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The Canadian Journal of Medicine and Surgery

Vol. I. TORONTO, CAN., MARCH, 1897. No. 3.

THE CROWNING DEVELOPMENT OF PRACTICAL MEDICINE

IN HÆMATHERAPY, OR BLOOD TREATMENT.

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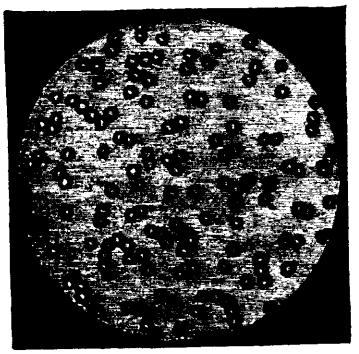

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by Prof. R. R. Andrews, M.D.

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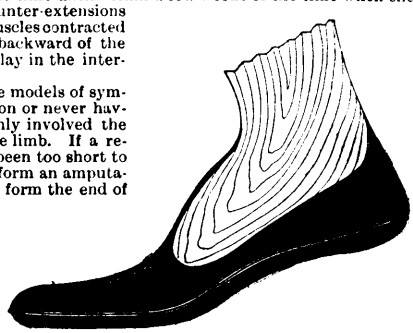

You will recollect that the leg and foot were models of symmetry and beauty, never having been stepped upon or never having worn a shoe. The disease had so thoroughly involved the joint that an extension alone could not save the limb. If a resection had been performed, the leg would have been too short to walk upon, and on that account I decided to perform an amputation upon the knee-joint, leaving the patella to form the end of the stump. Mr. A. A. Marks, the artificial-limb maker, made this little girl an artificial leg. **He makes, as I think, altogether the best artificial leg** I have ever seen, simply because of its durability and simplicity. The foot has no joint at the ankle, and this is where the great advantage comes in.

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We find, however, that where there is great pain, the analgesic effect of codeine may not be sufficient, and a combination with antikamnia is required. It is best given in the form of a tablet, the proportions being 4¾ grains antikamnia and ¼ grain codeine. Sometimes chronic neuroses may be cured by breaking the continuity of the pain, for which purpose we have found this combination peculiarly suited.

Clinical reports in great numbers are being received from many sections of this country, which, while verifying Dr. Braithwaite's observations as to the value of codeine, place even a more exalted value upon the advisability of always combining it with antikamnia in treatment of any neuroses of the larynx, coughs, bronchial affections, excessive vomiting, milder forms of diarrhœa, as well as chronic neuroses; the therapeutical value of both being enhanced by combination. The tablets of "Antikamnia and Codeine," containing 4¾ grains antikamnia and ¼ grain codeine, meet the indications almost universally.—*The Laryngoscope.*

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VS.
A. Y. SCOTT and D. MACMILLAN, trading under the firm name of SCOTT & MACMILLAN.

In the High Court of Justice we obtained a degree enjoining the defendants, Messrs. Scott & MacMillan, perpetually

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TORONTO, February, 1897.

The Canadian Journal of Medicine and Surgery

A JOURNAL PUBLISHED MONTHLY IN THE INTEREST OF MEDICINE AND SURGERY

VOL. I. TORONTO, MARCH, 1897. NO. 3.

Original Contributions.

Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than anything else.—RUSKIN.

NOTES ON THE SYMPTOMATOLOGY AND DIAGNOSIS OF SENSORY, MOTOR OR TROPHIC PARALYSIS, CONSECUTIVE TO LESIONS OF CONTIGUOUS PARTS, RESULTING FROM VIOLENCE.

BY THOMAS H. MANLEY, M.D.,

Professor of Surgery in the New York Clinical School of Medicine, New York.

(Continued from last issue.)

MODERN studies of the important role which the peripheral nerves play in traumatic lesions of bone have cleared up many perplexing problems observed in this common but important class of cases. It has been seen that in certain cases the nervous system bears important and definite relations to pathological changes in the soft parts. Let us now study the outcome of that interesting series of vaso-motor disturbances always attendant on great violence to a limb or to the lower segment of the trunk. It is a matter of common observation in all cases of lumbar or sacral spinal injury followed by paralysis, that in spite of every possible precaution we may observe, gangrenous sloughs over the sacrum or nates may follow, of varying extent and duration, and always proportional to the extent and duration of nerve implication.

One of the most hopeful signs in those of ultimate recovery is often first made manifest through the healing processes in the necrotic tissues. The fat, muscular and connective tissue melt down into an ichorous fluid, and nothing remains but a broad plaque of fibrous residue, which is finally lifted up and thrown off by the encroaching mass of new cells, advancing towards the centre from every direction. This sphacelus is a local death of a part, the initial lesion of which is always neural. It first presents itself as a congestion, then as an asphyxia, and lastly by death.

We will find precisely the same neural phenomena in serious as well as in simple fractures when the limb has sustained very violent concussive force at the time of injury. In a case of double dislocation of both the knee-joints I have seen stasis, asphyxia and mortification follow in such rapid succession as to destroy both limbs in six days.

The predominant feature after a very bad fracture is the presence of only the first phase of the moribund state in the injured limb. Syncope is present and local palsy is nearly complete. The limb is numb, powerless, cold and blanched. Vaso-motor paralysis is quite complete. In bad compound fractures, the precipitate or inexperienced may confound this temporary annihilation of animation for somatic death of the part, and at once sacrifice a valuable member which might have been saved. This syncope may deepen into peripheral asphyxia, or total death of the part. The former is the most common. Now with the aid of artificial heat, vitality will in time return, when the extent of disorganization has not been too great. In these cases the greatest caution must be observed not to institute any line of treatment which will in the slightest degree embarrass or impede the circulation; hence, in the time of John Hunter and Baron Larry, strict injunctions were always enjoined not to adjust a fracture in permanent fixture until the full establishment of reaction. For though they taught, and taught well, that as but moderate heat and recuperative measures would open the "pores," the minute arterioles and capillaries, to the blood current, so also, misdirected or premature pressure over the enfeebled arterial trunks might destroy every possible hope of preserving the limb. But it is interesting and important to know that though the main part of a limb may escape after asphyxia, nerve inhibition in certain areas may remain permanent, or so feebly vitalize a part that we may have the "*mort a plaque*" of the French in certain situations, or on the injudicious

application of any sort of constricting pressure by bandages or splints when enormous sloughs extending in various directions may follow. As the circulation is feeble in a limb after injury, sensation is blunted and trophic influence is in abeyance. When moderate compression, on the adjustment of the fragments and application of the dressings is effected, in many, very troublesome gangrenous sores may follow. If this unfortunate phenomenon after hip injuries were more generally known and its etiology more strongly emphasized by authors of text-books on surgery, very many painful sequelæ of fractures might be obviated. It is better then as a preliminary measure to permanent adjustment in severe fractures at the hip and in other situations, to be content at the primary dressing with placing the limb in a comfortable but temporary adjustment which will require no compromising constriction until reaction has set in, and at the initial dressing employ no materials which will not permit of easy changing and inspection of the limb at a subsequent date without the painful disturbance of the fragments. But there may be gangrene in patches or gangrene *en bloc* after certain fractures or injuries to a limb, in which no compression whatever is applied except what is necessary to hold the dressings in position. These are the cases which supply the courts with malpractice suits, provided the attending surgeon possess a pecuniary inheritance, or has accumulated anything beyond his living expenses. The usual history of these cases is that after professional attendance is summoned, and the wound or fracture dressed, a day or two subsequently, when the dressings are removed or the limb inspected, we may find it totally destroyed by a gangrenous process which is rapidly advancing towards the trunk, or that there are one or more gangrenous patches, superficial or deep, at the most dependant portions. It must be conceded that in many of these cases the predominant lesion is vascular, damaged arteries; while in others the lesion is of a mixed character, neuro-vascular; while with a considerable proportion of them the main etiological factors are vaso-motor or trophic, which, by means known to surgery, we can always obviate or prevent.

We will meet with another group of highly interesting and important lesions which are of a traumatic origin, but in the beginning are of an articular type, arthropathic, the trophic and other degenerative changes being always consecutive. In a considerable number of this class of cases there is always a well marked though remote connection with sensorium and cerebral

processes. They belong to the pseudo or muscular anchylosis. Their morbid anatomy consists in a wasting of muscle, its fatty or fibrous degeneration, a fusion of the muscle sheaths, diminished vascularity of the affected limb or impediment in muscular movement with œdema about the joints. The neural structures play an important role here. Mobility, though greatly impeded, is not destroyed, trophic changes are well marked, the tendon reflexes respond but feebly, though electrical irritation is always fairly preserved. The most marked and constant subjective symptom is *pain*, and the objective anchylosis moderate or complete. When the limb is in a quiescent state little discomfort is felt, but on movement in various directions, and in cases involving the lower extremity, throwing the weight on the affected side produces the most agonizing distress. The initial cause in this group of cases is a bruise, a wrench or twist, or what is commonly known as a sprain. The primary lesion in the majority of these is arthritic. Indeed, exclusive of those attended with fracture into an articulation or immediately contiguous with it, the joint distraint is the first feature in the category of pathological changes. As the lower extremities, which carry and support the body, are exposed to greater and more violent strains than the upper, the most frequent seat is in the knee or ankle joints. One of the most tedious and painful cases of this description which I have ever seen was a tarso-metatarsal injury.

In severe cases inflammation is propagated from the synovial membrane through the thecal sheaths to the muscles, the cancellus bone substance of the epiphyses and the periosteum. But the most persistent and constant lesions are those which involve the peripheral nerves. These are most distinctly manifest after inflammatory symptoms have yielded at the joint.

The primary nerve lesions in not a few cases are undoubtedly attributable to laceration of the nerve sheath, or a hæmorrhage into the medullary substance, which diminishes the motor activity, induces atrophic and degenerative changes in all the tissues contiguous to and for a considerable distance from the joint; but in a strange and inexplicable manner, not yet understood, makes little impression on the nerves of sensation, but very greatly aggravates the pain sense. It is a matter of common observation long since brought out by older writers, that the degree of muscular wasting, pain, anchylosis, motor paralysis and chronicity bear no relation to the extent of incipient subcutaneous, diffuse ecchymosis, tumefaction

and synovial inflammation. On the contrary, many of the most unyielding cases which we encounter are those in which the objective signs of joint implication are unimportant. Consequently, in these arthropathies, in the absence of characteristic symptoms, if seen soon after injury, there is no way by which one can say whether the patient is shamming or is really disabled. But *in time* the objective signs are unmistakable and positive. The muscles shrink in bulk and diminish in length. Vaso-motor palsy is well marked, the circulation is feeble, and hence the skin is pale and below the normal temperature. We will discover, on movement at the joint, that muscular action is more or less restricted. At the elbow, knee or ankle, we will observe that, even though the patient be anæsthetized, the degree of flexion in many is definitely limited either by the muscular contractions or by the adhesions of the muscular sheaths. The former will prevail in chronic cases, and the latter in recent ones. The same rule is followed in major articulations. In spurious cases, of course, under ether the rigid joint will limber out when consciousness is cut off. The pathological changes in this group, though in the main the same as those considered in connection with motor trophic paralysis, are much more complex. With the majority of these, besides the local changes, there are phenomena present which clearly indicate a participation of the sympathetic and central ganglia, besides an unmistakable constitutional dyscrasia of a neuralgic or rheumatic character. These latter, however, are better demonstrated by the clinical history and therapeutic tests than by an ocular demonstration of the morbid anatomy. Indeed, it is only on this assumption that it is possible for us to explain the causation in very many of these joint neuroses.

A nervous, hysterical individual, after comparatively an unimportant injury, suffers from a painful contractured crippled limb: on which every sort of orthopædic appliance has been adjusted, bandage-pressure, massage, electricity, etc., without avail; but by sudden violent mental emotion, or on the local infliction of pain, the stiffened muscles relax, the joint moves and the patient walks again, or moves his arm after months of pain and joint distraint. This is the class in which the travelling charlatan cures where the surgeon fails, the one in which the itinerant "natural bone-setter" will have it that the "bone is out." He promptly recognizes the preponderance of the hysterical element, hypnotizes his patient, so to speak, by gaining his confidence and ready

submission, besides impressing him with a firm conviction that he can cure him. If these cases are treated early and appropriately they usually promptly yield. No extensive organic changes have yet set in, so that with restoration of motion and moderate exercise, the wasting muscles are again called into activity, the residue of inflammation is disintegrated and absorbed, the circulation is stimulated and normal nutrition of the parts restored. On the contrary, when this condition of joint-sprain, attended with limitation or loss of motion, passes from its transient, acute or subacute stage into chronicity, we will observe those organic degenerative changes which always result as a sequence of protracted immobilization, muscular inaction and tropho-motor paralysis, both in the growing child and in the adult. And though we may partly obviate the deformity by radical surgical measures with the adjustment of prothetic appliances, this intervention will make no impression on the irretrievably atrophied fibrous muscle, the vaso-motor changes in the circulatory system, osseous degeneration or the parenchymatous changes in the cells of the peripheral nerves.

It cannot be denied that in this group, under divers circumstances, in certain seasons, climates and systemic conditions, rheumatism plays an important role. But as it most commonly presents itself and properly belongs to those pathological affections of an intra-articular character, it will be more appropriately considered with those maladies which only secondarily involve joints and muscles and are of a systemic origin.

In conclusion, those pathological changes in the limbs, primarily traumatic, it has been the aim of the writer to call attention to and to emphasize the importance of always adequately appreciating the predominant part which the peripheral spinal nerves play in the role of etiology, a full recognition of which will shed much light on their true character, render possible a correct prognosis and open the way to sound principles of treatment.

A Graduate's View.

Lady—Is it not strange that so many new diseases should be coming around? Young Doctor—Well, you see, madame, we physicians have learned how to cure all the old diseases, and if nature did not invent new diseases, the earth would soon be overcrowded.

CHOREA: TREATMENT BY TRAINING.

BY B. E. M'KENZIE, B.A., M.D., AND H. P. H. GALLOWAY, M.D.

INCIDENTALLY, in the autumn of 1892, our attention was directed to this subject by the following circumstances: We were consulted concerning a boy of eight years who had a well-marked rotolateral curvature of the spine. It was arranged that he should come to our class in gymnastics for three months for treatment of the deformity. Something occasioned delay, so that he did not return for nearly three months, and in the meantime he had developed chorea. Not considering the proposed treatment in any way contra-indicated, we allowed him to come to the class and take light work, mostly free gymnastics. There were several other patients in the class doing the same work, but not affected with chorea. Ordinarily, implicit, prompt obedience to the word of command given by the director is insisted on; but at first it was impossible for this boy to make the movements required. No special attention was paid to this fact, and he was permitted simply to do the best he could, and to see the work done by the others. After the first lesson it was quite evident that the incoordination was less marked, and that he was rapidly gaining control of his unruly members. In less than a week—the exercises were carried on every day—every sign of chorea had disappeared, and as long as he remained under observation there was no return of the trouble. No other treatment was employed.

Since that time three other cases of chorea have come under our observation. In two of them, however, the circumstances were very unfavorable; we could not have full control, and they remained in the class but a short time. In these no improvement was observed. The third is a recent case, and is still attending the class. The patient is a girl of eleven years, who has suffered from chorea for two years, and who had ceased to improve for several months before commencing the treatment by training, though under the most competent supervision. After three weeks of treatment similar to that outlined in the first case, no observable trace of the disease remained. [Since the above was written a very careful examination of this patient has revealed an occasional slight incoordinate movement of the right foot in walking.]

Little is said by writers in English concerning the treatment of chorea by other means than rest and drugs. The only passage that we have found recommending exercise is the following: "Rhythmical movements and mild gymnastics are of service in the later stages of the disease, when the normal functions of the centres are being restored; but they are not advisable in the earlier stages, except in cases of very slight degree" (Gowers: Diseases of the Nervous System, 1888, vol. II., p. 580).

Wharton Sinclair says: "It is of the greatest value in bad cases to place the patient in bed and keep him there until the symptoms improve" (Pepper's System of Medicine, 1886, vol. V., p. 455).

Sachs says: "The most important factor in the treatment of chorea is rest, absolute rest, often to the exclusion of all other therapeutic measures" (Nervous Diseases of Children, 1895, p. 125).

Whatever objections may be urged against this method of treating acute cases, it is reasonable to hold that it gives promise of excellent results when the cases have become chronic. In these, the central nervous system has acquired an ataxic habit which demands its re-education, so that the impulses sent out may be subject to the will, and be made to affect only the group of muscles intended to act in harmony for the accomplishment of a desired end. The effort to make movements in harmony with those of others whose circumstances bring them into a sympathetic relation with the patient, the influence of example, and the force of the kindly but positive word of command given by the instructor afford the needful aid and stimulus to accomplish the desired result.

Lagrange makes a somewhat extended reference to the subject: "It is in affections marked by defective coordination of movement, that exercise has given its best results, and especially in chorea or *danse de Saint Guy.*

"At the Hospital des Enfant's Malades, in the year 1854, a number of cures were obtained in cases of unusual or rebellious chorea by M. Laisné, who was attached to the service of Professor Blache as Professor of Medical Gymnastics. Let us enquire how Laisné directed his treatment, which to-day is the most rational employed. In simple chorea, when the child still has a measure of control over its movements, simple floor exercises, rhythmical and executed to word of command, afford the nerve centres a form of discipline to which the child's members yield obedience, and the will gradually resumes control over the muscles.

"In severe cases, when the disorder of movement is complete, and where the child is powerless to control in any measure the incoherent movement of his members, Laisné proceeds thus: During four or five days at first he is contented to give general massage of all the muscles. About the sixth day passive movements are introduced, the limbs agitated by involuntary movements are held quiet for some minutes, and then methodical, rhythmical, passive movements are given. When the excessive agitation and the involuntary movements commence to calm down, then active rhythmical movements are given."

Prof. Blache says: "Passive movements have a remarkable effect. At first the patient's will comes into play, either assisting in the movement or the contrary. Little by little, however, the muscles employed become habituated to associated action directed by the effort of the operator. The will, which had exercised but a feeble control over the muscular system, seems gradually to resume its function, and it is then seen that the incoherent movements little by little diminish in frequency and intensity (La Médication par L'Exercise, Dr. Fernand Lagrange, 1894, p. 425)."

THERAPEUTIC NOTE.

MAURANGE (*Gazette Hebdom. de Méd. et de Chir.*) regards eugenol as an antiseptic suitable for subcutaneous use in cases of pulmonary tuberculosis with cavities and in those of pulmonary gangrene. He thinks it has an elective action on tissues invaded by Koch's bacillus, and consequently ought to prove curative of lupus. The ordinary subcutaneous dose for an adult is from three to fifteen grains; six grains are enough to produce local anæsthesia for minor dental operations. The injection is but slightly painful if the solution is thrown in slowly. In from four to twenty minutes an anæsthetic zone appears about the puncture. The anæsthesia is of short duration. The author credits Meunier with this formula:

℞ Eugenol..... 45 grains.
Heavy petroleum oil .... 1,500 "
M. Dose, a cubic centimetre.

The following formula is attributed to Moty:

℞ Eugenol..... 150 grains.
Oil of sweet almonds..... 1,500 "
M. Dose, from a quarter to three-quarters of a cubic contimetre in the treatment of lupus.

Medicine.

ESSENTIAL NATURE AND TREATMENT OF PNEUMONIA.

DR. ANDREW SMITH, in the *Medical Record*, January 2nd, 1897, discusses the essential nature of pneumonia. He attributes much importance to the action of the cilia of the respiratory tract in preventing the entrance of pneumococci which are so often present in the mouths of healthy persons. But the protection of the cilia is not absolute, and is liable to be impaired by any cause which affects the bronchial mucous membrane, such as bronchial catarrh, whether due to a chilling of the surface or otherwise. Having gained access to the alveoli, the germs excite a degree of irritation that involves the adjacent capillaries, and the result is an exudation into the cell, which serves as an excellent culture medium for the germ. The cell is thus filled with an exudate swarming with pneumococci, and the overflow from one cell starts the process in adjacent cells; a lobule filled with exudate overflows into the bronchiole leading to another lobule, and so on, until an entire lobe becomes involved. A toxin is rapidly formed and quickly absorbed into the circulation, producing the familiar symptoms of infection—chill, fever and nervous shock. The toxæmia is maintained so long as fresh supplies of toxin are being formed, i.e., as long as the consolidation is spreading. But, as in artificial cultures, a given quantity of culture medium can maintain the life of a given number of germs only for a certain time. The soil becomes exhausted, the death of the germ stops the supply of toxin, and the temperature falls. If the invasion has been regular and rapid and comes to an abrupt termination with the complete consolidation of the lobe, the supply of toxin will cease abruptly, and we have defervescence by crisis. But if the effusion into the air cells has been gradual the supply of toxin will continue in one part whilst it fails in another—the process will be prolonged and the defervescence will be by lysis. This does not exclude the theory of an antitoxin being formed, and he thinks both theories explain the clinical phenomena better than either one alone. In other words, he suggests that the defervescence may be the result of two causes—the failure of the supply of toxin and the action of an antitoxin.

Suppuration is probably due to a mixed infection, and gangrene to involving of a branch of the bronchial artery, shutting off the nutrient circulation from the corresponding area of lung tissue. The fact that the framework between the alveolar spaces has its own separate blood supply apart from the vessels involved in the pneumonia process prevents a sweeping destruction of lung tissue. Infection of various serous and synovial membranes is explained by assuming a destructive process by which the interior of an air cell is made to communicate with an adjacent vessel, and thus allow the contents of the cell—swarming with bacteria—to flow into the general current of the circulation.

Accepting these hypotheses, he suggests that treatment be directed to the attempt to render the exudate inimical to the development of micrococci, and quotes the remarkable successes claimed by Stipp and Theodore Clements from the inhalation of chloroform, which, he says, is a very efficient germicide, a small fraction of one per cent. being sufficient to sterilize a culture medium. He thinks the result obtained by these observers, viz., a remarkable hastening of the crisis, was due to this action rather than to the one they had in view—its sedative and anodyne effects. It would be necessary to give the chloroform before the air cells were completely occluded, in order that it should come into immediate contact with the exudate. In a case quoted, in which defervescence took place on the fourth day, forty hours after the inhalations were begun, the chloroform was diluted with half its bulk of alcohol and given in sufficient quantities to produce a decided drowsiness only for ten minutes of each hour. Since the pneumococcus lanceolatus will not grow in a medium that contains the slightest trace of free acid, he suggests the addition of a votalile acid, such as acetic, in quantity not sufficient to be irritating.

T. F. McM

That hypnotism produces disease of the cerebral cortex—the most important part of the brain—has just been asserted by an eminent Washington scientist. A more vital argument against the practice is that it places mind and will under the control of another. No second person has the moral right to wield that power unless direct necessity compels it, and no man or woman under ordinary circumstances can be morally justified in conferring it.—*Ex.*

Orthopedic Surgery.

A CLINICAL STUDY OF INJECTIONS OF IODOFORM-GLYCERINE IN TUBERCULOUS OSTEOMYELITIS.

IN a paper on the above subject, presented at the 1896 meeting of the American Orthopedic Association, Dr. Harry M. Sherman, of San Francisco, details his experience with this method of treatment. The time covered in the trial was the three years beginning with January, 1893. The number of cases treated was twenty, and these represented fifteen hips, two knees, two ankles and one elbow. The total number of injections made was one hundred and sixty-four, of which eighty-one were intra- or periarticular, eighty-one were intraosseous, and in two cases the evacuated cavities of tuberculous abscesses were injected. In each case, and at each injection, the following points were carefully noted: 1. Location and direction of the puncture of the needle, the depth of its penetration, and the character of tissues through which it passed as far as this could be estimated. 2. The amount of the iodoform-glycerine injected. 3. Whether there was or was not a reflux of the iodoform-glycerine through the puncture hole after the needle was withdrawn. 4. Whether there was or was not pain following the injection, and the location of it. 5. Whether there was or was not a general reaction following the injection.

In all a uniform mixture of 10 per cent. of iodoform and 90 per cent. of glycerine, both by weight, was used. For the intra- and periarticular injections no special effort was made to have the mixture sterile, but there was no pyogenic accident, all abscesses that developed being chronic and tuberculous. For the intraosseous cases the mixture was always sterilized by exposure to the temperature of a boiling water bath for two hours, and the author of the paper claims that as iodoform does not volatilize below 239° F., nor glycerine boil below 554° F., decomposition of either ingredient never took place. For the intraosseous injections it was necessary to use a special syringe with a very strong steel needle, having a canula fitting the bore closely and ground flush with the bevel of the needle-point, a ratchet being fitted on the piston rod, and the force necessary to drive the injection through the cancellous bone being developed by a pinion-wire key.

In inserting the needle it was generally possible to appreciate whether it was passing through soft tissues, cartilage or bone, and also the firmness of the bone; in this way an approximate estimate could be made of the extent and severity of the lesion.

The greatest number of injections given any one case was twenty-one. The greatest amount of iodoform given any one case was 198 grs. The greatest amount of iodoform given at one injection was 24 grs. The highest temperature of reaction following an injection was 104° F. Usually the height of a reaction was attained in a few hours, but in some cases not for two days. The usual interval between the injections was two weeks, but sometimes they would be suspended for two, three, or four months, to permit observation, and then be resumed. In no case was there iodoform poisoning or suppuration sequent to the injections.

The results are thus summed up: Seven cases improved, as if under protective treatment alone; ten cases got worse, five having tuberculous abscesses develop, and seven being submitted to operation, one of whom died; three cases were unchanged; one died of tuberculous meningitis. In general, it seemed that the course of the disease was practically unchanged by the treatment, except in two cases, where the patients were plainly made worse.

In the discussion which followed, there was a pretty general agreement with the reader of the paper, but some of the members of the Association were disposed to look more favorably upon this method of employing iodoform. In the treatment of tuberculous sinuses several had found it decidedly beneficial.

B. E. McK.

Causes of Migraine.

Dr. Marcus, of Pyrmont, has suffered from periodic headaches for forty years, and thinks they are due to changes in the atmospheric pressure. He finds that the advent of his own attacks and of those of others are always coincident with a variation in the pressure, which is not always accompanied with a change in weather, but is confirmed next day by the official weather bulletin. Dr. Marcus asks physicians who live in localities where the atmospheric pressure is more stable to investigate the matter and possibly find some relief for chronic sufferers.—*Therapeutische Wochenschrift*, March 29th.

Gynæcology and Obstetrics.

TREATMENT OF ECLAMPSIA.—VEIT.

It is impossible to recommend a uniform plan of treatment; there is, however, no doubt in the author's mind but that a large number of cases would and do recover without any and with every treatment. The claim that the prognosis is bettered through rapid delivery by accouchement forcé or Cæsarean section is as yet not substantiated, as are also the reported favorable results from venesection. The best method so far seems to be the administration of large doses of morphine. A rational therapy of eclampsia is not possible until the pathology of the disease is absolutely clear; it is not improbable but that different cases have a different ætiological basis. The hastening of labor by harmless means, rupture of the membranes, delivery after full dilatation, large doses of morphine for the suppression of the attacks, the non-administration of food, per os, to unconscious patients, and the induction of diaphoresis by external means, seem to offer the best chances to the patients. There is practically no reason why an attack of eclampsia in itself should be considered so grave as to justify radical operations, which may be safe in the hands of single operators, but which subject the patient to great risks, if performed by the profession at large. In exceptional cases, however, exceptional operations are justifiable. (*Am. Jour. Obs.*)

In a case of eclampsia, which occurred on January 12th of this year, Dr. Carveth and the writer performed, under chloroform, accouchement forcé, delivering a seven months' fœtus in less than twenty minutes. The patient was a second-para, having had thirteen convulsions with her first labor—about fourteen months ago. Before seen she had had six convulsions, and could not be roused. As the bowels had been thoroughly well moved several times a day for the two previous days, and in spite of this the convulsions occurring, it was deemed advisable to deliver as promptly as possible. The method of dilatation suggested by Harris, of Paterson, N.J., was adopted. It consisted in using the index finger, followed by others as dilatation went on, in flexion instead of in extension, as is usually done; for the flexor muscles are more

powerful than the extensors. The thumb is employed for passive pressure against the opposite wall of the cervix. The hand follows the finger into the vagina, and firm pressure with the external hand must be made over the fundus while one is forcing the first two or three fingers through the external os. The main difficulty was experienced in forcing in the second finger. Three-fourths of the time was consumed in accomplishing this. With the third and fourth fingers well in, there was no difficulty in stretching the os the whole width of the hand. The forceps was then applied and fœtus delivered. The baby had evidently been dead several days, as the skin of the upper three-fourths of the body was of a bluish black color. This case does not bear out the theory advanced at times, viz., that on the death of the fœtus the convulsions cease. Here convulsions only ceased with the delivery of the baby. The convalescence was normal. H. T. M.

SOME ASPECTS OF URETERITIS IN WOMEN.

In the *American Journal of Obstetrics* appears a paper of Dr. Edward Reynolds, of Boston, on this subject, in which he accepts the ætiology of Mann: (1) Injuries during child-birth; (2) previous disease of the bladder; (3) gonorrhœa; (4) suppuration of the pelvis and kidney; (5) pelvic disease, such as pelvic peritonitis, cellulitis and tumors; (6) abnormal conditions of the urine; (7) tuberculosis. He thinks that a majority of all the cases he has seen have been inaugurated by an altered condition of the urine due to renal insufficiency; that it is far from an infrequent disease, and that while the symptoms of even mild ureteritis may be extremely distressing, its physical signs are often insufficient and easily overlooked; and that the reason why so many gynæcologists still fail to detect it with a fair degree of frequency is that they expect to find a more well-defined and pronounced lesion than in fact exists.

In regard to the *diagnosis of chronic ureteritis*, there is first a frequency of micturition, which is increased by the erect posture, and especially by standing, but not wholly relieved by recumbency, the patient being invariably obliged to rise from one to many times at night—the micturition may or may not be painful; and secondly, a bearing-down pain, which is increased by standing, but

is usually completely relieved by a few hours' rest in bed. A combination of these two symptoms should lead to a careful search for the physical signs of this affection.

Severe ureteritis may lead to a palpable enlargement of the ureter, but then in the milder cases there is merely tenderness and a desire to urinate by making pressure over the vaginal portion of the ureter. This tenderness is so closely localized as to be easily overlooked, but when once found its limited localization to the ureter is a diagnostic point of importance. Where the micturition is painless he is content with medicinal treatment, but where painful he makes a cystoscopic examination of the bladder. The *treatment* is divided into palliative and curative methods. In the cases where the vesical mucous membrane is inflamed around the ureteral orifice he has obtained prompt relief of the pain on micturition, and usually a decrease in the frequence of urination by the use of strictly localized applications of the solid nitrate of silver to the inflamed areas.

In the curative treatment reliance must be placed upon general hygienic and medicinal measures. He gives the first place to the free ingestion of water—three or four pints a day. General massage has been found of benefit, and active exercise, such as the use of the bicycle. As regards medicinal treatment, he has seen little or no benefit from any except alkalies. Latterly he has been using small doses of iodide of potash, mercury, or iodide of potash and mercury mixed, with a view of increasing the general metabolism of the body as a whole. This treatment has produced more improvement than any other, and the improvement has been proportionate to the increase of urea, as shown by examinations of the urine.

The clinical picture presented by an *acute ureteritis* is distinctive. It is now frequently met with, but even at present it is frequently mistaken for intestinal colic, pain due to renal stone, catarrhal appendicitis, or acute catarrhal salpingitis.

A woman in good health is suddenly attacked by abdominal pain, which may be limited to one side, but which is more frequently pronounced on one side and moderate on the other. The pain is often intermittent and often fairly severe. General abdominal tenderness may be absent throughout the attack, but will usually be noticed at one or more of the three cardinal points. At the beginning of the attack, tenderness is only made out by deep palpation of the affected kidney—the first cardinal point. A day

or two later this renal tenderness has perhaps decreased, but there is now a very marked tenderness at a point midway between the umbilicus and the anterior iliac spine (e.g., McBurney's point, diagnostic of appendicitis, or a corresponding point apon the left side)—the second cardinal point. As the attack passes off the renal tenderness disappears, and the tenderness at McBurney's point, or its fellow, decreases; but a new tenderness now appears on deep pressure at a spot about an inch above Poupart's ligament —the third cardinal point. Vaginal examination is negative till about the time when the last-named tenderness appears; but from that time on a vaginal examination will reveal the characteristic tenderness, and usually a distinct swelling of the vesical end of the affected ureter. Examinations of the urine usually show crystals of uric acid or oxalate of lime in a limpid urine.

At the beginning of the attack it cannot be differentiated from colic due to renal stone, but the clinical course will usually in the end distinguish it. In the middle period of the attack a right-sided ureteritis closely simulates catarrhal salpingitis; but the urinary symptoms and the tenderness over the lower end of the ureter as the attack passes off will easily differentiate it. If only the final stage is noted it may easily be mistaken for a catarrhal salpingitis, though the localization of the tenderness and swelling should prevent any mistake at this stage. Even when ureteritis is complicated by intestinal disturbance, the characteristic progress of its tenderness from above downward, the appearance of the vesico-ureteral tenderness, and the urinary disturbances will distinguish it from intestinal colic. A left-sided ureteritis accompanied by constipation might be mistaken for colic due to obstruction in the rectum or sigmoid flexure.

The affection tends towards recovery, but usually ends in a chronic condition without treatment. If the patient is kept in bed on a bland diet under alkaline diuretics and the ingestion of a large amount of water, there is usually an immediate and complete cure. H. T. M.

PULMONARY EMBOLISM IN PLACENTA PRÆVIA.

A FOURTH case occurred at the Berlin Maternity Hospital. It was a multipara, with a marginal placenta prævia. Chloroform was administered and version performed. While in the act of pulling down the foot respiration suddenly ceased, then became superficial and gasping. In spite of saline infusion, heart massage and

artificial respiration, death occurred in five hours. A post-mortem showed numerous air bubbles in the right auricle and pulmonary artery. Other possible causes, as acute anæmia, chloroform intoxication, or that the air might be the result of putrefactive changes, would be excluded. Only a small piece of placenta was detached from the uterine wall, and it is thought that the air must have entered the open lumen of the vessel during performance of version. (*Am. Jour. Obs.*) H. T. M.

VAGINAL TUMORS.

VAGINAL tumors are so rare, and so little is said about them in text-books, that the following case may be of some interest.

A woman, aged thirty, mother of two children, and at about the fourth month of pregnancy, complained of great pain and irritation about the vulva, a constant bearing down and a troublesome leucorrhœal discharge. The rectum and bladder were also involved in the distress. On examination, the vagina was found to be almost completely filled by a number of tumors springing from the anterior wall. These growths were of various sizes, elongated, larger at base than apex, and tapering towards the extremity. The largest of these tumors was about the diameter of the fourth finger and an inch in length. From being inflamed and excoriated the growths were very tender and sensitive to the touch. The structure of these tumors was apparently fibrous. Relief being imperative on account of the severe pain and discomfort, I removed all the growths with the scissors, after firmly tying them off at their bases with a ligature passed pretty deeply to avoid hæmorrhage. Complete relief followed this operation and the woman was confined at the full time without difficulty of any kind. There was no return of the tumors during the two years the patient remained under observation, nor could any injury to the vagina be detected. I have never been able satisfactorily to place the above tumors in any class mentioned in text-books. They were not cysts, nor was a pedicle found as is usual in polypi. They were not warty in character, and there was no reason to suspect specific disease as the cause. Non-recurrence shows clearly there was no malignancy. The accounts of fibroids of the vagina do not agree with the description above given, but the structure to the naked eye was certainly fibrous. Pregnancy, no doubt, caused a rapid growth, but did it originate that growth? J. H. L.

Pathology.

OBSERVATIONS UPON THE RELATION BETWEEN LEUKÆMIA AND PSEUDO-LEUKÆMIA.

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AND

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(Continued from January issue.)

It may be stated, in the first place, that in leukæmia the leucocytosis is notoriously inconstant; that during the course of the disease the white cells may for a long time maintain a normal ratio to the red, though all the other classical signs of the disease be present—a stage which is commonly known as the *aleukæmic* period of the malady: such a circumstance is indeed common enough, and has been placed on record by a number of observers. Mosler,[6] Seelig,[7] Troje,[8] and several more have made notes of cases illustrating this point. For a longer or shorter time each of these observers had occasion to see patients manifesting the usual symptoms of Hodgkin's disease. In each instance, however, the condition of the blood became altered, presenting later on a leucocytosis corresponding to that found in leukæmia, and some have regarded such as examples illustrating the sequence of one malady upon another, distinctly separated therefrom. At the same time, in each instance the author questions his right to maintain so absolute a distinction, in view of the renewed observations that are being made, and which would seem to prove not only that the leucocytosis of leukæmia is notoriously inconstant, but that in all probability there is but a slight influence at work producing this differentiation of the two maladies. Troje has suggested that some inhibitory mechanism regulates the distribution of leucocytes through the circulation; that where leucocytosis occurs in the blood the regulating apparatus is inefficient, and hence we observe young developing forms free in the circulation. The further theory is suggested that to a certain extent the vessel walls may inhibit or stimulate the exudation of leucocytes by their greater or less porosity, thus explaining the occurrence of metastases.

Such cases as these above described, no matter how they are explained, would certainly indicate a marked variability in the leucocytosis which, too, would appear from the records to depend in no way upon treatment. Cases which have occurred in the Royal Victoria Hospital have shown both in the acute and in the chronic form not only wide variation in the cellular ratio of the blood corpuscles, but in many instances the condition of the blood has been such as to render absolute differential diagnosis impossible. Meeting then, as we do, so many stages of leucocytosis in the multiple lymphomata varying from a normal ratio up to an excess of the white over the red cells, it may be questioned whether those cases recorded by Ebstein[3] and others, when leukæmia has followed upon Hodgkin's disease, are really to be looked upon as instances of one disease complicating another, or whether we are not rather observing the same disease in its different forms.

It by no means infrequently happens that in cases of multiple lymphomata the number of white cells borders so closely on the ratio found in leukæmia that we are in doubt as to the presence of a true leukæmia or of an ordinary leucocytosis. Nor is this all: one may find in other diseases a leucocytosis quite as marked numerically as seen in leukæmia. Such a condition has recently been described by Palma.[9] In his case there were multiple glandular swellings throughout the body, while the blood condition was normal, and accordingly the diagnosis of Hodgkin's disease was established. A month later, however, the blood showed all the characteristics of true leukæmia, and shortly after the patient died, showing at the necropsy a primary round-celled sarcoma of the thymus gland with metastases in the various organs, with multiple hæmorrhages and a bilateral suppurative nephritis. Such a case is in itself sufficient to show how impossible it is from the blood alone to make a satisfactory distinction between a number of these diseases which induce leucocytosis. Similar instances, too, have come within our experience at the Royal Victoria Hospital, where patients have entered with symptoms pointing to true leukæmia, and with a blood-count likewise assuring one of such a condition, and yet at the necropsy primary sarcoma of the pelvic organs was found, with numerous metastases, somewhat resembling the case described by Palma. One of these patients entered the hospital with general *malaise*, enlargement of the spleen, and some fever. Within a few days after admission purpuric spots developed upon the body, while hæmorrhages were manifest from the gums, from

the stomach and the intestines. There was a marked leucocytosis of about 1 to 100, the leucocytes being chiefly of the large mononuclear variety. Within a week after admission the patient died, having developed nodules in the skin, high fever, progressive asthenia, repeated hæmorrhages, and showing shortly before death a still more marked mononuclear leucocytosis. A diagnosis of leukæmia was made, though the necropsy revealed a primary sarcoma of the cervix uteri.

In another patient the condition was somewhat similar. She was admitted because of hæmorrhages from the stomach and purpuric spots on the trunk and limbs. The course of the disease was progressively severe up to her death, two weeks after admission. The examination of the blood had revealed a ratio of white cells to red of 1 to 21, the leucocytes being chiefly of the lymphatic variety. From our experience of the other case just mentioned, and from a few similar instances recorded by Fagge,[10] the diagnosis of sarcomatosis was made and verified at the necropsy, the primary lesion existing in the ovaries. It would have been natural under the ordinary conditions to have made the diagnosis of leukæmia, were it possible to regard the blood examinations as a reliable means of diagnosis in all cases. Some instances recorded by Fagge are practically identical with the two just described, and while that author has already published them as instances of sarcomatosis, Ebstein, in his classical work on leukæmia, considers Fagge to be in error as having confused sarcomatosis and true leukæmia. Our own cases, however, not only aid in bearing out the diagnosis made by Fagge, but would seem to further emphasize the great confusion to which we are liable on attempting to distinguish any of the various lymphomatous diseases by an examination of the blood alone.

We have observed, too, an instance bearing a similar instructive lesson in the wards of the General Hospital some years ago—a case which has since been put on record by Professors Adami and Finley.[11] The patient referred to was a girl, aged eleven, who was admitted to the hospital on account of a violent hæmatemesis. An examination revealed great anæmia, a much enlarged spleen, and a ratio of the white cells to the red which bordered on the line between leukæmia and leucocytosis. The spleen was very much enlarged. After a few days' sojourn in the hospital the patient died, presenting the typical morbid anatomical changes of leukæmia or of Hodgkin's disease, the diagnosis in such a case being absolutely impossible. Nor are the multiple lymphomata the only

diseases which may be followed by this so-called leukæmic condition of the blood. Litten,[12] Gottlieb,[13] and others have recorded cases of pernicious anæmia which have manifested in the course of that malady a blood state typical of true leukæmia.

We must therefore conclude that an enormous increase of white cells is certainly not in itself diagnostic of leukæmia, nor is there any special class of diseases to which an over-abundant leucocytosis is confined, inasmuch as the most varied kinds of disease may, under peculiar conditions, manifest extreme leucocytosis. Such, for example, are some cases of pneumonia, malignant disease, and the terminal stage of many affections; so far as numbers are concerned, under a great variety of conditions the blood examination may be indistinguishable from that of leukæmia.

It is, however, usually held that in leukæmia a special type of leucocyte is increased—namely, the mononuclear in contradistinction to the secondary leucocytosis from other causes and accompanying other affections, which is chiefly of the polynuclear variety; and for the different forms of leukæmia there is in each case a different kind of leucocyte which is thought to be characteristic—for the myelogenous form, the myelocyte; for the splenic form, the hyaline cells; for that type in which the lymph glands are most affected, the lymphocytes.

While it must be granted that such preponderance of one form frequently obtains, it must be acknowledged that the condition is not absolutely diagnostic of true leukæmia. Above all, it is generally accepted that in Hodgkin's disease we may at times get a marked leucocytosis, the increase of white cells concerning mainly the lymphocytes, the same class of cells which are increased in lymphatic leukæmia; indeed, it not infrequently happens as stated by Professor Osler,[14] that the lymphocytosis of Hodgkin's disease may become gradually so marked as to be quite indistinguishable from that found in lymphatic leukæmia. Such instances are described as cases of Hodgkin's disease which have run into lymphatic leukæmia, and yet the process may be so gradual as to render it impossible to decide where the Hodgkin's disease has ended and where the lymphatic leukæmia began. It is upon the occasional occurrence of such events that Penzoldt[15] and Palma[9] believed that there exists a lymphatic Hodgkin's disease different from the ordinary variety of Hodgkin's disease, and which may be a prelude to the true leukæmia.

In one disease, then, we already find the possible development

of a great increase of the leucocytes characteristic of one form of leukæmia. The same, too, has been found in the mononuclear increase referred to already in several cases of sarcoma, a leucocytosis which both numerically as well as morphologically bore all the characters found in true leukæmia; nor can we believe that in a host of other affections where leucocytosis occurs that any absolute rule may be laid down as regards the type of the leucocytosis. While it may perhaps be generally accepted that in carcinoma the leucocytosis is mainly polynuclear, yet we have seen not a few cases where a distinct and indeed sometimes enormous increase of the large mononuclear element was obvious. Further, one of the resident physicians of the Royal Victoria Hospital, Dr. R. B. Shaw, who has been engaged of late in a study of the leucocytes found in secondary anæmias, has observed a most irregular variation in the type of the leucocytes, whether relatively or absolutely increased, that the mononuclear may sometimes not only equal in numbers the polynuclear leucocytes, but not infrequently there is a distinct preponderance of either the lymphocytes or the large hyaline forms.

While, however, it may be agreed that so far as the lymphocytes and the large hyaline forms are concerned there is nothing in the examination of the blood which enables us to absolutely differentiate between Hodgkin's disease and true leukæmia, yet in the myelogenous form there is perhaps less difficulty, inasmuch as one finds there a type of leucocyte which does not occur normally in the blood. This myelocyte, as it is called, while increased in this form of leukæmia to a marked extent, is nevertheless absent in other varieties of that disease; and it seems but justifiable, from this fact alone, to exclude this cell as an essential feature of the diagnosis of all leukæmias. At all events it does not occur in the lymphatic form, nor is it always to be found in the splenic variety; on the other hand, too, it is now known to occur in conditions other than leukæmic, though, as far as we know, never to the same extent.

The eosinophile cells, as is well known, offer no feature of absolute diagnostic importance; not only do they seem to be increased in emphysema, pemphigus, scarlatina, etc., but every now and again an examination of patients in whom the blood condition is presumed to be normal there may occur a most marked increase in eosinophilous cells. We have examined slides from the blood of a patient in the practice of Dr. Hamilton, of Montreal, where

slight anæmia had been suspected, and were surprised to find that whereas the red cells appeared almost normal, there was a distinct eosinophilous leucocytosis, probably fifty per cent. of the white cells showing eosinophile granules. One of us, while recently in Baltimore, had an opportunity of seeing a patient in Dr. Osler's wards who suffered from trichiniasis, and in whose blood there were sixty per cent. of eosinophilous cells.

In an interesting work upon the blood formation, Dr. Saxer,[15] of Marburg, has recently urged that red and white cells proceed orginally from what he calls primary wandering cells; that from these cells the various forms of leucocytes may arise, and that so far as origin is concerned they are all the same. The differentiation comes late in the development, and the various forms represent merely the different stages of growth. He has shown that one variety—namely, the myelocyte—is capable of developing in the mature organism into the red blood cell. The significance of this is apparently of no small importance as affording an explanation of the frequent occurrence of myelocytes in the blood of leukæmic patients. Some defect in the development of the leucocytes has occurred, and they have probably, he thinks, not performed their important functions.

The work is chiefly of interest as showing that all leucocytes are members of one series, the one developing from the other, as could readily be proved from a study of the subject on the basis of embryology.—*British Medical Journal*, from the Medical Clinic of the Royal Victoria Hospital, Montreal.

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W. H. P.

(To be continued.)

Public Health and Hygiene.

THE PROVINCIAL BOARD OF HEALTH.

THE regular quarterly meeting of the Provincial Board of Health was held in the Parliament Buildings, Toronto, February 10th, 11th, and 12th, 1897. The following are a number of the most important questions which were under consideration by the Board:

HEALTH OF THE PROVINCE.

The quarterly report of the Committee on Epidemics stated that the public health of the Province during the last quarter had continued as a whole excellent. There had been no case of small-pox reported, and the winter thus far had been free from any widespread presence of la grippe. There had been, however, *outbreaks of diphtheria* reported from many districts, which, except in a few instances, were of limited character and had been dealt with with increasing promptness and thoroughness by the the local Boards of Health. The outbreak in the disease, the report says, which has been reported from several frontier municipalities as having been traced to men infected with the disease leaving for their homes from the lumber camps in the Algonquin Park districts, has been most remarkable, as illustrating at once the ready transmissibility and extreme contagiousness of even mild cases in strong men to children, who have contracted the disease in many cases with fatal results.

The monthly reports which had been received regarding *scarlatina* indicated that in several municipalities this disease had shown a more than average prevalence during the quarter. Fortunately the outbreaks had generally been mild.

The past quarter had, as usual, seen *a decline in the prevalence of typhoid*. It was most satisfactory to note that, excepting the water supply of Windsor, there was no public water supply in Ontario to which suspicion of sewage pollution could at present attach.

The quarter had been notable for having seen the Board's efforts successful in obtaining such an Act and regulations made under it as would, it was trusted, speedily place the whole work of *inspection of dairy cattle and abattoir inspection* in the Province on an advanced and satisfactory basis. The notable progress

made in the work of general cattle inspection in the several States of the United States, and especially by the systematic abattoir and cattle yard inspection by the Federal Government staff, whereby 35,917,479 animals were inspected in nine months of 1896, of which 89,399 cattle were condemned, showed very fully that there was the same need for local Boards of Health in Ontario through the veterinary inspectors to maintain a similar close supervision over our animals as over men.

Ventilation.

Dr. J. J. Cassidy read a lengthy report from the Committee on Ventilation. He had made a number of tests of public buildings in the city, and he gave the results of them. Dr. Sheard, City Medical Health Officer, was present, on the invitation of the Board, and took part in the consideration of the subject.

Toronto's Milk Supply.

Dr. Sheard explained to the Board the regulations about to be enforced in Toronto in regard to persons supplying milk to residents. One of the chief conditions imposed on those who would be allowed to supply milk to the city was that the dairy cattle should be inoculated with tuberculin. Reports regarding the condition of the dairy cows whose milk is sent to Toronto will be received according to arrangement made with veterinary surgeons in the various places, and if reports are not in within sixty days, those not sending them will be suspended from the privilege of supplying milk to citizens. Dr. Sheard stated that the milk of three thousand cows was now being sent to Toronto, and he asked that tuberculin necessary for the inoculation of this number should be supplied by the Provincial Board of Health.

Amendments to Plumbing By-Laws.

These proposed amendments received careful consideration by the Board, and are calculated to assist largely in removing the nuisances and diseases hitherto resulting from defective plumbing. They provide also for the inspection of plumbing by proper officials.

Health Officers.

The relation of health officers to town councils was referred to. Several cases have come before the Board in which doctors have worked for years as medical health officers, sometimes without remuneration, and, generally, for small pay, and have been

summarily dismissed, no cause being given for such action. Other doctors were threatened, blackguarded and worried, because some of their recommendations with regard to certain sanitary requirements did not meet the views of certain councillors or ratepayers.

Summer Resorts.

A special report was read regarding summer resorts. The report stated that several conferences had taken place between the committee and representatives of the Muskoka Lakes Association, with a view to beginning the work of practical sanitary supervision of the resorts on those lakes. E. H. A.

MONTHLY REPORT OF CONTAGIOUS DISEASE IN ONTARIO FOR JANUARY, 1897.

PREPARED BY P. H. BRYCE, M.A., M.D., DEPUTY REGISTRAR-GENERAL.

		Total Reported.	Per cent. of Whole Reported.
Total population of Province.....	2,233,117	1,442,989	64
" Municipalities.....	745	487	65
" Cities.....	13	12	92
" Towns and Villages	236	138	58
" Townships	496	337	67

VARIOUS DISEASES REPORTED.

Municipality.	Pop. Reported	Typhoid.		Diphtheria.		Scarlatina.		Tub'rcul'sis	
		Cases.	Rate per 1000 per Annum	Cases.	Rate per 1000 per Annum	Cases.	Rate per 1000 per Annum	Cases	Rate per 1000 per Annum
Cities	415,829	10	0.2	30	0.7	..	...	54	1.3
Towns and Villages	269,486	..	..	5	0.2	1	0.03	11	0.4
Townships	757,674	13	0.1	31	0.4	4	0.05	47	0.6
Total Pop. Reported	1,442,989	23	0.1	66	0.4	5	0.03	112	0.7

Note.—Whooping cough has made its appearance in several districts. There have been seven deaths reported for the whole Province, while three deaths from measles are recorded. Two deaths from whooping cough occurred in cities, none in towns and five in townships. The deaths from measles were all in the townships.

Proceedings of Societies.

TORONTO MEDICAL SOCIETY.

THE regular meeting was held February 4th, 1897, Dr. Wilson in the chair.

Dr. D. C. Meyers presented a patient, a man who in September last, while walking across a barn floor in the dark, unexpectedly stepped off the edge and fell downward and forward, striking his shoulder. He suffered a good deal of pain in it, and noticed that it gradually became stiff and that certain muscles around it were wasting. Patient consulted Dr. Meyers for paralysis of the arm. The scapula and head of the humerus were found to be firmly adherent. There was distinct atrophy of the extensor muscles of the joint, the deltoid, supra- and infraspinatus and the teres minor. The doctor felt that the course to be pursued was to break down the joint adhesion. The patient was sent to St. Michael's Hospital under Dr. E. E. King, where this was done. Passive motion was still being kept up. Patient has now fair movement, being able to raise the humerus to a right angle with the scapula and do rotation backward almost as perfectly as ever. The speaker stated that there was no disturbance of sensibility, nor was there any reaction of degeneration in the affected muscles. Questions of interest in the case were, why should there be atrophy of the muscles of the joint, and why were the extensor muscles implicated only?

Dr. E. E. King referred to the operation of breaking the adhesions and to the great improvement of the condition.

Dr. James F. W. Ross asked if nerve injury would account for the atrophy of the muscles.

Dr. J. N. E. Brown reported a case of a school boy, who had been struck on the shoulder-joint by a ball. Fixation of the joint and atrophy of its muscles followed, accompanied by great pain. Breaking up under an anæsthetic was done at the Victoria Hospital. No improvement following, excision of the upper end of the head of the humerus was made. The removed portion contained caseated material. The muscles about the joint under exercise developed and a fair movement of the joint was obtained; there was complete relief from pain. In this case he considered the atrophy due to disuse.

Dr. Meyers gave the various theories that have been held to account for wasting of sets of muscles. The most probable was that the cause was reflex from injury to the articular end of the sensory nerves of the joint. Experiments on animals had demonstrated the correctness of this view.

Dr. Edmund E. King read a paper on seminal vesiculitis. The anatomy of the vesicles was first described and their functions pointed out. The cause of the disease was usually gonorrhœal. Many of the symptoms were reflex as well as local, and were very often overlooked or called prostatitis or cystitis. Some neurotic condition was often present, as headache, premature or delayed emission, discharge of a thick, glairy fluid when a constipated movement takes place, fulness in the rectum which was sensitive and tender during evacuation, were other symptoms. A number of interesting cases were then reported.

Dr. James F. W. Ross said gonorrhœa had come to be a terrible scourge. Vesiculitis in man corresponded to pyosalpinx in woman and was usually the precursor of it. He believed if doctors, clergymen and lawyers and other males had Fallopian tubes, gonorrhœa would soon be suppressed.

Dr. D. C. Meyers and Dr. A. Primrose also discussed the paper. Dr. King closed the discussion.

Dr. W. J. Smuck reported two cases of melæna neonatorum. In the first case he was called to see a child which had been delivered by a midwife. It had been vomiting dark blood and was passing black material from the rectum. It was pale and cold. It vomited blood some five times during the first twelve hours and passed two tarry movements from the bowels. Rest and warmth were enjoined, but no medicine. Recovery followed. In the second case delivery was performed by forceps. The cord was around the neck. Respiration was difficult. There was a great deal of mucous in the throat. Blood was vomited and passed by the bowels. Death ensued. No post-mortem.

Dr. Smuck then gave a resume of the bibliography of the subject. Among causes given for this condition were ulcers of stomach or duodenum, the hæmorrhagic diathesis, premature labor, cord around the neck, injury to the vaso-motor centres and undue chilling of the body surface at birth.

Dr. Webster reported a case. The child had been passing black stools until the fifth day before he was notified. There was also hæmatemesis. He prescribed the compound tincture of camphor

and iron. The dark stools continued for four months and then ceased. The child died at the ninth month.

Dr. Rudolph reverted to the various causes of the disease. They were in many cases the same as melæna in the adult. He thought, therefore, there was no necessity of inserting this trouble in infants in a separate category.

Dr. J. F. W. Ross reported a case of failure of ventral fixation of the uterus and entered a strong protest against the procedure. The uterus was a movable organ and meant to be so. In a short time this operation would be done away with as a remedy for retroversion and retroflexions.

The Society then adjourned. J. N. E. B.

DELEGATES FROM NEW YORK MEDICAL SOCIETY.

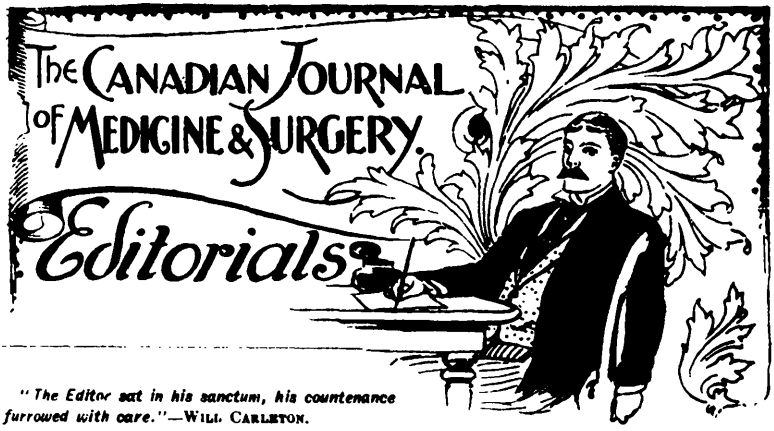
THE New York State Medical Society have elected the following delegates to the Ontario Medical Association: Messrs. William R. Howard, Rochester; M. D. Mann, Roswell Park, Buffalo; Henry L. Elsmer, F. W. Limmer, Syracuse: Seneca D. Powell, New York; Daniel H. Cook, Albany.

To the Canadian Medical Society: Messrs. C. S. Parkhill, Hornellsville; C. M. Rexford, Watertown; E. F. Brush, Mount Vernon; W. J. Hermann, Rochester; Eugene Van Slyke, Albany; W. B. Jones, Rochester; Wendell C. Phillips, New York.

The seventeenth meeting of the Simcoe District Medical Society was held in Barrie, on Tuesday, January 26th.

The regular meeting of the Waterloo and Wellington Medical Association was held in Guelph, Friday, February 5th. Papers were presented by Dr. Cameron, Galt, on "Abscess of the Brain," with report of case; Dr. Lindsay, Guelph, on "Report on Four Cases of Bowel Lesion." Some interesting cases in practice were also reported.

The Huron Medical Association meeting was held in Seaforth, February 3rd, 1897. The following programme was presented: "Infectious Endocarditis"; "Enteroliths," Dr. A. Dalton Smith, Mitchell; "Raynaud's Disease" (with patient), Dr. Graham, Brussels. "Irreducible Hernia of long standing, operation, exhibition of specimen"; "Fibroma of the Uterus," A. H. McKenzie, Moncton; Purpura Hæmorrhagica," Dr. Irving, St. Marys.



"The Editor sat in his sanctum, his countenance furrowed with care."—WILL CARLETON.

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Medical Jurisprudence—W. A. YOUNG, M.D., L.R.C.P. Lond., Eng., Toronto.

Gynæcology and Obstetrics—H. T. MACHELL, M.D., Toronto, Visiting Physician, Hospital of St. John the Divine; Professor of Obstetrics, Woman's Medical College, Toronto; and J. H. LOWE, M.D., Toronto.

Mental Diseases—EZRA H. STAFFORD, M.D., Toronto, Resident Physician, Toronto Asylum for the Insane.

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DISEASE IN INDIA.

As in more favored lands, disease in India is due to poverty or ignorance, and, in many instances, to these causes downright carelessness is superadded. From an article in the *Indian Lancet*, of Calcutta (January 1st), we learn that the common diseases of India are fever, pneumonia, small pox, dysentery, diarrhœa, and, most important of all, cholera. Fever is most widely prevalent

from September to November, when the cold weather is coming in, so much so, that almost everybody gets a share of it. The remedies are *flannel next the skin, quinine, and nourishment.* But the poorer classes cannot make use of these remedies, for one-fifth of the teeming millions of India pass through life in chronic starvation. One authority, indeed, Sir Charles Elliott, has even admitted that half of the agricultural population of India do not know what a full meal is. As the *Indian Lancet* says: "How can people who find it extremely difficult to keep body and soul together, provide themselves with flannel, quinine and nourishment?" No reason is given for the prevalence of small pox, and none could be given if vaccination and revaccination were enforced by the Imperial Government. In London, England, with a population of 5,000,000 souls, there were only two cases of this disease on the 10th of last January. In the Province of Ontario (Canada), with a population of 2,223,117, one doubtful case of small pox was reported during the past year.

Dysentery is primarily dependent on high temperature; but there is an intermediate factor. Microorganisms, communicable through polluted drinking water, and occasionally the air, are probably causative of this scourge of tropical regions.

Cholera has been shown to depend on a pathogenic organism, which is bred on the soil of Bengal, and issues at intervals from that region to slay its tens of thousands. Would it not be well, then, for the rulers of India, since they cannot provide a panacea for the poverty of their subjects, to introduce schools among them, so that they may acquire some of that saving knowledge, which is more potent for good than all the wealth of Golconda?

In Ontario, the School Board is the first governing body in an unorganized township; funds are raised by self-taxation, assisted by Provincial subventions, to educate the children of the district. In organized townships school taxes are heavy. Since the Provincial Board of Health was organized in 1882, we find that young Canadians readily adopt improved sanitary measures. Having learned at school something about the necessity of breathing pure air, the fatal results arising from the use of impure water, the necessity of keeping the person and clothing clean, they remain in adult life aiders and abettors of sanitary law.

There is an urgent necessity for planting sound sanitary ideas in the the minds of persons in India, who should set an example to the masses. In a recent number of an Indian daily paper, we

learn that the condition of the sewers of Calcutta has reduced the subsoil to a condition little better than a trenching ground; that the scavenging of the streets is a public scandal: that refuse, which ought to be removed before dawn, is frequently left lying about, fermenting and poisoning the air throughout the heat of the day; that the water supply is defective; and that the death rate is abnormal during the hot weather. The cause to which this disquieting state of affairs is ascribed is an old and familiar one, namely, the preponderance of native members in the Municipal Council. The remedy propounded is drastic. "The feeling is growing stronger that the sanitation of Calcutta cannot be left indefinitely to be the plaything of gentlemen like Babus Norindro, Nath Sen, and Surendranath Banarjee, and whether the reform be made from within by the expedient of nominating more Europeans, or from the outside by the more drastic measure of abolishing an elective Municipal Council altogether and substituting some other administrative authority, a change must not be much longer delayed."

So much for the lack of sanitary education in the Council of a large city. The life of the community of an Indian village is exceedingly primitive, and, in some of its features, suggests a survival of the patriarchal life, described in the Old Testament. Its central feature is the "tank," or water reservoir, usually surrounded with trees, beneath which the village elders each evening meet for conversation. Twice each day the cattle are brought to be watered at the tank, which, being also used by the owners for potable purposes as well as bathing, is probably one of the chief direct agents in the spread of cholera and enteric fever.

To improve the sanitary conditions of village life in India must be very difficult when we recall the millions of people who live under conditions similar to those just described. A little goodwill, enlightened by education, would, however, go far to remove the more flagrant evils, without the expenditure of much money. The village wells should be cleaned out and supplied with pumps. The tanks for drinking water should be kept separate from those used by cattle or for washing clothes and persons. Excreta should be covered with ashes or earth, then returned to the land, and vegetable refuse should be burned by the householder.

Owing to the poverty at present prevailing in India and the destitution of the people, which is so great that 2,750,000 persons are now employed in the famine relief works in

the different districts where the scarcity prevails, and to the depressed financial condition of India, arising from the lowered value of the silver coinage, it may not be possible for the Indian municipalities and District Boards to inaugurate any expensive sanitary reforms; but a gigantic effort should be made to introduce public schools, so that the young may have a chance to rise above the debased conditions of their fathers, and to learn among other things the simple primary truths which lie at the roots of all preventive medicine. J. J. C.

TORONTO DAIRIES.

In accordance with regulations recently issued by the Provincial Board of Health, the tuberculin test is to be applied to the cows supplying milk to Toronto. All persons, selling milk in this city, are already obliged to report to the Medical Health Office, whether they keep cows themselves, or obtain their milk from wholesale dealers in the country. The name and place of residence of every person engaged in the milk trade in Toronto are, therefore, known to the City Medical Health Officer.

One of the chief conditions, now to be imposed upon all dairymen, who wish to be allowed to supply milk to the city of Toronto, is that their cattle shall be inoculated with tuberculin. A sufficient quantity of tuberculin will be supplied to the City Medical Health Officer, through the good offices of the Provincial Board of Health. This tuberculin will be sold at cost price to competent veterinarians, who wish to engage in this work, and they, in their turn, will be paid by the dairymen whose cows are tested. Reports, regarding the condition of these cows, will be received by the City Medical Health Officer from veterinarians who have agreed to do the work in the various places, and, if reports are not in within sixty days, dairymen whose cows have not been reported on will be suspended from the privilege of supplying milk to citizens. The report to be made out by a veterinarian gives the name and address of each dairyman; the number on the tag attached to each animal, which corresponds to the number entered on the report under which she is described; a brief description of the animal, her breed, temperature and condition previous to the test, and a record of her temperature, which has been taken every three or four hours for a period of from twelve to fifteen hours after the

injection. The report is signed by the veterinarian, who states that he has tested the animals described therein. He also signs another statement, to the effect that he has tested all the cows in the stables of the dairyman, whose name and address appear on the report.

These reports are returned to the Medical Health Officer of Toronto, who will examine them, and decide from the history of each case, whether the animal in question can or cannot be permitted to be used any longer for dairy purposes. The methods to be pursued by the veterinarian, should any animal be found to give the tuberculin reaction, are described in the published regulations of the Provincial Board of Health. (See page 20, THE CANADIAN JOURNAL OF MEDICINE AND SURGERY.)

The labor and expense involved in carrying this undertaking into effect will be considerable, as the test will have to be applied to 3,000 cows. Dr. Sheard deserves to be complimented on his readiness to carry into effect the provisions of the new regulations.

J. J. C.

THE DEADLY ILLUMINANT.

THE presence of gas as an illuminant in a house is always a source of peril, and cases of fatal poisoning, caused either by accidental inhalation, by inexperienced persons blowing out the gas, or by suicides, are of very frequent occurrence. Witthaus says, "There can be little doubt that the most actively poisonous ingredient of coal gas is carbon monoxide, which exists in the ordinary illuminating gas in the proportion of 4 to 7.5 per cent., and in water gas, made by decomposing superheated steam by passage over red hot coke, and subsequently charging with vapor of hydrocarbons in the large proportion of 30 to 35 per cent." We understand that the gas now supplied in Toronto consists of a mixture of about 70 per cent. coal gas and 30 per cent. water gas, which is said to contain 12 per cent. of carbon monoxide. Though less deadly than water gas, it is quite sufficiently lethal, as the recent fatality at the Grosvenor Hotel proves. Witthaus further says, "The method in which carbon monoxide produces its fatal effects is by forming with the blood-coloring matter a compound which is more stable than oxy-hæmoglobin, and thus causing asphyxia by destroying the power of the blood corpuscles of carrying oxygen from the air to the tissues. This compound of carbon monoxide and hæmoglobin is quite stable,

and hence the symptoms of this form of poisoning are very persistent, lasting until the place of the coloring matter thus rendered useless is supplied by new formation. The prognosis is very unfavorable when the amount of the gas inhaled has been at all considerable; the treatment usually followed, i.e., artificial respiration and inhalation of oxygen failing to restore the altered coloring matter."

It has recently been announced in the city papers that in addition to making a general examination of each hotel as to accommodation, the license inspectors will make an inspection of the gas fixtures in the bedrooms, and that the proprietors will be called upon to remedy any defects in the stop-cocks, etc. If cut-off gas burners were made compulsory in hotel bedrooms, the inspection ordered by the License Commissioners would be very useful and would tend to prevent fatal accidents. Apart from motives of humanity, and reasoning from their business interests only, hotel-keepers should initiate an improvement of this kind in their bedrooms, especially as the cut-off burners can be introduced at a very small expense.

The incandescent electric light has, however, so many advantages over gas that it ought to be generally adopted. It gives a clear, pleasant light, free from heat. The wires can be handled without danger. We understand, also, that this system can be introduced into a house at no greater expense than gas. It contributes no impurity to the air, and does not of itself offer a special reason for ventilation, whereas in buildings, lighted in part or wholly by gas, the air is made impure by the mere combustion of the gas and the minimum amount of air supplied for each gas jet should be 3,000 cubic feet per hour.

This requirement ought to necessitate a reliable system of ventilation for a bedroom lighted by gas. The fact that a fatality occurs in a hotel bedroom, where the gas escapes, proves that the room is not ventilated. If it were, the chances for recovery in a person with sound organs would be fairly good, because a large amount of fresh air would then be present to dilute the escaping gas, and to keep down the percentage of carbon monoxide in the air of the room.

Even, however, if a ventilating contrivance is provided in a hotel bedroom, it is often under the control of the inmate, and not available when most wanted. While, therefore, saying a good word for automatic ventilation, ventilation not dependent on the whims

of the hotel guest, we hope it will not be introduced simply as a means to promote the continued use of gas as an illuminant, but rather so as to advance general hygiene and as a concomitant of the incandescent light. J. J. C.

CONSUMPTION NOW A COMMUNICABLE DISEASE.

THE following report is one passed by the Health Board of New York City at its recent meeting, and which is more than worthy of careful perusal. The report was made by Dr. Hermann M. Biggs, the pathological expert (to the Board), Dr. T. Mitchell Prudden, consulting pathologist, and Commissioner George B. Fowler. After pointing out the fact that in the last twelve or thirteen years there had been a reduction in New York in the mortality from tubercular diseases of over 30 per cent., yet Dr. Biggs proves how very deadly consumption still is all through that immense city. The report says:

"During the past year nearly 9,000 cases of tuberculosis were reported to this department, and nearly 6,000 deaths resulted from this disease. It is conservatively estimated that at least 20,000 cass of well developed and recognized pulmonary tuberculosis now exist in this city, and an additional large number of obscure and incipient forms of the disease. A very large proportion of the former cases constitute more or less dangerous centres for infection, the degree of danger depending in each instance upon the intelligence and care which are exercised in the destruction of the expectoration. It may be safely assumed that from the failure to safely dispose of the sputum of consumptives, from thirty to fifty inhabitants of this city daily become infected by tuberculosis, and of these about one-half later die from the disease. All this suffering and death, in view of modern scientific knowledge, we know to be largely preventable by the efficient enforcement of simple, well understood, and easily applied methods of cleanliness, disinfection and isolation.

"The knowledge now at command regarding the methods of extension of pulmonary tuberculosis entirely justifies the belief that its ravages can as certainly be limited by proper sanitary control and appropriate treatment as can other infectious diseases, more acute, more dramatic, and more readily communicated, but at

the same time far less prevalent, less fatal, and incomparably less important to the welfare of the community.

"From the beginning of this work the officials of this department have encountered, in the utter lack of proper facilities for the care of consumptives, an obstacle to practical success so great and so disheartening that we feel impelled to urge our conviction that the grave responsibilities which rest upon the Health Department in this matter cannot longer be adequately sustained without the immediate establishment, under its direct control, of a hospital for the care and treatment of this disease. No week passes in which the officials of this department do not encounter many instances in which the members of many households, numerous inmates of crowded tenement houses, employees in dusty and ill-ventilated workshops, and many others are exposed to imminent peril from victims of this disease, to whom either the doors of our overcrowded public institutions are closed, or who reject all proffered assistance and instruction and, from ignorance, indifference, or inability through weakness due to the disease, scatter infectious material broadcast, and thus diminish their own chances for recovery and imperil the health and safety of others. In such cases the sanitary suggestions of the Health Department inspectors are now futile, and effective action impossible. We are convinced that no other factor is so potent to-day in perpetuating that ominous death list from pulmonary tuberculosis as the lack of proper facilities for the care of the poor of this city stricken with this malady.

"The best medical opinion forbids that persons suffering from pulmonary tuberculosis be treated in association with other classes of cases in the general medical wards of general hospitals. This opinion is based on the daily observation that consumptives, when occupying hospital wards in common with other classes of cases, not only constitute a serious source of danger to other patients, but that they are themselves placed under peculiarly unfavorable conditions. This is an opinion which the former action of this Board has done much to establish and extend. It has very properly resulted in the exclusion to a large extent of persons suffering from this disease from many of the general hospitals to which they were formerly admitted. . . .

"As the Health Department has already declared its conviction that pulmonary tuberculosis is a communicable disease, and has taken steps looking toward its prevention, and as the information at hand shows that it is far more fatal than any other communi-

cable disease with which the Board has to deal, and destroys each year more lives than all the other communicable diseases together, it would seem self-evident that some efficient and far-reaching measures should be at once adopted to protect the inhabitants of this city from its further ravages.

"We would, therefore, respectfully recommend:

"First—That such action be taken by the Health Board as seems necessary and proper to at once secure the provision of hospital accommodations, under its charge, for the care of the poor suffering from pulmonary tuberculosis, who, as active sources of danger to the community, may properly come under its supervision.

"Second—That an amendment be made to the sanitary code declasing that tuberculosis be officially considered a communicable disease, and formulating regulations under which its sanitary surveillance shall be exercised.

"Third—That all institutions in this city which admit and treat cases of pulmonary tuberculosis be subjected to regular and systematic inspection by officials of this Board, and that specific regulations be established for the conduct of such institutions, in accord with the proposed amendments to the Sanitary Code.

"Fourth—That the scope of the measures designed for the education of the people in regard to the nature of pulmonary tuberculosis, and the methods to be taken for its prevention, be enlarged and a closer sanitary supervision be maintained over individuals suffering from this disease in the densely populated tenement districts, and in the crowded workshops and public buildings of this city."

In our opinion, the Health Board of New York City could not have done better than pass the above report. That there should be separate hospital accommodation for all tubercular cases is without doubt. And it is with pleasure that we note that the Gravenhurst Sanitarium is progressing so rapidly, and will soon be in full working order. It is to be earnestly hoped that similar steps will be taken at once by our Provincial Board of Health to that of New York, and consumption officially looked upon hereafter as a communicable disease, and have to be reported so by physicians in a similar manner as diphtheria or scarlet fever. In this connection we may add, that now that it is a fact that phthisis is contagious, and especially so through the medium of the sputum, we hope that railroad, street car and omnibus companies will strictly enforce a rule whereby such a filthy habit as indis-

criminate spitting in any public conveyance will not be allowed under any circumstances, as it is not only obnoxious to those of finer feelings, but the expectorations of those affected with pulmonary tuberculosis can become, after being exposed to the effects of a heated, dry, close atmosphere, the means of rapidly communicating the disease to many others. W. A. Y.

SOCIETY FOR PROTECTION OF HOSPITAL PATIENTS.

It will soon come to pass that the physician will have to call his patient into consultation, and follow the patient's superior wisdom and knowledge in administering treatment. For the latest London audacity has been an action brought by a nurse to obtain damages from the operating physician for "exceeding her wishes"!!! As she failed to gain her suit, a society for the "protection of hospital patients" has been formed. The *Medical Record*, in commenting upon the matter, makes the following terse and humorous remark: "It has been claimed that the brutal doctors have had their way long enough, and the time has now arrived when the 'clinical material' can talk back." Let us pause and ask, Where are we at, fellow practitioners? giving freely and cheerfully many weary hours to these charity patients, and they quietly "saving up" to enter a suit for damages against us. Let us hope that this fever to organize "The society for the protection of hospital patients" may begin and end with the parent one. Such societies would find our Canadian climate quite too frosty, and our physicians quite too busy to pose as defendants in "damage" suits; in truth, a sight for the gods. W. A. Y.

"CHARITY DOCTORS."

The following clipping from the *Evening Telegram* of February 23rd may prove of interest to our readers:

"New York, February 23rd.—A bill is being prepared for presentation at Albany for the regulation of hospitals and dispensaries that have been or may be established in this State.

"A meeting of physicians was held last week at 200 East Broadway, at the invitation of Dr. L. Cherurg. It was said at

this meeting that the indiscriminate establishment of dispensaries and hospitals has been so long permitted that grave injury is being done to reputable physicians, and that to compete with such institutions many of them have been compelled to work for almost nothing, whilst not a small number have been forced out of the profession because of inability to earn a livelihood."

We very much fear that, though Toronto has a population very much smaller than that of Greater New York, the profession here will soon have similar grounds for grumbling. Toronto has a name far and wide for its strict acquiescence with the Fourth Commandment, and we are afraid that, unless we harden ourselves in the future against unreasonable and unjust demands made upon our time as well as our purse for attendance upon and support of the already too numerous public dispensaries, our city will add to its Sabbatarian fame, "the city of churches *and charity doctors*;" and we also will have to call a meeting and give the public to understand that we are not practising medicine altogether for glory. W. A. Y.

TRINITY MEDICAL ALUMNI ASSOCIATION.

TRINITY Medical Alumni Association offer a gold medal to the graduates and members of the graduating class in medicine of the Trinity University, or Trinity Medical College, or fellows of Trinity Medical College, who are members of the Association in good standing, for the best thesis on any subject pertaining to modern medical science. The theses standing first and second respectively in merit are to be read by the writers at the annual general meeting, and the medal to be presented at the annual banquet of the Association. W H. P.

OUR INDEX MEDICUS.

COMMENCING with this number of the JOURNAL, we shall publish as frequently as our space will permit an alphabetical list of practically all of the original papers which have come under our notice in the previous issue of our exchanges, with the name of the author, and name and issue of the journal in which that particular article appeared. We hope that the Index Medicus, as we have

named this particular department, will prove of interest and service to our readers in their studies, so that in writing a paper, for instance, they will be able at a glance to see just who have been contributing to the various journals recently on any particular subject, thus enabling them to get the very latest ideas in that direction. We acknowledge with pleasure the assistance rendered us in preparing this column by our esteemed contemporary, *The Medical Review of Reviews*, of New York City.—[EDS.]

THE NATIONAL SANITARIUM ASSOCIATION.

THE National Sanitarium Association has issued a prospectus of, and a request in aid of the new consumption hospital at Gravenhurst. An immediate endowment of $250,000 is needed to place the institution on a substantial basis. Letters are cited from some of the best known medical men of Canada, who speak of the great need of a place for the isolated treatment of phthisical patients, and commendatory of this work. This establishment should be hailed with joy by the victims of the "white plague:" it will be a source of great satisfaction to the scientific spirit of the country: it will cheer the hearts of our philanthropists. The thousands of medical men in Canada, we are sure, will do what they can to help the good work along, as it is not a commercial but a national undertaking, and meant to provide for the poor who are in greatest need of such a place. J. N. E. B.

OUR THANKS.

WE take this opportunity of thanking the profession all over Canada for the exceedingly hearty support thus far accorded THE CANADIAN JOURNAL OF MEDICINE AND SURGERY. The subscription list is mounting up in a most encouraging manner, and it will be the one aim of its staff to make the JOURNAL exemplary in every detail, so that the idea thrown out by one of our contemporaries recently, that a medical journal at $1.00 per annum cannot be what a strictly ethical medical journal ought to be, shall be *for ever* refuted. Our readers will notice that with this, only our third number, we have already increased, by a good many pages, the size of the JOURNAL.—[EDS.]

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Retrograde Catheterization in Impermeable Deep Urethral Strictures, Illustrated with four cases. A. F. Jonas, M.D. (1)
Report of a Case of Incomplete Fracture of the Left Cornui of the Thyroid Cartilage. A. W. De Roalder, M.D. (3)

Stimulation of Nervous Disorders Following Accidents. P. Bailey, M.D. (9)
Sputum, The Clinical Examination of. J. J. Johnston, M.D. (4)
Strangulated Cæcal Hernia, 105 Hours' Duration, Woman aged 67 years. J. B. Walker, M.D. (1)
Some Practical Points in the Application of Plaster of Paris. M. A. B. Smith, M.D. (28)
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Skiagraphs of Epiphyses. P. R. Jones, M.D. (26)

Spider Bites, So-called, and their Treatment. A. Davidson, M.D. (24)
Syphilis Successfully Treated by Hydriatics. Elmer Lee, A.M., M.D. (33)
Syphilis, The Treatment of. H. A. Robbins, M.D. (5)
Surgery, The Abuse of. C. W. Chancellor, M.D. (5)
Some Remarks on Plague. J. A. Lowson, M.B., C.M. (2)
"Schott Method" of Gymnastics in the Treatment of a Case of the Heart. S. Solis Cohen, M.D., and Charlotte West, M.D. (14)
Surgical Illumination. A. J. Downes, M.D. (14)
Syringo-myelia, A Case of. H. W. Moyer, M.D. (36)
Sulfonal and Trional in Epilepsy. H. T. Patrick, M.D., and H. P. Frost, M.D. (29)
Sciatica. R. N. McFall, M.D. (14)
Scotoma. G. W. Grove, M.D. (25)

Tumor of the Pulmonary Artery. B. E. F. (25)
Thoracic Aneurism. J. B. Shober, M.D. (27)
Test for Indican in the Urine. A. L. Benedict, M.D. (17)
Typhoid Fever Among the Insane. R. A. Goodner, M.D. (17)
Therapeusis of Precious Stones. W. L. Pyle, M.D. (17)
Therapeutics of Diphtheria, Why is Antitoxin a Bone of Contention in. H. A. Briggs, M.D. (5)
Typhoid Fever, The Treatment of. R. C. Kenner, M.D. (18)
The Philosophy of the Leucocytes. A. D. Barr, M.D. (35)
Thoughts on Antitoxin. J. R. Johns, M.D. (35)
Therapeutics of a Country Doctor. F. A. Hansen, M.D. (8)
Tumors of the Brain. P. B. Smith, M.D. (7)
The Relation of Affections of the Upper Air Passages to the Ear. F. S. Milbury, M.D. (20)
The Importance of Urinalysis to the Laryngologist. H. J. Mulford, M.D. (20)
The Railway Surgeon a Misnomer. J. W. Wright, M.D. (9)
Tubercular Meningitis. H. Heinen, M.D. (10)
The Radical Operation for Cancer of the Breast. H. J. Warmutt, M.D. (14)
Tongue, A Chancre of. L. Lafton, M.D. (3)
The Physician and the Tobacco Habit. M. Woods, M.D. (14)
The Therapeutics of Gold and Combinations. W. H. Walling, M.D. (14)
The Vitality of Cutaneous Epithelium, Report of Observations in Skin Grafting. Z. J. Lush, M.D. (13)
Tuberculosis, Remarks on Pulmonary. W. S. Kendrich, M.D. (4)
The Toxic Basis of Neural Disease. I. Van Gieson, M.D. (29)
The Auto-toxic Origin of Epilepsy. F. G. Hyde, M.D. (29)
Two Cases of Deformity of the Hand Relieved by Operation. J. Smith, F.R.C.S. (2)
The Glandular Fever of Childhood. T. E. Sandall, M.B., B.C. (2)
Tuberculosis, A Further Study of Infection of Dust. I. H. Hance, M.D. (1)
Tuberculosis, Hygienic and Symptomatic Treatment of, Plea for Sanitariums for the Poor. S. A. Knopp, M.D. (1)
The Advantage of Miles' Operation of Evisceration with Insertion of Artificial Vitreous over Enucleation of the Eye-ball. G. A. Howitt, M.D. (16)
Tumors, Malignant, The Treatment of by Mixed Toxins. H. R. Davies, M.R.C.S. (2)
Typhoid Fever, Widal's Serum Diagnosis of. J. Ullman, M.D., and A. E. Wochnent, M.D. (3)
The Proposed City Hospital for Consumptives. W. Frendenthal, M.D. (3)
The Corneal Reflex and Sight-hole in the Mirror of the Ophthalmoscope. E. Jackson, M.D. (12)
The Alleged Flagellate Malarial. W. Moser, M.D. (1)

Vermiform Appendix, Excision of. G. R. Fowler, M.D. (27)
Venesection, Its Therapeutical Value in Disease and Injury. J. W. Young, M.D. (9)
Valverda, A Spanish Anatomist. J. M. Ball, M.D. (35)
Vaginal Hysterectomy for Bilateral Suppurative Process of the Uterine Adnexa. W. D. Haggard, M.D. (13)
Vaginal Hysterectomy of Sloughing Submucous Fibroid. A. R. Small, M.D. (36)

Woman and the Bicycle. E. D. Page, M.D. (30)

KEY TO MEDICAL PUBLICATIONS.

1. Medical Record, N.Y.
2. The Lancet, London, Eng.
3. New York Medical Journal.
4. Atlanta Medical and Surgical Journal.
5. Maryland Medical Journal.
6. Medical Summary, Philadelphia.
7. Scottish Medical and Surgical Journal, Edin.
8. Journal of Medicine and Science, Portl., Me.
9. The Railway Surgeon, Chicago.
10. Archives of Pediatrics, N.Y.
11. Montreal Medical Journal.
12. Philadelphia Polyclinic.
13. International Journal of Surgery, N.Y.
14. Medical and Surgical Reporter, Philadelphia.
15. American Medical Journal, St. Louis, Mo.
16. Medical Bulletin, Philadelphia.
17. Medicine, Detroit.
18. New England Medical Monthly, Danbury, Conn.
19. Canadian Medical Review, Toronto.
20. The Laryngoscope, St. Louis.
21. The Medical Age, Detroit.
22. Buffalo Medical Journal.
23. Cleveland Medical Journal.
24. The Therapeutic Gazette, Detroit.
25. Langsdale's Lancet, Kansas City.
26. Pacific Medical Journal, San Francisco, Cal.
27. American Journal of Medical Science, Phila.
28. The Maritime Medical News, Halifax.
29. The State Hospitals' Bulletin, Utica, N.Y.
30. Brooklyn Medical Journal, N.Y.
31. Pediatrics, N.Y.
32. Bulletin of Pharmacy, Detroit.
33. Magazine of Medicine, Atlanta, Ga
34. North American Practitioner, Chicago.
35. St. Louis Medical and Surgical Journal.
36. Chicago Medical Recorder.
37. Medical Press and Circular, London, Eng.

The Physician's Library.

The American Year-Book of Medicine and Surgery, being a Yearly Digest of Scientific Progress and Authoritative Opinion in all Branches of Medicine and Surgery, drawn from Journals, Monographs, and Text-books, of the Leading American and Foreign Authors and Investigators. Collected and arranged with critical editorial comments by eminent American specialists and teachers. Under the general editorial charge of GEORGE M. GOULD, M.D. One volume of nearly 1,200 pages, profusely illustrated with numerous wood-cuts in text, and thirty-three handsome half-tone and colored plates. Price, cloth, $6.50 net; half-morocco, $7.50 net. Philadelphia: W. B. Saunders, 925 Walnut Street. 1896.

The profession last year were more than pleased with this work, edited by so distinguished an authority as George M. Gould, along with the active co-operation of twenty-seven men, all of whom are high up in the profession and noted as authors. There is something far more attractive about a year-book than an ordinary every-day text-book, when the tired practitioner can sit down and get in one work not only the recent, but the very latest, material on that particular subject, with all the addenda thereto of the previous twelve months. "The American Year-Book of Medicine and Surgery," 1897, is more than up to date. Dr. Duhring, the eminent authority, has taken charge of the Department of Dermatology. A noteworthy and most useful feature of this year's volume is the brief recapitulation of the result of the year's work preceding each article. The work, as a whole, is gotten up in first-class style, and will doubtless meet with as large, if not a larger, sale than it did in 1896.

The Practice of Medicine. A Text-book for Practitioners and Students, with Special Reference to Diagnosis and Treatment. By JAMES TYSON, M.D., Professor of Clinical Medicine in the University of Pennsylvania, and Physician to the Hospital of the University; Physician to the Philadelphia Hospital; Fellow of the College of Physicians of Philadelphia; Member of the Association of American Physicians, etc. Illustrated. Philadelphia: P. Blakiston, Son & Co., 1012 Walnut Street. 1896.

Almost the only word that will express the character of this book is "complete." The author has not passed over any detail whatever, but has given the reader in each chapter not only the result of his own actual experience, but also that of fellow practitioners of undoubted standing. The work is well illustrated, there appearing, in addition to the ordinary ones, a colored plate in the chapter on "Leucæmia," which shows the most delicate work and coloring. This book is most certainly an authority.

A Treatise on Appendicitis. By JOHN B. DEAVER, M.D., Surgeon to the German Hospital, Philadelphia, containing thirty-two full-page plates, and other illustrations. Philadelphia: P. Blakiston, Son & Co., 1,012 Walnut Street. 1896.

The importance of this affection, and the manner in which this disease has come to the front in the past few years makes a work on the subject, by one so

well able to write upon it as John B. Deaver, most welcome. The book gives a systematic study of the disease, showing not only the usual symptoms, but also the various anomalous conditions so frequently met with. The chapter on "Differential Diagnosis" is most interesting and instructive, giving the various points of diagnosis between typhoid fever, pyo salpinx, suppurating ovarian cyst, fibroid tumor, extra-uterine pregnancy, and the disease in question. The colored plates are amongst the finest in execution we have ever seen.

Hints for Consumptives; or, the Scientific Management of Pulmonary Tuberculosis. By Charles Wilson Ingraham, M.D., Binghampton, N.Y., February, 1896.

All the works already written on this subject lay stress upon the points which *should* be attended to in the treatment of phthisis, but do not perhaps warn both the physician and the patient sufficiently strongly as to what *should not* be done. Dr. Ingraham, in this small book, has in a most happy manner taken this matter up from the negative standpoint, the result of his labor being that his work is a most readable one, not only to the professional man, but to the layman as well.

We acknowledge with satisfaction the receipt amongst our exchanges of the *Journal of Inebriety*, edited by Dr. T. D. Crothers, of Hartford, Conn. The *Journal* was established in 1876, and is not only the organ of the American Association for the Study of Inebriety, but is the only one, we understand, of its kind. Its material is good, and its pages all through contain most interesting reading.

THE Board of Management of Ontario Medical Library Association desire to acknowledge the receipt of Treves' "System of Surgery,' and nine volumes of Transactions of Association of American Physicians.

Obituary.

DR. WILLIAM GRANT.

DR. WILLIAM GRANT, one of Perth's prominent physicians, lately died of heart trouble. Dr. Grant was a native of Glengarry, and started practice in Perth twenty-five years ago. He had always taken an active part in municipal matters, and represented the East Ward as councillor for many years. He married, about twelve years ago, a Miss Caldwell, daughter of the late Boyd Caldwell, lumberman, of Lanark village. She, with four children, survives him.

The Physician Himself.

DR. JULIA THOMAS has removed to Carlton Street.

DR. J. M. B. WOODS has removed to 194 Spadina Avenue.

DR. JULIA THOMAS has removed from Parliament Street to 243 Carlton Street.

DR. T. VERNER has returned from Rossland, B.C., after a sojourn of one week. He has settled again and resumed practice at 594 Church Street.

DR. SPILSBURY has gone to New York to take a post-graduate course. We hope the doctor will return quite restored to health after his long illness.

WE wish to tender our congratulations to our brethren in the profession, Doctors Cotton and Forest, on the result of their recent suits in court. We were satisfied beforehand that the actions could only result in a verdict in favor of the defendants.

BIRTH.

TEMPLE.—On February 12th, the wife of C. Algernon Temple, M.D., of a daughter.

MARRIAGES.

PEARSON—KENNEDY.—On January 1st, 1897, at the residence of the bride's mother, 113 Mutual Street, Toronto, by the Rev. John Pearson, D.D., Rector of Holy Trinity Church, Henry Clinton Pearson, M.D., of Demorestville, Ont., to Florence Mary, "Dollie," eldest daughter of the late John E. Kennedy, M.D., and granddaughter of the late Joseph Workman, M.D.

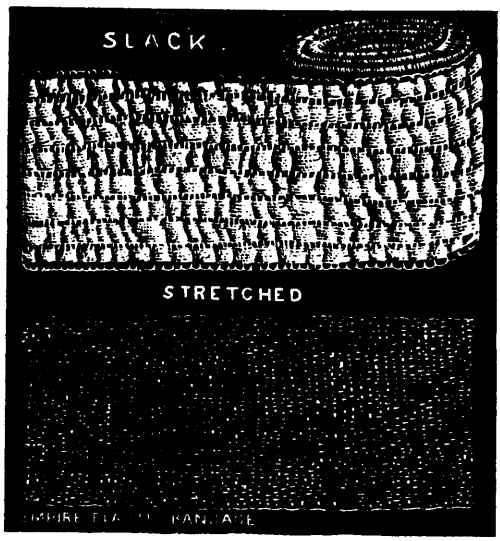
SEGSWORTH—BEDWIN.—Dr. John Segsworth, jr., of Willmette, Ill., a graduate of the Toronto Medical School, was married at Rochester on New Year's Day to Miss H. M. Bedwin, who for some time past was superintendent of one of the kindergarten schools of this city. The wedding was of a quiet nature, and took place at the residence of the bride's aunt, Oxford Street, Rochester, N. Y. The JOURNAL extends congratulations.

EDITORIAL COMMERCIAL NOTES.

WE congratulate the New York Clinical School of Medicine upon having installed so able a man and skilled a surgeon as Dr. Thomas Manley in the chair of Surgery of that institution.—*Medical Brief.*

S. H. KENNEDY'S Concentrated Extract of Oak Bark (Quercus Alba) can be supplied to members of the profession through Lyman Bros. & Co., Toronto, who are wholesale agents for this firm. When a man of the standing of Dr. J. Marion Sims recommends an article to his brethren in the profession, it can be taken for granted that it is worth more than an ordinary trial.

FOR years past members of the profession have allowed themselves to be talked into subscribing to all kinds of collecting agencies, the representative professing that they could collect any account, no matter how bad. We know how the majority of those companies at least have turned out. After looking into the system adopted by the Standard Mercantile Agency, Ltd., whose advertisement appears on page xxvi. of this issue, we think that we are safe in saying that physicians will find the same to be most satisfactory, that doctors will, instead of sinking their subscription fee (which this company only deducts from the amount collected, otherwise not at all), get returns for the investment.



The Empire Elastic Bandage

SPECIALLY ADAPTED FOR VARICOSE VEINS.

We invite the attention of the Medical and Surgical Profession to the various merits combined in our Bandages:

1st. ITS POROSITY—the greatest in the "Empire." It never causes itching, rash, or ulceration under the bandage.

2nd. ITS ELASTICITY, which will enable the surgeon or nurse to put it on at any required tension, and which will follow a swelling up and down, as the case may be, a feature unknown to any other bandage.

3rd. ITS ABSORBENT PROPERTIES—greatest in the "Empire."

4th. ITS EASY APPLICATION to any part of the body, not being necessary to fold over as with other bandages, as it follows itself with equal uniformity around any part of the abdomen.

5th. ITS SELF-HOLDING QUALITIES. No bother with pins, needle or thread, or string, so tiresome to surgeons, as simply tucking the end under the last fold insures its permanent stay until its removal for purposes of cleanliness.

6th. The only Bandage that is SUPERIOR TO THE ELASTIC STOCKING for varicose veins.

Send $1.00 for 3 in. by 5 yds. Bandage on approval.

As an Abdominal Supporter with Button Inserted at the Navel.

Is made of the same material, and possesses the same merits as the Empire Elastic Bandage and Abdominal Supporters, and is pronounced by all who have seen it to be the BEST IN THE WORLD. All of our goods are sent free by mail upon receipt of price, and money refunded if not satisfactory.

Infants, $1.25. Children, $2.50. Adults, $4.00.

THE EMPIRE ABDOMINAL SUPPORTER

Is superior to all others for the following reasons : : : :

1st. It adapts itself to every movement of the body, giving strong and even support.

2nd. It produces warmth without irritation or sweating, as it is perfectly ventilated.

3rd. In pregnancy, corpulency, tumors, or other cases of enlargement of abdomen, it supports weight of body from the backbone, relieving the sinews of their overwork.

4th. Its easy appliance (lace and drawn on over head or feet).

5th. It is cheap; durable. It can be washed when soiled, proper care being taken to cleanse it in lukewarm water and dry in the shade.

In ordering give the measure of the abdomen.

PRICES:

Six inches wide	$2 00
Eight inches wide	2 50
Eleven inches wide	3 00
Twelve inches wide (double rubber)	4 00

Manufactured by

The Empire Manufacturing Co.

43 SPRING STREET,

LOCKPORT, N.Y., U.S.A.

EDITORIAL COMMERCIAL NOTES.

DOCTORS will find the Abdominal Support manufactured by Mrs. Pickering, of Brantford, to be reliable and durable. The support made by her for special use by women during pregnancy is worthy of attention.

AT a recent meeting of the Board of Trustees of the Jefferson Medical College, Philadelphia, Dr. J. Chalmers DaCosta was elected Clinical Professor of Surgery. Dr. DaCosta has been connected with the college for many years, and has recently been Demonstrator of Surgery and Chief of the Out-patients' Department. The new appointment is made in recognition of his long service and valuable contributions to surgical literature.

MR. J. F. HARTZ, whose advertisement appears on page viii. of this issue of the JOURNAL, announces to the profession that he has purchased the entire stock and good-will of the old firm of Milburn & Co., Detroit, with whom he was identified for so many years. Mr. Hartz has opened up besides a very handsome surgical instrument house on Woodward Avenue, in that city, a depot in Windsor, Ont., from which point Canadian physicians can be supplied with anything they require in that line at very low figures, without any annoyance from custom duties.

EDITORIAL COMMERCIAL NOTES.

WE take this opportunity of drawing the attention of our readers to page xvi. of this issue, where they will see the announcement of the Ferrol Medicine Co., Ltd., of Markham, Ont. It is worth careful perusal.

WE congratulate the firm of H. K. Mulford & Co., of Philadelphia, on having received from the Provincial Board of Health of Ontario a large order for their tuberculin. The excellence of this firm's goods is such as to deserve public recognition.

THE medical profession will hail with delight the fact that the Imperial Granum Co., of New Haven, Conn., have decided to place such confidence in the medical press as to relinquish from this on all advertising outside of medical journals. Such a firm will never need to request the support of the medical men, as it will receive such voluntarily.

WALTER M. FLEMING, A.M., M.D., in the *Journal of Nervous and Mental Diseases*, submits the following: "In acute attacks of laryngeal or winter cough, tickling and irritability of larynx, faith in antikamnia and codeine tablets will be well founded. If the irritation or spasm prevails at night, the patient should take a five-grain tablet an hour before retiring, and repeat hourly until allayed. This will be found almost invariably a sovereign remedy."

CANADIAN MEDICAL PRACTICE OFFICE.

Conducted for the Convenience and Protection of the Profession, for the purchase and sale of practices, the arrangement of partnerships, securing eligible openings, etc. All transactions and communications strictly confidential.

PRACTICES FOR SALE.

Intimate by number those you wish details of.

No. 121.—Is a practice over $3,000 and a fine home in small rural village of 300 population; without opposition, and large territory; about 40 miles east of Toronto. An established business, certainly transferable. One of the best country practices in Ontario. Price $4,000 (less than cost of house). Terms, $1,500 cash.

No. 120.—Is a practice over $3,000 per year, established for over ten years in a Western Ontario town of 1,500 population, with practically only one opposition in the place, and the nearest outside opposition is nine miles. Collections equal 95 per cent. of work done. This practice, with a month or two of introduction, office contents, and the doctor's home built by himself recently, is offered for less than $3,000. The house alone cost about that. $1,200 to $1,500 cash is required as first payment. Nothing better will ever be offered and is a sure thing for buyer.

No. 119.—Is a practice of over $2,000 in Western Ontario village of 800 population, with one opposition. Collections are excellent, over 90 per cent. The practice, four weeks' introduction, office contents (which are new and cost $400), and stable outfit (which is first-class and cost $350), is offered for $1,000. Terms, half cash. A very inviting offer.

No. 118.—Is a practice and the doctor's fine brick home, in village of 300 population, to rent for five years at $175 per annum. One opposition.

No. 117.—Is the property and good-will of an elderly physician in Western town which is offered for present market value of house.

No. 115.—Is a practice of $1,200 to $1,500 with appointments worth $300 a year, located near Toronto in place of 5,000 population. An easy, neat and sure thing for anyone. The practice, four weeks' introduction, and office contents are offered for $300 cash.

No. 114.—Is an established practice of $3,500 in village of 1,000 population, within 40 miles of Toronto; only one opposition, and the field is large, exceptionally fertile, and the pay averages over 90 per cent. collected from year to year. This practice, with a month's introduction and the doctor's fine brick home, is offered for less than cost of house alone. Price, $3,500. Terms, $1,500 cash, balance on time. Nothing better will ever present than this offer.

No. 112.—Is a practice of over $3,000 per year in Western Ontario town of over 3,000 population, with four opposition. The practice and the doctor's lovely home recently built and stable outfit, is offered at cost of house, $3,700. Terms, $1,500 cash. This is an excellent chance for a Presbyterian.

No. 105.—Practice of from $3,500 to $4,000 per year, with one month's introduction; office contents (costing $400), stable and road outfit (costing $600), is offered at $2,000. Terms, half cash. The doctor is in very bad health and must get out. The biggest money maker on my list and is positively transferable to successor. If you have $1,000 spot cash, don't miss this. Town of over 4,000, with three opposition.

No. 104.—County of Leeds; practice from $2,000 to $3,000; population 700; one opposition; established many years; four weeks' introduction; eight roomed house, with good stable and sheds. The whole offer for $1,300. Terms, $600 cash, balance on easy time. A great opening for either a Methodist or an Anglican.

No. 100.—$2,000 practice and residence, with office contents, road outfit, household furniture, etc., with full introduction, in a village of 700, in eastern county, without opposition. Price, $2,500. Terms, half cash. A decided bargain for Methodist.

No. 97.—Is a practice and property in village of 800 near Toronto. Finest country and pay, with one weak opposition, which is a great opening for any Methodist physician. He can do from $1,500 to $2,500 per year; cash, sure. Price of property only asked, which is $1,800. Terms, $650 cash; balance on mortgage. County of York.

No. 96.—$2,000 to $3,000 practice in village of 300 in County of Leeds, with introduction; road, stable, bed-room and office outfit; one opposition; very long drives; rich country; good pay. Price, $1,000. Terms, $600 cash; balance on time.

No. 94.—$2,500 practice and lovely home. Population 2,000 and weak opposition; full introduction. Price $4,000, which is less than cost of house; $1,500 cash; balance on time. An inviting opening.

No. 87.—Is a big practice in Hamilton which the doctor will hand over to purchaser of his home at really a bargain. Price $6,000; easy terms.

No. 67.—Is a practice—County of Durham— in its richest part—village of about 300. A nice home and practice of $2,000 for less than price of house—ill health the cause.

Dr. Fraser, of Orangeville, has a Harvard Surgical Chair which he will sell cheap or exchange for a microscope.

SEND FOR FULL LIST OF PRACTICES.

Physicians intending to sell should place their practices in our hands at as early a date as possible, for spring is general moving time, and many enquiries will present during the next few weeks.

We try to secure reliable openings for physicians **and will offer nothing which will not stand a thorough investigation.** We obtain from prospective buyers, their age, qualifications, religious persuasion, financial ability, etc., etc., and a pledge as to secrecy and honorable dealings.

Practices offered independently of this office are generally those which we have rejected as unworthy and undesirable.

We court the patronage of the profession and promise honest effort to secure your wishes, which our accumulated experience in these matters ought to enable us to do.

☞ *Letters must be direct from medical practitioners interested, and must enclose stamp for reply, otherwise they will remain unnoticed.*

Address— **DR. W. E. HAMILL,**

Room 11, Janes Building, N. E. Corner King and Yonge Sts., TORONTO

EDITORIAL COMMERCIAL NOTES.

THE Faculty of Medicine in McGill University is giving again this year a post-graduate course of instruction for general practitioners, beginning May 4th, and closing June 19th. The fee for full course is $50.

THE following letter explains itself. It is only right that such an erroneous impression should be removed.

BAYONNE, N.J., September 5th, 1896.

MESSRS. EVANS AND SONS, Boston, Mass.

GENTLEMEN,—I correct with pleasure the erroneous statement in my article on Gelatine Capsules to the effect that the gelatine capsules introduced by Messrs. Evans, Lescher & Webb, London, under the name of Savaresse's Capsules, were short lived. The error got into the manuscript by cutting down a long description of the capsules to a few lines, and was not discovered in time to alter the reprint as presented to the American Pharmaceutical Association at the Montreal meeting. I am well aware that the improvements in the capsules made them a valuable medicine, ordered and used by many physicians.

I am, yours respectfully,

(Signed) WILLIAM C. ALPERS.

FLAVELL'S ELASTIC TRUSSES.

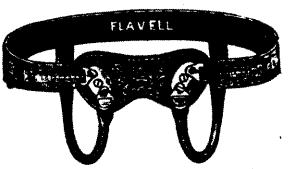
Worn day and night with Comfort and Ease.

WE SOLICIT THE PHYSICIANS' PATRONAGE DIRECT.

ELASTIC TRUSS.

DIRECTIONS FOR ORDERING.—Give circumference of abdomen on the line of rupture. State if for Single or Double, Right or Left.

ELASTIC TRUSS.



NET PRICE TO PHYSICIANS.

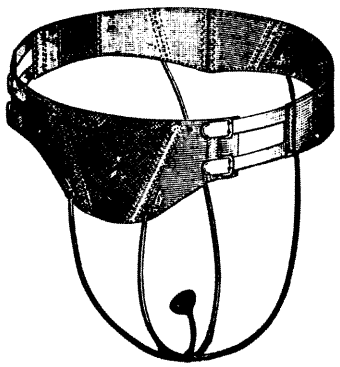
Single Trusses.

	Adult's 28 to 42.	Youth's 22 to 28.	Child's 12 to 21.
A, Plain.....each,	$1.50	$1. 5	$1.00
B, Fine..... "	2.00	1.75	1.25
C, Silk..... "	2.30	2.00	1.50

Double Trusses.

	Adult's 28 to 42.	Youth's 22 to 28.	Child's 12 to 21.
A, Plain.....each,	$2.50	$2 00	$1.50
B, Fine..... "	3.00	2.50	2.00
C, Silk..... "	4.00	3.00	2.50

FLAVELL'S IMPROVED UTERINE SUPPORTER.



Price to Physicians

$2.00

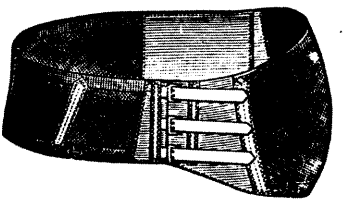
Satisfaction Assured.

DIRECTIONS FOR ORDERING.—Give circumference of abdomen two inches below the navel, and state if for Prolapsus, Anteversion or Retroversion.

Flavell's Abdominal Supporters

DIRECTIONS FOR MEASUREMENT.

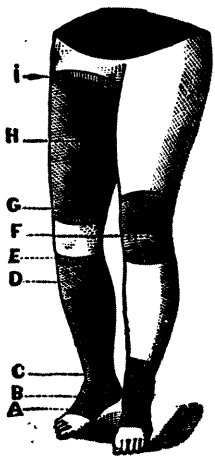
Please give exact circumference of body at K. L. M.



PRICE TO PHYSICIANS.

Silk Elastic, - - each, $2.75

Thread Elastic, - " 2.00



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NOTICE—CAUTION.

The success of Fellows' Syrup of Hypophosphites has tempted certain persons to offer imitations of it for sale. Mr. Fellows, who has examined samples of several of these, **finds that no two of them are identical**, and that all of them differ from the original in composition, in freedom from acid reaction, in susceptibility to the effects of oxygen when exposed to light or heat, **in the property of retaining the strychnine in solution**, and in the medicinal effects.

As these cheap and inefficient substitutes are frequently dispensed instead of the genuine preparation, physicians are earnestly requested, when prescribing the Syrup, to write "Syr. Hypophos., **Fellows.**"

As a further precaution, it is advisable that the Syrup should be ordered in the original bottles; the distinguishing marks which the bottles (and the wrappers surrounding them) bear, can then be examined, and the genuineness—or otherwise—of the contents thereby proved.

Medical Letters may be addressed to—

MR. FELLOWS, 48 Vesey Street, NEW YORK.