the loss with albuminous food alone, and a meat-fat diet would soon become disgusting, besides the danger of acidos is as a certain amount of carbo-hydrate is necessary to promote the oxidation of the members of the acetone group.

For the practical carrying out of the ideas so given requires that each case be studied with the accuracy of a metabolic experiment, and we hope that Dr. Crofton will, in the future, give us some practical clinical illustrations.

THE LOCAL TREATMENT OF GONORRHEIC INFECTIONS.

In a recent paper H. R. Loux, chief of the genito-urinary clinic, Jefferson Medical College, Philadelphia, declares that during the past year and a half the results in the treatment of gonorrhoea at his clinic and in his private practice have been much better than ever before. This improvement he ascribes to careful local treatment in which is abandoned absolutely the use of any drug as an injection which can cause the slightest irritation.

For acute gonorrhoea he prescribes a light diet with very little meat, no fats, fruit or alcoholic beverages; but allows as much skimmed milk as the patient can drink.

If the infection is confined to the anterior urethra, he prescribes the injection of two drachms of a ten per cent. solution of argyrol, held in the urethra ten minutes; this injection is made in the morning, at noon, and at night. Internally, he prescribes capsules of copaiba, cubebs, and sandalwood three times daily.

This treatment is practiced for one week, during which time the discharge will almost if not entirely cease, there will be no pain or irritation by the injection or upon urination, and the gonococci will disappear.

If, at the end of one week, the urine remains continuously shreddy, a weak solution of astringents is employed, and of these he prefers the sulphate and chloride of zinc, hydrastin, or berberine muriate. Loux emphasizes that these astringents should not be used during the first week of the disease, and never in solutions sufficiently strong to produce pain or irritation.

If the two-glass test shows cloudy first and second portions of urine, indicating the presence of an anterior and posterior urethritis, he irrigates the anterior urethra with a warm solution of boracic acid in order to remove the accumulated secretions, and then makes deep

instillations of a twenty per cent. argyrol solution once daily or on alternate days.

Loux quotes from statistics of four hundred cases treated in the above way, and claims for this method the following advantages: (1) simplicity, (2) the relief afforded the patient from pain and irritation, (3) the extreme rarity of complications, (4) shortened duration of the disease, in that the average time required for a cure in acute cases was twenty-one days, whereas by the method formerly practised at his clinic and in private work the best average obtainable was forty-two days.

For gonnorhoea in the female, manifested by vaginitis and urethritis, he dilates the vagina to full extent by means of the speculum, and to every portion of the vaginal mucous membrane applies a fifty per cent. argyrol solution, and the same to the urethra by means of a cotton-tipped probe. If there be also endomitritis present, he frees the interior of the uterus of accumulated secretions by means of the cotton-tipped applicator, and then applies the fifty-per cent. argyrol solution to the cervix and body of the uterus.

This local treatment is carried out every day and the gonococci rapidly disappear.

For home treatment, the patient is ordered vaginal douches of from two to four quarts of hot boracic acid or normal salt solution taken in the recumbent posture.

For chronic urethritis, Loux urges a careful endoscopic examination. The urethra should be gradually dilated by means of boogies, and the individual enlarged follicles or ulcerated patches revealed by the endoscope should be treated by the local application of a twenty five or a fifty per cent. argyrol solution.

Loux summarizes his conclusions in regard to the treatment of gonorrhoea as follows: (1) Acute anterior urethritis should not be treated by means of irrigation because of the danger of spreading the disease to the posterior urethra. (2) Irritating injections of any kind should never be used in acute gonorrhoea because of the certainty of the recurrence of a mixed infection and the extension of the disease, by contiguity, to the urethral follicles. (3) Argyrol, as a *non-irritating* gonococcide, with a specific effect in allaying the symptoms of inflammation, is the drug of choice for injection, and may be used in any strength and at any stage of the disease. (4) Astringents, such as zinc, hydrastin, bismuth and lead, should never be used in the acute stage of gonorrhoea, but should be reserved for the post-gonococcus period when the urine remains shreddy. (5) These astringents should not be used in sufficient strength to cause the patient to experience pain or irritation.

In the treatment of chronic gonorrhoea, he concludes: (1) Endoscopic diagnosis and treatment is indispensable as a routine measure. (2) Silver nitrate or other caustic or irritating applications or instillations should be seldom used, and then only in the most skilled hands and with the greatest care.

OBSTRUCTION AND CONSEQUENT DISTENTION THE CAUSE OF APPENDICITIS.

In the *Journal of the American Medical Association*, March 26th, C. Van Zwalenburg writes under the above title. The consensus of medical opinion, as obtained from the voluminous literature on the subject, is that appendicitis is due to:—

1. A local initiation caused by a foreign body, as a fæcal concretion; a catarrhal congestion of the appendix, due to the conditions which produce similar changes in the neighboring bowels; stercostasis in the appendix, traumatism, etc.

2. The inoculation on this abraded mucosa of pathologic flora, as the staphylococcus, streptococcus, pneumococcus, or colon bacillus. The consequences of this infection are the many pathologic conditions which are present in an acute inflammatory process.

That this is not an entirely satisfactory explanation is shown by the variety of other explanations offered—the author finding no less than thirty-nine different explanations in his search of the literature.

As the result of a series of interesting experiments on dogs, Van Zwalenburg presents the following conclusions:—

1. Simple affection does not account for the suddenness of the attack, nor the early severity of the pathologic changes in acute appendicitis.

2. The evident interference with the blood supply is best accounted for by an increased intra-appendicular pressure.

3. Simply injecting bacteria into the appendix will not produce appendicitis, unless used in abnormal amounts and virulence.

4. Subperitoneal ligation of the appendix with a simple ligature, without distention, can not be made sufficiently permanent to produce a general affection of the appendix, typical of appendicitis in the human being.

5. Experiments in dogs show that hydraulic pressure, equal to the arterial tension maintained within the lumen of the appendix for a short time, is promptly followed by typical appendicitis.

6. The blood supply in an extremity may be cut off with impunity for hours; but in the appendix the ever-present bacteria at once begin an infection, their entrance into the tissues being facilitated by the open-

ing of normal and traumatic avenues by the very distention which cuts off the circulation.

7. The importance of making a complete diagnosis and prognosis during the first twelve hours of the attack is emphasized.

8. This study suggests the possibility of infections or other lesions being produced in other hollow viscera, especially in the gall bladder, the stomach and intestines by temporary overdistention.

COMPLICATIONS AND SEQUELS OF PROSTATECTOMY.

Dr. James E. Moore, of Minneapolis, in the March number of the *Annals of Surgery*, opens his paper by stating that opinion has not yet settled all the points in connection with this operation. The mortality by some is considered as almost nil, while others contend that it is considerable; then again some hold that a cure is the rule, while some think that many unpleasant sequels may follow the operation. But, by experience, the mortality is growing less and the results better.

With regard to operating upon persons who are up in years, the writer contends that the important things to consider are the heart, the arteries, and the kidneys. These determine a person's age rather than his years.

Uræmia is the most frequent cause of death. This may be guarded against to a considerable extent by administering water and urotropine for some days before and after the operation. Sepsis is the next danger. If it occurs it is very fatal in elderly persons. The infected bladder is the usual cause for sepsis. Thorough cleansing of the wound and free drainage are the means of preventing and treating sepsis.

The incisions, either for the upper or perineal operation should not be made too large, as a needless amount of damage is done to the parts. Hæmorrhage does not generally cause much trouble. Much care should be taken to do as little injury to the prostatic portion of the urethra as possible. A portion of the lower wall must be destroyed, but the sides and upper wall should be preserved. If too much of the urethra is injured severe stricture is sure to come on later.

The main objection to the suprapubic route is the extensive injury done to the bladder. In the perineal operation there need not be much traumatism to the bladder. If the bladder is torn it should be closed with catgut. The greatest care should be taken not to injure the rectum. Unless care is taken it may be torn through, or so bruised as to cause it to slough. The operator should follow the urethra back to the apex of the gland and then keep well within the capsule. When the bowel is opened it should be closed on the rectal side and some stitches of catgut on the side of the operation.

An effort should be made to preserve the seminal ducts. This is very important to a virile man. Care should also be taken not to injure the neck of the bladder as troublesome incontinence may result. The perineal wound is usually closed in about three weeks. A fistula between the bladder and rectum may result from the operation. Very troublesome epididymitis has been met with. Notwithstanding these risks the operation is a boon to humanity.

GYNAECOLOGY

Under the charge of S. M. HAY, M.D., C.M., Gynaecologist, Toronto Western Hospital; Consulting Surgeon Toronto Orthopedic Hospital.

CANCER OF THE UTERUS AND THE PHYSICIAN'S DUTY.

Dr. M. C. McCannon writes on the above subject in the April number of the *Southern Practitioner*.

There is much truth in Park's well-known and often quoted statement: "If the same death rate is maintained for the next ten years, the State of New York will have more deaths from cancer than from tuberculosis, smallpox and typhoid fever combined." This increase is almost the same in all the large centers of other foreign countries from which reliable data is obtainable.

That the disease is a local one, and curable at some time in its course can hardly be doubted. Reamy, of Cincinnati, has reported cases of undoubted cancer of the uterus, treated by hysterectomy, that have remained well after periods of from ten to twenty-five years.

The disease is much more prone to affect women who have borne children. Emmet contends that this is due to injuries to the cervix, and he advises the repair of all such injuries before the climateric. Bassi reports observations on 1,000 repaired lacerations of the cervix with subsequent freedom from cancer, and 1,000 cases of injuries to the uterus that were permitted to go unrepaired, in which 21 cases of cancer were subsequently observed.

Cancer appears usually at a time of life when the waste is greater than the repair.

Injury of itself has never been proven to be the actual cause of cancer.

Wiener in speaking of the early diagnosis of uterine cancer, says: "Every error in diagnosis costs a human life; every delay endangers one." If this be true, our duty as physicians is so illumined that it should shine out clear and bright under the most befogged conditions A human life sacrificed! For all the wealth of India what conscientious physician would stand under the burden? A human life endangered! What lover of humanity would permit it? And yet sufferers from

uterine cancer are permitted to go unexamined until the odor from the breaking down tissues takes voice and cries to the highest heavens, a warning against the deadly enemy that is sapping the vitality of God's chiefest handiwork.

An early diagnois is difficult but not impossible.

That an early recognition of this fatal malady may be made, it is necessary that the patient be seen when the first symptoms manifest themselves; unfortunately, the general public is not yet educated to the recognition of the nature and character of these early symptoms, or to the importance of seeking relief in the first stages of malignant disease. Here is the first duty of the physician, in our efforts to lessen the prevalence of cancer of the uterus. Medical students and medical practitioners should have it impressed upon them that women should be made to understand :—

1. That cancer is prone to occur between the ages of 35 and 55.

2. That it is a local growth at first, and curable in its early stages.

3. Irregular and unusual uterine bleeding at any time in life, but more especially between the ages of 35 and 55, is a symptom requiring investigation.

4. That a return of the flow, after the establishment of the menopause, is one of the gravest of symptoms.

5. That leucorrhœa is a sympton of a diseased condition requiring investigation.

6. That change of life means cessation of menstruation, and that increased flow at a time when menstruation is expected to stop is a danger signal.

7. That pain is a symptom that appears late and should not be expected or looked for as a sign of cancer in the early stages.

An early diagnosis of uterine cancer is the second duty of the physician to those affected by this disease.

The appearance of a bloody vaginal discharge from a woman past the climateric, and whose menstruation has not appeared for a year or more, is in the majority of cases indicative of malignant disease. Of course the flow may be due to many other conditions besides cancer.

Leucorrhœa is a symptom of cancer to which, in my opinion, due weight is not given.

An early diagnosis having been made, our third duty is to subject the patient to an immediate and complete removal of the tissues involved by this growth. There should be no uncertain sound in the physician's warning voice. The facts should be boldly and emphatically set forth. Even though the information imparted seems almost brutal

in its bluntness, valuable time must not be wasted, a valuable life must not be carelessly sacrificed; but if a life is to be lost let it be by a moral suicide, never by a moral murder.

STERILITY.

Professor Herman, of the London Hospital, in writing on the above subject says that sterility may be either absolute or relative. Absolute sterility is that in which there is no child, no miscarriage, no abortion, however early. Relative sterility is that in which a woman produces children in number not according to her condition, age and length of married life.

About 10 per cent. of married women are absolutely sterile. The causes of sterility are:—

1. Cases in which the woman is not at fault, male sterility, incompatibility.

2. The great and irremediable cause, age.

3. Defective development of the ovaries, hitherto incurable.

The first two of these offer no excuse for treating the woman; the last has given occasion for much bad treatment.

Cases that legitimately call for treatment are:—

4. The causes of sterility curable by the surgeon, dysmenorrhoea and dyspareunia.

5. The causes curable by the patient, unhealthy modes of life.

6. Diseases calling for treatment on their own account, by which sterility may possibly be caused.

In some cases of sterility there is no fault, either on the male or female side. Husband and wife may each be capable of procreation, but there is an incompatibility between them which prevents them from procreating with one another. Cases occur in which a man has begotten children by one wife, marries again, and his second wife is sterile. Then he dies, his widow remarries, and is fertile by her second husband. This incompatibility is a cause of sterility which we can neither explain nor cure.

The cause of sterility in marriage is oftener in the female than in male. Gross estimates that the male is in fault in about one case in six.

Carefully prepared tables show that fecundity is greatest in women married between the ages of twenty and twenty-four. Of women married before this age, the earlier they are married the greater the prospect of sterility. Of those married after this age, the later they marry the more likely are they to be sterile.

DYSMENORRHŒA AND STERILITY FROM CERVICAL STENOSIS TREATED BY INCISION.

Bedford Fenwick, M.D., Physician to the Hospital for Women, Soho Square, London, has an article on the above subject in the February issue of the *British Gynæcological Journal.* He remarks these conditions are the two most common complaints for which women seek medical advice. When they exist separately, they may be due to many causes; but when they occur together they are most frequently due to congenital or traumatic constriction of the canal of the cervix uteri. There is a mechanical obstacle to the egress of blood and the ingress of seminal fluid.

After labour a woman may suffer pain at the menstrual period, and become sterile. An examination reveals that there has been laceration, and a quantity of hard cicatricial tissue is present. The congenital narrowing of the canal is much more common, especially the conical cervix. The canal tapers downward and the external os is reduced to "pinhole os." The menstrual blood may be retained long enough to clot, giving rise to very severe pain.

Some fifty years ago, these cases were treated by passing a bistoury into the canal and incising the internal os. The benefit was only temporary. There was at times extreme hemorrhage. At a later period it became customary to dilate the cervix by means of tents, usually the laminaria. This method of treatment was very painful, was sometimes accompanied by dangerous or fatal sepsis, and generally the canal contracted again. Metal dilators came into vogue. Various sizes were passed through the cervical canal and left in for a few minutes, but contraction soon followed.

A plan of operating was then brought into use whereby an incision was made on each side of the cervix, under antiseptic precautions. Efforts were made to keep the wounds open by plugs and caustics; but granulations formed and the walls of the wounds grew together, destroying the effects of the operation, and sometimes increasing the trouble.

Dr. Fenwick describes his own operation as follows: The parts are made aseptic. The patient is placed in the lithotomy position, and a weighted speculum inserted. The cervical walls are split by means of scissors high enough to relieve the constriction. A catgut suture is passed through the anterior lips close up to the angles of the incision, and another midway between this and the end of the cervix. These sutures are tied. This inverts the cut surfaces on the anterior wall of the cervix towards the centre of the canal, and prevents them coming in

contact with the cut surfaces on the posterior wall. The parts are packed to arrest bleeding. The cut surfaces on the posterior wall soon glaze and form a mucous membrane. The sutures are removed in ten days from the anterior wall. By this means the os and lower half of the canal are kept permanently open.

X-RAY THERAPY AND SKIAGRAPHY.

Under the charge of JOHN McMASTER, B.A., M.D., C.M., Toronto.

THE VALUE OF X-RAYS IN CHILDREN'S COLIC.

Henry Fenwick in the *Medical Annual* for 1903 says that every child having repeated attacks of stomach-ache should be x-rayed. Many of these attacks of apparently intestinal colic in children are attacks of nephritic colic. Every child who has passed blood in the urine painlessly should have both kidney areas skiographed, as he is convinced that painless hæmaturia in children is often the result of an early stage of oxalate of limestone in the kidney and this is demonstrable by means of x-rays.

RADIO-ACTIVE METALS IN TEXAS.

It is reported that in certain parts of Texas many of the most valuable of the radio-active minerals are to be found. A short distance from Kingsland the Nernst Lamp Company is mining rare earths for the radium salts and other rare new metals. This company is endeavoring to secure the title to more lands in the neighborhood. Scientists who have examined the lands and conducted tests and examinations of the minerals found, claim that these earths possess a greater amount of radio-active properties than those of any other known region in the world.

RADIOGRAPHS IN MEDICO-LEGAL CASES.

In the majority of medico-legal cases, in almost all the states of the union, radiographs are an important part of the exhibits. Judges are encouraging their use, and in many cases demanding them. The evidence that they furnish is definite and incontravertable. They must, however, be made by specialists who understand how to interpret them. Misinterpretation of a plate is a common incident with the unskilled. The decision rendered by a local judge in one of our courts is quite at variance with the practice in courts of the United States. The ruling was to the effect, that if a plaintiff had apprehension as to the effects upon himself of an x-ray examination he need not submit to it. A properly

conducted examination with efficient x-ray apparatus can produce no injurious effects upon any one even if they are extremely sensitive to the action of the rays.

Courts of justice ought to endeavor to establish the truth. In most of the claims for damages or injury to one's person objective evidence of injury is absent or limited in amount. Subjective evidence is very easily manufactured. Conditions can be revealed and obscurities removed and much light shed upon many cases by the radiograph properly made and interpreted.

OPHTHALMOLOGY AND OTOLOGY.

Under the charge of G. STIRLING RYERSON, M.D., C.M., Professor of Ophthalmology and Otology, Medical Faculty, University of Toronto.

THE UNNECESSARY WEARING OF GLASSES.

For a great many years much has been said and written about the benefits of glasses in various conditions referable to the eye and its neighboring parts, and much relief from headache and eye pains has followed education in this direction. There are thousands of martyrs to the sufferings caused by uncorrected errors of refraction and of the ocular muscles; but it is also true that many unnecessary pairs of glasses are worn because they have been prescribed for the relief of symptoms, which they could not possibly remove.

It would be absurd to underestimate the value of glasses, not only in the improvement of vision, but also in the relief of pain and discomfort referred to the eyes and head, and often in the indirect benefit to the general health. But enthusiasm in prescribing glasses ought not to allow us to overlook or ignore the existence of local conditions of the lids which are often responsible for various symptoms conveniently included in the term asthenopia. There are many instances in which discomfort after close work is not due to eye-strain but to conjunctivitis; the latter may appear insignificant and yet may be sufficient to cause the symptoms on account of which, not infrequently, glasses are unnecessarily worn, as will be proven by the relief following local treatment of the conjunctival affection.

Glasses can never be regarded as ornaments; they are always more or less of a handicap to the personal appearance; they should not be inflicted upon patients unless they improve vison or correct an ametropia which is responsible for annoying symptoms.

The greatest number of instances of the misuse of glasses is furnished by the so-called prescribing optician, who is naturally merely interested

in the quantity of glasses which he can sell. But even in legitimate prescribing it is well to remember, that although a small amount of ametropia often causes disturbances which are promptly corrected by the wearing of glasses, abnormal conditions of the conjunctiva, even though they are unaccompanied by marked changes, may be responsible for symptoms incorrectly attributed to eye-strain, and that in such cases the relief from discomfort by local treatment of the lids will be particularly appreciated by the patient because it will save him from the unnecessary wearing of glasses.—*The Daily Medical*, New York Feb. 13.

OCULAR SYPHILIS IN GENERAL AND ITS TREATMENT.

Galezowski in *Le Progres Medical*, Jan. 1904., says ocular syphilis is common, it affects all ages from infancy to old age. He cites interstitial keratitis, iritis, choroiditis etc. and adds, "Much more active than other forms of medication mercurial frictions cure the most serious forms of ocular syphilis and in particular chorio-retinis. It is necessary sometimes for the treatment to be continued for a considerable length of time to cause the complete removal of the specific poison."

Galezowski holds that friction treatment is much superior to intramuscular or subcutaneous injections of sublimate, biniodide or other salts of mercury, a form of treatment which is having much vogue at the present time. Friction is an old treatment but the author claims that the method of using it is new. He avoids large doses and never exceeds two grammes and often uses one gramme or less. He advises lanolin as a base because it is readily absorbed. Before using frictions he washes the part thoroughly with soap and warm water and rubs in the mercurial ointment until the skin is almost dry. The part is then wrapped in flannel and next day washes off the unabsorbed portion. He follows the "cycle :" first day, temple, neck, forehead ; second day, right axilla; third day, right forearm ; fourth day, right flank ; fifth day, inside of right thigh ; sixth day, right popliteal space; seventh day, inside of right leg ; eighth day, sole of right foot and the same routine on the left side, or for 16 days in all. For choroiditis one must pursue a continuous treatment for two years—ten days of frictions and five days of rest. At the end of 40 frictions the interval is increased to ten days and then to fifteen days. Galezowski says "the elimination of the mercury is done rapidly and one must not cease to introduce it to obtain good results. Conseq uently I do not use iodide of potassium because, in my opinion it assists in the elimination of the mercury introduced into the organism and interferes with its salutary effects." He draws special

attention to the necessity of hygiene of the mouth while under mercurial treatment by inunction, using gargles of chlorate of potassium. In women the inunctions should be interrupted during the menstrual periods. By alternating the periods of treatment and rest patients will submit without making objection to prolonged treatment with excellent results.

REPORT ON THE EXAMINATION OF THE CLEVELAND SCHOOL FOR THE DEAF.

Dr. Albert Rufus Baker publishes an interesting report in the *Cleveland Medical Journal* for April,in which he says that the Roman's denied the deaf-mutes civil rights and the Spartans put them to death. Aristotle claimed that they had no mental faculties and St. Augustine condemned them to eternal damnation. The first recorded case in which a deaf mute was taught to speak, was in the eighth century when St. John taught a youth to speak. Jerome Cardan, in the sixteenth century first established the physiologic basis of the relation of speech and hearing. In the following century numerous schools were established in Europe where the pupils were taught to speak and read the lips. Henry Baker, son-in-law of Defoe, 1698-1775, kept a private school in London where the dumb were taught to speak. The method was secret but he left four volumes of lessons in which his method was made known. Heinicke established a school of oral teaching in Leipsic in 1877. The method was kept secret. About the same time De L'Epee founded a school in France.

In the early part of last century a young theologian. Thomas Gallaudet went to England to study deaf-mutism. He first consulted Dr. Watson, who had a school of instruction, but was coldly received Gallaudet was disgusted and went to France where he was well received and was taught the sign and manual method of teaching. He returned to America, bringing an educated deaf-mute named Clerc with him and they founded deaf and dumb schools in the United States in which the sign method was exclusively taught. Hence it came that this method was taught on this side of the Atlantic to the exclusion of the oral method. The oral method was learnt from the Germans and was introduced into some of the chools. The oral method has made great progress since it was introduced in 1867. In 1901 64 per cent. of the pupils of the schools were taught by this method.

Dr. Baker found that of 43 pupils he examined in the Cleveland school, 28 were congenitally deaf, while 15 had acquired deafness. Dr. Hobby, who has examined 500 deaf-mutes, found less than 15 per cent. congenitally deaf. On the other hand, English authors claim 75 per cent.

and German 50 per cent. Heredity forms a considerable element in causation but not so large as is generally supposed, because deaf-mutes are not very prolific and because acquired deafness is not hereditary. Where sign method alone is used there is a disposition for deaf-mutes to intermarry because they are cut off from speaking people.

Dr. Baker reports the curious case of Alfred Cowles. He says " it was not until Mr. Cowles was 25 years of age that he became perfectly cognisant of his defect. Up to that time he treated all that he read about the songs of birds as nothing more than poetic fiction. To him the songs of birds were perfectly mute ; and he was perfectly deaf to the shrillest and highest notes of the piano, fife or other musical instruments. At length, after considerable pain, he was convinced that he laboured under some physical defect of hearing. When put to test in a room in which a large number of canaries were singing very loudly, he declared he did not hear the slightest sound whatever, even when placed close to their cages. Curiously enough, in all other respects his hearing was not perfect, but somewhat acute." A feature of Baker's cases is the large proportion of nasal troubles, 50 per cent. of cases of adenoid disease, 10 enlarged tonsils, 4 deflected septums. He found normal drum membranes 52, and pathologic 34. He argues strongly in favor of teaching the deaf-mute to speak in preference to the sign method which cuts them off from the rest of the world.

THE EAR IN RELATION TO LIFE INSURANCE.

Macleod Yearsley, F.R.C.S., contributes an article on this subject to the *Medical Times and Gazette*, April 16th, 1904, in which he says, that most United States companies decline applicants for insurance suffering from chronic middle ear suppuration, whereas many English companies accept them. He lays down rules for rejection of applicants: External ear.—Malignant disease and lupus should cause rejection. Lupus may be successfully treated, and if after two years there has been no return, they might be accepted. All suspicious nodules, tumors or ulcerated areas in elderly persons should be regarded with great caution. Middle ear.—Candidates who had a single attack of acute middle ear suppuration which has healed should not be rejected. Chronic middle ear suppurations call for very careful consideration. The general principle underlying such cases is that the applicant is suffering from a curable disease, which if untreated, is dangerous to life. All cases of chronic suppuration do not require rejection. A person who has had this affection, but in whom the perforation has healed, and there has been no recurrence of the discharge for five years may be accepted at ordinary rates. If the perforation is open, without dis-

charge, it may be accepted with an addition to the premium. Still, such cases after lying dormant for years may take on action. As regards cases in which discharge is still present, such cases should be rejected without exception. It matters not whether the perforation is large or small, the discharge profuse or scanty, the intervals long or short. After treatment, he could be accepted with an additional premium. Cases which have developed intracranial complication should be at once rejected. As regards deafness without discharge, its direct influence on the expectation of life is small, but such lives cannot be regarded as first-class. A deaf man, undoubtedly, runs greater risk of accident. Severe vertigo or Meniere's symptoms, ought either to be rejected or additional premium added. Vertigo is exceedingly apt to predispose to accident. Yearsley has met with several cases in which the deafness led to accident. In one old gentleman, the combined effect of deafness, rubber cab tires and a windy night led to a fatal catastrophe. He is quite opposed to insuring a very deaf person at ordinary rates.

LARYNGOLOGY AND RHINOLOGY.

Under the charge of PERRY G. GOLDSMITH, M.D., Belleville. Fellow of the British Laryngological, Rhinological and Otological Society.

AN UNUSUAL CAUSE OF LARYNGEAL OBSTRUCTION.

The *Australasian Medical Gazette*, March, 1904, has a very interesting case cited by Dr. F. T. Sawkins. He was called to see a child 20 months old in a condition of advanced dyspnœa from laryngeal obstruction. The fauces were congested and tonsils very large. Suspecting membranous croup the patient was sent to a diphtheritic hospital. No diphtheria bacilli could be found but under steam inhalations the patient was considerably relieved. A few days later Sawkins was again sent for and found the child much the same as when first seen. He opened the trachea and later removed the tonsils and accompanying adenoids.

The child wore a tracheotomy tube for two months, any attempt to dispense with it causing alarming attacks of dyspnœa. Under anaesthesia the larynx was repeatedly examined but nothing noted. On withdrawing the mirror at his last examination Sawkins noticed, at the moment of a deep inspiratory effort, a rounded body slipping in the interval between the epiglottis and larynx. Further observation showed this was repeated at each inspiration, and on lateralizing the mirror the body was seen to be the lip of the uvula. It formed a complete plug and fully accounted for the inspiratory obstruction. The mirror had on previous occasions lifted the uvula so that nothing was seen, and the

phenomenon could not occur. The uvula was removed and within 48 hours the tracheal tube was left out nor was it ever afterwards necessary to re-insert it, the breathing subsequently being quite natural.

IMMOBILITY OF THE RIGHT VOCAL CORD.

Dr. Furniss Potter, at a recent meeting of the London Laryngological Society, *Jour. Laryngology* report, presented a case for examination. The patient was a youth, nineteen years old, with an immovable right vocal cord. He came complaining of giddiness and stuffiness of the nose, with a slight huskiness. The tonsils were enlarged, mucous membrane of the nose and naso-pharynx swollen and hyperaemic. Slight superficial ulceration was noticed on the tonsils while, on laryngospic examination, the right vocal cord was found to be fixed in the middle line. The patient had a cough and thought he had recently lost flesh. On examination of the chest no definite sign of disease was discovered, sputum examined but no bacilli found. Dr. Potter was of the opinion that the immobility of the cord was due to infiltration, most probably tuberculous, involving the crico-arytenoid articulation.

ŒDEMA OF THE GLOTTIS.

In an interesting paper in the *New York Medical Journal*, July, 1903. Doctors Gettings and Joson take up the question of oedema of the glottis. A case following a mild attack of scarlet fever is cited. Two classes of this affection are given: (1) Simple oedema of the larynx occurring in cachectic diseases, especially of the heart and kidneys, in which there may appear no apparent exciting cause and where the inflammatory symptoms are absent; (2) The inflammatory type, due to extension by contiguity or as a local complication of an acute infectious disease. Other causes are also given. Prognosis is unfavorable in the cachectic forms, and also in the severe types of infectious diseases. Intubation rarely affords relief unless the obstruction is infra-glottic Continuous inhalation of medicated steam is always to be employed. Scarification and external deflection by leeches may be tried; cold and heat should be used externally and internally. Tracheotomy is demanded in extreme cases.

INTUBATION OR TRACHEOTOMY IN DIPHTHERITIC CROUP.

Dr. Spolverini observed 498 cases of diphtheria in the San Spirito Hospital of Rome, and found that there was a great difference between the mortality of children after tracheotomy and those after intubation. While the former showed a mortality of 70 per cent. the latter showed a death rate barely reaching 30 per cent. He is, therefore, an enthusiastic

advocate of intubation against tracheotomy—an individual attitude which is still noteworthy in Italy in spite of the results achieved in America and elsewhere. Tracheotomy, according to Spolverini, is indicated only in special cases. He prefers the intubation forceps with Valagussa's curve, and describes a form of this instrument which he has devised, and which has the advantage of serving both as intubator and extubator. He advises the use of ebonite tubes which are corrugated, and are of olivary shape. Intubation may be performed at any age, and the author reports intubations in five nursing infants. The rule about intubation should be that the child must be extubated as early as possible, the average being from thirty-six to forty-eight hours.—*Archives of Pediatrics.*

ED. NOTE.—On this side of the Atlantic the time for removing the tube varies greatly. A tube may be coughed out within twenty-four hours, and the breathing being so quiet and easy the physician may not wish to re-insert it, but he must be near at hand if it should be necessary, or he may have to re-insert it a number of times before his patient is free from danger. It may happen that after removal of the tube even as late as four or five days a sudden oedema of the glottis comes on which necessitates a rapid intubation. It has not been shown that leaving the tube in the larynx longer than actually necessary has done any harm. The sooner large doses of antitoxine are used in cases of diphtheria the less danger will there be that any intubation procedures will be necessary.

THE RELATION OF DISEASE OF THE UPPER AIR PASSAGES TO DISEASE OF THE STOMACH.

Dr. Lewis A. Coffin, April *Laryngoscope*, combats the view so universally held that many cases of chronic gastric catarrh are caused by or at least kept up by post nasal suppuration. He cites a number of cases which support the view that the naso-pharyngeal trouble is due to the abnormal condition of the stomach. His reasons for thinking this view probable are as follows: (1) The belching of gas and eructation of chyme into the pharynx and naso-pharynx are an almost constant symptom of stomach disorders, and probably may take place from a healthy stomach; (2) Normal chyme is of such a nature that it would act in the pharynx and naso-pharynx both as a mechanical and chemical irritant, and it may often be thrown into these regions from an atonic stomach. Correction of the stomach trouble relieves the throat symptoms; (3) The peculiarily circumscribed areas diseased in those cases suffering from post-nasal catarrh, viz., oro-and naso-pharynges, posterior ends of the turbinated bodies and eustachian tubes, point to the same conclusion.

PROVINCE OF QUEBEC NEWS

Conducted by MALCOLM MacKAY, B.A., M.D., Montreal.

The Taschereau bill, brought before the Quebec Legislature in the beginning of May, has raised a storm of protest from the medical profession of the Province. That doctors can be made by law and granted licenses to practice, by the hundred, when positively disqualified by a board of physicians organized to protect the community from having incompetent practitioners forced upon them, is scandalous. Nevertheless, year after year, attempts are made, too often successfully, to pass unqualified men by means of a private bill in the Legislature. In 1896, Lt.-Col. Pinault introduced a bill to allow a number of men, who had commenced their medical studies without taking the matriculation examination, to enter the profession. It was understood that this was to dispose of the matter for ever, but at the very same session several private bills were passed allowing others to enter. At the session of 1900, Mr. Roy introduced another bill to regularize the position of students who, up to that time, had failed to make good their position. He stated that the Pinault bill was not strong enough, and several students had been deceived into thinking that they could be admitted to practice without taking the examination for admission to study. The bill was allowed by the College of Physicians and Surgeons, provided it was final. At the same session, however, two private bills were again passed to admit others to practice. Finally, in 1903, a protest was again made, and this time a safeguard was placed in the general law. It was decreed that the King's Printer must not accept a notice of a private bill for publication, nor the Clerk of the House accept notice of a private bill for admission to a profession, unless the controlling body of the profession endorsed the application. Now comes Mr. Taschereau with his bill, which provides that all students enrolled before September, 1903, in any university of the Province shall be admitted to practice and be licensed by the College of Physicians and Surgeons. This will let in some two hundred and fifty men who have not thought it worth while to conform to the requirements, or who are unable to meet such tests as have been established. It would be as well for the Legislature to decree, that any man who disregards the rules of the College and fails to pass their examinations should receive a premium, and that such premium is to be levied from those who are soft enough to fulfil all the conditions.

In explaining his bill, Mr. Taschereau said that there were many medical students, both at McGill and Laval, who had been led by prominent members of the profession to believe that if they continued with their medical studies the Legislature would regularize their original failure to qualify as students, provided they passed their finals in medicine satisfactorily. He contended that after the years of study given by students, it would be manifestly unfair to refuse them the right of admission to the profession, and to rigorously apply to them the decision arrived at the last session by the Legislature to pass no more bills for facilitating the entrance of students into the learned professions against the wishes of the professional boards themselves. Now, in regard to McGill there is little or no truth in this statement, for one-fourth of those who are now following the medical course have placed themselves above the provincial regulations by previously taking a B.A. degree. Of the remainder some have qualified for the Quebec practice before attending lectures in the faculty of medicine, or intend to exercise their profession in other provinces. It is true that a number of McGill men have taken advantage of the Roy-Pinault Act and went before the board with little hope of passing it, but taking the chance of adding to their qualifications by obtaining the license, and in virtue of the amended law they slipped through and came away rejoicing though agreebly surprised. These men were made perfectly aware of the conditions supposed to be enforced at the time of their entrance to the medical faculty, but not having any definite wish to be enrolled in Quebec did not conform to the regulations, and certainly expected to be denied the license on account of their own negligence. The Laval men also know perfectly well what is required of them and the majority of the candidates declined, have been disqualified from inability to pass the examinations at the proper time.

Special meetings of the Montreal Medico-Chirugical Society, the Societe Medical de Montreal and Sherbrooke, were called in order to discuss the question, and by a unanimous vote the following delegates were sent to Quebec to oppose the measure. Drs. Lachapelle, Birckett, Penijo, Craik, Marsolais, Cyphiot, Cleroux, Boucher, Lesage, Dube, Sirois, Camirand, Langlais, Constantin, Valin, Boulet, Macdonald, Normand, Lotbiniere, Harwood, a number of Quebec physicians were also present. Dr. Lachapelle eloquently presented the case, but with only partial success, for on motion by Mr. Taschereau the following amended bill was reported from committee: "Notwithstanding Article 3978 of the Revised Statutes of the Province of Quebec, the College of Physicians and Surgeons shall grant the necessary license and registration required

for the practice of medicine, surgery and the obstetric-art to those parties, who having been inscribed as medical students and having commenced the medical course in a university of this province previous to 1st November, 1903, have obtained a diploma of doctor of medicine, after having followed the courses and studied during the number of years provided by law and the rules of the College of Physicians; and who can establish that they were then holders of the double certificates in Letters and Science, obtained after a classical course in one of the colleges of this province, or that they were holders of one of them and that they have since passed before the examiners named, in virtue of article 3979 of the Revised Statutes, a satisfactory examination in the subjects in which they had not hitherto passed."

The ninth regular post graduate course for general practitioners will be conducted by the Faculty of Medicine, McGill University, for four weeks, beginning Monday, May 30th, and closing on June 24th. The programme, which is composed of several courses with a view of affording opportunity for selection, will comprise the following branches:— Laboratory instruction including microscopical methods, clinical microscopy, clinical chemistry and urinalysis, analysis of stomach contents and clinical bacteriology. Special demonstrations will be given in operative gynæcology, Prof. Gardner; Operative midwifery, Prof. Cameron; Sanitation, Prof. Starkey; X-rays, Prof. Girdwood; Post-mortem work, Dr. McCrae; Life insurance. Prof. Wilkins.

Medical and surgical clinics at the Royal Victoria Hospital and Montreal General Hospital by Prof. Martin, Dr. Hamilton, Prof. Bell and Dr. Garrow, Archibald and Keenan, Prof. Blackader, Dr. Campbell, and Profs. Shepherd, Elder and Dr. K. Cameron.

Clinics in special departments as follows: Ophthalmology, including ophthalmoscope, Prof. Buller and Drs. Stirling and Byers; Dermatology, Dr. Campbell; Genito-urinary, Prof. Bell and Dr. Pringle; Orthopedics, Dr. Wilson; Laryngology, Prof. Birkett and Dr. Hamilton; Gynecology, Prof. Gardner and Drs. Lockhart, W. D. Cameron; Obstetrics, Prof. Cameron and Dr. Evans; Diseases of children, Prof. Blackader and Dr. Campbell.

A by-law ordering physicians or other qualified midwives to report to the Board of Health the births of all children in the city of Montreal has been passed by the city council. Its chief object is to ensure greater accuracy in the preparation of vital statistics. Up to the present, deaths only have been officially reported, and the city has been obliged to get information regarding the births from indirect sources. The by-law introduced by Ald. Dagenais declares: "It shall be the duty of every

qualified medical practitioner or midwife, attending at, or, in their absence, the parent or parents or any other person present at the birth of any child born within the limits of the city of Montreal, to sign and give a written report, within eight days after such birth, to the medical health officer of the city of Montreal, stating, as far as possible, the particulars required in the following form."

The information required in the blank form includes the date and place of birth, the name and sex of the child, its parents and their religious belief.

After making special provision for the registration of foundlings, the by-law fixes a penalty for false information not to exceed $40 or imprisonment for two months.

A similar bill introduced at Westmount last year aroused a great deal of opposition, but there is little likelyhood of any steps being taken to have this enactment withdrawn.

At the Montreal Medico-Chirurgical Society, Drs. Shaw and Springle read a case report on acute intestinal obstruction following labor, caused by a hæmorrhagic ovarian cyst pressing upon the bowel. The condition was a rare one and operative interference resulted in a good recovery. Dr. Hacketts showed a living case of excision of the clavicle for tuberculous osteomyelitis. The periosteum was left and the resulting shoulder girdle was excellent Dr. Girdwood and Chas. Higgins, B.S., D.V.S, read a paper on clinical observations on guinea pigs inoculated with tuberculosis and treated with currents of high frequency.

In this most interesting and well conducted series of experiments, Dr. Girdwood carried on the electrical treatment twice daily, while Dr. Higgins inocculated the guinea pigs and performed the post-mortems. The weights and temperatures were taken daily before and after treatment and the results tabulated. In general it was found that the pigs exposed to the current lived much longer and retained their weight better than those not exposed to the current, although kept under precisely the same conditions. Dr. Girdwood thought that in view of the results further experiments would be of value.

Dr. Adami congratulated the authors of the paper upon the care with which the experiments were conducted and thought that the results were distinctly encouraging and hoped that another trial would be made upon a larger scale.

MEDICAL SOCIETIES AND GATHERINGS

THE PROCEEDINGS OF THE SECOND REGULAR MEETING OF THE ONTARIO HOSPITAL ASSOCIATION, HELD IN TORONTO, APRIL 6TH, 1904, AND OF THE DEPUTATION THAT WAITED ON THE GOVERNMENT.

The second meeting of the Ontario Hospital Association was held at the King Edward Hotel, Toronto, on 6th April, 1904. The following persons were present: Mr. Edward Gurney, Toronto; Charles O'Reilly, M.D., Toronto; James Third, M.D., Kingston; John Ferguson, M.A., M.D., Toronto; D. M. Robertson, M.D., Ottawa; Mr. James McLauchlin, Owen Sound; Mr. George Rutherford, Hamilton; Mr. John Billings, Hamilton; Rev. Dr. McLeod, Barrie; Robert McLaren, St. Catharines: H. P. H. Galloway, M.D., Toronto; Mr. R. E. Nelson, Guelph; Mr. Frank Haight, Berlin; Mr. Fred Roper, Toronto; H. P. Sullivan, M.D., Toronto; C. S. Wainwright, M.D., Toronto; Mrs. Bassett, Toronto; Adam Beck, M.P.P., London; E. J. Pense, M.P.P., Kingston; Thomas Crawford, M.P.P., Toronto; Mr. Murphy, M.P.P., Ottawa.

Mr. Gurney, the President of the Association, occupied the chair. The minutes of the inaugural meeting of the Association were read and confirmed.

Dr. Ferguson, the Secretary-Treasurer, submitted the following statement:—

"Since we last met, twenty-five hospitals and thirty individuals have paid their membership fees. The hospitals are the Pembroke General Hospital; the Kingston General Hospital; St. Michael's Hospital, Toronto; St. Catharines General and Marine Hospital; the Collingwood General and Marine Hospital; Guelph General Hospital; the Woodstock Hospital; the County of Carleton and General Protestant Hospital; the Nicholl's Hospital, Peterborough; the Chatham Hospital; the Ottawa Maternity Hospital; the Berlin and Waterloo General Hospital; the Sarnia General Hospital; Grace Hospital, Toronto; St. Joseph's Hospital, Sudbury; the Ottawa General Hospital; the Royal Victoria Hospital, Barrie; the Children's Hospital, Ottawa; the Owen Sound General and Marine Hospital; the John H. Stratford Hospital, Brantford; the Hamilton City Hospital; the Galt Hospital; the Toronto General Hospital; the Toronto Orthopedic Hospital; and the Toronto Western Hospital.

"The following persons have paid their membership fees :—

"John Marshall; Hugh McLoy; J. P. Featherstone; C. C. Roy; H. R. Reid; T. W. Kenny; E. B. Eddy; J. R. Armstrong; R. P. Robinson, M.D.; J. E. Hanna, M.D.; R. A. Kennedy, M.D.; J. Ballantyne; A. S. Woodburn; T. Workman; Mrs. Bassett; Sister M. Monica; John Ferguson, M.D.; Edward Gurney; R. Roper; E. R. Wood; Allan Cameron, M.D.; C. O'Reilly, M.D.; S. F. Gardiner; George Roach; H. P. H. Galloway, M.D.; George Rutherford; John Billings; Frank Haight; H. J. Sullivan, M.D.; and C. S. Wainwright, M.D.

"The total income to date is $195.00, and the disbursements amount to $78.09, leaving $116.91 in the treasury.

"Since the last meeting a good deal of correspondence has been carried on with the hospital boards, with the view of inducing them to become members. There is no doubt but that all will eventually join the Association.

"The Association is destined to be of the utmost service to the hospitals of the Province. Already there are indications that it is accomplishing some good. But there is much for it to do in the matter of securing from the Government and the municipalities adequate support for the destitute poor. It is hardly fair that the funds of the various hospitals should be burdened with the maintenance of these cases. In this way the progress and efficiency of all the hospitals are greatly hampered.

"The proceedings of the former meeting were got out in pamphlet form, and sent to all the hospitals and to those who were likely to take an interest in the work. They were also published in the medical journals. Since the first meeting, I have given all the interests of the Association much attention, and I trust these efforts will be of value both now and in the future."

After a good deal of discussion on the needs of the various hospitals and particularly as to those patients on whom the hospitals are receiving municipal and Government grants, the following resolution was unanimously adopted :—

"Whereas it has been observed by hospitals that it requires about $5.60 per week to care for patients in hospitals and provide food, medicines, dressings, nursing, etc.

"And whereas the rates paid by municipalities on their indigent poor does not exceed 40 cents per diem; and that paid by the Government has now fallen to 17 cents per diem; or a total of less than $4.00 per week.

"And whereas the income of hospitals is limited to these grants, benevolent donations, and the payments made by private ward patients.

"And whereas any deficiency in the municipal and Government grants for pauper patients must intrench upon the other sources of revenue, thereby interfering with the working of the hospitals and the comfort of the paying patients.

"Therefore be it resolved, and it is hereby resolved, that in the opinion of the Ontario Hospital Association, the municipalities and the Government should take steps to provide more adequately for their indigent poor, which can be done as follows:—

"1. The municipalities should grant at least 50 cents per diem on their pauper patients;

"2. That the Government should make its grant to all patients paying $3.50 per week and less; and

"3. That the Government grant should be raised above its present amount by the addition of $20,000 to the present grant of $110,000."

It was also agreed that a copy be sent the Government.

After a very full discussion, it was recommended by the Association that all hospitals should advance the charges on pay patients by fifteen per cent. on the usual rates now charged.

It was also agreed that the proceedings be again printed in pamphlet form.

The Deputation.

In accordance with an appointment made with the Hon. G. W. Ross, the Association interviewed the Premier.

In the unavoidable absence of the President, Mr. Gurney, Dr. C. O'Reilly stated the objects of the deputation. He said that the cost of maintaining patients had been steadily increasing, whereas the Government grant had remained the same, namely $110,000. The number of hospitals and patients were increasing also. The Government grant now was only sixteen and a half cents per diem on patients paying less than $3.00 per week. The grant formerly was thirty cents per day, when the number of hospitals and patients were fewer. He stated that the resolution that had been agreed upon set forth the views of the Association. In a word the requests were: that the Government increase the grant by at least $20,000 a year, or make it up to 20 cents per day; and that it be paid on patients from whom the hospitals might receive $3.50 per week, or less. This would enable the hospitals to raise the minimum rate from 40 cents a day to 50 cents per day.

Rev. Dr. McLeod, of Barrie, said that the hospitals were doing a public service, and should receive more assistance from the general income.

Mr. E. J. B. Pense, M.P.P., of Kingston, urged the increase. He said that hospitals had to make constant appeals through churches and other ways for funds. If they did not, they could not keep their doors open.

Mr. George Rutherford, of Hamilton, referred to the increase in the amount of the succession duties, and that the amount of grant to the hospitals remained the same. It would be in the interest of all to increase the grant, as requested. The increase asked for was only 3 cents a day on those entitled to it.

Mr. Adam Beck, M.P.P., called attention to the fact that the poor availed themselves of the advantages of hospital treatment now much more frequently than formerly. This increased the drain upon the funds of all the hospitals, as the Government and municipal grants did not maintain these charity cases.

Dr. John Ferguson pointed out the fact that the loss on charity patients had to be met from the other sources of income. This interfered seriously with the work of the hospitals and the comfort and welfare of all the patients. The succession tax had reduced bequests.

Mr. Thomas Crawford, M.P.P., of Toronto; Mr. Murphy, M.P.P., of Ottawa, and a number of other speakers endorsed what had been said.

The Premier in reply said that it had given him much pleasure to meet those interested in hospital work and to learn what was being done. He said he would confer with Mr. Stratton and give the matters discussed his very best consideration.

The constitution of the Association remained unchanged and is as follows:—

NAME.

The Organization shall be known as the Ontario Hospital Association.

OBJECTS.

1st. To procure increased Government aid for the maintenance of indigent patients in the public hospitals of Ontario.

2nd. To take steps to procure a proper amount of county and civic aid.

3rd. To promote, by mutual suggestion and discussion, the interests of hospital work throughout the province.

MEETINGS.

The Association shall meet annually in Toronto at such times as may be decided best in the opinion of the Executive, for the furtherance of the work of the Association.

OFFICERS.

The officers shall consist of a President, six Vice-Presidents, a Secretary-Treasurer, and a committee of eight, who shall constitute the Executive, and of which number five shall constitute a quorum.

MEMBERSHIP.

Each hospital in the province receiving Government aid shall be entitled to be represented, and any member of its board shall be entitled to membership in the Association, but each hospital shall be entitled to one vote only.

FEES FOR MEMBERSHIP.

1st. It was moved and adopted that the minimum fee from each hospital be five dollars, and

2nd. That the fee for individual membership be one dollar.

THE RESULT OF THE DEPUTATION.

As the result of the deputation, the Ontario Legislature passed the following bill. This bill will enable hospitals to collect from patients and municipalities $3.50 a week and also retain the government grant. If this were enforced in all the hospitals it would mean an increase of 10 cents a day on those entitled to government grant. Last year, this would have meant 10 cents a day on 640,000 days, or $64,000 to all the hospitals.

An Act to amend The Charity Aid Act.

HIS MAJESTY, by and with the advice and consent of the Legislative Assembly of the Province of Ontario, enacts as follows:—

1. Subsection 2 of Section 5 of *The Charity Aid Act* is amended by adding at the end thereof the words:—

"But no person shall be deemed a paying patient by reason only of the payment by any municipal corporation to such institution of any sum which together with the amount contributed by such patient, or on his behalf from other sources, will not exceed each week the sum of $3.50."

TORONTO MEDICAL SOCIETY.

Stated meeting at the Orthopedic Hospital, April, 28th, 1904, Dr. Hunter in the chair.

Dr. B. E. McKenzie showed (*a*) a case, one of congenital dislocation of the right shoulder and paralysis of the left. The right had been straightened by an operation on the humerus.

(*b*) A young man who had been hurt at football and after a short time had been helped off the field. He had had a floating cartilage which he could at will bring to the surface, and that had been done and anchored before operation for removal.

(*c*) Two cases of excision of the knee. One had a family history of tuberculosis. The union was good.

Dr. McPhedran showed a case of a neurasthenia. Drs. Carveth, Bryans, Hastings and Wilson discussed the case.

Dr. Wilson showed a case of syphilitic spinal paralysis. History age 28, Canadian, a carpet weaver, married, 25-3-03, two weeks and a half after, she had a sudden pain in the shoulder, on the left side. In 24 hours, the right hand and both elbows were swollen. One week later, there was retention of urine, when the cathetor was used for a week, after this for a month there was incontinence. At the time of the retention there was a brown discharge from the vagina. It was not menstrual. The bowels were moved by purgatives without patient's knowledge of the motions.

Then numbness of the feet, hands, and arms and swelling were symptoms, after 8 weeks in the General Hospital, feeling began to return in the feet, legs, and left hand. About this time profuse sweating was present on the left side from the head to the ribs. All the reflexes were marked. Dr. McPhedran said that the recto-vestical centre was involved. It was what Erb had described as syphilitic spinal paralysis, where there is anaesthesia and bladder and rectual disturbance.

Dr. Mackenzie showed a case of histeria in a girl of 14, very exaggerated.

Dr. Hay exhibited three cases of fracture of the elbow which had been operated upon.

Dr. McMaster showed a case of tubercular skin disease which was under x-ray treatment; and which, he stated, was much improved though only a short time under treatment.

Stated meeting, May 5th, 1904. The President, Dr. Silverthorn in the chair.

Dr. W. J. Smuck showed a case of universal psoriasis. The young man had been troubled for some years; but last year, while in Muskoka during the winter, he was almost completely well. Arsenic had not been of much service in the treatment. Dr. Ferguson suggested the use of antimony for arsenic.

Prof. MacKenzie read the paper of the evening, which had been prepared by Dr. Oille "Regeneration and Degeneration in Arteriosclerosis." He showed also a number of fine drawings of the microscopical condition. Dr. Ferguson and Dr. Silverthorn praised the drawings.

Dr. Silverthorn then showed a specimen of abdominal teratoma, and gave the history.

The nominations were then made for the ensuing year.

Twenty-fifth annual meeting, May 19th, 1904.

The President occupied the chair.

Dr. Silverthorn exhibited some fine specimens of fractured bones. There were fifty in all, most being in the dry state, and of the femur.

Dr. Webster reported some interesting cases First, a man who was said to have been drunk, and had passed a piece of paraffin into the bladder, he had advised operation to remove the supposed stone as had a number of other operators in the city, but this was refused. He then tried the lithotrite and had succeeded in bringing away, in the washing, pieces of phosphatic deposit upon some other body. In the teeth of the instrument there were some small pieces of paraffin. For some time solvents were tried but failed, and then the patient was instructed to pass water when leaning over the edge of a table and as near as possible in the position of standing on the head. This was successful, the pieces of paraffin being passed in this way, as it is a very buoyant substance. A number of the pieces were shown.

Second. A case of hypospadias, which a number of operations had failed to completely cure. He was operated on again and the contracted urethta removed. He had since married, and reported that the emission was deposited on the perineum. The following device was then used; a hard rubber catheter was passed into the meatus and urinated through, when it was found that there was no leaking. A condom was placed over this and the catheter passing through the end. By this means semen was conducted into the vagina. The result was that pregnancy took place and he has now a child.

Third. A case operated on a few days ago, where he had found that the ends of the tubes were closed, and pus was present in the end of one, which was due to staphylococci. The operation was undertaken

for a possible ectopic gestation, a small tumor-like doubling up of the fimbriated extremity of one tube being found, which had felt like the ectopic tumor. He reported the case, because it showed that pus might be found within the tube and sterility result from infection from within the abdominal cavity, though there was no inflammation or infection of the uterus.

The recording secretary reported that there had been fifteen meetings this year, five of which had been clinical. Four new members had been elected. The average attendance was twenty-five, just the average for the last five years. Twelve papers had been read by the members, two addresses given, forty cases reported, and fifty patients shown to the society, thirty lantern slides, one hundred x-ray photographs and fifty specimens.

The Treasurer reported: 1903, June, cash on hand, $89.32; fees collected since, $210.00; total, $299.32. Expenditure: Printing, $30.10; salary of Secretary, $25.00; sending notices, $25.00; collector's fees, $5.60; stamps, etc., $3.50; rent, 1903-4, $20.00; caretaker, $5.00; cash on hand, $185.12; total, $299.32.

Dr. Starr moved that in view of the splendid showing of the Society financially, that the time had arrived for this Society to pay back to the Workman Fund the money borrowed some nine years ago with the sum of thirty dollars as accrued interest. This was seconded by Dr. Beatty, and carried. Dr. Beatty then moved that the honorarium of the Recording Secretaty for this year be $30.00, and that the Treasurer issue a cheque for that amount. This was seconded by Dr. Hunter, and carried. Dr. Starr moved, seconded by Dr. Clarkson, that the thanks of the Society be placed on record to the President and other officers for its excellent financial condition, and the satisfactory reports for the year. The election for office resulted as follows: President, Dr. J. Hunter; 1st Vice-President, R. Hooper; 2nd Vice-President, H. Beatty; Recording Secretary, A. Fletcher; Treasurer, G. H. Carveth; Corresponding Secretary, Dr. Clarkson; and Council, Drs. Silverthorn, Hay and McPhedran.

ONTARIO MEDICAL ASSOCIATION.

The following changes and additions have been made in the outline of papers for the Ontario Medical Asssociation :—

Dr. Rudolph's paper, "The diagnosis of Functional Heart Murmurs;" Dr. H. A. Bruce's, "Report of a case of Resection of the Caecum, for Carcinoma;" Dr. Perry Goldsmith's, "The treatment of Ophthalmia Neonatorum and its complications;" Dr. C. B. Shuttleworth's, "A critical

review of the subject—Lithotomy versus Litholapexy;" Dr. Primrose's, "The surgical treatment of Epilepsy;" Dr. Burnham's, "Inflammations of the Lachrymal apparatus"; Dr. Marlow's, "Enlargements of the Prostrate Gland;" Dr. Elliott's (Gravenhurst), "Chest examinations—a system of recording observations;" Dr. H. P. H. Galloway's, "Report of a case of Bilateral Congenital Dislocation of the Hips treated by the Lorenz bloodless method, a brief review of the present status of the Lorenz method"; Dr. Hodge's, London, "Pain in the upper abdominal zone, its causes and diagnosis"; Sir Wm. Hingston's, "Thoughts on Cancer"; Dr. Clouse, Toronto, "Report of an unusual case of Pelvic Disease"; Dr. B. Z. Milner, Toront, "Lympho-Sarcoma"; Dr. H. Howitt, Guelph, "Personal Experience with the McGraw Elastic Ligature"; Dr. Wm. Oldright's, Toronto, "Some cases illustrating difficulties of differential diagnosis and treatment of Tumors;" Dr. T. K. Holmes, Chatham, "The treatment of Prostatic Hypertrophy;" Dr. W. A. Hackett, Detroit, "Some of the newer methods of diagnosis of Kidney cases as applied to Renal Surgery;" Dr. R. N. Fraser, Thamesville, "A group of Cancer Cases,—infection or coincidence"; and Dr. J. Sheahan, St. Catharines, "Peritoneal Inflammations during Pregnancy."

The complete list of titles of the papers upon Life Insurance as follows:—The Influence of Heredity upon the Expectancy of Life, Dr. H. R. Frank, Brantford; The Expectancy of Life in Morbid Conditions of the Geinto-Urinary System, Dr. F. Le M. Grasett, Toronto; The Expectancy of Life of the Cardio-Vascular System, Dr. R. J. Dwyer, Toronto; The Expectancy of Life of the Respiratory System, Dr. Edw. Ryan, Kingston; The Expectancy of Life of the Nervous System, Dr. H. C. Scadding, Toronto; The Influence of the Plan on the acceptance of risks for a Life Insurance Company, Percy C. N. Papps, Esq., A.I.A., Toronto, and The financial responsibility of the Life Insurance Examiner, Dr. B. L. Riordan, Toronto.

PROVINCIAL SANITARIA.

The Executive Committee of the Canadian Association for the Prevention of Consumption has appointed a committee to take steps to secure the co-operation of municipalities and of Governments for the establishment of a large sanitarium in each province for the treatment of consumption.

A committee consisting of all the members of the Executive Council resident in Ottawa was appointed to take immediate action for the purpose of organizing a branch of the association in Ottawa.

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EDITORIAL

NOTIFICATION OF TUBERCULOSIS.

Prior to the year 1882, when Koch gave to the world his discovery of the tubercle bacillus, it had been strongly suspected on clinical grounds that tubercular consumption was a communicable disease. The discovery of the germ settled this belief in the affirmative. A short time after the discovery of the bacillus, the late Dr. J. S. Bristowe said that "just as sure as the crop is the result of the seed, so sure is tuberculosis the result of the germ." But it is now admitted by all in the words of Dr. Arthur Ransom that "there is no case of tuberculosis without a previous case somewhere to account for it."

But as Prof. Clifford Allbutt said a short time ago, we have learned that phthisis is spread, not so much from person to person directly, as indirectly by the aggregation of people in close and badly-cleaned workrooms, in large post offices, in asylums, in industrial works, in overcrowded houses. We have learned that in public places and vehicles it is propagated by spitting and by the spray of the cough, and to know this is to prevent the disease." To prevent the disease, however, we must know where it is, and for this purpose information must be collected.

One of the difficulties in the way of notification is the difficulty of making a diagnosis early. With the modern microscopic aids to the usual clinical manifestations of the disease, there should be no very serious difficulty in this regard. In some places, as New York and Manchester, a system of voluntary notification exists. But this is not sufficient. Notification should be made universal and compulsory. It is only in this way that the haunts of the disease can be found out, and steps taken to put a stop to its ravages. We say now what we have been saying for many years that phthisis is a preventable disease, and by prevention rather than cure, we must seek to cope with it.

It is argued by some that the notification of cases of tuberculosis would entail great hardships upon the unfortunate sufferers. But duty is one thing and sentiment is quite another. The interests of the general public must be considered. The public, however, is now aroused, and

the victim of phthisis is soon detected, and to a great extent shunned. It is very wrong that a consumptive workman should be allowed to work beside others who are not affected, and without the strictest of safeguards. It is little short of a crime for a consumptive teacher to meet his classes from day to day; or, for a consumptive pupil to consort with the other members of the class. The fear in this matter cannot be controlled. It is abroad, and instead of trying to allay the fear, it is desirable that it should be stimulated into greater activity; for in this way there may be some hope of inducing the authorities to take proper action.

Every case of consumption comes from some other case, just as surely as does typhoid fever, diphtheria, or smallpox; but not with that suddenness that connects cause and effect, as in these latter diseases. Consequently, for a long time people's eyes have been blinded in this matter. It is quite true that consumption is not contracted by coming in close contact with a case, as in the case of smallpox. But this is true of typhoid fever also. No one nowadays would say that typhoid fever arises *de novo* in any person. The infection must be taken into the system. So also it is with tuberculosis.

It matters not what the soil may be, without the seed there can be no crop. So it is with regard to tuberculosis. The disease cannot begin *de novo*. Apart altogether from the constitutional tendencies of the person, there must be the bacillus; and, if every relative a person had, had died of tuberculosis, nevertheless, to have the disease he must become infected with the bacillus. Keep the bacillus out and there is no fear of tuberculosis. A great deal has been said lately about the soil. It might be said that any one is soil under certain conditions. It is poor policy to put any soil to the test of sowing bad seed in it. That some persons may be able to resist is no reason why they should be exposed to the risk of tubercular infection. The search for some remedy that will cure the disease may long remain within the sphere of experimental pathology. It is true that modern methods of treatment, with early cases, yield much better results than was once dreamt of; but it is far better to prevent than cure, even with these recent and better results. For this prevention two main conditions are required: the notification of cases, and supplying them with proper information; and the establishment of sanatoria, where these cases can be separated from the rest of the community. Both of these are requisite, and both will pay the public tenfold.

BRAIN FAILURE.

The brain is the organ of the mind. A certain condition of action of brain tissue means what we call consciousness. The brain is an organ of the body; is one of a numerous family, and is affected by its surroundings, as well as by what takes place in itself. Blood vessels flow to and from it, upon which its nutrition depends; and nerves connect it with all parts of the body, by which it becomes apprised of what is going on. It is very complicated in structure, being made up of many and varied centres, connected with each other by intricate pathways.

In all this we have the foundation for an endless variety of mental arrangements. Delusions, hallucinations, and illusions only show that the nerves carry wrong impressions, or that the brain centres read these impressions wrongly, or give rise to them de novo, because of some pathological condition in these centres. Hence it is that the speech and actions of the insane are but the language by which the diseased, or perverted, state of their brain is expressed. Delusions, hallucinations, and illusions may have a localizing value.

In the etiology of brain failure, the importance of heredity must be borne in mind. We must not, however, attach too much importance to this. It is a well-known fact that healthy persons, with good family histories, may be subjected to conditions that induce insanity. In the nervous system, as in the other systems of the body, the family characteristics are prone to run through many generations. Thus we meet with insanity, epilepsy, eccentricity, hysteria, nervousness, intemperance, vagabondism and criminality in different members of the same family histories.

The powerful influences of civilization must not be overlooked. The conditions of modern life are responsible, to a large extent, for the prevalency and extension of insanity. It is among the most highly civilized countries that mental derangement is most common; and, in these again, in the urban rather than the rural districts. This influence of civilization is well seen in paresis and the depression types of insanity. Although civilization is an important factor in the etiology of brain failure, it does not show its evil effects upon the educated classes; but rather upon the ignorant, or imperfectly educated, who appear to break down in the struggle with those more fortunate, or better educated.

With regard to age, it may be said that of every 100 cases the distribution will be as follows: 15 to 20, 7; 20 to 30, 21; 30 to 40, 29; 40 to 50, 24; 50 to 60, 11; over 60, 8.

Sex is of interest. The two great groups of causes of insanity in the male are traumatisms, and those of paresis. These cases have a high

mortality, and, as a result, there are fewer insane men than women. Married persons are less prone to insanity than the single. Widows are more liable than those whose husbands are living: but less so than widowers and bachelors.

Among the more directly exciting causes may be mentioned mental shock, domestic troubles, disappointments in love, religious excitement, and such like, of an emotional, or moral character, and exhaustive over-work and long hours.

The physical causes of insanity are numerous. These are the cases that occur at development and critical periods. There are many instances from injuries, such as those directly affecting the brain, or more indirectly, as sunstroke, or operations on other parts of the body. Organic changes in the brain, as tumors, diseased arteries, thickened meninges, may all be competent causes. Among the physical causes of brain derangement must be remembered the reflex influence upon it of disease in other organs.

A very important group of causes are the toxic. These injurious agents may be such as are taken into the system by the person, as alcohol, lead or drugs. They may be such as arise from the deranged action of various organs, as in disease of the kidneys, or digestive organs—the so-called auto-intoxication cases, and the toxic agents produced by the infective or germ diseases. This latter is a very important group of cases; and, lately, has been attracting much attention. Some very high authorities hold that the majority of acute insanities are due to intoxication by the products of some infective germ.

In not a few instances more than one cause pertains. The persons may have led a life of excitement, may have indulged unduly in alcoholics, may have contracted syphilis, and now be suffering from the toxic effects of the disease, a diseased state of the cerebral vessels, or a thickened condition of the meninges. Or there may have been overwork, domestic troubles, gout, and insanitary conditions of life. Or there may be arterio-sclerosis, renal cirrhosis, indigestion, uræmia and the accompanying asthma. Brain failure has, therefore, a wide etiology.

ARTERIO-SCLEROSIS.

Few questions are of more importance than that of arterio-sclerosis. Its etiology is by no means well known and its effects are very numerous and important, while its treatment is extremely unsatisfactory.

Many may recall a very instructive lecture, delivered about two years ago by Sir W. R. Gowers, on the subject of abiotrophy, in which

he tried to prove that many of the degenerations which take place in the body are due to an inherent tendency in some tissues to fail in their nutrition at an earlier period in life than they should, or than other tissues do.

At a recent meeting of the Toronto Medical Society, Professor MacKenzie read for Dr. J. A. Oille the report of the latter's research work on the subject of aterial degeneration. Dr. Oille's paper is an important contribution to this question.

He draws attention to the fact that in ordinary scar tissue, the formation of elastic tissue is a very slow process, and that many years may elapse before any appreciable amount is found in a scar, say from a burn. On the other hand, the formation of elastic tissue in the arterial walls is a fairly rapid process, so that if an artery is injured this kind of tissue is soon restored. This has a very important hearing upon the pathology of the arterial system, and throws light upon the practical impossibility of producing aneurisms experimentally.

It is now known that arterial degeneration may occur at almost any age, and instances have been observed of general arterio-sclerosis in quite young persons. Hereditary tendencies have been advanced as an explanation, but it must be borne in mind that this only shifts the problem a stage further back.

Diseases such as syphilis, poisons, as lead, tobacco and alcohol, faulty metabolism giving rise to auto-intoxication, over-exertion and mental worry, some special change in the quality of the blood interfering with its free flow through the capillaries, chronic renal cirrhosis, have all been put forward as causes for arterial sclerosis, or patchy degeneration of the arteries. It has been urged by some that an excess of uric acid is the most important factor, while others hold that an over production of adrenalin may maintain prolonged arterial tension and, ultimately cause arterial fibrosis.

A feature of the paper of much interest is the view that in general arterio-capillary fibrosis with cirrhosis of the kidneys, the disease has its commencement in the vascular system. Dr. Oille's paper also brought out the interesting fact that from the fibroblasts of the arteries both common fibrous and elastic tissues, are developed, but from different portions of the fibroblast. It would appear that non-elastic tissue is formed from the inner portion, while the elastic tissue is formed from the outer portion of the fibroblasts. This is a matter of the highest importance in the study of this question.

It was also mentioned that patchy or localized degeneration of an artery was most likely due to a localized sclerosis of the vasa vasorum

The subject of arterial degenerations will bear much study, and we hope Dr. Oille will continue his investigations, giving out another instalment of his work at an early date.

COMPULSORY SERVICE TO THE PUBLIC.

As things are at present, doctors are called upon to perform a number of services to the state and municipalities for which they receive no fee. We know of no instance where the legal profession is called upon to render any service to the public free of charge.

Take the Province of Ontario alone, and there were 27,864 deaths recorded for the year 1902. Every one of these had to be certified by a doctor. This information is of the utmost value to the Province, as a basis for its vital statistics. To be of any value, these certificates must be reliable and record the causes of death truly. Doctors alone can furnish this information. Here, the law demands a public service from them, but gives them no remuneration for that service from the public purse. We think it is quite proper that doctors should be required to fill out such statutary forms, but we do not think that they should be asked to do it for nothing.

But when we turn to the subject of infectious diseases, we meet with a still more unjust state of affairs. The statutes clothe municipal and health boards with the power to demand the notification of infectious diseases, subject to a fine. Thus doctors are forced to render a most important service to the public free of charge and under the penalty of being fined if they do not render this free-of-charge service.

The Report of the Ontario Board of Health for the year 1902, gives 2,796 cases of smallpox, 3,458 cases of scarlet fever, 2,696 cases of diphtheria, and 1,542 cases of typhoid fever. There is not the slightest doubt that many cases were never reported. But, taking the above four diseases, doctors reported, on the free-of-charge plan, a total of 10,490 cases of infectious diseases. How very great the value of this information was to the municipalities and Province, it is quite impossible to say.

This whole question is much more one of principle than of fees. When the state calls upon any member of the community to render it a definite service it must at the same time be prepared to pay for that service. When a man performs his statute labor, he receives in return the improved condition of the roads; and, for his taxes, he receives certain advantages, privileges and protections. For these countless death and contagious disease certificates, the doctors receive nothing. Are these services of less value than the performance of statute labor or the paying of taxes?

We believe that the Ontario Medical and Canadian Medical Associations might very properly give this matter their careful consideration. It is high time that the medical profession became united for business purposes as well as scientific pursuits. Legislation that might entrench upon its rights should be resisted, and the repeal of unjust enactments sought. We may mention the following matters as worthy of immediate attention :—

1. Free death certificates; 2. Free notification of contagious diseases; 3. Free vaccination by medical health officers; 4. Free attendance upon the municipalities' poor; and 5. Free attendance on well paid municipal officials and civil service.

THE ANTI-VIVISECTIONIST.

From time to time we hear the voice of the anti-vivisectionist in the land. There are some of the anti-vivisectionists who, no doubt, are honest in their objections and who think that all experiments on animals should be condemned. There are others who are ignorant of every principle of physiology or pathology, and who shut their eyes to every evidence advanced in proof of what experiments have accomplished. They are ignorant bigots.

A few days ago, Professor Goldwin Smith, in addressing the Toronto Humane Society said that vivisection should be called upon to show cause for its existence, and that those who performed experiments on dumb animals ought to do so with every regard to the avoidance of suffering, and the advancement of knowledge; and the practice ought to be reduced to the minimum of frequency.

To these sentiments of so able and so well intentioned a person as Mr. Goldwin Smith all will give a ready assent. From what we know of the practice in most of the experimental laboratories of the world, there is an honest desire to avoid experiments for mere amusement, or the infliction of torture. Experiments are performed with the sole object of discovering some physiological or pathological fact.

Some great discoveries have been made in a somewhat haphazard way, as the use of quinine in ague and mercury in syphilis. But it is from the laboratories that the steady light has come that illumines the way of scientic medicine. The physiological action of drugs and the wonderful life-history of germs have there been forced to yield many of their secrets. It is by experiments that we now possess a means of treating hydrophobia and diphtheria, and others are no doubt going to be discovered in the near future. There must be no slackening in the search for these means of treating and curing disease.

The antitoxine serum for diphtheria is far more than a compensation for all the pain that has been caused by vivisection, and more than a justification for future research along the same lines. I know of no form of vivisection equal in cruelty to that of the sportsmen who too often maim and wound for their own amusement. So far, I have not heard of the anti-vivisectionists taking up this subject. They might spend their energy on this or on some similar subject and let the physiologist and bacteriologist alone. These latter are working in the interests of humanity; and, in so doing, indirectly in the interests of the lower animals, as witnessed by the progress of veterinary medicine.

TUBERCULOSIS CONVENTION AT OTTAWA.

The fourth annual convention of the Canadian Association for the Prevention of Consumption was opened at the Normal School, Ottawa, April 22nd. Senator W. C. Edwards, President of the association, delivered his annual address. Mr. J. M. Courtney, Treasurer, reported a balance on hand of $1,999.73. The report of the executive noted the growth in public favor and usefulness of the association, and indicated an increasing activity in the dissemination of information relative to the prevention and treatment of consumptives.

The Secretary, Dr. Moore, had travelled extensively during the year, having visited, with two exceptions, all the places of importance between Sault Ste. Marie and the coast, and reported a growing interest in the work of the association. Three leagues are in affiliation with the association, the Toronto League with 600 members, Montreal League with 400 members, and the St. Francis, Que., League. The executive reported with regret that there are but 200 beds for the accommodation of consumptives in Canada, which was regarded a poor equipment with which to fight the disease.

The Secretary presented a communication from Dr. James Third of Kingston relative to the success which attended the open-air cure in the case of two consumptives who were quartered all the winter in a canvas shack.

A public meeting was held in the Assembly Hall, when an address was given upon animal tuberculosis and its relation to animal health, by M. P. Ravenel, M.D., a noted American authority upon consumption.

The association re-elected Senator Edwards, President; Mr. J. M. Courtney, Treasurer; and Rev. Dr. Moore, Secretary and Organizer. The Executive Council are Sir James Grant, Dr. C. A. Hodgetts, the

Bishop of Ottawa, Sheriff Sweetland, Drs. E. J. Barrick, Toombs, Fagan, Boyce, Bell and J. D. Lafferty.

The committee upon the relation of Governments to the crusade re-affirmed the need of municipal work in the crusade, and advised the medical inspection of schools and the isolation of all cases showing symptoms of consumption, and that such pupils be not allowed to return to school until certified to be free from disease, also that the Dominion Government assist in establishing one model sanitarium in each Province for the study and treatment of the disease.

The Committee on Preventive Measures reported, through Dr. Hodgetts, urging upon municipalities the necessity of placing tuberculosis upon the contagious diseases list. A committee waited upon the Government to urge that aid be given the Provincial Governments for the erection of sanitaria.

ANTI-SPITTING BY-LAW IN TORONTO.

The Anti-Spitting By-law was adopted 11th April by the City Council. There was no objection raised to it. The by-law provides for a maximum penalty of $1 and costs or three days in jail for spitting on the sidewalks, in public buildings, or on street cars. The people will be notified that the by-law is in force by means of small cards, which will be printed for distribution. Dr. A. McPhedran strongly urged the adoption of the by-law. The danger from expectorating on the sidewalks is much greater, the doctor stated, than the general public have any conception of.

It is gratifying to notice that opinion is growing in the right direction. Spitting in the streets, in public buildings, in street cars, is entirely unnecessary as well as thoroughly disgusting. But this would be of little moment were it not for the fact that it is a deadly practice.

Twenty years ago the writer raised the question of placing safeguards around those afflicted with consumption, but was only laughed at, and the statement was indulged in by one speaker that it would be a cruelty to restrict these sufferers and make any attempts at placing safeguards upon them. Another speaker said there was no use putting heavy weights on slender threads. But the world has been moving.

The tubercle bacilli will live some time, varying from hours to weeks, according to the conditions under which they may be placed. Dropped on the street, etc., they may be carried home on people's boots, by ladies' skirts, or wafted around by the wind in the dust. The great majority of cases of tuberculosis in the adult occurs in the respiratory

organs, a fact that proves that the infection enters with the inhaled air. It has been estimated that a consumptive ejects in his sputum from two to five billions of bacilli in twenty-four hours. It has also been calculated that one bacillus may increase to 1,700 millions in 24 hours.

Nothing further need be said in favor of the wisdom of a by-law forbidding spitting in public places. It has been repeatedly proven that dust collected from places where consumptives live or are housed frequently contains the germ, and is infective to animals.

There is now nothing novel in an anti-spitting by-law. Many cities have adopted regulations prohibiting spitting in the streets and public places. The Toronto by-law took effect, first June.

PATENT MEDICINES.

Once more we return to this subject. Under all sorts of names, mixtures are sold to the public, and the most extravagant claims are put forward regarding their virtues. The public in general are not capable of judging as to the merit of these proprietary compounds. It is, therefore, the duty of the government to protect the people against these fraudulent preparations.

Laws have been enacted against selling shoddy goods, and confidence men of all sorts. Let us have a law against the patent medicine fraud and humbug.

Ofttimes from the ignorant or dishonest, testimonials are obtained. These are published broadcast over the country, and the unwary are caught. No reason can be advanced why a medicine should be sold, backed up by impossible claims. Absolute cures are guaranteed for diseases that medical science knows to be incurable. If this is not fraud, then it would be hard to find out what is fraud.

But this is not all. These mixtures often contain ingredients that cannot be bought over the counter. Opium, chloral, alcohol in large quantities, etc., etc., may be freely purchased in proprietary medicines.

A law should be passed compelling every proprietary medicine to carry on the wrappers an accurate formula of its composition. This law should at once order off the market any preparation that contained ingredients that are now on the poison or prohibited lists; or that puts forth claims that are not warranted by its composition. Guarantees should be strictly prohibited.

There are certain general formulæ that may be useful for cuts, bruises, burns, coughs etc., but no stronger language should be allowed on wrappers than a simple mention of what they are useful for. The

moment the vendor undertakes to guarantee cures, the entire stock should be seized.

The person who for gain will guarantee to cure all forms of paralysis, kidney disease, every case of consumption, and cancer is only fit for the asylum on account of his mental condition, or for the penitentiary on account of his moral state.

THE VALUE AND NEED OF MUNICIPAL SANITARIA.

For some years past public opinion has been undergoing change on the question of tuberculosis. It is now accepted that the disease is contracted and that it is also preventable. No better proof of those statements could be furnished than the results of the preventive measures of the past few years.

We would urge upon the various municipalities to take steps for the erection of sanitaria. These need not be expensive, and their maintenance would not entail any serious burden upon the people. The majority of those who would avail themselves of these sanitaria could pay something towards their own maintenance. All over the civilized world there is a movement looking towards the establishment of such institutions for the treatment of consumptives.

Many will remember the lectures of Professor Bryom Bramwell, of Edinburgh, a synopsis of which appeared some time ago in the CANADA LANCET. In these lectures he urged the erection of such sanitaria, and went on to show that the sickness avoided and the lives saved would more than pay for all the outlay.

We are hopeful that, as the result of the efforts of the National Sanitarium Association, the Canadian Association for the Prevention of Consumption, and the several anti-tubercular leagues, the work that has been going on will take on a much more active phase; and that not a few, as is now the case, but many sanitaria for the treatment and isolation of consumptives will be scattered over the country.

ONTARIO MEDICAL ASSOCIATION.

The twenty-fourth annual meeting of this association will be held in the new Medical Buildings, Toronto, on the 14th, 15th and 16th June, 1904. From the arrangements that have been made, it is safe to predict a very successful meeting. By the time an association of this sort has attained the age of twenty-four years, it may be said to have entered upon its full manhood; this is true in a special sense in the case of the Ontario Medical Association. It never was a delicate child, and

is now a particularly robust adult; and is in the full enjoyment of the confidence of the medical profession of the Province, with a proud history to look back upon as a stimulus to even greater work in the future.

Dr. J. F. W. Ross, the President, and Dr. A. A. Macdonald, the chairman of arrangements, have given much time to the affairs of the Association; and will, no doubt, receive the thanks which they have so well merited by their efforts Upon their shoulders has rested much of the responsibility for the Association's success. The programme of papers and entertainments is first-class.

Now comes in the duty of the physicians. There is not much object in getting up so fine a bill of fare, unless there are a goodly number to partake of it. It is one of the features of the Ontario Medical Association, that the larger the attendance, the better the enjoyment. There is nothing selfish in any feature of the gathering. It is a genuine "flow of soul and feast of reason." If only one in ten of the practitioners of the Province should attend, the gathering would number well nigh 400. Just think of the effects of 400 of Ontario's active medical practitioners attending this convention for three days! These could not be otherwise than valuable both to themselves and the public.

THE CANADA LANCET hopes to see this the greatest of all the annual gatherings so far.—*Velut arbor concordia crescat.*

PURE WATER.

The importance of pure water cannot be denied. Disease may be spread in this medium with great readiness. It is the bounden duty of every city and town, undertaking to supply the people with water to see to it that the water thus supplied is safe for consumption.

Many outbreaks of typhoid fever have been traced to infected water, which was either drank or used in cleaning dairy utensils, and in this way gets into the milk. It is nothing short of criminal in a municipality to sell polluted water to its citizens and charge them for it. It is quite inexcusable, as, with proper precautions, the water can be either obtained pure, or rendered sterile, before it is delivered to the people.

In the majority of instances where cities supply impure water, the explanation is to be found in the desire to save money at the expense of health and life. Recently, in Toronto, the water was found to contain the bacillus coli communis, the colonoid bacillus, and streptococci in abundance.

If a dealer is detected selling adulterated milk, or foods, he is punished according to the law. But a city may go on selling dangerous water, because it would cost something to secure pure water. This can-

not be allowed to go on always. There must be a halting point somewhere. One of the absolutely necessary conditions of health in any city is pure water, and it is the duty of the civic authorities to procure a supply of pure water for its people.

The Provincial Board of Health is doing good work in directing attention to this matter. It cannot be insisted upon too often. When people ask for water, they do not wish invisible serpents in it, and deadly bacteria are such.

STREET CLEANERS AND CONSUMPTION.

A serious condition of affairs is said to exist in the City of New York. Out of a total of 5,000 street cleaners, no less than 1,000 are said to be ill with pulmonary tuberculosis, contracted by the inhalation of infected dust. It is both alarming and instructive to find such a large proportion of persons engaged in any occupation becoming affected with this disease. It proves beyond a shadow of doubt that pulmonary tuberculosis can and is contracted by the inhalation of dust.

It has been proven that the dust rising from the streets of cities often carries enormous numbers of the tubercle bacilli. Dr. Woodbury, who has charge of the men engaged in the street cleaning of New York, states that it is impossible to control the spread of the disease among the men unless the habit of spitting on the streets and in public places is strictly prohibited. "So long as people are allowed to spit on the streets the disease will run rampant."

Every sweeper is required to boil his uniform every other day, and when the new stables of the street cleaning department are completed each man will leave his uniform in the stable at night, so as to lessen the danger of carrying infection to his family.

THE ISOLATION HOSPITAL, TORONTO.

The opening of the new wing of the Isolation Hospital furnishes the institution with additional accommodation for which it stood in much need.

The first and second floors are finished in hardwood, and the third in clear white pine. It cost $32,000, and was up to specifications in every detail. The old building, erected ten years ago for $35,000, had accommodated eighty patients, had six bath rooms, no electric-wiring or special ventilating system and no steam coils in the top story. The new building had accommodation for 100 patients, a steam coil in every room, thirteen baths, the most modern system of ventilation, and a separate

room for every nurse. The Isolation Hospital and the Swiss Cottage Hospital had cost altogether $72,000, and in them Toronto had accommodation for the treatment of diphtheria, scarlet fever and smallpox for twenty years to come.

There is a well-managed school for the training of nurses in connection with the hospital.

DR. E. J. BARRICK, TORONTO.

It is with pleasure that we present our readers with an excellent likeness of Dr. Barrick, of Toronto. The doctor's work in behalf of consumptives deserves mention. He has been an ardent advocate of sanatoria for consumptives. It was largely through his influence that the Ontario Legislature, some time ago, passed an Act to aid municipal sanatoria. In time, no doubt, many municipalities will avail themselves of the provisions of this Act.

We wish Dr. Barrick every success in his efforts to secure the amount required to enable the Anti-consumptive League to claim the 150,000 voted by the City of Toronto, and thus place the city in possession of a splendid sanatorium for its consumptives. It would be a lasting monument to his name, and a boon to the people. No one should be jealous of what he is doing, but turn in and lend a helping hand. To Dr. Barrick's unselfish work in the cause of a sanatorium for consumptives for Toronto the good Latin adage, *miseris succurrere disce*, may be truthfully applied.

A DOCTORS' HEADQUARTERS.

It is with much satisfaction that we are able to announce that the Ontario Medical Library Association has secured a suitable property to be the repository of the large and valuable collection of books, now owned by the Library Association. The property is No. 9 Queen's Park. This is of ready access to those living in Toronto, and a delightful spot for the out-of-town doctors to pay a visit to.

It is understood that several medical societies shall hold their meetings in this building, and contribute something towards its maintenance. It will thus be used as a place for the books and for scientific work There is not a physician in the Province who cannot aid those who have charge of this matter. Now that there is a suitable place to put them, donations of books are in order and will be thankfully received by the officers.

UNIVERSITY OF TORONTO MEDICAL BUILDING.

The new medical building, at the end of its first year of use, has proved the value of proper and adequate equipment as a means towards encouraging work in the laboratories. In the old school, where the accommodation was not sufficient, it was a matter of difficulty to see that each student accomplished the quota of work assigned to him. During the past session, with apparatus and open laboratories at his disposal, every man at least fulfilled the requirements, and the vast majority did sufficient independent work to exceed that required by the regulations many times. The comparison was made by the professor of pathology, under whose direction the laboratory work of the senior years was carried on. The most noticeable increase was in the amount of work done by third year students in the clinical laboratories. Altogether the third and fourth year students made something over sixteen thousand analyses and examinations of clinical material during the year. This is three times what the regulations call for from the number of students concerned. It does not prove a greater love for the work, but it argues a more systematic study of the cases met with in the hospitals and a consequent gain in the practice of case-taking which is bound to prove its usefulness after graduation. It has been thought advisable to double the accommodation now provided for this department.

PERSONAL AND NEWS ITEMS.

Dr. A. A. Dann, of Toronto, has arrived in Galt and will practice there.

Dr. Robertson, of Kingston, will open a practice in Smith's Falls shortly.

Dr. Emmerson, of Toronto, has gone to London, England, to walk the hospitals.

Dr. J. T. Duncan has removed from 45 Bloor St. E., Toronto, to 165 Bloor St. E.

Dr. Harley Smith's friends will be glad to hear that he has recovered from his long illness.

Dr. Atkinson, of Mitchell, was married a short time ago. He is remaining in Mitchell.

Dr. Coats has taken the practice of Dr. Withrow and has taken up his residence in Galt.

Dr. and Mrs. J. W. Walker, of Ridgetown were at the King Edward, Toronto, recently.

Dr. W. R. Watson, of Burlington, has been appointed Associate Coroner for Halton.

Dr. Cook and Dr. J. H. Davidson have made arrangement to enter into partnership at Manitou.

Dr. J. A. Graham, a recent graduate of Kingston Medical College, has decided to go out West.

Dr. MacCormick, Enterprise, has removed to Smith's Falls, where he will practice his profession.

Dr. John Gunn, of Ailsa Craig, has been appointed house surgeon at St. Joseph's Hospital, London.

Dr. A. W. Hotham, who has been practising in St. Marys for some time past, has left for Manitoba

Dr. J. .L Davison, Toronto, left town last week for a six months' trip to England and the Continent.

Dr. Sinclair, of Manitou, Man., is moving to Manor, where he will engage in the practice of his profession.

Dr. A. W. Mayburry, formerly of Parkhill, will spend the summer taking a special course in the European hospitals.

The engagement has been announced of Dr. F. N. G. Starr, of 112 College street, to Miss McKay, of New Glasgow.

Dr. W. T. Connell, of Kingston, has been appointed assistant bacteriologist to the Provincial Board of Health.

Dr. Page, of Waterloo, has left for Quebec where he will practice as a specialist in diseases of the eye, ear, nose and throat.

Dr. J. E. Craig, of Ottawa, was married at Morrisburg to Miss Lillian Smith, B.A., daughter of Gilbert Smith of Morrisburg.

Dr. Warren has returned from England, where he and Mrs. Warren spent the winter. The Dr. made a short visit to his parents.

Dr. Golden, of Ridgetown, who left for California about five weeks ago has decided to locate there. The family will go west the coming fall.

Dr. Crawford, of Winnipeg, has returned from the south and re-opened his sanitarium at 382 Hargrave street on May 1, with new assistants.

Dr. P. H. Bryce, Dominion Medical Inspector, was in Quebec to superintend the fitting up of the Savard Park as a house of detention for immigrants.

Dr. McDiarmid, who looked after Dr. Young's practice in Atlin during the absence of the latter in Victoria, has returned. He is at the Vernon.

Dr. Philip, of Hamilton, a short time ago was in New York for a few weeks where his daughter, training as a nurse, was operated on for appendicitis.

Dr. and Mrs. Nicol will leave for their cottage in Muskoka, on June 15th. Miss Nicol will visit friends in Toronto and St. Catharines during the summer.

Dr. and Mrs. Franklin Dawson, of Spadina avenue, Toronto, sailed last week for Scotland, going later to London, where the doctor will do hospital work.

Dr. F. B. Miles, who for several years has occupied a position with Dr. Barbour at Fredericton, has gone to Victoria, B.C. He will open an office in the West.

Dr. J. Edgar Davey, of Hamilton, son of Rev. R. Davey, Waterford, was married recently to Miss Jennie Eldora Flatt, third daughter of the late Jacob Flatt.

Dr. Sheriff entered upon his duties some time ago as house surgeon at the Isolation Hospital, Ottawa, succeeding Dr. Campbell who has gone abroad to study.

Dr. McKenty, of Winnipeg, who was thrown from his carriage and badly shaken up, has recovered from his injuries and was able to preside at the examinations.

M. Turnbull, M.D., C.M., has been appointed resident physician in St. Boniface Hospital, in succession to Dr. Herbert Davidson, who has gone to Manitou.

Dr Herbert Davidson, who for the past year has been resident physician in St. Boniface Hospital, leaves to-day for Manitou, where he will practise his profession.

Dr. Neelands, Port Hope, has recovered from his recent illness and is able to be at work again. A partnership has been formed between Dr. Neelands and Dr. Hawkins.

A partial stroke of paralysis temporarily disabled Dr. H. R. Casgrain, Surgeon-Major of the Essex Fusiliers Regiment. The doctor was overworked at the time.

Dr. T. J. Dunn, of Beeton, is again in charge of his practice, Dr. Jamieson having returned to Collingwood. The doctor enjoyed his studies at John Hopkins University.

Dr. Robert D. Fletcher is in Baltimore, where he will take a post-graduate course in medicine at the Johns Hopkins hospital. He will return to Winnipeg at mid-summer.

Dr. Charles Morrison and Miss Agnes Hanley, Kingston, were married by Archbishop Gauthier. It was the first marriage ceremony performed by his grace since his elevation.

Dr. Fischer, who for the past two years has been house surgeon at St. Joseph's Hospital, London, left a few weeks ago for Waterloo, where he was born, and where his relatives reside.

Dr. McKenzie, who has been taking a Post Graduate course in London, spent sometime in Germany taking up a special course prior to his return to Brandon about the middle of May.

Dr. C. R. Elliott, formerly resident physician at St. Michael's and the Toronto General Hospitals, has been appointed by the United States Government, marine hospital surgeon at Seattle.

Dr. Warren H. Lang, who has about completed a year as house surgeon in the Winnipeg general hospital, leaves shortly to practice his profession in the town of Carman.

Dr. E. A. Ferguson, a Kingston Graduate, left for Toronto a few weeks ago en route for Britain. When in Edinburgh he intends taking a year of post graduate work in the medical college there.

Dr. and Mrs. Hannay, of St. John, will go abroad in June and will spend three months in England and Scotland. When they return in the autumn they will take up their residence in Fredericton.

Dr. Charles M. Smith, formerly of Orangeville, Ont., will start a practice in Peachland, one of the new towns in the Okanagan district. He qualified at the examinations held recently in Victoria.

Dr. Withrow, of Toronto, has gone to Fort William and will practise his profession with Dr. Hamilton. The doctor is an M.D., of Toronto; M. R. C. S., of England; and L. R. C. P., of London, England.

Dr. F. W. E. Burnham, who recently returned from Europe after two years spent in hospitals of England, Germany, France, Switzerland and Austria, has opened an office at 373 Broadway, Winnipeg.

Dr. Thos. Turnbull, who has been with Dr. D. B. Fraser for some time has left for Winnipeg. He has not decided whether, he will locate there or not, it being his intention of looking round a little before deciding.

Invitations have been issued for the marriage of Miss Helena Edith Mallory, daughter of Dr. and Mrs. M. B Mallory, Toronto, to Dr. Chas. A Harding, on Wednesday, June 1, in St. Margaret's Church, at 5 o'clock.

Dr. M. B. Dean, who was practicing in Fort William two years ago and went over to London, England, to take a course in the university there has accepted a position in Sierra Leone, on the West Coast of Africa.

Dr. Beech, formerly a practitioner in Pilot Mound, has taken up his residence on Salt Spring Island, B.C., where he has begun to practice his profession again. Salt Spring Island is two hours run by boat from Victoria, B.C.

Dr. E. Richardson has located in Sturgeon Falls and is occupying a suite of rooms in the Holditch Block, King Street. The doctor needs no introduction having practiced in this vicinity for some time with headquarters at Cache Bay.

Dr. G. W. Ross, son of Hon. George W. Ross, who has been in London for several months, was home for a brief vacation early in May. He will return to England almost immediately to spend a year in further research work in the hospitals there.

Dr. E. McEwen, of Carleton Place, was in New York for some time where he took up specialist work in the New York post graduate hospital. He has decided to remove right away to Port Arthur, where a more promising opening presents itself.

Dr. A W. Hotham, of St. Marys, was in Mitchell recently, saying good-bye to his friends there prior to leaving for Southern Manitoba. The doctor has sold his practice in St. Marys to another young and enterprising practitioner there, Dr. Knox.

Dr. Jack Harty, eldest son of Hon. William Harty, who has been visiting many of the European centres, including the Eternal City, has returned home on Thursday. Dr. Harty's health has been greatly improved by this most enjoyable trip across the continent.

Prof. A. B. Macallum, professor of physiology at the University of Toronto, has left for a trip to Europe, including the meeting of the British Association at Cambridge, the International Physiological Association at Brussels, and the International Zoological Association at Berne, Switzerland.

For the second time within a year Dr. G. E. Millichamp, 49 Carlton Street, Toronto, was thrown out of his carriage and injured. The horse took fright at the carpet-cleaner opposite 83 St. Joseph Street and ran

over to Queen's Park, where Dr. Millichamp was thrown out. He was badly shaken up and had to be taken home in a cab.

The following Provincial appointments are announced: Dr. W. P. Chamberlain, Associate Coroner for Toronto; Dr. N. J. Amyot, Belle River, Associate Coroner for Essex, to succeed Dr. J. O. Reaume; Dr. J. H. Bull, Holland Centre, Associate Coroner for Grey; Dr. C. F. McPherson, Prescott, Associate Coroner for Leeds and Grenville.

Dr. Harvey J. Watson, Trinity '96, who for the past three years has been a surgeon in the U. S. Army in China and the Phillippines has resigned his commission and opened an office in Winnipeg, Man. Dr. Watson was the only Canadian docter in the U. S. army, and went to the relief of Pekin with the allied forces in 1900.

Dr. Robertson, of Kingston, who was one of the party who had such a narrow escape from drowning last summer by his gasoline yacht striking a stump near Box's Island, was in Smith's Falls recently, and is likely to locate here and practice medicine. He is thinking of taking rooms in the Arlington Annex, Water street.

It is reported that Dr. David Smith, who has been assisting Dr. McWilliam, of Thamesford, for some time is leaving to go to Britain to to take post graduate classes in Edinburgh and other places. We wish him every success and trust that he will come back crowned with honors. Dr. Anderson, who was with Dr. McWilliam for a short time last year is expected again to assist.

After his successful and inspiring lecture in the Grand Opera House, Dr. Drummond was entertained at a banquet in the London Club by a number of friends and admirers, consisting principally of members of the medical profession of the city. The chair was occupied by Dr. Niven, who fulfilled the duties of toast-master, and gave the usual loyal and patriotic sentiments.

Sir William Turner, president of the General Medical Council of Great Britain, announced that a working scheme to promote a reciprocal relations between Canada and Britain in regard to practice and admission to the respective medical registers was not yet accomplished. It was intended to meet the difficulty raised by one Provincial Legislature, Canada declining to consent to the formation of a register for the whole Dominion.

Dr. John McCrae and Dr. William G. Turner were entertained at an informal supper at the Place Viger by the House Staff of the Montreal General Hospital and a number of their friends. Their retirement from the resident staff was made the occasion for an expression of

appreciation and good-will. Dr. McCrae, who has been resident pathologist for several years, is to take up practice in Montreal, while Dr. Turner, the superintendent of the past two years, leaves shortly for Europe.

The Royal College of Physicians and Surgeons, Kingston, is to be revived, with Senator Sullivan, one of the charter members, as president. This corporation has a royal charter, issued in 1866. Since the Queen's Medical College resumed its relations with Queen's the Royal College has been dormant. It is now proposed to revive it and utilize its examining powers in granting fellowships and the degree of F.R.C.P.S. This degree can only be secured on examination of a high standard and a thesis by doctors of five years' standing. Since 1892 the Royal College has conferred one or two degrees, but now it is proposed to thoroughly reorganize it and make it a live corporation.

Below are given the results of the final M.D., C.M., examinations at Trinity University:

Certificates of Honor—R. J. Manion, gold medal; J. A. Brown, silver medal; S. M. Lyon, J. A. Turnin, A. J. Fraleigh, R. A. McLurg, W. J. Chapman, H. A. Bray.

Class I.—F. J. Rundle, W. A. Atkinson and W. E. McLaughlin (equal), H. E. Kuoke, F. H. Hughes, S. J. Hillis, J. F. Adamson.

Class II.—W. H. Brown, W. J. Backus, G. R. Luton, T. G. Cameron, J. H. Wickett, W. A. Scanlon, N. G. Allin, B. C. M. Whyte, W. J. Barber, I. W. Lynn, F. C. S. Wilson, Miss L. Morden, A. V. Brown, G. H. Boyce, J. Fettes, A. A J. Simpson, L. Clarke, G. H. Richards, Miss J. Allyn.

Class III.—B. M. Lancaster, J. H. Cascaden, R. J. Reade, J. H. C. Henderson, R. H. Taylor, T. Livingstone, H. A. S. Treadgold.

OBITUARY.

J. P. CHARTRAND, M. D.

The medical faculty of Laval has again suffered a great loss in the person of Dr. J. P. Chartrand, professor of practical anatomy, who died 26th April, of cerebral haemorrhage, after only a few hours' illness, at the age off orty-three years. Dr. Chartrand was a native of St. Andre Avelin. He studied his classics in the Joliette College and afterwards obtained his degrees from the Montreal School of Surgery and Medicine, then affiliated to Victoria University at Cobourg. Almost immediately after his admission to the profession, he was appointed professor of chemistry at the same school, and when that institution became united with Laval,

in 1892, he was given the chair of practical anatomy, which he retained until his death. At the beginning of his professional career, Dr. Chartrand passed some time in Europe, completing his studies under the most noted surgeons. He was one of the surgeons of Hotel Dieu and medical adviser to several benefit societies. Dr. Chartrand was a special favorite with the students, who will deeply regret his loss. In 1887 he married Miss Anna Prevost, who survives him. The funeral took place from his residence, 944 St. Denis street, Montreal.

S. SYLVESTRE, M. D.

The death of Dr. S. Sylvestre occurred suddenly at his residence, 1240 St. Denis Street, Montreal, shortly after nine o'clock, on Saturday evening, 2nd April. Dr. Sylvestre, while slightly unwell during the day, attended to his duties, and nothing indicated that the end was so close at hand. He was taken very ill after supper, and though medical aid was summoned, he passed away without recovering consciousness. He was forty-six years of age, and had been practicing in the north end of the city for twenty-six years. He leaves a widow and two children. The funeral took place to the Church of St. Louis de Mile End.

SIR PHILIP CRAMPTON SMYLY, M.D.

This distinguished Irish Surgeon died suddeniy of cerebral haemorrage on the 8th of April, at the age of 66. He studied in Germany as well as in Britain. He held a number of important surgical appointments, and was for a long time President of the Royal College of Surgeons in Ireland. He was a member of the General Medical Council of Great Britain. He was Knighted in 1892, and was Surgeon to the various Lords Lieutenant of Ireland. In 1895, he was surgeon-in-ordinary to the late Queen Victoria, and in 1901, honorary surgeon to King Edward VII. He contributed a number of important papers to surgical literature.

REGINAL HENWOOD, M.D.

The death occurred at an early hour, 22nd May, of Dr. Reginald Henwood, of Brantford. He was 76 years of age, and came to Canada from England in early youth, locating at Toronto, where he secured a provincial license to practise in 1846. Fifty years ago he removed to Brantford, and for nearly half a century did an enormous practice, retiring about four years ago. Death was due to general decline. Dr. Henwood was mayor of Brantford in 1882-83. He was a very prominent Mason, an Anglican in religion, and a Conservative in politics. He

is survived by three sons, Dr. A. J. and Edward, of Brantford, and George, of Victoria, B.C. All who knew Dr. Henwood recognized in him the highest ideals of the family physician, scholar, gentleman and friend.

E. A. DROUGHT, M.D.

Dr. E. A. Drought, of Morris, Man., died suddenly from heart failure, April 9th. He was sitting in a chair at the Commercial hotel, when he quietly leaned back and breathed his last.

BOOK REVIEWS.

VON BERGMANN'S SURGERY.

A System of Practical Surgery. By Drs. E. von Bergmann, of Berlin, P. von Bruns, of Tubingen, and J. von Mikulicz, of Breslau. Edited by William T. Bull, M.D., Professor of Surgery in the College of Physicians and Surgeons (Columbia University), New York. To be complete in five imperial octavo volumes, containing 4,000 pages, 1,600 engravings and 110 full-page plates in colors and monochrome. Sold by subscription only. Per volume, cloth, $6.00; leather, $7.00; half morocco, $8.50 net. Volume II just ready, 820 pages, 321 engravings, 24 plates. Philadelphia: Messrs. Lea Bros. & Co.

The second volume of this great work appears so soon after the first that a prompt completion of the whole is assured. American surgeons will thus enjoy the advantage of having a complete library of practical surgery, reflecting its subject in its latest development, and simultaneously fresh throughout. Their German confreres absorbed the early volumes of the first edition so rapidly that a second edition of them became necessary before the completion of the original issue. The success of the work in Europe was so great that it was immediately translated into Spanish and Italian, and a translation into English was undertaken in this country when the American publishers became aware of a revision in the German and decided to await its appearance. At the expense of a very short delay, therefore, American surgeons are placed in a position of decided advantage over their European brethren. Moreover, the corps of experienced surgeons who have translated the work under the editorial supervision of Dr. William T. Bull, have added those methods of practice which have gained preference in America, as well as many illustrations and colored plates. This great work in its present form may, therefore, truly be regarded as reflecting the latest knowledge of the masters of surgery throughout the world. Americans are quick to appreciate merit, and have evinced this trait anew in the immediate demand for this cosmopolitan surgery which has greeted the

issue of the first volume. It dealt with the Head, a regional arrangement which is conveniently continued by the consideration of the Neck, Thorax and Spinal Column in the second volume, now at hand.

The other volumes of the System will follow in rapid succession.

MUIR'S MATERIA MEDICA AND PHARMACY.

A Manual of Materia Medica and Pharmacy, specially designed for the use of Practitioners and Medical, Pharmaceutical, Dental, and Veterinary Students. By E. Stanton Muir, Ph.G., V.M.D. Instructor in Comparative Materia Medica and Pharmacy in the University of Pennsylvania. Third edition, Revised and Enlarged. Crown Octavo, 192 pages, interleaved throughout. Bound in extra cloth, $2.00 net. F. A. Davis Company, Publishers, 1,914-16 Cherry Street, Philadelphia, Pa.

This is an excellent manual. The author has been careful to make his descriptions brief and in this way covers all the important points in a book of less than 200 pages. The blank leaves are useful for notes and memoranda. At the end of the book a considerable number of formulae are given. The subjects are arranged alphabetically throughout the book, which renders the book convenient for ready reference. It will be found a very useful manual, especially for students.

MUSSER'S MEDICAL DIAGNOSIS.

New (5th) edition. A Practical Treatise on Medical Diagnosis for Students and Practitioners, by John H. Musser, M. D., Professor of Clinical Medicine in the University of Pennsylvania; Physician to the Philadelphia and Presbyterian Hospitals; Consulting Physician to the Woman's Hospital of Philadelphia and to the West Philadelphia Hospital for Women, to the Rush Hospital for Consumption and the Jewish Hospital at Philadelphia; Fellow of the College of Physicians of Philadelphia; Member of the Association of American Physicans; President of the American Medical Association, etc. New (5th) edition, revised and enlarged. In one octavo volume of 1213 pages, with 395 engravings and 63 colored plates. Cloth, $6.50; leather, $7.50; half morocco, $8.00, net. Lea Brothers & Co., Publishers, Philadelphia and New York.

It has been well said of this book that "everything in diagnosis can be found in it," and from the frequency of its editions we might add that it is always up to date in a most vigorously advancing and practical department. With this volume alone the physician is well equipped in what must underlie successful therapeusis—namely, accurate diagnosis. In the case of a book recognized, as this is, as the standard authority, it is sufficient to mention some of the features of this new edition.

The arrangement has been completely changed to correspond with the development of the most logical and natural method of approaching a diagnosis in actual practice. Moreover, the entire work has been rewritten to attain the utmost lucidity. Through condensation in the

more theoretical passages space has been gained for explanation of practical points in fullest detail. This element and the natural growth of the whole subject, have required a total increase of one hundred pages.

The number of illustrations has been nearly doubled, and fourteen new colored plates have been added, making the total number of such plates no less than sixty-three. "MUSSER" is by far the most lavishly illustrated volume ever published on diagnosis, but this wealth has been wisely apportioned. The engravings and plates are all telling, and in connection with their accompanying text they focus a clear picture in the mind of the reader. It is a work that every practitioner will find of immense service, and those teachers who use it for their classes will find their own labors facilitated and the records of their students at examination reflecting credit on all concerned.

MANUAL OF CLINICAL MICROSCOPY AND CHEMISTRY.

Prepared for the use of Students and Practitioners of Medicine. By Dr. Hermann Lenhartz, Professor of Medicine and Director of Hospital at Hamburg, etc. Authorized Translation from the Fourth and Last German Edition, with Notes and Additions, by Henry T. Brooks, M.D., Professor of Histology and Pathology at the New York Post-Graduate Medical School and Hospital; Member of the New York Academy of Medicine, etc. With 148 Illustrations in the Text and nine Colored Plates. Pages xxxii-412, Octavo. Bound in Extra Cloth. Price, $3.00, net. F. A. Davis Company, Publishers, 1914-16 Cherry Street, Philadelphia, Pa. 1904.

This work takes up vegetable and animal parasites, the 84 examinations of the blood in health and disease, the examination of the sputum, the examination of secretions of the mouth and intestinal contents, the examination of the urine, the examination of the aspirated fluids. The illustrations are numerous and good. The translator has rendered a real service to English speaking members of the medical profession in furnishing them with a good translation of this really useful work which has rapidly run through three German editions. It will be found a safe work for constant consultation in practical work.

OTT'S PHYSIOLOGY.

A Text-book of Physiology by Isaac Ott, A.M., M.D., Professor of Physiology in the Medico-Chirurgical College of Philadelphia, with 137 Illustrations. Philadelphia: F. A. Davis Company, Publishers, 1904.

The author states that it has been his object to give the main facts of physiology in a plain form. He remarks that physiology is the foundation for medicine, and that every practitioner should have a general knowledge of the subject. The work before us fulfills all the requisites of a safe guide on the subject of physiology. The author has

covered the ground fully in 560 pages. His style is simple, clear and direct; and the book shows that he possesses a wide acquaintanceship with the literature upon the subject, and has also a good practical knowledge of experimental work physiology. The illustrations have been well chosen. Altogether, the volume is an excellent text-book upon the subject of physiology.

WILCOX ON FEVER NURSING.

A Manual of Fever Nursing by Reynolds Webb Wilcox, M.A., M.D., LL.D., Professor of Medicine in the New York Post-Graduate Medical College and Hospital; Consulting Physician to the Nassau Hospital; Visiting Physician to St. Mark's Hospital; Fellow of the American Academy of Medicine; Member of the American Therapeutic Society, etc. Illustrated. Philadelphia: P. Blackiston's Son & Co; Toronto: Messrs. Chandler and Massey. Price, $1.00.

In this little book of 240 pages, the general subject of fever nursing is first examined and fully and ably discussed. The various special febrile diseases are then taken up. Throughout the book sound advice is given upon all the points that arise in the nursing of fever patients. We would like to see so useful a book in the library of every physician. It is not until one reads the book that he can form any idea of how much and what excellent matter it contains. The book is got up in a very attractive form.

THE MAN WHO PLEASES AND THE WOMAN WHO CHARMS.

By John A. Cone. Hinds and Noble, publishers, 31-35 west 15th street, New York City. Price 75 cents.

The author, in this little book, touches in a most graceful and delightful manner such subjects as the man who pleases, the woman who charms, the art of conversation, good English, tact in conversation, the voice, good manners, dress, personal peculiarities, etc. One of the most interesting of the chapters is the last, giving many quotations from eminent writers, bearing upon the subject of manners. The author is very apt in his quotations, and fits them together with much tact and skill. The book is very enjoyable reading and throws out many a good hint.

NEW BOOKS.

Messrs. W. B. Saunders & Co., of Philadelphia announce the following new books, or new editions of some of their standard publications. We recommend the perusal of the list to our readers.

NOTHNAGEL'S PRACTICE OF MEDICINE.

Tuberculosis and Acute General Miliary Tuberculosis. By Dr. G. Cornet, of Berlin. Edited, with additions by Walter B. James, M.D., of the College of Physicians and Surgeons, New York. Handsome octavo of 806 pages. Cloth, $5.00 net; Half Morocco, $6.00 net.

DISEASES OF THE INTESTINES AND PERITONEUM.

By Dr. Hermann Nothnagel, of Vienna. Edited with additions, by Humphrey D. Rolleston, M.D., F.R.C.P., of St George's Hospital, London. Octavo volume of 1032 pages, containing 20 insert plates. Cloth, $5.00 net; half Morocco, $6.00 net.

EPILEPSY AND ITS TREATMENT.

By Wm. P. Spratling, M.D., Medical Superintendent of the Craig Colony for Epileptics at Sonyea, N. Y. Octavo volume of 628 pages, illustrated.

A TEXT-BOOK OF PATHOLOGY.

By Joseph McFarland, M.D., of the Medico-Chirurgical College, Philadelphia. Octavo volume of about 800 pages, beautifully illustrated, including a number in colors.

THE VERMIFORM APPENDIX AND ITS DISEASES.

By Howard A. Kelly, M.D., of the Johns Hopkins University, Baltimore, Md. Handsome octavo of about 800 pages, superbly illustrated with over 400 entirely original illustrations, including several lithographic plates.

CLINICAL DIAGNOSIS.

By L. Napoleon Boston, M.D., Medico-Chirurgical College, Philadelphia. Octavo volume of 525 pages, containing 200 illustrations, including 25 colored plates.

A HAND-BOOK OF SURGERY.

By Frederic R. Griffith, M.D., of New York. 12mo of about 450 pages, with 300 illustrations. Bound in flexible leather.

DISEASES OF THE LIVER,

By Humphrey D. Rolleston, M.D., F.R.C.P., of St George's Hospital, London. Octavo volume of about 1000 pages, beautifully illustrated, including a number of colored plates.

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A TEXT BOOK OF OPERATIVE SURGERY.

Covering the Surgical Anatomy and Operative Technic involved in the Operations of General Surgery. By Warren Stone Bickham, M.D., of the College of Physicians and Surgeons, New York City. Second edition, revised. Octavo volume of about 1000 pages, with 559 beautiful illustrations, nearly all original. Cloth, $6.00 net; Sheep or half Morocco, $7.00 net.

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By William Allen Pusey, A.M., M.D., of the University of Illinois; and Eugene W. Caldwell, B.S., of the Edward N. Gibbs Memorial X-Ray Laboratory of the University and Bellevue Hospital Medical College, New York City. Second edition, revised and enlarged. Octavo volume of about 625 pages, with nearly 200 illustrations, some in colors.

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By Edward P. Davis, A.M., M.D., of the Jefferson Medical College, Philadelphia. Second edition, revised and enlarged. 12mo of 400 pages, fully illustrated. Bound in Buckram.

WRIGHT'S MEDICAL ANNUAL

The Medical Annual: A year book of Treatment and Practitioners' Index. 22nd year, 1904. John Wright & Co., Bristol, Publishers. Toronto: J. A. Carveth & Co. Price,

A goodly number of doctors are acquainted with Wright's Medical Annual, but not nearly as many as there ought to be. It is one of the most compact and "meaty" books we know of. It is full of information on every page. The material for the present volume has been collected and arranged by thirty-two of the best known physicians, sugeons and specialists in Great Britian, each one vying with the others to make his portion of the book the best. Running through the book there is an admirable terseness and clearness. A number of excellent plates and illustrations enhance the value of the work. It may be said with much confidence: *Nihil est quod non tangit; nihil tangit quod non ornat.*

CORRESPONDENCE.

MUNICIPAL SANATORIUM—TORONTO NEEDS ONE.

Editor of THE CANADA LANCET :

SIR,—I have been frequently asked this question : Is there need of a municipal sanatorium exclusively for our citizens suffering from consumption ? Unhesitatingly, I answer Yes !

The sanatorium at Muskoka is only for cases in the early stages of the disease, and is open to patients from all parts of the Dominion, and therefore has only limited room for Toronto, and, secondly, it is too far away to attract our consumptives in any considerable numbers, and thus inadequate to meet the needs of this city.

The so-called Toronto Free Hospital for Consumptives in the advanced stages of the disease (near Weston), and open to all Canadians, is no doubt an attractive card for securing subscriptions from all parts of the Dominion.

In this city there are continuously at least 600 persons in the advanced stages of the disease, in this province about 5,000, and in the Dominion not less than 15,000.

Now, it is reasonable to believe that from the extensive advertising that is being done at least 5 per cent. of these 15,000 may direct their faces towards this city ; and that upon their arrival at said hospital will find the fifty to one hundred beds all occupied, and realize that they are within a ten-cent car fare of the great city whose name had been used to attract them.

Thus year after year consumptives from all parts of the Dominion will be dumped into this city and become an intolerable nuisance, instead of being cared for in a sanitorium in their own county municipality.

In 1897 a meeting was held at Calgary, Alberta, to take steps to inform the citizens of the Dominion that the Territory of Alberta was a favored place for consumptives. The news spread and many consumptives turned their faces towards Alberta.

Dr. Lafferty, of Calgary, who had favored this movement, in addressing the Canadian Medical Association at Winnipeg in 1901, warned the medical men of the east not to send their consumptives to Alberta, as there was no sanitarium accommodation, that the hospitals, hotels and boarding-houses would not take them in, and that their condition was deplorable.

This, together with the experience of Colorado, California and other states, should be warning enough to our citizens.

The burning question in Toronto to-day is, shall our citizens contribute $25,000 so as to take advantage of the $50,000 voted by the

ratepayers and of the government aid of $4,000 for land and buildings and $1.50 a week for each patient and establish a municipal sanitarium under the Act exclusively for our citizens suffering from consumption, or shall this city become the dumping place of the whole Dominion for advanced cases of this disease?

April 18, 1904. E. J. BARRICK.

MISCELLANEOUS.

NECROSIS OF BODILY TISSUE

Edmond J. Melville, M.D., C.M., Bakersfield, Vermont, writes:—

When the absorption into the system of simple necrosis of bodily tissue produces fever and its usual train of symptoms, the line of treatment is plainly surgical. Nevertheless, cases arise when surgical interference is refused by the patient, is unadvisable and impracticable.

While no claim for originality is put forth by the writer, the following cases may serve to show that medical means have been too much overlooked in the past few years:—

CASE 1.—July 11, 1902, was called to see S.C., male, aged forty-eight, farmer. Bodily health heretofore had always been excellent, except periodic attacks of indigestion which were always relieved by free catharsis. Found him suffering severe pain over appendix. Temperature 102° F. Abdomen tense and tender in iliac region. Pulse 90; bowels constipated. Gave salines and opiates until free catharsis was produced and pain relieved. From above mentioned date until July 20th, very little pain was present, but tumor in appendicular region grew gradually until it reached the size of a child's head. Evening temperature 102° F., with morning remission of one or two degrees. General condition good. Patient dreaded an operation, and asked if nothing in the way of internal medication would be useful to him. My treatment for eight days had been complete rest and an ice bag on right iliac region. Having had some experience with ecthol (Battle & Co.) in septic emboli, I began its administration in one-drachm doses every two hours, and continued former treatment, with an occasional hypodermic of morphia to allay restlessness and insure physiological rest for the bowels. Saw no change until July 25th, when temperature began to fall until August 2nd, when it became normal and has remained so until present time, September 2nd. Tumor disappeared entirely in two weeks and he has made a complete recovery.

CASE 2.—G.S.F., aged eleven, had tooth extracted June 20th, after a preliminary hypodermic injection of a four per cent. solution of cocaine. Whether the solution was sterile or otherwise, on July 4th she began to

complain of tender gums and neuralgic pains of head and face. Upon examination the tissues surrounding the cavity left by tooth were found ulcerated and inflamed and covered by a dirty greyish slough. The surrounding teeth were tender and the gums boggy and engorged with blood. Temperature 103° F. Tongue coated. Pulse one hundred and twenty. Loss of appetite, and patient had a severe chill once in twenty-four hours, followed by exhausting sweats. Swabbed cavity and surrounding tissues every three hours with pure ecthol. Gave saline purges and one-drachm doses of ecthol (Battle & Co.) well diluted with water every four hours. Improvement was noticed on third day of treatment. Fever, sweats and rapid pulse were controlled. The unhealthy granulations disappeared and convalescence was established in ten days. Undoubtedly the symptoms in the above cases were produced by the presence and absorption of septic material, and in each surgical procedures were refused. I would not wish to be understood as taking a stand against surgery in cases where an operation is unavoidable, but I do believe that ecthol in some way is antagonistic to the chemical exudates produced by bacteria and is worthy of an extended trial in the hands of the medical profession.—*Medical Brief.*

TYPHOID FEEDING.

Although it is generally conceded that typhoid fever is essentially a systemic infection, the careful physician, when formulating his dietetic plan of campaign, will ever bear in mind the clinical importance of the local lesion in the bowel. The well-recognized principle of allowing an inflamed or ulcerated part the physiological rest to which it is entitled is as applicable to the typhoid bowel as to the fractured leg, the gastric ulcer or the rheumatic joint. It naturally follows, therefore, that fluidity is an essential requisite of the ideal food for the typhoid patient. Milk, while a fluid before ingestion, is more than likely to become a solid mass of dense coagula in the bowel, to mechanically irritate the ulcerated Peyer's patches, and eventually form a nidus for putrefactive changes. When, as in typhoid, a large detritus from ingesta is to be avoided Liquid Peptonoids (Arlington Chemical Co.) supplies the direct nutritional needs of the body.

THE PAIN IN RHEUMATIC GOUT.

Chas. P. Heil, M.D., late Professor of Anatomy, Indiana College of Medicine, Indianapolis, Ind., in the *Mobile Medical and Surgical Journal*, states: "Many of the cases of rheumatic gout which I have treated were of an obstinate and complicated character and I must state that I

myself have been suffering with an attack in the nature of a very severe inflammatory condition, situated in and over the articulations of my wrist, knee and ankle joints. The pain which I suffered most of the time was indescribable. I placed myself under the care of a physician, who, upon examination, pronounced me also slightly affected with cardiac trouble. I suffered the most excruciating pain for ten days and nights, without alleviation of my sufferings, nor apparent signs of progress for the better. Knowing full well the efficiency and value of Antikamnia Tablets in these cases, I took two tablets and about ten minutes after taking them the pain was relieved, I perspired slightly and then fell into a gentle sleep. The result was simply magical. I slept eight hours in perfect rest, free from all pain. I continued the two tablets every four hours during my convalescence and until complete recovery."

WHY?

Why should the Doctor specify the manufacturer whose products he desires dispensed on his prescriptions?

Because, given a correct diagnosis and the most carefully considered prescription, if the ingredients dispensed be inert or of poor quality, expected results would not be realized, the patient will blame the doctor, and the latter's reputation will suffer.

Why should the Doctor specify "P. D. & Co."? Please read carefully their pamphlet on "Standardization of Drug Extracts" for reply in detail, which can be summarized in these words:

"Parke, Davis & Co. spare no expense or pains to ensure the therapeutic activity of their medicinal products, and market the same on lines in harmony with the highest interests of the medical profession.'

SANMETO IN GENITO-URINARY DISEASES.

I have prescribed sanmeto with much satisfaction in diseases of the genito-urinary organs, with marked effect in prostatic troubles of old men, and in different kinds of urethral inflammation, even in gonorrhoea. It is certainly an excellent vitalizing tonic to the reproductive system I am using original packages, except very rarely in smaller quantity, and then I am absolutely sure that no substitution is practiced, as I see to it with my own eyes, if necessary, that the genuine article is gotten by my patients. The subject of substitution, so largely practised, is one of pre-eminent importance, and needs to be watched by all physicians, with both eyes.

Russell, Kan. JOSEPH W. ROBB, M.D.