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THE  
CANADIAN JOURNAL  
OF  
MEDICINE AND SURGERY

A JOURNAL PUBLISHED MONTHLY IN THE INTEREST OF  
MEDICINE AND SURGERY

J. J. CASSIDY, M.D., EDITOR.

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## *Original Contributions.*

### REPORT OF THE LABORATORY OF THE PROVINCIAL BOARD OF HEALTH.\*

BY JOHN J. MACKENZIE, B.A., M.B.,  
Bacteriologist to the Ontario Provincial Board of Health.

MR. CHAIRMAN AND GENTLEMEN,—The work of the laboratory since the last meeting has shown considerable increase along certain lines. As pointed out in the last report, the use of the history cards with the specimens examined, has led to the collection of a quantity of interesting data, which, in time, may be incorporated in the form of special reports.

Not all of the correspondents comply with the request of the Board in regard to filling out the cards, and where this refusal is persistent, the only remedy is to refuse to examine the specimens. Some correspondents object to sending the histories upon open post-cards, as they say, that in a small place, such a history becomes public property. I have suggested to such the advisability of enclosing the card in an envelope and sealing it; this has been done in many instances.

A number of physicians are careless in answering the questions asked upon the cards; especially is this the case in regard to history of infection in tuberculosis and the date of the disappearance of the membrane in diphtheria. On account of this carelessness the diphtheria cards are of very little value as yet. I note from examining the diphtheria cards that the majority of physi-

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\* This paper was read at the second quarterly meeting of the Provincial Board of Health of Ontario.

cians are willing to make use of the laboratory for the purposes of diagnosis, but are not willing to use it for the sake of release from quarantine.

The sources of the material are as follows: Suspected exudates have been received from 45 municipalities (in nine municipalities all the physicians send through the medical health officer); suspected tuberculous sputum, from 94 municipalities and 115 physicians; typhoid blood, 11 municipalities and 18 physicians. The work in the examination of sputum has shown a very marked increase, which seems to be continuing. By months the specimens of sputum have been as follows: January, 41; February, 51; March, 59; April, 67; May, 74. This makes for the first five months of the year almost as many specimens as during the whole of last year.

For the first four months the total specimens were as follows: Sputum, 218 (with these I received 138 history cards); diphtheria, 202 specimens (for which I received 123 history cards); typhoid blood, 26 samples (for which I received 14 history cards); water samples — bacteriological, 13; chemical, 16; miscellaneous examinations, 51; total for first four months, 526.

The largest number of history cards were received in the case of suspected tuberculous sputum, namely, 138. Although this number is not very large I have attempted to extract what information I can from these cards to submit to you. Some of the results are interesting, but until we possess a much larger number of cases, must be taken with reserve. Of the 138 cases in which cards were sent in 57 were positive, 81 negative. Upon the history card the age of patient is asked. The results according to age are as follows: Under 10 years: 2 specimens (1 positive, 1 negative), percentage, positive, 50; 10 years to 20 years: 22 specimens (8 positive, 14 negative), percentage, positive, 36.3; 20 years to 30 years: 46 specimens (23 positive, 23 negative), percentage, positive, 50; 30 years to 40 years: 33 specimens (11 positive, 22 negative), percentage positive, 33.3; 40 years to 50 years: 21 specimens (12 positive, 9 negative), percentage, positive, 57.1; over 50 years: 14 specimens (2 positive, 12 negative), percentage, positive, 14.2. Another question on the history card asks for the duration of symptoms before the specimen was sent. From the answers the following figures have been obtained: Symptoms existing 1 month and under: 18 specimens (positive 3, negative 15), percentage, positive, 16.6; 1 to 2 months: 26 specimens (positive 9, negative 17), percentage, positive, 34.6; 2 to 3 months: 14 specimens (positive 7, negative 7), percentage, positive, 50.0; 3 to 6 months: 27 specimens (positive 15, negative 12), percentage, positive, 55.5; 6 to 12 months: 28 specimens (positive 13, negative 15), percentage, positive, 46.4; 1 to 2 years: 8 specimens (positive 5, negative 3), percentage, positive, 62.5; over 2 years: 15 specimens (positive 4, negative 11), percentage, positive, 26.6. I give the figures for what they are worth, and simply would point to the

cases where positive diagnosis was made within two months of the onset of the disease. The next question asks for the present symptoms. This has been answered with more or less fulness by the different men. With a large number of cards, say 1,000, we may hope to use this answer in studying especially those cases in which a positive diagnosis is made within two or three months of the onset of the disease, and in studying those negative cases in which the disease has existed for more than two years. The last question upon the card is as to history of infection. At first in looking over the cards I was somewhat disappointed with the number which gave positive history of infection, but when tabulated a rather interesting result is obtained. It remains to be seen if subsequent results bear out the figures here given. Of those specimens in which the bacilli were found 34.4 per cent. gave a positive history of exposure to infection. Of those specimens in which the bacilli were not found only 7.4 per cent. gave a positive history of exposure to infection.

I have been unable to obtain any data of interest from the diphtheria cards, partly on account of the small number and partly on account of carelessness in filling out the cards. Of the 123 diphtheria cards 85 were for diagnosis, 38 for release from quarantine. Of the diagnosis cards 33.3 per cent. were positive.

An interesting feature of the laboratory work of the first four months of the year was the receipt of four specimens from cases of suspected cerebro-spinal meningitis. The epidemic form of this disease is now known to be due to a specific organism called *diplococcus intracellularis meningitidis*. It differs from the *diplococcus* of pneumonia, which sometimes causes meningitis, in its staining, cultural and pathogenic characters, so that in material from the meninges it is usually possible without much difficulty to differentiate the two forms. The chief differences are as follows: By Gram's stain *diplococcus intracellularis* does not stain, *diplococcus pneumoniae* stains. It is more difficult to cultivate than the pneumococcus and dies out more rapidly in cultures. Whilst the pneumococcus is very pathogenic for mice and rabbits, the *diplococcus intracellularis* is only slightly so.

The rapid death of the organism makes it difficult usually to get a culture, especially if the cerebro-spinal fluid has been allowed to stand any length of time after removal from the body. Even in fresh material in which the microscope shows many organisms it is necessary to make several cultures as only a percentage of them show any growth. It is consequently hardly possible to hope for a positive diagnosis by culture with material sent to the laboratory from a distance, and the diagnosis would have to depend largely upon the negative cultural results and the staining peculiarities.

With the appearance of epidemics in various parts of this continent within the past year (notably in Boston, Baltimore and Philadelphia), it was of special interest to try and decide whether



the Ontario cases were due to the organism of the epidemic form or to the diplococcus of pneumonia.

The first specimen was received March 20th. It was from a fatal case with an illness of about 48 hours. The specimen consisted of about 25 c.c. of bloody cerebro-spinal fluid, with a white sediment and containing white flocculi. On centrifuging it separated into a layer of reddish sediment with a clear blood-stained fluid above. A number of cultures were made from the material on different media, but they all remained sterile. Stained preparation showed that the sediment consisted of red blood corpuscles, polynuclear leucocytes and large mono-nuclear leucocytes. Certain of the polynuclear leucocytes contained diplococci somewhat flattened  $1.0\mu \times 0.75\mu$  in pairs. These organisms did not take the Gram stain. Two grey mice were inoculated, one subcutaneously with  $\frac{1}{2}$  c.c. of the fluid, the other intraperitoneally with  $\frac{1}{4}$  c.c. of the same material. Both animals lived, the second showing slight illness for a day.

We had then in this case a purulent cerebro-spinal fluid containing intracellular diplococci, which did not take the Gram stain and which apparently were dead when received.

The presumption was that this case of cerebro-spinal meningitis was the epidemic form. Within a month three other specimens were received from the same county; but in no case could a positive diagnosis be made, although in one the same intracellular diplococci were found. In another only serum tubes, inoculated by the physician who made the *post-mortem*, were sent, and as they remained sterile nothing could be made out. In the other the specimen was badly packed and was broken before it reached the laboratory.

In recent epidemics of this disease the method of lumbar puncture has been extensively used as a means of diagnosis, and in some cases even as a therapeutic measure.

The puncture is made between the third and fourth lumbar vertebræ about one centimetre from the middle line, a large sterilized hypodermic needle being used detached from the syringe; the needle is pushed slowly upwards and inwards, the entrance of the point into the spinal canal being at once shown by the flow of cerebro-spinal fluid from the open end, sometimes under considerable pressure. Some of this is caught in a sterile tube and a number of cultures at once made.

In fatal cases of cerebro-spinal meningitis this should be done if a *post-mortem* is not permitted, as a positive diagnosis can only be made by bacteriological examination.

It is important that physicians throughout the Province should recognize the importance of making as certain as possible the diagnosis in cases of this disease, since, if there is any danger of an epidemic, such as occurred in Boston, precautions should be taken.

During the past few months I have been making a series of investigations into the character of a bacillus found in grass, which resembles the tubercle bacillus.

It was first described by Moeller as occurring in this situation, but apparently its first recognition was by Rabinowitch in butter. Its occurrence in butter has undoubtedly given rise to error, as it is apt to be reported as the bacillus of tuberculosis.

Its growth in culture media is not unlike that of the bacillus of tuberculosis except that it is much more luxuriant and rapid. It stains with ordinary tubercle stain, and in cover glass preparations looks so like the tubercle bacillus as to give rise to doubt in one not well acquainted with the true form. Inoculated in large doses in guinea-pigs it gives rise to a disease of the nature of a pseudo-tuberculosis, small tubercles consisting of granulation tissue being found in the peritoneal cavity and liver. In smaller doses it gives rise to a slight indisposition and loss of weight with infiltration and tubercle formation at the point of inoculation and subsequent recovery.

It has not been described as producing a natural infection of cattle.

I found this organism present in several specimens of hay, and from one I succeeded in isolating it in pure culture. The resulting cultures showed the form to be identical with Rabinowitch's butter bacillus, and animal experiments showed it to have a very slight degree of virulence.

I was able to show that its peculiar staining characters are due, as in the bacillus of tuberculosis, to a fatty envelope; but contrary to what occurs in bacillus of tuberculosis this fatty envelope can be readily dissolved off with alcohol so that after boiling for ten minutes in alcohol the organism no longer takes the peculiar stain, but stains like any other form.

Dorset, of Washington, has shown that Sudan III. is a stain for the tubercle bacillus on account of its affinity for fatty materials. My observation confirms this, but shows that Sudan III. will not stain the grass bacillus, the reason being that the alcohol in which the dye is dissolved removes the fatty envelope before the dye can act.

I am continuing my observations upon the pathogenesis of this form.

The chief interest in this form and in others which have recently been discovered, lies in its evident rather close relationship to the bacillus of tuberculosis. Its practical importance arises from the danger of confusing it with the tubercle bacillus in butter and milk.

One specimen of suspected rabies was received in the laboratory, but owing to press of work I was unable to make the inoculations myself. I asked Dr. Goldie, of the University Medical Department, to do this for me, and he has inoculated two rabbits. As yet neither have shown symptoms, although about four weeks have elapsed since the inoculation. Although it is not yet possible to speak positively the presumption is that the case was not rabies.

A number of tests of glycerinated vaccine have been made, but the work is not yet completed.

## A MEDICO'S VISIT TO RICHMOND, VA.

BY W. A. YOUNG, M.D., TORONTO.

So widespread has the scribbling fever become, that it seems hardly an impertinence to "stop over one train" in a city and then write "impressions" thereupon. We are becoming so accustomed to take everything compressed into tablet form, that the scribe is supposed, like little Willie of story fame, to swallow the entire dinner tablet (of facts and fun) while the blessing is being asked.

The Richmond that extended a welcome to the 1899 meeting of the International Association of Railway Surgeons was smiling and very gracious. Her welcome, in two senses, was warm. Forty years ago Thackeray said, "Richmond is the merriest place and most picturesque in America." At that time no doubt it was true; but by the irony of fate the bright young city soon became rocked in the cradle of fire and blood—the horror of war. The years have passed, and now she presents a picture of historic interest, beautiful landscape, and wonderful commercial industry. In her streets the sounds of the up-to-date trolley car mingle strangely with the tingle of the bells of the old mule cars; the rickety cabs rattle along side by side with great drags laden with the merchandise that bespeaks large manufacturing interests; the graceful women of the South are outnumbered in the streets and parks by the gay darky ladies; and the pickaninnies—ye gods, they are in shoals, attired in wonderfully starched garments. Here, may we say, let the South settle the great negro problem we hear so much about. The Southerners understand it in its length, breadth and multiplicity, as the Northerners never can. The former treat their speckled beauties wisely and well, and yet get an odd good day's work out of them, and always the semblance at least of respect and obedience.

Passing from the streets into that palace of light, the Jefferson Hotel (the headquarters of the Convention), we soon were feeling the hearty handshakes and listening to pleasant remarks about "last year in Toronto," and immediately the Canadians were made to feel at home.

Of the scientific side of the meeting these feeble remarks have naught to say. A report appears in another part of this issue.

Many an hour was given for enjoyment and sight-seeing. Among the numerous places of interest visited were the Capitol Square, with its historic buildings and handsome monuments, also a drive around Hollywood Cemetery, the resting-place of many illustrious dead. The day previous to our visit had occurred the annual decorations of the graves of the soldiers, and fragrant with the breath of flowers was "God's acre." Jefferson Davis' resting-place was a veritable garden of roses, and now and then a breeze

from the river stirred gently to and fro the old flag that has stood sentinel so long above the dreamless sleeper. The view across the James River from this point reveals Libby Hill, where the prison stood, and the long stretches of hill, dale and winding river form an exquisite picture.

After leaving the cemetery, the places of interest visited were many and ever increasing—among others the quaint old church where Patrick Henry uttered his famous sentence, "Give me liberty or give me death!" Oh, what a harvest for the camera person! He was plural, and, pardon, messieurs, very humid. His face called to mind old Joe Murphy's property tear, that was ever present as he sang "A handful of earth from the land of my birth." Of course the Richmond tear was the genuine brand, nothing of glycerine about it—the kind that trickles—while the camera fiend focuses his lens as the thermometer in the shade round the corner is practising high C, and trilling on the words ninety-five.

The evening was the first day, and it brought a reception, tendered by the physicians of Richmond and their wives, to the delegates. Held in the Jefferson Hotel, it proved very enjoyable, and the pleasure was added to by the fine singing of a negro quartette.

Few and far between are the sojourners in Richmond who do not visit the Valentine Museum,\* the gift of the late Mann S. Valentine, whose name is an honored household word in Virginia, and whose generosity to his native city has been twice blessed. Would that time and tide had waited for us and allowed us to linger among the interesting *objets des beaux-arts* contained in this museum. Would that we could thank its presiding genius, Mr. Jones, who spared himself not at all that we might enjoy all things freely. Long will the memory of our visit to the Valentine Museum and its old garden linger with us, ever fragrant with the perfume of the magnolia blossoms.

Mr. H. L. Valentine invited us to a tally-ho ride around Richmond, and gave us the new experience of a visit of inspection to one of the largest tobacco factories in the South. We were shown every stage of the manufacturing process—first, a peep at the niggers as they sat on the floor and picked asunder the leaves; then a glance at the big vats filled with boiling sweetness of licorice and sugar; then the drying-room with its huge machines, and its blinding heat, 100 degrees Fahrenheit; then the bundling or rolling (before being subjected to enormous pressure) in the factory. In this department we beheld hundreds of niggers working away and singing the old hymn:

"Must I be carried to the skies  
On flowery beds of ease,  
While others fought to win the prize,  
Or sailed through bloody seas?"

How they sang! Here and there a splendid basso, or a clear true tenor made us linger and wonder at the exquisite harmony of

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\* Half-tone illustrations of which we print on pages 42, 45, and 48, of this issue.

sound, as we looked at the gruesome creatures. Slowly the "music and the meaning" died away, but soon an old darky led off, "We're marchin' through Georgia." And so we left them, these strange workers, with the hope that all their toil would surely end in smoke. Suitable souvenirs of the occasion were kindly presented to all the party by the gentlemanly young president of this immense concern, Mr. Williams.

The Young Men's Business Club, invited the I.-N.A.R.S. to a sail down the James River to Dutch Gap. The banks of the river are pregnant with "war-time" interest, and many were the thrilling stories to which we listened. A *dejeuner* was served on board the boat, and the trip was very interesting, although its pleasure was slightly marred by a severe thunderstorm which came on just at the starting time.

The gracious private hospitality of the people of Richmond was indeed delightful and very much appreciated, especially perhaps by the Canadians.

With genuine regret we said adieu to Richmond after the close of the Convention, to spend awhile sporting with the mermaids at Old Point Comfort. As we took train, the last words of the darky Jehu who took us the station were, "Thank you, sah; you've got a pretty mornin' for gwine, sho'."

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## CONSTIPATION; SOME OF ITS EFFECTS AND ITS NON-MEDICINAL TREATMENT.\*

BY E. S. PETTYJOHN, M.D.

Medical Superintendent, Alma Sanitarium.

THE large number of people suffering from constipation and its effects, and the clinical difficulty met in obtaining relief therefrom, leads to the conclusion that the full signification of this affliction and its deleterious influence are not comprehended either by the public or the profession.

In its reciprocal influence this condition sustains both a causative and a resultant relation. Constipation as a functional disorder may be defined as an abnormal condition of the great colon and the entire intestinal tract, manifested by the unusual retention of excrementitious material, both as to quantity and time of evacuation. It may be owing either to diminished action of the muscular coat, to the diminished secretion from the mucous membrane, or both, to defective innervation, to habits and occupation, climate or diet, which are the chief causes.

A study of the history of thirty-six cases shows that about 60 per cent. of patients are suffering directly or indirectly from this ailment, and that the number is proportionately larger among women than among men, probably due to the sedentary life.

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\* Written specially for THE CANADIAN JOURNAL OF MEDICINE AND SURGERY.

Congenital constipation may occur dependent upon the anatomy of the colon, the water being absorbed by the reduplication of the colon itself, especially the descending part, as that part is larger in infants in proportion as compared with the ascending and transverse, and hence is liable, by being crowded down into the pelvis, to flexures and reduplications that favor impaction and absorption.

In adults the transverse colon is most liable to variation in length and position, and being smaller in diameter than the ascending, aside from congenital malformation, may be bent downward almost to the pubes by the long-continued distention, forming a sharp bend at the sustentaculum hepatis and at the splenic flexure, as has been found in two cases under the writer's observation.

In considering this condition, we regard individual habit and idiosyncrasy and compare with the rule, as persons do become constipated *without notable or sensible inconvenience to themselves, without manifesting any of the local symptoms, and while having regular and apparently sufficient daily evacuation.*

We come to the consideration of constipation more on account of its relation to other ailments and the entire system, than because of the mere inconvenience induced. The intestines and colon and the rectum are considered as digestive, eliminating and secreting organs, and also as organs of absorption.

With their great extent of retiform tissue inclosing a multitude of blood vessels and nerve ramifications, with their mucous follicles and valves of retardation, with their glands, lacteals, arteries and veins, the powers of retention and absorption belonging to this tripod are beyond compare. The wonder is that all the contents which enter are not taken into the circulation.

While the colon and rectum have not the digestive office we have long supposed, their absorptive power is greater than has been thought, and the quantity absorbed is in proportion to the time of contact and dilution of the substance. While these organs seem in a certain sense endowed with the power of selection, they do absorb digested aliment, medicines and deleterious material with about the same avidity.

The intestinal nervous system, the abdominal brain, is noticeably complex. Filaments are received from the pneumogastric, the sympathetic, and from the lumbar cord. After having been distributed to the plexus of Meissner under the submucous coat and the plexus of Auerbach between the muscular planes, branches thence supply the glands, muscles and blood vessels. Some preside over the absorbents and secretions, others over the peristaltic muscular movements, others over the intestinal circulation. Not only do these medullary and ganglionic systems direct the functions of the intestines, but through them the nerve centres of the brain have a direct influence over the entire apparatus. Since all functional action in the system is reciprocal, it follows that the functional activity of the chylopoietic system must affect the nutrition of the brain and the entire nervous system.

We acknowledge that human life is a constant professional activity of elimination and repair, metabolism occurring everywhere. Observation is demonstrating the part taken by bacteria and microbes in this process in the mouth, stomach and intestines. In the chemic, fermentative and putrefactive changes thus occurring, ptomaines are being constantly produced, which, when absorbed as toxic and excrementitious substances, produce retrograde changes in the quality of the blood, diminution of the red blood corpuscles, and by supplying an infected or imperfect nutriment to the brain, become a prominent factor in the production of cerebral anemia, and nervous debility only limited in its effect by the shortening of the microbial longevity from the effects of its own secretions. If this deficiency of nutrition or the supply of toxic material be continued, the increased nervous irritability is followed by a decrease, and withdrawal of nourishment is followed by brain exhaustion.

From the normal intestine Babes isolated five species of bacteria, whilst an enormous number of micro-organisms were found in the large intestine and feces. Bouchard says: "The conditions favorable for the maintenance of putrefaction are so numerous that we ask whether digestion can ever go on normally?" While the hydrochloric acid of the stomach neutralizes the infectious agents, they are passed into the intestines in a state of latent activity, when fermentation again begins. While the bile arrests fermentation, it is also capable of putrefaction, which is no doubt one of the causes of the offensive breath in constipation. We thus find the small intestine in a condition to pass products of putrefaction and also toxic substances into the blood current. Since our most inoffensive and valuable foods (meats) produce toxic substances; since the putrefactive bile contains poison, and the putrefactions of undigested residue produce poison, and the fecal matter is toxic; with all of these shut up in the intestines and colon, how can the guilty (those who do not believe in defecation), or even the innocent, escape destruction.

If the kidneys are excreting well, some of the toxic substances escape through the urine, and if the skin is eliminating, it furnishes relief, but these are rather remote resources of exit for so large a quantity of excrement when the way to the outside world is so close at hand through the rectum.

Hypochondria, nervous depression, nervous headaches, functional neurasthenia, migraine, vertigo, disorders of nerve sensibility, noises in the ears, dyspepsia and depression incidental thereto, with a long train of psychic, nervous and nutritional troubles, are directly or indirectly the result of constipation. Even when many functional difficulties seem to be the primary disease, they only form an arc of a vicious circle begun with the nucleus of constipation.

The mechanical pressure against mesenteric blood vessels by over-distended bowels, especially if long continued, causes increased

flow of blood to the brain and a temporary hyperemia with its concomitant symptoms, like an Esmarch bandage about a limb, or a sudden cooling of the surface of the body which in winter is the cause of more frequent cerebral hemorrhages than at other seasons, or like the sudden suppression of the menses or of an hemorrhoidal discharge, or even the straining at stool, all of which are to be avoided in apoplexy and cerebral congestion, on account of the increased pressure of blood in the brain which they produce.

The nervous system, as the master tissues of the body, needs the highest nutrition, and hence is most easily disturbed. It is fed in its truest sense by the overflow of nutriment after its refinement and elaboration in other tissues. Whether the nerves are nourished by the plasma reaching the axis cylinder at the nodes of Ranvier or not, we believe with Waller that the nutritional activity of nerve fibre is in the direction of its normal physiologic activity. Any inhibition of this function will lower the nerve excitability. A long period of repose not only lowers the nerve excitability, but, if continued beyond a certain limit, atrophy and degeneration occur in the nerve substance itself.

Continued unusual pressure produces excessive activity of the nerve supplying the part, excitability is finally abolished and exhaustion of the nerve occurs locally (as in over-distention of the bladder), or it may even produce a neuritis. A constantly overloaded condition of the bowels may produce either of these local results on the nerve filaments themselves. The effect of this travels backward to the controlling ganglia in the lumbar cord, and defecation, to some degree a reflex act, when its directing centre is not sensitive to the controlling impulse of the brain, does not occur promptly, and the constipation thus reacts upon the whole system.

In patients who complain of symptoms referable to the spinal region, and where there is entire absence of anatomic affections of the cord, and often when these manifestations are united with cerebral symptoms and there is general disturbance of the entire nervous system with a neurotic heredity, it is very frequently a functional trouble. Such a case recently came under my care (from the country), a Miss M., aged 32 years. She had previously been afflicted with convulsions, supposed to be epileptic at and since puberty, but had had none for two years previous to my seeing her. She complained of attacks of severe occipital pain, when she would become nauseated and dizzy. At the same time she would have a convulsive-like attack with irregular tremors and a peculiar nodding and swaying movement of the head, which she said she was unable to control. She also had pain in the cervical and lumbar region, deep-seated. These attacks occurred irregularly from one to twelve weeks apart. She was an invalid each time from five to fifteen days. She had been treated for several years and informed by her physicians that she had epilepsy and disease of the spine. Thorough examination revealed absolutely no signs of spinal disease nor anatomic disturbance of the cord. After three months



of treatment she fully recovered, besides having gained about eighteen pounds in weight. The late Dr. Jewell believed and taught that the effect of constipation might produce a condition of the brain akin to, or that could be classified as, transient mania.

The first elements in curative treatment I consider good food and good digestion. The diet should consist of coarser foods such as would leave a residue and aid in increasing the bulk of fecal accumulations. Broths, fish with the skin, fresh meats not too tender, whole-wheat and graham bread, mush, hominy, corn bread and all green and watery vegetables, baked potatoes with skins, and cereals containing hulls and fine seeds, prunes, figs, apples with the peeling and all fruits generally. Rest in the recumbent posture for a half hour or more both before and after eating is of value.

Massage on anatomic principles I place first in the mechanical treatment. The manipulations should not be used until two hours after a meal. The thighs should be flexed and the abdominal walls relaxed. The treatment should be given dry, stimulating first the skin, then the walls of the stomach, the different sections of the colon and the intestines. Petrissage given so as to impart an oscillating and vibratory movement, combined with the varieties of tapotement, are the best forms of treatment. Cases of obesity and atony of the muscular coats and chronic intestinal and gastro-intestinal catarrh are relieved in two to four months. The intestinal secretions or increased obstruction of the bile-duct is relieved, the peristaltic action is stimulated, and the contents of the sigmoid flexure and entire colon are pressed toward the rectum. If there are biliary calculi no pressure should be made on the adjacent parts, although usually pressure should be made over the fundus of the gall-bladder, to assist the bile toward the intestines. The stimulation of the skin, which is here supplied by the last seven dorsal nerves the same origin as the splanchnics, as well as the plexus of Auerbach, and the mechanical effect of moving pressure do bring favorable results.

In the use of the cannon ball three or four pounds in weight, the patient or operator should be thorough and systematic. The ball should be rolled over the entire abdomen, being used for five or ten minutes morning and evening, the treatment ending by the patient balancing the ball for a few minutes on the navel.

In gymnastics all movements that use and strengthen the abdominal muscles, such as lying on the back and raising the limbs perpendicularly, the flexion at the hips, twenty or thirty times each morning and evening, rowing, horseback riding and cycling, are helpful if use regularly. While it is best to have a definite hour, that is not essential, but when a time is fixed, if the preceding half hour is devoted to the voluntary contraction of the anal sphincter muscles, the reflex effect is said to aid in stimulating the peristaltic action. Time should be given, and one should go for relief on the first prompting.

The faradic current of sufficient strength to produce contraction

of the different portions of the intestines and colon is helpful. The galvanic current, the cathode in the rectum, large anode over abdomen, repeated daily at the same hour is effectual.

Hydro-therapeutics have proven successful remedies in the author's practice. Drinking large quantities of cold water on arising and an hour before meals, and two or three times after food, taking during the day seventy to eighty ounces, beside that with the meals, is of exceedingly great value. This remedy, with regulation of habit, has cured many cases.

Fomentation to the bowels, stomach and liver daily and a cold pack to the bowels at bedtime have been successful. Alternation of hot and cold to the spine and the cool bath have shown results.

The difficulty I find in the use of any, or a combination of these measures, is to induce the patient to be systematic and persistent in following directions. But I am thoroughly convinced, that by these means producing local and constitutional effects, more satisfactory results are obtained than with medicines, and when the patient recovers, he stays well.

That constipation has a psychic and moral effect the laity recognizes, and we will all agree with the author who says: "Those persons whose bowels are freed by an easy, regular movement every morning, so soon as they have breakfasted, are meek, affable, gracious, kind, and 'no' from their mouth comes with more grace than 'yes' from the mouth of the one who is constipated."

Alma, Mich., May 20th, 1899

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**Not an Insurer.**—The supreme court of Minnesota says that a physician or surgeon is not an insurer that he will effect a cure. Neither is he required to come up to the highest standard of skill known to the profession. When he accepts professional employment, he is bound to exercise only such reasonable care and skill as are usually exercised by physicians or surgeons in good standing of the same school of practice. And where any person claims a cause of action for neglect to exercise the required degree of care and skill, the court adds, in *Martin vs. Courtney*, that the burden is upon him to prove such neglect. In this case, it goes on to state, perhaps the most serious charge against the defendant was in not making a second amputation at the ankle. Concerning this, the court says that he was required to exercise ordinary professional skill and judgment in determining what was best to save the patient's life, but conservative surgery required that as much of the foot as possible should be saved. A surgeon, under the circumstances, had to take into account the great value of a foot, especially to a laboring man. In determining where to make the amputation he would also have to take into account the degree, as well as the extent, to which the foot was infected; also the general health of the patient and his power to throw off or resist disease; and then, in view of all these considerations, act in accordance with ordinary and reasonable professional skill.—*Journ. of Amer. Med. Assoc.*

## Gynecology and Obstetrics.

... IN CHARGE OF ...

GEO. T. McKEOUGH, M.D., M.R.C.S.(Eng.), AND J. H. JOWE, M.D.

### TECHNIQUE OF ABDOMINAL SURGERY.

DR. HUNTER ROBB (*Medical News*, May 27th, 1899) read a paper before the American Gynecological Society recently, entitled "Sixty-Five Consecutive Abdominal Sections without a Death," and gave his technique, which is as follows:

There should be a thorough organization of the staff that is to assist at the operation, each assistant thoroughly understanding his or her particular duties, and all should work together harmoniously. The first assistant should assist the operator directly, the second having charge of the instruments and handing them to the operator or first assistant as needed. The third assistant takes charge of the dressings and sponges. The fourth assistant devotes all his attention to the giving of the anesthetic, while the nurses watch and are ready to be of service when called upon. Of course, the most thorough asepsis of dressings, instruments, pads, the field of operation, and the operator and his assistants' hands, is carried out in the usual manner. The patient should be under observation for several days previous to the operation, and a thorough study of the excretions should be made. A careful physical examination should also be made, and the blood before and after the operation carefully studied. The patient's general condition should be improved as much as possible before the operation. Rubber gloves, sleeves and skull caps should be used by the operator and his assistants during all operations, for by their use the danger of infection is materially lessened. The sponges are best made of pads of gauze, thoroughly sterilized, which is a much easier proceeding in this case than when sea sponges are used. About 500 c.c. of hot sterilized normal salt solution should be used to flush out the abdominal cavity at the conclusion of the operation, and then about 500 c.c. or less should be allowed to remain in the cavity. When drainage is necessary it is best accomplished by means of a gauze drain.

The patient after the operation should be put to bed in the postural position, as in that position drainage is best obtained. (The postural position is the elevation of the patient's body after operation to a sufficient height to start the flow of collecting fluids from the pelvis towards the diaphragm, and thus promote the rapid

elimination by the normal channels of exit from the peritoneal cavity, of infectious matter and of vital fluids which may stagnate in these pockets and form a culture medium for pyogenic microorganisms.—J. G. Clark, Johns Hopkins Hospital, Baltimore.) Shock should be combated by hypodermic injections of strychnine and enematas of hot coffee. If thirst be extreme the patient may be given a few sips of hot water, or this failing an enemata of hot water should be administered. No morphine should be given unless there be a special indication for its use. The bowels should be opened on the second day by a moderate dose of calomel followed by an enema of glycerine and soapsuds. Unless the patient pass her urine voluntarily, she should be catheterized every eight or ten hours. The postural position should be maintained at least for the first ten hours, but should there be much pain or restlessness the patient may be moved on her side for ten minutes and then the postural position be resumed. Should the tympanitis be extreme, a metal tube should be passed. This failing, an enema of turpentine, sweet oil and water should be administered. Turpentine stupes should also be given a fair trial. G. T. M'K.

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**The Treatment of Puerperal Septicemia by Antistreptococcic Serum.**—Walters (translations of the Obstetrical Society of London, 1898—*Amer. Jour. Med. Science*, June, 1898) reports the case of a multipara who became septic after an incomplete abortion. Although the uterus was curetted it was not completely emptied, and several days afterwards the patient expelled parts of a macerated fetus. She became intensely septic, the temperature rising to 103°, the tongue being very dry and the patient's pulse rapid. Two injections of serum, 10 c.c., resulted in immediate and marked improvement. The patient ultimately recovered. Routh, in discussion, said he had treated five or six cases and had seen a positive result in one. He thought that a positive diagnosis of streptococcus infection should be made before the serum was used. Robinson had treated seven cases of puerperal sepsis with serum—five of these died and two recovered. In one the injection had an immediate effect, and a membranous vaginitis was present, but rapidly disappeared. Phillips had seen one case in which the patient's recovery must be ascribed to the serum. Twenty injections were given in an illness of six weeks. Cullingworth did not believe it to be practicable to wait for a positive diagnosis of the presence of streptococci; he would inject the serum when the patient was septic. G. T. M'K.

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**Eclampsia.**—B. C. Hurst (*Med. Record*, March 4th, 1899) administers chloroform during the attack. As soon as the convulsion passes 15 drops of *tr. veratrum viride* is given hypodermically and

a drachm of chloral by enema. Two drops of croton oil diluted with a little sweet oil are placed upon the tongue. Diaphoresis is induced by hot packs and extra bed clothing. A pint or more of normal salt solution should be injected under the breast or several quarts of the solution per rectum, the aim being to flush the kidneys and thus rid the system of the toxine as quickly as possible. If convulsions occur the veratrum may be repeated in 5-drop doses if the pulse is quick and strong. If the face is congested and the pulse full, venesection enough to reduce the pulse should be employed. The chloral may be repeated if necessary. Stimulants are to be used if the pulse is weak and rapid. If the convulsions cease and the patient is in a stupor, but can be aroused enough to swallow, dessertspoonfuls of concentrated solution of Epsom salts should be given every 15 or 30 minutes until free catharsis takes place.

G. T. M'K.

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**Disinfection of the Hand with Alcohol.**—Ahefeld (*Amer. Jour. Med. Science*, June, 1899) wonders that surgeons assign so little value to alcohol. The statement of Mikulicz that it does not destroy the bacteria in the deeper layers of the skin, he believes to be erroneous. Alcohol having a strength of 96 per cent. is preferable to weaker solutions. Bichloride solution is unnecessary, and other antiseptics in order to be efficacious must be used in such strong solutions as to injure the hands. The writer believes that the method of disinfecting by scrubbing with soap and hot water and then with alcohol will be preferred in the future by both surgeons and midwives. Moreover, brushes, catheters, intra-uterine tubes, etc., can be disinfected in the same way. A 50 per cent. solution of alcohol is useful in disinfecting the external genitals in obstetric practice.

G. T. M'K.

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**The Present Position of the Question of Operation in Uterine Fibroids.**—Dr. E. Stanmore Bishop (*The Lancet*, January 28, 1899), in a paper read before the Clinical Society of Manchester, concludes as follows: "Since all fibroids, however large, must at one time be small, and since the risks of removal increase *pari passu* with the size of the tumor and the amount of blood lost, it would seem that now we have arrived at this: so long as fibroid tumors give rise to no marked symptoms and show no tendency to enlarge, they may be ignored; if, however, they are definitely increasing in size, it is wiser to remove the entire uterus, leaving all the ovarian tissue possible, whilst the tumor is yet fairly small. In this way the risks of operation will be minimized as far as possible, the patient will be in the best condition to ensure success, and will be saved most of the miserable but inevitable results of this disease.

G. T. M'K.

# *Surgical Pathology.*

IN CHARGE OF . . .

THOMAS H. MANLEY, M.D.

## UNIVERSAL TORSION AS A HEMOSTATIC COMPARED WITH THE LIGATURE, ELECTRICITY AND ACUPRESSURE.

BY J. D. JUSTICE, M.D., QUINCY, ILL.,

Assistant Chief Surgeon to St. Mary's Hospital; Surgeon to the Fairchild Sanitarium; Member International Association Railway Surgeons, etc.

THE antiquity of torsion as a method of artery obturation is a well-established fact. Just where it began is a matter of conjecture. We have evidence that Galen, Ætius, Ammussat, Velpeau, and others were successful in controlling hemorrhage by this method. Some failures by Louis and Delpech, together with an unfavorable opinion given by Baron Dupuytren, so discouraged the use of torsion as to practically shelve this method for many years.

Thomas Bryant of Guy's Hospital, London, closed the major vessels in hundreds of amputations without a single mishap. While it is on record that M. Ammussat satisfied himself in 1829 that twisting an artery was sufficient to permanently close its lumen, and made decided progress along this line, we cannot help but think that James Syme should bear the same relation toward establishing on a solid footing free torsion as a hemostatic, that surgical lore attributes to Ambrose Paré in reviving the ligature as a permanent method in controlling bleeding vessels.

Our own countryman, the late Prof. J. B. Murdock, certainly deserves first place in reviving this method in the United States. In 1872, while his colleagues were using torsion to close arteries the size of the radial and ulnar successfully in the Western Pennsylvania Hospital, at Pittsburg, Pa., he was, for the first time, induced to try this method. The kindly way in which the wounds healed, with no secondary trouble, gave him an incentive which removed his timidity so thoroughly that he employed it to arrest the blood of the severed popliteal after an amputation, and later, the femoral. There is no special record of the number of times he employed torsion in the larger vessels, but the hospital records show no less than 651 of the major arteries closed by twisting from 1872 to 1886.

Sir J. Simpson has full credit for the plan of acupressure, which needs no comment here on its usefulness or technique.

Cautery also is a method well known. The ligature, the most commonly practised of all the methods now in use, has for its foundation the same principle in the control of blood as the one evolved by free torsion, namely the severing of the middle and inner coats of the vessel.

Homologous ligation of arteries, so far as I know, was first successfully practised in the human body by Prof. Thomas H. Manley, of New York City. This method, in technique, is to use enough of the artery to be closed, to form a knot upon itself.

While there are other methods well known in surgical practice, both modern and ancient, of artery obturation, the most commonly practised and relied upon of any to-day are those of the ligature, torsion, cautery and electricity. The latter is practically of very recent origin, and consists in suitable shield forceps connected with an electric current of sufficient voltage to raise the temperature to from 180° to 190° Fahrenheit, which is just high enough not to char or burn the tissues, but simply to desiccate or cook them, forming a permanent closure of the vessel. Dr. A. J. C. Skene should have credit as one of the leaders in electro-hemostasis.

To fully comprehend how any method of traumatism permanently controls a cut or torn artery, we must familiarize ourselves with its histology. A brief review of the structural elements is here in order.

The three coats of all arteries have a structural similarity throughout the body, modified only in accord with a demand for strength or elasticity, or both. It is only important for our purpose that we observe the internal and middle coats, in order to comprehend that a twisted vessel can control blood as satisfactorily as the ligature of any of the known methods of artery obturation, and that the size of the artery only adds to the ease with which torsion does its work. The tunica intima is composed of a somewhat complicated structure, in that its endothelium supports a double layer of multiple-shaped cells, retained by connective tissue of special type, and in addition to this layer we have a fenestrated layer of elastic membrane that is very strong in elastic elements, so that when injured to any considerable extent, it is readily closed upon or among its own meshes to form an occlusion to the vessel lumen.

The tunica media has also an elastic tissue predominance, running transversely, or around the artery, giving a constricting force that permanently compresses the already tangled longitudinal internal coat.

To understand why torsion becomes safe in the larger, or largest artery, we need only remember the anatomical fact that the larger the artery the greater the supply of fenestrated elastic membrane constructing the tunica intima, whose cells pave the vessel walls largely in a longitudinal direction, and that the middle coat is circular, and composed of muscular and elastic connective tissue, whose elasticity increases in proportion to the size of the

artery. The external cellular coat is also elastic and becomes thicker in the smaller vessels.

With the anatomical structure well in mind, there should be no difficulty in the conclusion that torsion of any vessel is as safe, permanent, and unyielding as it is possible to obtain by the ligature.

All authorities agree that to permanently control hemorrhage with a ligature the force must be sufficient to cut the middle and internal coats of every vessel. Free torsion, properly executed, does precisely this thing, added to which we have the external, or cellular coat's elastic tissue fibres directly meshed, which aid in retaining the already thimble internal and middle coats permanently in place.

A common argument against torsion in any vessel, and more especially the larger arteries, is that it will most likely fail in atheromatous conditions, or where the artery or arterial coats are very friable from any cause. I am unable to see why the ligature in such cases can have advantage not accorded free torsion.

The first large artery that I saw torsioned was the popliteal after an amputation by Dr. Johnston at the St. Mary's Hospital, Quincy, Ill. I stood a few feet in front of the artery as the surgeon seized and twisted it before removing the Esmarch, then quickly unsnapping his hemostat I intuitively stepped aside, feeling certain that a stream of blood would spurt from the freed vessel. The artery only made a few rapid recoil turns and became quiescent. Notwithstanding the fact that all vessels were under the grip of the tourniquet, the awful horror of a trunk artery suddenly turned loose caused me to forget it. To-day I have the same restful confidence in torsion that had formerly existed after applying the ligature. Except in his abdominal work Dr. Johnston has never known the trustfulness of the ligature, for the reason that his preceptor, the late William A. Byrd, relied wholly on torsion to permanently control all major arteries outside of the abdominal wall.

During the years of the late Dr. W. A. Byrd, above referred to, his pupil, Dr. Otis Johnston, informs me that no case of secondary hemorrhage, where controlled by torsion in atheromatous disease, ever occurred in his practice. Dr. Johnston makes the same report, and since I have been associated with him as his chief assistant I have witnessed not an inconsiderable number of amputations, below the knee, above it, below the elbow, and at the shoulder; in atheromatous degeneration, without a single mishap following torsion of any vessels; and he claims that out of more than one thousand major operations he has never had a secondary hemorrhage. While he has never used any other method for closing a cut vessel than torsion, except in the abdominal cavity, he has recently, in my presence, in a number of instances, trusted to torsion of the uterine and ovarian arteries. In two of these cases double pus tubes were removed, one of them containing in its sacks



not less than a quart of pus in each, reminding us that if septic influence has to do with the degeneration of an artery in any of its coats, these cases would prove an exception. In the first case, that of a fibro-cystic tumor, the ligated uterine lost its ligature by manipulation of other tissues. The hemostat being applied directly to the bleeding vessel it was torsioned, and permanently closed. The same thing happened to the ovarian artery, with the same procedure. All these cases made uninterrupted recoveries.

In numerous cases he has torsioned good-sized arteries in operations about the intestines, and in no case had any cause to regret it. Naturally we are feeling our way along this line, and believe we can reach a position to do away largely with the ligature in any form, even in the abdomen. I am aware that there are not a few cases on record where amputations have been performed and ovarian tumors removed, where no vessels were tied, or in any way molested tending to close their lumen, and they did not bleed. These are exceptions, and no such cases came under our observation, in either section or major amputations; so that they cannot be claimed as against torsion.

All will agree with me that an amputated femur, with the flaps closed upon vessels whose lumens have been closed by twisting, thus leaving nothing foreign in the wound, can have everything to do with rapid healing without the sequences possible by a ligature being removed, one, two, or three months after the patient has left his bed. Again, in pus cases, where the abdomen is the field, to keep a ligature out of it means a future for the patient that ligatures, to say the least, seriously modify, to say nothing of the feelings of the physician who subsequently removes from two to five ligatures from the vault of the vagina, or through an induced sinus at or near the original incision.

While timidity on the part of every surgeon plays a prominent part in the matter of trusting to a few turns with a forceps to control blood after the removal of the femur from its solid moorings, habit, or one's individual method of hemostasis in such a trying period, is the best plan to allow restful subsequent hours to the operator; or, in other words, a feeling of uncertainty attached to an untried plan compared with one giving constant success, tends to veto an ambition to advance. This idea holds good in medicine as well as in surgery—"Nothing succeeds like success."

It is an established fact that two methods in the technique of torsion are understood and employed by different men in accordance with their peculiar fancy. We understand by "limited" torsion that the artery is grasped with one forceps, while a second is fastened to the free end, and with it twisted against the first forceps, six or eight turns, being usually sufficient to close the vessel. "Free" torsion is that form in which the artery is grasped at its free end with the hemostat, Dr. Johnston's plan being to twist the artery until the middle and internal coats can be felt to yield, then remove the forceps, when

the vessel will recoil, absolutely and permanently controlling the blood. There is no doubt that six or eight turns, of any vessel, is enough, ordinarily, to control the current. The doctor has always claimed that the larger the vessel the more easily torsioned, and my observation and limited experience prove this theory correct. It is without doubt wholly unnecessary to use a second forceps.—  
*Medical Standard.* T. H. M.

### HYSTERECTOMY FOR UTERINE CANCER.

"THAT a vaginal hysterectomy stops hemorrhage and fetid discharge and relieves pain, there can be no question at all. But this is only a temporary improvement. And for this dire disease even a temporary alleviation of these symptoms would be an advantage, were it not that, with the recurrence of the disease, the ultimate pain and suffering are greater than if it had never been touched at all."

Dr. Croom's experience extends to over 260 cases of malignant disease of the uterus; of these, only 14 have fulfilled all the conditions requisite to justify hysterectomy with expectation of success. Vaginal hysterectomy was performed on these 14 cases, and every one of them died within one year, with greater suffering than if they had been left alone.

Amongst these cases were several in which the disease was confined to the fundus, with no involvement of the broad ligaments, being typical examples of the desirable cases on which to operate. And yet in all the disease recurred in the peritoneum, and the patient died in great distress within the year.

Dr. Croom states that a woman's expectation of life after the diagnosis of cancer is made at its most initial stage, is from two to two and a half years, if it be left alone. The question, therefore, arises: Do women live longer lives and die less painful deaths if the uterus be removed, or if the disease be allowed to run its ordinary course? The author does not think that surgical interference is the better.

In reply to statistics from German sources—such as those of Leopold, who states, what seems to the author to be the most startling statement in surgery, that out of 76 cases 72 were well, and without recurrence, after one to five and a half years—Dr. Croom can only say that cancer in Germany must be one thing and cancer in Great Britain another; that the respective diagnostic skill of the two countries must vary considerably, or that women must present themselves to the German surgeons at a period when the disease is in its most initial stage.

Dr. Croom thinks that it is quite conceivable that, with a cancer very early diagnosed and operated upon, the prolongation of life is possible, although such has not been his experience. After a cancer has developed beyond its most initial stage, its removal,

he thinks, does not prolong life, and the subsequent death is infinitely more terrible.

It remains a moot question whether we have got a suggestion in the removal of the ovaries for the cure of inoperable mammary cancer, and whether the same solution may offer a possibility for uterine cancer. The author thinks the solution may still be found in treatment by some animal extract, or on the antitoxin principle.

From his experience in Edinburgh, Dr. Croom thinks that the surgical method of dealing with uterine cancer has done little either to ameliorate suffering or to prolong life, and that once a uterine cancer is recognized, palliative local measures and a happy euthanasia through morphia are the best solutions of the difficulty. He hopes and trusts, however, that a day may yet dawn when we shall have measures, whether therapeutical or surgical, of dealing with uterine cancer effectively, but he does not believe it has dawned yet.

Dr. Croom adds a note of warning with regard to hysterectomy for conditions other than cancer, such as fibroids, prolapse, subinvolution, and inflammatory diseases of the uterus and its appendages, and thinks that the operation is one which, from its simplicity, requires to be safeguarded.—*Edinburgh Med. Jour.*, December, 1898.

T. H. M.

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**Electricity for Insect Bites.**—Dr. Friedländer, of Wiesbaden, recommends galvanism to relieve the pain and irritation and to reduce the swelling caused by the bites of insects. The negative electrode is placed over the seat of the sting. It is effective in the case of gnat and wasp stings and would doubtless also be of service in neutralizing the poison of tropical insects.—*Medical Record*.

**Acetanilide in Surgery.**—Dr. M. D. Schmalhorst, of St. Louis, writes to us as follows: "At a boiler explosion two boys received numerous minor injuries, besides two very severe ones. On one there was a six-inch scalp wound, with fracture and depression. Hair, straw and all sorts of dirt were carried down and pinched between the bones. The skull had to be removed to the extent of two inches by two inches and a half in diameter. The scalp wound was very ragged and turned back on each side for two inches. A branch of the meningeal gave considerable trouble. Some gauze was used here, packed against the bleeding point. Otherwise acetanilide was the dressing. The whole wound was kept literally stuffed full, about two ounces being used at each dressing. The result was all that could be hoped for. A compound, comminuted fracture of the leg came out most beautifully with the same dressing. I have used it exclusively for three years. It is very cheap, it is non-toxic, and it can and should be used bountifully to get its absorptive qualities. It will clear up an infected wound quicker than anything I have ever used either in hospital or in private work."

## Proceedings of Societies.

### ONTARIO MEDICAL ASSOCIATION.\*

THE nineteenth annual meeting of the Ontario Medical Association was held in the Normal School Building, Toronto, June 13th and 14th, Dr. W. J. Gibson, Belleville, presiding.

The following gentlemen were then introduced to the Association: Dr. Wilding, delegate from the New York State Medical Society; Dr. Christian Fenger, Chicago; Dr. Bowditch, Boston; Dr. J. C. Wilson, Philadelphia, and Dr. D. W. Montgomery, Los Angeles.

Dr. J. F. W. Ross presented the report of the Committee on Papers and Business, which was approved. In the absence of Dr. J. A. Temple, Dr. Wm. Oldright presented the report of the Committee on Arrangements. Approved.

*A Case of Muscular Dystrophy.*—Dr. Ingersoll Olmsted, Hamilton: The subject of this case was a married man, twenty-five years of age, who had come to the doctor complaining of wasting of muscles and inability to work. His family history showed that other members thereof had been afflicted with the same trouble. The patient was presented to and examined by the members of the Association, the peculiarity of his gait and movements noted, especially interesting being his manner of assuming the erect posture from a prone position. Wasting was most marked in the region of the scapulæ, deltoids, biceps, forearm and thigh muscles, whilst those of the calves and hands were moderately well developed. Winging of the scapulæ was especially well marked.

Dr. McPhedran stated he had examined the case with very much interest. It was an orthodox case of this kind but presented one or two phases of unusual character, especially the preservation of the trunk muscles. He thought there must be some degeneration of nerve fibres present in these cases.

Dr. Geikie thinks that, as we come to know more and more of this disease, destructive changes will be found existing in the nerve centres.

Dr. Olmsted in reply: With regard to what Dr. Geikie has said, he thought there was no question that extensive atrophy takes place without any involvement of the central nervous system.

*Relapse in Typhoid Fever.*—Dr. J. C. Wilson, Philadelphia, read a very interesting and able paper on this subject. He exhibited a number of temperature charts, and said that especial attention

\* Reported specially for THE CANADIAN JOURNAL OF MEDICINE AND SURGERY by Dr. George Elliott.

should be paid to the condition of the gall-bladder as a causative factor in producing these relapses. He took this as his "working hypothesis," and proceeded to demonstrate the concomitant occurrence of a relapse with the renewed physical movements of the patient, the beginning of the administration of the more solid forms of food, the consequent peristalsis thus produced in the gall-bladder and the subsequent discharge of the accumulated contents of this cyst, containing large quantities of the bacillus typhosis, into the intestines, thus producing the reinfection and the relapse. This, he thought, must be due to intrinsic and not to extrinsic infection. Dr. Wilson spoke for some length on immunity, and concluded in this way: "Thus we have a 'working hypothesis' to explain relapse which may be set forth in these terms: intrinsic reinfection from the gall-bladder at a time when the intestines are stimulated by larger meals of a different character, an immunity not yet complete and reinfection at once without a period of incubation." He perfectly understands that the change in the blood serum which underlies the Widal test is not a process of immunity but a process due to the infection. He closed his admirable paper as follows: "That the histological changes taking place in the solids and fluids of the body, bringing about immunity, are also gradual, and if the 'working hypothesis' stands at all, it demands that complete immunity shall be established in the primary attack, otherwise intrinsic reinfection which gives rise to the relapse, could not possibly occur."

Dr. McPhedran thought Dr. Wilson's definition of relapse a good one, and he drew a very clear picture of it. We know that some of the cases of typhoid may be an abortive attack, and he saw no reason why relapses also should not be abortive. The question of the gall-bladder as being the source of the infection of these relapses is a very important one, because of the suddenness of the outbreaks of symptoms. He thought it might be due more directly to the toxins in the bile.

Dr. J. L. Davison quoted Fagge, who refers to cases in Guy's Hospital that had died from the sequelæ of typhoid, weeks and weeks after convalescence had been established, and on *post-mortem* examination, Peyer's patches were found still infected or still in a condition which showed evidence of the bacillus. In many cases the disease smoulders along for weeks, and while Dr. Wilson's hypothesis of the gall-bladder is a reasonable one, it hardly explains why we should have cases of relapse after thirty days and later, and therefore Dr. Davison thinks there must be other storehouses for the retention of the specific germs than that. The question of the number of relapses is a very interesting one. While Dr. Wilson stated he had seen as many as seven in a six-months' illness, the largest number he had seen in any one case was three. He instanced a case of recovery after perforation. The question of immunity was an interesting one in typhoid fever. From recent researches it appears that there are two immunity substances, one

which produces an antitoxin and destroys the action of the toxin in the body and thus serves to keep the patient alive; and the other, which is bactericidal in its action. It appears that we must have both of these in order that a patient may recover from the disease. It is this bactericidal element which has a large part to play in the destruction of the germ itself.

Dr. Thistle asked, why go to the gall-bladder when the bacilli are in the intestinal contents?

Dr. Wilson, in reply, stated the infection comes from the gall-bladder, because the toxin is accumulated in a great mass in a hollow viscus, which, under physiological conditions of low diet, may remain there; but when you begin to feed the patient at longer intervals with solid foods, the gall-bladder is suddenly stimulated to empty itself. Dr. Wilson did not exclude the intestine if the gall-bladder is quiescent. Under the condition of feeding small amounts of fluid alone, the gall-bladder is not stimulated to push out its contents.

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#### AFTERNOON SESSION.

The Hon. G. W. Ross delivered an address of welcome to the Association. He expressed his pleasure at meeting the medical gentlemen of Ontario. "We look on the medical men of the Province as belonging to a class of progressive educationists which are of assistance to the department in maintaining the proper scientific spirit in the country." He spoke on the subject of tuberculosis, and said if the Medical Association of this province can throw out some hints whereby that disease can be banished, they will have conferred a great boon upon the people of this country. There is no profession to which the Province owes more than it does to the medical profession. In this instance he referred to the extent in which that profession had guarded all of us from contagious diseases, had improved sanitary conditions everywhere and made hospitals habitable. Speaking of the standards of education, he was in favor of keeping these up and emphasized having a good general English education before entering upon professional studies; and after four or five years of professional study, no one could say that the medical profession is not an educated body. The doctor is one of the most influential members of the community. Health in the Public schools next engaged his attention, and he exhorted the profession all over the Province to interest themselves in this most important object. Physical training and exercise should go hand in hand with mental development. He referred to the unhygienic condition of Public schools in regard to fresh air space per pupil, lighting, heating, etc. Improvements all along this line would tend to develop a good strong sturdy Canadian stock. Home lessons should not be imposed upon the children so far as the Department of Education is concerned. Examinations at too early an age were

injurious and harmful. The country must produce men, strong in mind and body, men with nerves that will endure the strain of public life.

#### PRESIDENT'S ADDRESS.

Dr. W. J. Gibson, Belleville, expressed his thanks for the honor conferred on him, having been made President of the Association. In regard to serum therapy, it was a matter of congratulation to the profession to know that so many able workers are in the field. He instanced tuberculosis, and stated that the whole world was on the alert to discover a cure for this disease. More attention should be given to personal hygiene and cleanliness. It would be difficult to estimate what good purpose it would be to report all cases of tuberculosis to the health officers. It would be a difficult matter, however, to make isolation in all cases compulsory. He spoke of the number of diseases now treated with antitoxins. No doubt, investigators were on the threshold of important discoveries. Every member of the profession should investigate the causes of disease more carefully. Dominion registration under Dr. Roddick bids fair to become an accomplished fact. It is to be hoped some feasible plan may be adopted whereby the student may be spared the examinations and the expense of being licensed in another province. In regard to over-pressure in Public schools he was glad to know that the Toronto School Board had done away with final examinations. The combining of mental and manual work or technical schools is desirable. He spoke of the improvement in medical teaching in regard to there being more clinical instruction than didactic lectures, and the importance of laboratory work was emphasized. The public is indebted to the medical profession for the lives saved, suffering reduced and the calamities averted in civilized countries. Physicians stand in the front rank of the benefactors of mankind.

Dr. Bruce Smith moved, seconded by Dr. Harrison, that the President be tendered a hearty vote of thanks for his admirable address. Carried.

#### SYMPOSIUM ON TUBERCULOSIS.

*Sanitarium Treatment of Pulmonary Tuberculosis.*—Dr. Vincent V. Bowditch, Sharon Sanitarium, Boston, said it was gratifying to notice the marked change of opinion in regard to the treatment of tuberculosis in institutions devoted to that work. Massachusetts had been the first State in America to establish sanitarium. He gave a short history of the Rutland and Sharon sanitarium. It was important to keep this class of hospitals for the incipient disease. He spoke of the educational influence of the hygienic methods employed in these sanitarium. Open windows, even in cold weather, was to be insisted upon as a special treatment of the disease. Patients have returned to these sanitarium begging to be taken back because they could not breathe in

their own houses. He thought much more could be done for the patients by having them treated nearer home. Much more can be accomplished by treating consumptives in these sanatoria than by treating them in their own homes. Thirty per cent. have been discharged at Sharon as arrested cases. Dr. Bowditch has never used the term "cure," believing that the term is unjustifiable until after a lapse of years and no symptoms returned. The causes of death in these cases: (a) advanced condition of disease on entrance; (b) intercurrent of some other disease; (c) too early departure from the sanitarium and return home to the unhygienic conditions. As to treatment, experiments were made with the so-called specifics. Oil of peppermint proved at times beneficial. Creosote was found to be beneficial as an aid to digestion. Antiphthisin proved negative. Had refrained from the use of the serum treatment. Abundance of fresh air, judicious exercise, pulmonary gymnastics and calisthenics form the base of all the treatment. Results at Sharon mean that sanatoria should be near all the large cities and towns. He congratulated the profession in Ontario on the establishment of the sanitarium at Gravenhurst, and spoke also of the necessity of having hospitals for the hopelessly sick. We take away the principal source of infection when we remove these from their homes.

*Pathology of Tuberculosis.*—Dr. W. T. Connell, Kingston, who was to read this paper, was unavoidably absent.

*Earliest Diagnosis and Selection of Cases for Sanitarium Treatment.*—Dr. N. A. Powell stated that for ten years he had practised in a part of the Province where phthisis is practically unknown. The diagnosis of early phthisis calls for what we understand by incipient or early phthisis — the pre-tuberculous stage. In this regard our views have changed materially within recent years. Up to the time of the demonstration of the bacillus, a case was considered early unless there were large growths within the lungs, and until gross constitutional symptoms had shown. There is an inherent tendency towards recovery in phthisis when recognized early. This leads to the question, How often is phthisis recognized in an early stage—in a stage before physical signs are manifest in the chest and before expectoration has commenced. A very slight proportion of such cases are recognized. Why? The teaching of the students in diagnosis is exceedingly efficient. Why are mistakes made outside and disease of the lungs not recognized until serious inroad has been made into the health of the patient? A part of it comes from the earnest belief that the physician's education has been complete though crowded. Medical students crowd the course in surgery and gynecology, but neglect physical diagnosis. He believes early diagnosis will depend upon close study and family and personal history. There are certain aids to the examination, such as the use of the fluoroscope and the tuberculin test. In-regard to the state of the family history and the personal make-up of the patient, in the careful



examination, it is important to estimate weight and height together before you can arrive at anything of importance. The symptoms of early phthisis are uncertain. None of them upon which you can rely. A man who is in apparently excellent health may have serious pulmonary disease. It is sometimes important to notice any scars in the neck. As to cough and early hemorrhage, distinct hemorrhage, which comes with comparative earliness, are two symptoms of importance. The patient should be made to cough in the presence of the physician and any sputum thus gained should be examined. In regard to physical diagnosis, if you wish to estimate the value of a stethoscope, take a watch and place it on the table, then with the back of the hand on the watch, place the bell of the stethoscope in the palm of the hand and listen to the tick of the watch in this way. In examining a patient the stethoscope should always be used whose accuracy is above suspicion. The evening temperature running up two-fifths, three-fifths or one degree associated with morning pallor is one of the most important elements in early diagnosis. Dr. Powell spoke of the physical examination and said the patient should always be stripped to the skin and examined in a quiet room. If you can get association of relative dulness in the spinous fossæ with the slightest accentuation and conveyance of the whispered voice or any prolonged expiration, it is safer to treat such a patient as being probably tubercular. In a case presenting progressive loss of weight and loss of physical energy, if one can get a little wavy or cog-wheeled respiration near the lung, it is safe to treat such a patient as being probably tubercular. Personally, without having much basis to go on, he said that he was afraid to use tuberculin as a test for fear of lighting up tuberculosis. In a case of prolonged expiration and evening fever, he was very unwilling to try the tuberculin test. As to the fluoroscope, Dr. Williams, of Boston, has done perhaps the best work upon this subject. With this instrument it is perfectly easy to recognize excursions upwards and downwards of the diaphragm during respiration, the average excursion in the adult male being about  $2\frac{1}{2}$  inches. If it is notably lessened on one side, it would raise strong suspicion of the presence of tubercle. Dr. J. E. Graham took the position some years ago that there might be considerable advance in the condition without being recognized by even a trained observer. The apparatus of Roentgen is of positive value when a trained observer recognizes the movement of the diaphragm, and a man of expertness may recognize degrees of shading which will be of benefit in diagnosis.

*Home Treatment and Prevention of Tuberculosis.*—Dr. T. F. MacMahon read this paper, and first spoke of how we should treat the patient in his own home and what means we should take to cure the disease and stay its ravages. Without a specific germ, there could be no tuberculosis. The main source of infection is the sputum and then infected food. Prompt destruction of the sputum would go far towards the removal of the disease. The public gener-

ally and the patients generally must be educated to this fact. Instruct your patients never to spit on the floor or into a handkerchief. Sputum should be received into proper spit-cups. That the danger from handkerchiefs is a real one is borne out by the facts that washerwomen in health resorts have contracted the disease through washing these handkerchiefs. Very fine drops of saliva may be a source of infection. Intimate association with coughing consumptives is dangerous to nurses in the rooms. Another important instruction is that rooms should be dusted with damp cloths, using a disinfectant solution. Government and health boards must take the question up in earnest. Without education of the public all our efforts will be in vain. Of course newspaper propaganda should be carried on. Premises occupied by consumptives and vacated should be made fit for occupation by the health board. Bacteriological examination is quite as important. Association of consumptives with other patients in public hospitals is injurious and scandalous. Consumptives should not be treated in the ordinary hospitals. There should be systematic inspection of dairies and food supplies. There is also danger of infection from domestic pets, cats, dogs, birds, etc. The germ of tuberculosis is always with us. Patients should have as much open-air exercise as it is possible to acquire. Individuals especially pre-disposed should receive special attention. If the family physician would make it his duty to watch out for badly formed chests, he could do much. Prompt attention should be paid to anemic and dyspeptic young women. Every precaution should be taken against "cold catching." The patient should not choose a sedentary occupation. Much out-door life is especially desirable. Cure is altogether a question of instruction. There should be no cough mixtures. The nearer we approach the methods of the sanatoria, the better our results will be. The only method is the open-air treatment. The patient should occupy the room when in the house, with the most sunshine. Nothing should be allowed to interfere with the fresh-air treatment. Rest in the open air will improve the digestion. Excellent results have been obtained from this treatment in the sanatoria. Cod-liver oil, where it agrees, is undoubtedly useful. The best results follow the administration of creosote—not too large doses.

*Care and Prevention.*—Dr. Charles Sheard spoke of the open-air treatment as the ideal treatment from the tubercular standpoint. In every case where we find the bacillus present, we have a case of tuberculosis to deal with. If several examinations at various times fail to show any evidences, I think we have not got a case of tuberculosis to deal with. This is not the only disease which fresh air benefits. Many cases of bronchitis and bronchiectasis are also benefited thereby. The sanitarium is anxious to do cures in tuberculosis. There are a great many cases with cavities in the lungs and we have to care for these cases as well. We have all seen these cases very recently put side by side in the

same ward with a patient with chronic bronchitis, with another with pleurisy, and with another case with obscure chest trouble; yet there ought to be better places for the care of these cases. There ought to be separate buildings in connection with our hospitals for those cases which the sanatoria will not admit. The profession ought to stand united for the attainment of this object. He spoke of the benefit of the open-air treatment, and thought there should be glass houses and glass sheds so as to protect them from the changes in the weather. Much can be hoped for if patients are kept constantly in the open air. As regards the danger of getting tuberculosis from animals, Dr. Sheard quoted Clifford Albutt, who fed his own family with the meat of tuberculous cattle and yet none of them contracted the disease. The tuberculin test applied to cattle is a very crucial one. In one cow which responded to the tuberculin test, tuberculosis was limited to one gland alone. Generally we agree that tuberculous milk is dangerous, according to the stage of the tuberculosis in the animal. How far are we prepared to go in enforcing laws re infection of this disease in animals and in man? He thinks the practitioners should report this to the health board. We must understand that we have got a vastly different disease to deal with, than the acute infectious diseases which run their course in a few weeks. How much separation from the general public are we prepared to enforce on a consumptive, or whether are we right in doing even this? It is very questionable if we are prepared to enforce segregation in these cases, and it is doubtful if the public is ready for this just now. In the meantime steps should be taken to notify hotels and lodging houses of cleansing rooms occupied by consumptives.

Dr. Beeman, Newburgh, spoke of the bacteriological work done in the laboratory, and thought that more should be done by the general practitioner. He thought he better secured the confidence of the patient by having this apparatus in his own office to give this gross diagnosis.

Dr. P. H. Bryce dealt with the establishment of sanatoria from the governmental standpoint, and quoted statistics showing the widespread prevalence of tuberculosis in this province.

Dr. McConnell, New Mexico, told of three years' experience in the far south-west. He stated that more patients were now sent out there, in whom as yet the bacillus has not been demonstrated, *i.e.*, in the pre-tuberculous stage.

Dr. John Hunter said every physician should examine the chest of every one of his patients, no matter what disease he came to be treated for.

Dr. Wm. Oldright: Notification of the disease should be given in all cases. Disinfection after habitation by a consumptive should be carried out; also sleeping cars after carrying a patient to a health resort. Thought we ought to have sanatoria near the city.

Dr. Playter spoke of the use of ozonised air in the treatment.

Dr. Coventry thought la grippe was responsible for laying the foundation of many of these cases.

Dr. Price-Brown: The lungs are only part of the respiratory apparatus. Every medical man should be able to use the laryngoscope and the rhinoscope. By treating the nose and throat, you can sometimes prevent the disease, and do not forget that you may have tuberculosis without cough or expectoration.

The annual banquet of the Association was held in the evening at McConkey's restaurant, Dr. W. J. Gibson presiding. A very enjoyable evening was spent by all present.

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SECOND DAY, WEDNESDAY, JUNE 14th.

SURGICAL SECTION.

Dr. Wishart, London, was elected Chairman of this Section.

*Inguinal Hernia.*—Dr. Wm. Oldright presented four patients, in all of whom he had performed the radical cure very recently. He quoted the indications for and against operating in these cases as set forth by Dr. W. B. Coley, in "Sajous' Annual." He thought Halsted's modification of the Bassini method was not an improvement.

*Treatment of Hernia.*—Dr. A. McKay, Ingersoll, estimated that something like 20 per cent. of the population is ruptured. He exhibited a new truss which he had contrived after a year's experimenting, and stated that in making trials of its efficiency he had selected men who were lifting all sorts of heavy loads, and found that it would give the greatest satisfaction. The idea of the truss is to allow of the body motion, a constant wavering of the pad over the ring.

Dr. W. J. Gibson spoke of the difficulty of supplying patients with proper trusses. Dr. McKay's truss is devised to prevent the excoriation of the skin.

*A Peculiar Gynecological Case.*—Dr. Harrison, Selkirk, Ont.: The subject of this case was a woman with a considerable family. Having become pregnant again—two and a half months—she was advised by a neighbor to produce an abortion, as it was a very easy thing to do, and no trouble arose other than an ordinary monthly sickness. A glass stylet penholder was passed blunt end foremost, which slipped from the woman's grasp and was lost to her touch. On examination, the doctor could find no rent or tear of any kind, either in the vaginal walls or in the walls of the uterus. Even after putting the woman under chloroform, the stylet could not be found. The woman was most positive that it was there and that it had been passed blunt end foremost. An exploratory abdominal operation was performed, and the stylet was found in the region of the spleen with the point almost

impinging upon the diaphragm where the heart lies on that muscle. The woman recovered with nothing worse than a stitch abscess.

Dr. Powell cited a similar case, where a knuckle of intestine was found protruding through a rent in the anterior wall of the uterus. The woman died, however, in this case.

Dr. Roe, Georgetown, asked if the woman had aborted.

Dr. Harrison thought so.

Dr. J. F. W. Ross spoke regarding perforations of the uterus that give rise to practically no symptoms. He instanced three cases seen recently in practice, in which, with well-marked rupture of the uterus, there were no symptoms of collapse.

Dr. E. E. King thought it was probable that the stylet in Dr. Harrison's case had never gone into the uterus at all.

Dr. Harrison thought that the pen had passed through the fornix, but he could see no rent whatever in the vaginal wall.

*The Seminal Vesicles in Health and Disease.*—Dr. E. E. King described this condition as a pyo-salpinx masculinus. He exhibited a number of sections and specimens, and said that this was a storehouse as well as a secreting organ. He further described the normal condition and relations of the organs, and also their condition in enlarged prostate and in a previous gonorrhoea. He stated he had examined during the last week, in the asylum, ten cases of chronic masturbators, and in only one of these were the vesicles found exceedingly enlarged. The prostate was only found enlarged perceptibly in one case.

Drs. Primrose and McConnell discussed the cases.

*A Note on Kocher's Method of Radical Cure of Hernia—Femoral and Inguinal.*—Dr. Primrose gave a very lucid black-board description of this operation, and showed clearly how the inguinal pouches in the peritoneum were obliterated. As a guide in performing this operation, it was best to introduce a finger into the canal and cut upon the finger. Kocher recommends the silk suture in both operations.

Dr. Ferguson, London, Ont., discussed this paper.

*Fibrinous Rhinitis.*—Dr. D. J. Gibb Wishart stated that several cases of this had occurred last summer in his own practice. In the text-books published this year, Lennox Brown and Walsham both state that it is a disease distinct from diphtheria, and that these cases need not be isolated.

Drs. Price-Prown, L. L. Palmer and Ingersoll Olmsted discussed at some length Dr. Wishart's interesting paper.

*Electrolysis in a Case of Malignant Sarcoma.*—Dr. R. N. Fraser, Thamesville, Ont., reported the history of a case in connection with malignant disease. The disease was situated in the testicle.

*On Some Points in the Diagnosis of Eye Affections.*—Dr. R. A. Reeve read a highly interesting paper with this title, dealing with those eye affections most commonly seen by the general practitioner.

## MEDICAL SECTION.

Dr. J. Russell, Hamilton, was elected Chairman of this Section.

*Ophthalmology and the General Profession.*—Dr. G. H. Burnham read this paper, the object of which was to bring forward some of the diseases of the eye, and also some disturbances associated therewith, which required early recognition in order to be treated successfully. He instanced acute glaucoma, chronic glaucoma, tobacco poisoning, causing dimness of sight. In regard to the subsequent changes produced by an attack of iritis, he did not for these perform an iridectomy, but instead of an operation gave his combined form of treatment, viz., mercury and the iodide of potassium internally, and pilocarpine hypodermically. He said his results were in this way much better than by an operation. In regard to diseases of the tear passages, he strongly recommended early treatment. He does not favor the employment of the largest probes, and does not probe frequently; as good if not better results can be attained without the additional suffering, which frequent probing is always associated with. He also spoke of eye-strain causing so many nervous disorders, as headache, neuralgia, constipation and St. Vitus' dance, and of the great importance of having the sight tested by an oculist, and not by those so-called "doctors of refraction."

Dr. G. S. Ryerson thought that the paper fully met the requirements of the subject. *Ophthalmia neonatorum* was, however, omitted. A large percentage of eyes were lost from this cause. Medical men should take great care in cleansing the maternal parts before delivery and the eyes of infants later. *Crede's* methods greatly reduced the percentage of this disease. One or two drops of a one per cent. solution of nitrate of silver should be dropped into the eyes; this is not too strong. In regard to the question of refraction, doctors of refraction or doctors of ophthalmology were very misleading. He had tried to legislate against these when in the Legislature, and had approached the Government *re* these titles being used unlawfully. The giving of glasses by laymen to the public has been long done; but these titles are very misleading to the public. The question of refraction was a most difficult and complex one, and how can these men, on a few months' training, undertake such work and treat such cases.

Dr. R. A. Reeve said that in the preventive treatment of *ophthalmia neonatorum* bacteriological examination of any natural discharge is of great help. He also upheld the application of nitrate of silver or perchloride of mercury to eyes after birth. He also recommended protargol, three to four per cent., as being painless and effective. The Provincial Board of Health should give instructions to doctors and maternities that *Crede's* or some method be used regularly. He referred to the question of refraction and the difficulty in dealing with it.

Dr. Burnham: Only some points can be referred to in a short paper. He agreed with Dr. Ryerson and Dr. Reeve in regard to

refraction, and thought the general profession negligent in the majority of cases.

*The Insanity Plea in Medical Jurisprudence.*—Dr. J. Russell, Hamilton, read a carefully prepared paper on this subject. He thought the public were beginning to doubt that the law was being properly administered in these cases. The question was of interest to the general practitioner as well as to the psychologist. It became every physician to acquire such a general and even special knowledge of the subject as to be able to acquit himself creditably in the witness-box without bringing personal discredit on himself or the profession.

Dr. T. F. MacMahon upheld Dr. Russell with regard to forming a competent commission to deal with insanity cases in law.

*Notes of a Case of Torticollis.*—Dr. Meyers presented the case and described his treatment: Separation from the patient's friends; Swedish movements gradually increased; galvanism; internally, iodide of potash and the salicylate of soda.

*Acute Diabetes.*—Dr. A. F. McKenzie, Monkton, Ont., reported a very interesting case of this condition.

*Treatment of Eczema.*—Dr. Graham Chambers described his treatment of this disease.

Dr. Coventry upheld the internal treatment with mercuric chloride,  $\frac{1}{4}$ th of a grain, and calomel at times, dry, locally.

Dr. Chambers thought mercuric chloride did not agree in some cases. He gave calomel in larger doses every four days or so, and salines if needed. Calomel locally in seborrheic cases he thought had no effect. About fifty per cent. of the cases of eczema are probably parasitic.

*The Present Status of Ergot in Obstetric Practice.*—Dr. K. McIlwraith, Toronto, read a paper with this title. In the great majority of cases there was no indication for the use of ergot. It was positively dangerous in a large number of cases.

Dr. Roe, Georgetown: The use of ergot has changed very much in the last twenty years. He used to give it when the head was on the perineum, and he never had any bad results.

Dr. Machell: Dr. McIlwraith has put the question very fairly. He has given both sides of the question. For the first stage ergot is never given now. In post-partum hemorrhage it is of very little use. For some years now he had given no ergot at all. He thought the pressure on the fundus the best.

Dr. G. Gordon: There is a tendency to go to extremes in this matter. If all was clear in the second stage, and pains slow, he would not hesitate to give the ergot.

Drs. Hunter, C. J. O. Hastings and Cruikshank further discussed the case.

#### GENERAL SESSION.

*A Case of Coccidial Infection.*—Dr. D. W. Montgomery, Los Angeles, Cal., gave a clear description of this case. First, the

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were general symptoms of the lungs simulating tuberculosis. The process went on for some little time—a few weeks, and then he got a disease of the skin which was well shown in the photos the doctor exhibited. The disease of the skin consisted of large tubercles which at first appeared as little maculae, then grew to be small tubercles, then large tubercles. These tubercles ulcerated and were covered with crusts, and when you would grasp one and squeeze it between the fingers you could see that the inside was granular-looking, like a fig. We examined some of his sputum but there was no tubercle bacillus to be found in it. The doctor took a piece out of one of the crusts, and the first thing he struck was the small round bodies as shown under the microscope. These have a clear double contoured membrane and granular contents. Just exactly what these organisms are we do not know. Previous to this case two other cases have been reported. As far as the diagnosis of the disease is concerned, from the symptoms alone it would be rather difficult. He came to the conclusion that it could not be iodide of potash poisoning—for these tubercles looked very much like the iodide rash—because the man had not been taking iodide of potash. We exclude the mycosis fungoides from the fact that there was no preceding erythematous stage nor such lesions on the body. He here exhibited a photo showing a case of mycosis fungoides. In this you can get an idea of the eczema of the hands and arms, and the tomato-like masses were well shown. There was no history of syphilitic disease. In one of Rexford's cases the disease started in the lungs, to later break out on the integument. What we call this micro-organism we do not know. Rexford's cases were submitted to the best experts we have on these micro-organisms. We expect the disease will be fatal in this case. The disease occurred in a young German of twenty-one years who came to California at three years of age.

DISCUSSION IN SURGERY.

*Diseases of the Kidney Amenable to Surgical Treatment.*—Dr. Christian Fenger, of Chicago, read this paper. The subject was a large one, he stated at the outset. The origin of the surgery of the kidney was in 1869—thirty years ago. This new field of surgery developed rapidly, as is well seen from a review of the literature; for instance, from 1889 to 1899, what he called the third decade, no less than eight hundred papers had been published on this one subject. Within the last five years came the surgery of the ureter. It is represented in the literature for the last ten years by about ninety papers. We can divide the surgery of the kidney into two periods. The first ten years we can term the period of nephrectomy. During this term the loss of one kidney was not considered so much as a cure of the patient. This period did not terminate after this ten years; but the dawn of the second period, or the period of conservatism, commenced, instead of nephrectomy, a less radical operation to locate the disease without sacrificing the tissue of the kidney at its beginning. In 1881 Hahn made nephror-



raphy for floating kidney. But by far the most important step, and one whose consequences have been most far-reaching, covering the entire field of surgery, we owe to Henry Morris, of London, who, on February 11th, 1880, had the courage to open up the healthy kidney tissue and remove an oxalate of limestone from the healthy kidney by an incision through the renal parenchyma. No operator had had the courage to do this before, but from suppurating and distended kidneys which did not bleed when we cut through them. From Morris' important operation dates the possibility of the development of conservatism, which is pressing forward, fighting its way toward the goal of renal surgery, which is not the cure of the patient, but it is the preservation for the patient of the tissue that is valuable for secretion. Morris' operation has made it possible to save the kidney from the destroying influence of stone, to operate on the healthy kidney with a stone in it. In the third decade the latest step forward in conservatism is the surgery of the ureter. It is a somewhat limited field. With the exception of uterectomy for tuberculous infection, which is only a small part of it, the whole of the field of surgery of the ureter has for its aim absolutely nothing but conservatism of the kidney.

It is a matter of vital necessity for any one who operates on the kidneys to examine the urine for the quantity of urea before any operating is done. There is compensatory hypertrophy of a healthy kidney when its fellow has been removed or destroyed by disease. The urine must be withdrawn and collected in sterilized test tubes. Examination of the urine must be made without delay, because urine changes rapidly by decomposition. There should be a chemical examination for albumen, blood and sugar. There should be a quantitative examination of the urine. We have got to know the quantity of the urea for twenty-four hours. The life of the patient depends upon that. Dr. Fenger spoke of the use of the cystoscope as the most important step in diagnosis—the last step, the step that gives us the final answer to the question what the matter is, *i.e.*, direct examination of the kidney through an incision in the lumbar region or the peritoneal incision. The lumbar method permits of much more direct examination of the kidney than the abdominal one. The peritoneal is seldom resorted to, whilst the lumbar incision is the one in daily use. The essayist then spoke of the manner of controlling renal hemorrhage by compression either with the fingers or the clamp. If that does not stop the hemorrhage, it is sutured. Failing this, we have to pack the opening of the kidney into the pelvis and trust to the compression of the gauze. Dr. Fenger next took up the different diseases of the kidney for which we operate, and in a classical manner described each and the indications for and against operation. In concluding his very able and exhaustive paper, Dr. Fenger returned his sincerest thanks to the Association for the opportunity that had been extended to him to meet the medical gentlemen of the Province of Ontario.

ELECTION OF OFFICERS.

President, J. E. Graham, Toronto; First Vice-President, A. H. Wright, Toronto; Second Vice-President, M. I. Beeman, Newburgh; Third Vice-President, R. J. Trimble, Queenston; Fourth Vice-President, A. F. McKenzie, Monkton; General Secretary, Harold C. Parsons, Toronto; Assistant Secretary, E. H. Stafford, Toronto; Treasurer, Geo. H. Carveth, Toronto.

Dr. William Britton presented the report of the Committee *re* Health of Public and High School Children. In connection with this report it was recommended: (1) That the number of subjects of study prescribed by the Education Department be lessened. (2) That home work be curtailed. (3) That less exacting examinations be imposed on the pupils. (4) That more time during school hours be devoted to physical culture. (5) That trustees should confer with members of the medical profession as to lighting, ventilation and capacity of school-rooms. (6) That the curriculum, generally, should be framed with full consideration of the paramount necessity for preserving the physical health of the rising generation.

The report was adopted.

*Re* HOSPITAL ABUSE.

Dr. W. J. Wilson read the report of the Committee appointed for this purpose:

Your Committee find on investigation as follows:

1. The general tax paid by the public for medical and surgical attendance is dwindling and the willingness of the public to be pauperized increasing.

2. This is due mainly to the mode of management of the hospitals and the operation of "The Charities and Public Health Acts" under which \$110,000 is expended in a per capita rate on the hospital alone. Successive changes in the law tend towards the socializing of the profession and the curtailing of the domain of the private practitioner.

3. Particular instances of the evil are as follows: (a) Out-patient departments, so far as we can find out, with only one exception, are in the habit of handing the prescriptions to the patients, who carry them away and frequently hand them around among their friends. (b) The Emergency Hospital of Toronto is being utilized at practically no expense to the patients, for daily accidents of all kinds which, till this hospital began operations, invariably went to private practitioners. This we find to be a direct violation of our Code of Ethics, Art. 5, sec. 8.

Therefore your Committee beg leave to suggest:

1. That the Committee on Legislation be requested to present to this Association at its next meeting a review of the operation of "The Charities and Public Health Acts" and their effects upon the status and emoluments of the profession.

2. That the Committee has confidence in both the ability and the willingness of the various hospital boards to remedy the evils complained of, particularly after attention has been directed to specific instances of what your Committee humbly believe to be wrong.

3. Your Committee recommend that it be made a rule in all hospitals that no patients be entitled to free treatment whose hospital maintenance is provided for, including society patients paid for by lodges, except as an act of charity.

4. That all prescriptions in the out-door department of our hospitals and of the various dispensaries be kept on file and not taken away by the patients.

5. That emergency hospitals should simply render "first aid" and relieve the patient until his family physician or substitute arrives, when the further care of the case is handed over to him, unless it be a case which will receive a municipal order, when it will be treated by the usual hospital staff.

6. That the sending of accident cases by a wealthy corporation, and especially when there is an accident insurance carried on employees, be carefully looked into and any abuses resulting remedied.

This report was unanimously adopted.

Dr. E. J. Barrick presented the report of the Committee dealing with the consumptive poor, which was adopted.

Dr. Wm. Oldright presented the report of the Public Health Committee in regard to the treatment of inebriates, which was adopted.

The Treasurer and Secretary presented their reports.

Motion for adoption. Carried.

Dr. G. B. Smith presented the report of the Committee on Necrology: H. H. Wright, Toronto; H. P. Wright, Ottawa; J. H. Mullin, Hamilton; William Youker, Belleville, and Dr. Patullo, Toronto.

The usual *honoraria* and votes of thanks were then passed, and the meeting adjourned to meet in Toronto in June, 1900.

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**Women Physicians in Europe.**—Germany thinks the time is not yet ripe to admit women to the universities on an equality with men, especially to the medical department, and France, although she allows them equal matriculation privileges, has refused to inscribe a woman lawyer, and the Faculty of Medicine has denied the petition of a woman physician to open a "free course" in ophthalmology. Roumania has also recently excluded women from the positions of "rural physicians" (paid by the State), and also of physicians to hospitals, except those with special pavilions for women. Berlin has, however, recently appointed women physicians for the compulsory examination of prostitutes.

THE TWELFTH ANNUAL CONVENTION OF THE INTERNATIONAL ASSOCIATION OF RAILWAY SURGEONS,  
 RICHMOND, VA., MAY 31st, JUNE  
 1st AND 2nd, 1899.\*

THE International Association of Railway Surgeons, one of the largest medical bodies on this continent, assembled in its twelfth annual convention in the Masonic Temple of Richmond, Va., on May 31st, and continued in session for three days. During that short time much information of value to the medical profession was disseminated, and many new ideas for the better treatment of cases exchanged. This association is perhaps the most influential of its kind in existence, and its deliberations are always fraught with much interest to the medical world. Its membership includes about twelve hundred prominent surgeons of America, including, of course, this country and Mexico. Of this number there were present at this year's meeting a goodly proportion, and under the benign influence of Dr. Bruce L. Riordan, of Toronto, who has worked every day for the past year to make the twelfth annual session a success, certainly the 1899 Convention may be termed a banner meeting. Of the social aspect of the meeting we will have more to say elsewhere in this issue of the JOURNAL; but here we will take the opportunity of remarking that the hospitality of the Richmond profession, as well as many of its most prominent citizens, was simply wonderful, not a stone being left unturned to make the visit to the South a thoroughly enjoyable one. In addition to the following report of the meeting, we hope to publish a number of the papers read, in an early issue:

It was 10.45 o'clock Wednesday morning, May 31st, when Dr. C. W. P. Brock, as Chairman of the Committee of Arrangements, called the body to order and presented Rev. Donald Guthrie, who offered prayer. Mayor Taylor was then introduced, and delivered an address of welcome. He said:

*"Gentlemen of the International Association of Railway Surgeons,—Our coming together on this auspicious occasion betokens a lively interest in the welfare of our common humanity. No calling allotted to our mankind touches the bond of sympathy so much as the work of the railway surgeon. We leave home, friends and kindred to journey away in different parts of our land, trusting our lives to the common carrier. How much the interest in our welfare is centred in the railway service is only known to the loved ones we leave behind.*

*"Fortunately, our excellent railway system is so perfect as to render the risk slight, yet the time does come when, amid the crash and destruction incident to such crises, the railway service is taxed to relieve the distress, and then the ministering angel, in the*

\* Reported specially for THE CANADIAN JOURNAL OF MEDICINE AND SURGERY.

person of the railway surgeon, appears, with untiring efforts and suitable skill to ease our miseries.

"Your deliberations will be for the common good, and we are glad to have you as our guests. Our homes are open to you, and we will place you specially in the hands of two of your ex-presidents, our well-known townsmen and eminent physicians, Drs. Brock and Ross, and their colleagues, Drs. Hugh M. Taylor, J. A. White, and others. I welcome you as Mayor, and extend to you the freedom of the city. I hope your visit will be both pleasant and profitable to your noble profession."

Dr. J. Allison Hodges followed the Mayor, and on behalf of the medical profession of Richmond extended a welcome to the visiting surgeons. He spoke in the outset of the pride Richmond felt in entertaining distinguished guests, and especially of the pleasure the medical profession felt in entertaining the International Association of Railway Surgeons.

Dr. Hodges paid a glowing tribute to Drs. C. W. P. Brock and George Ross, both ex-presidents of the Association, and characterized them as representatives of Virginia's courtliest gentlemen. Referring to the sectional feeling of years ago, Dr. Hodges said that portion of the past had been obliterated, save that it was a holy memory clinging round the graves of our hero dead. "We give you now, whether you are from the north or the west, the hand of brotherly friendship," continued the speaker, amid great applause, "and we welcome you with pleasure."

Dr. Hodges told how Richmond had risen from her ashes in little over a quarter of a century, and detailed the many great improvements contemplated in the near future to increase the city's importance and attractiveness. He concluded by reiterating his words of welcome.

General Manager George W. Stevens, of the Chesapeake and Ohio, was next presented, and in brief but pointed manner tendered the courtesies of the Chesapeake and Ohio to the Association, telling them that no demand they could make on the road would be "turned down."

Dr. Riordan, the President of the Association, ascended to the platform when Mr. Stevens took his seat, and, taking the gavel from Dr. Brock, expressed his thanks and the thanks of the Association for the words of welcome spoken by Mr. Taylor and Dr. Hodges.

Dr. James G. Hunt, of Utica, N. Y., Vice-President of the Association, was then called by the President to the chair, and Dr. Riordan read his annual address, and, on motion, it was referred to a committee of three, consisting of Dr. F. J. Lutz, of St. Louis; Dr. Thorn, of Toledo, and Dr. Middleton, of Davenport, Ia.

In his address, Dr. Riordan, after referring to the proverbial hospitality of the South, said:

"We are all proud of the work which has been done in the past thirteen years by this Association of Railway Surgeons; first

under the old title of National Association of Railway Surgeons, and later under the present broader title of International Association of Railway Surgeons. We are proud of our official organ and bi-weekly journal, the *Railway Surgeon*. It is pre-eminently the best medical journal relating to traumatic surgery which is at present published, and is an important educator, not only to those who attend, but also to those who have not the opportunity of attending our annual gatherings.

"The papers presented at our yearly meetings have been generally of a practical character and of high scientific attainment; but I think we have been to some extent duplicating the work of other medical and surgical associations at present existing, while we might be paying more attention to subjects which are especially the domain of the railway surgeon.

"To those entrusted with the official responsibility of carrying on this work the watchword must ever be 'Excelsior.' Occupying, as I do at this time, the honorable and responsible position of president, I believe it to be my duty to direct the members of this association to pay more particular attention to matters which are the special field of the railway surgeon. I do not mean to the exclusion of matters of scientific interest, which are common to us all as surgeons and physicians, but that we should take up and discuss questions with which we are particularly qualified to deal from our connection with railway work, discussions which will elicit much valuable information, alike helpful to railway managers and useful to the large number of persons who earn their living in the various branches of the railway service; also, instructive and interesting to ourselves as railway surgeons.

"The first subject which I would direct your attention to is a field in which little work has been done as yet on this side of the Atlantic—a field where the railway surgeon will be doing a great and unselfish work for the benefit of humanity—I refer to the instruction of railway employees in the principles of rendering first aid to those injured or suffering from other emergencies. It has been said, and truly so, that the fate of the injured person is in the hands of the surgeon who applies the first dressing. The fate of the injured is indeed a sad one if the first dressing to his wounds is done in the absence of skilled surgical assistance by a person ignorant of the first principles of rendering first aid.

"It is our duty, having the knowledge and the opportunity, to take up this work. It is our duty to our fellow-beings generally, and more particularly to those railway employees for whose physical well-being we should feel ourselves in some measure responsible.

"Saving of life and suffering would result from the diffusion of first aid information among railway employees, and a saving in money would accrue to the railway companies by reason of the lessening of the number of infected wounds following railway accidents; also, a lessening in the number of deaths now due to



THE VALENTINE MUSEUM, RICHMOND, VA.

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preventable causes, such as hemorrhage, asphyxiation, and septi-cemia, or blood-poisoning.

"To direct your attention to another subject needing special attention, I would say that the railway surgeon has a special duty and responsibility in regard to public health, as well as a duty to the railway and transportation companies of the country. The arbitrary and ill-advised action of some persons who are responsible for the carrying out of the provisions of the different public health Acts now entails great inconvenience to the public and enormous financial loss to transportation companies.

"The railway surgeon can wield his influence to prevent this needless interference with commerce, and at the same time see that public health is safeguarded. With many of our members acting on State and other boards of health, we should endeavor to mould public sentiment and legislation so that there would be the least possible interference with free movements of individuals and commodities.

"I was astonished to see during some of my travels a little time ago that the citizens of some of the towns we passed through had considered it necessary to establish what was new to me, namely, a shotgun quarantine against neighboring towns. Such a state of affairs as this is a disgrace, not so much to the ignorant public, but to those among the medical profession who should exert sufficient influence in the community to render such a condition of affairs impossible, by instructing and moulding public opinion. (Applause.)

"I am pleased to say that the subject of sanitation of cars and station buildings has received considerable attention in the past by members of this association, but present conditions still demand our continued efforts.

"Another field for the railway surgeon: I believe a standard system of relief for employees injured while in discharge of their duties is a much-needed reform; as much so as was the adoption of a standard gauge for the road-bed or a standard coupling on the cars. The two last reforms were only secured after years of effort by associations interested in these branches of railway work, and so it will probably take time and persistent effort to accomplish a standard system of relief; not that it is not urgently needed, but reliable information will have to be gathered from many sources before a satisfactory system will be evolved. From the multiplicity of systems of relief now in use, we are sure a standard system can be constructed; a system that will be acceptable and satisfactory both to the railway employees and the managements and owners of railway companies. There may be such a perfect system in existence at present, but if there is, it will be discovered by a committee appointed to do this work from this association.

"From personal observation and reading, I find that there is a very considerable objection manifested on the part of the employees to any of the systems of relief with which I am acquainted, and,



on the other hand, I believe that the railway corporations, at the same time, are expending a large amount of money, which is being wasted, in so far as it is not bringing value to them in the way of lessening claims for personal damage brought against them through courts and lawyers.

"I believe I am within the mark when I make the statement 'that not more than one dollar in five paid out of the coffers of the railway companies reaches the pockets of the injured employee or his family.' The amount paid for surgical attendance would be represented by a mere fraction. In fact, it is the middlemen who are getting most of the money. That is unsatisfactory and unjust, both to the employee and the railway corporation. We want a system that will get rid of the ambulance-chasing lawyer, who is a useless parasite; like other noxious germs, he cannot thrive in the light.

"While no doubt there is a marked difference of opinion as to the lines on which a remedy can be found, any discussion which is calculated to throw light on the question will be of great value, and a report of the proceedings of such a commission as I suggest will be watched for with interest by both railway managers and railway employees. If a system can be found which would be acceptable to the railway employees and the railway corporations (including, might I suggest, arbitration in disputed cases), we would be assisting to free the managements from the enormous cost of litigation and the losses of money which now result to the honest employee who has suffered personal injury while in discharge of his duties."

#### OTHER OFFICERS REPORT.

The Treasurer, Dr. Eugene R. Lewis, of Kansas City, submitted his report, in which he paid a high tribute to General Manager Stevens, of the Chesapeake and Ohio, and to the General Manager of the Grand Trunk of Canada, who, he said, had done more for the organization of railway surgeons than any other railway officials, and both had risen to official positions through the ranks of employees of the Wabash. He therefore humorously suggested that "On the Banks of the Wabash" be adopted as the song of the Association. He submitted figures setting forth the financial condition of the organization, and his report, together with a short report rendered by Secretary Lewis J. Mitchell, of Chicago, was referred to the Executive Board.

Dr. Brock, at this juncture, formally extended the invitation of the Chesapeake and Ohio to the surgeons to visit the University of Virginia and the Hot Springs, and acceptances were received forthwith from 130.

Dr. Ross entered the room as Dr. Brock concluded, and was called upon for a speech. He, however, confined himself to reiterating and emphasizing the announcements made by Dr. Brock. A recess was then taken until two o'clock.

TAPESTRY ROOM—THE VALENTINE MUSEUM, RICHMOND, VA.



*AFTERNOON SESSION.*

The afternoon session was not a very busy one.

The following gentlemen were appointed by the President to constitute the Nominating Committee: Drs. F. J. Lutz, of St. Louis; H. L. Getz, of Iowa; J. A. Hutchinson, of Montreal, Canada; J. B. Hungate, of Weeping Water, Neb.; G. C. Stockmar, of Iowa; H. M. Taylor, and C. W. P. Brock, of Richmond.

The various papers were then taken up, and Mr. Edgar J. Rich, Attorney of the Boston and Maine Railroad, of Boston, read a highly interesting treatise on "The Claim Department of Our Eastern Railroads and Its Relations to Medical Organizations." The paper was exhaustive and comprehensive, and was given the closest attention. It was discussed at length, the discussion showing that the warmest and most friendly feeling existed between the doctors and the lawyers.

Dr. J. A. White, of Richmond, read a paper on "Burns and Scalds of the Eye," and was followed by Dr. Thomas A. Manley, of New York, who read a paper on "The Role of Primary and Secondary Osteo-Plastic Surgical Procedure in the Treatment of Compound Fracture of the Extremities." Both papers were freely discussed and much useful information was exchanged.

*RECEPTION AT NIGHT.*

The Association adjourned at 5.50 o'clock, and after dinner at the "Jefferson" a reception was tendered the visitors, followed by a musicale given by negro talent exclusively. The darkies occupied a position in the gallery overlooking the Main-street court, and there for several hours they discoursed plantation melodies, interspersed by rag-time songs, which greatly amused the physicians and their families.

The Jefferson Hotel was the headquarters of the delegates. To find in the heart of a quaint Southern city a hotel so large, and with the bustle of New York and the lavish decoration of Chicago, was a genuine surprise. The first element a hotel should possess is the one of utility to meet the demand of the itinerant strangers within the city's gates. In this respect the Jefferson excels. It lodges, feeds and bathes the weary stranger to his utmost satisfaction. It appeals to the eye of the great mass of the people by its profusion of ornate decoration. It appeals also to the wealthy stray "bull or bear" by its fine rotunda, where he may sit in the gallery and dream, as he looks at the animated scene below, that "sugar is up, or oil is down." Passing from this busy part to the cosy and numerous reception rooms, and then across a magnificent marble hall to the grand Louis XVI. drawing-room, refinement is expressed in decoration and detail, but the library, perhaps, appeals universally with its subdued and elegant color scheme and fittings—a perfect gem of a room. The palm garden

refreshes the eye, and the dainty confections served there please the palate. The Jefferson takes a foremost place in the circle of luxurious hotels that are now the byword of the travelling public in America. We reproduce a fine view of the exterior on page 53.

A large number of the local physicians called at the hotel, and assisted in entertaining the visitors.

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### SECOND DAY.

The morning session of the second day was opened by President Riordan shortly after 9.30 o'clock.

The entire morning was taken up with the reading and discussion of papers on surgical questions.

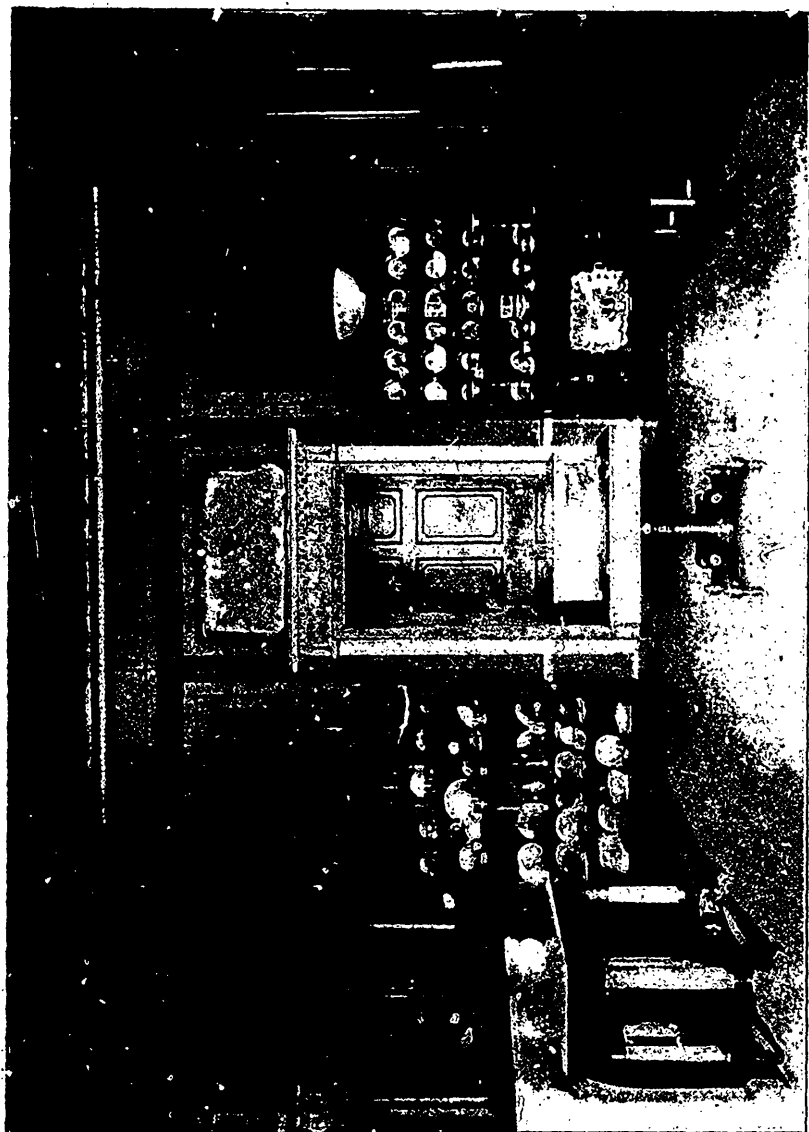
The attendance was large, notwithstanding the prevailing heat, and intense interest was manifested in the proceedings.

The principal discussion taken up that morning was the Symposium on Burns, in connection with which the following papers were read and discussed: "Pathology," by Dr. J. Alexander Hutchinson, of Montreal, Can. "Complications and Sequelæ," by Dr. F. J. Lutz, of St. Louis, Mo. "Primary Treatment," by Dr. Herbert Bruce, of Toronto, Can. "Railroad Surgeons, in their Relations to the Legal Department," by Hon. B. B. Munford, attorney of the Southern Railway, of this city.

Mr. Munford handled his subject in an able manner, and was repeatedly applauded. In conclusion he said:

"We live in an age of great corporations. Their existence is a result of the confessed inability of small capital and isolated effort to accomplish that which can be accomplished by aggregated capital and united effort. Especially with railway corporations, where the rapid transportation of passengers, freight, express and mail, without transfer or delay, is an imperative demand of the public, we may look for consolidations, and the merging into a few trunk systems of the detached railway lines of the country. The consequent advantages to the public of such consolidations are manifest, though there are corresponding and related dangers which should not be overlooked and forgotten.

"One of these is that the administration of the affairs of such gigantic corporations rests upon separate departments, with no sense of common responsibility, and with no thought of united obligation to the public interests which the corporations stand pledged to subserve. The sense of personal responsibility with officials and employees for the methods and policies of the company as a whole, is not always recognized. To counteract this, one among the growing dangers springing from great corporations, I would cultivate an *esprit de corps* among all the officials and employees of the company—a feeling that every happening or question affecting its efficient administration—its obligations to the public, and its honorable and high-minded dealings with those with whom it



VIRGINIA ROOM—THE VALENTINE MUSEUM, RICHMOND, VA.

comes in contact—is a matter of personal concern to all who participate in its management. I would insist that the obligation of every official and employee was not discharged until by precept and example they had lived up to this high standard, and secured from the company what under its charter, and the consensus of an enlightened public opinion, was the full measure of its responsibility.

“To the railway surgeons of the country we may, I am sure, look for contributions of sympathy and effort in furthering this sentiment. Their record in the past and their present attitude of eager willingness to improve every opportunity which advancing science affords, is an assurance that not only will their professional duties be discharged with increasing skill and fidelity, but they will be found in earnest sympathy and co-operation in promoting all that effects the honor and efficiency of railway companies, and the welfare of the public to which they minister.”

At the conclusion of Mr. Munford's address he was tendered a vote of thanks, and was requested to present his manuscript for publication in the records of the Association.

The convention then took a recess for lunch until 2 p.m.

When the surgeons convened for the afternoon session the first paper read was by Dr. Lester Keller, of Ironton, Ohio, on “Professional Examination for Railroad Surgeons.” It was an interesting essay, which brought out some instructive discussion.

The next two papers which treated on almost the same subject, were jointly discussed after they had been read by their authors. They were “Progress of Hygiene and Sanitation,” by Dr. G. P. Conn, of Concord, N.H., and “Railroad Hygiene,” by Dr. H. C. Fairbrother, of East St. Louis, Ill.

Dr. Fairbrother in his address said, in part:

“The management of contagious and infectious diseases, whether occurring in districts passed through by railroads or developing on board of trains, has always been a subject fraught with great concern to railway companies. Many companies have been brought near the brink of financial wreck by the repeated and disastrous quarantines laid upon them on account of outbreaks of these diseases. In some instances the entire populace seem to be mad with fright. Laws are passed beyond all reason. Trains coming from infected districts are treated as harbingers of death. Passengers have been removed from such trains and corralled in tents for many days with insufficient food or drink. In other instances doors have been left locked and passengers compelled to remain within these often crowded and filthy and poorly ventilated coaches resembling very much the classical ‘Black Hole of Calcutta.’

“In close connection with the carrying of infected and immigrant passengers is that of the fumigation and cleaning of cars. The work of car fumigation is of recent origin, and has not yet attained satisfactory success. There is no uniformity in the work, either as to when it shall be done, or the matter of doing it. The companies endeavor to follow the directions of the different health

officers in the different cities and states. When a case of infectious disease has been discovered upon a coach, it is the general rule of all companies to subject the car to some kind of fumigation.

"The shipment of dead bodies is another matter worthy of discussion in this connection. Of recent years there have been adopted in all the States, upon recommendations of their health boards, laws forbidding the shipment of the bodies of persons who have died of infectious or contagious diseases, and allowing the shipment of the remains of those who have not died of such diseases, only under careful restrictions as to disinfection and the placing in hermetically sealed metallic coffins enclosed in extra strong boxes.

"Practical Conclusion: Some limit should be placed upon health officers and boards with reference to declaring quarantine and otherwise interfering with the traffic of railroads. There should be opportunity for appeal. The entire business of a railroad should not be blockaded by the quarantine of a village. The railroads are willing to join with the health authorities in preventing the spread of diseases, but they are entitled to representation as to the manner of doing it. State and national boards of health should be courts of appeal before quarantine is declared and the business of the country is obstructed.

"The water used for drinking purposes on trains should be as pure as can be obtained. River water should invariably be filtered. This may readily be done by placing a filter ball on the nozzle of the hose used in filling the coolers. But the only perfect means for the purification of water is by distillation, and this can now be accomplished at such trifling expense that distilled water should be used on every train."

Among those who participated in the discussion of the two last named papers was Dr. C. W. P. Brock, who called attention to the sanitary precautions that have been taken for some time past by the Chesapeake and Ohio Railway Company to prevent the introduction by the means of their trains of smallpox into the city of Richmond.

At 4.15 o'clock, on motion of Dr. Brock, the convention adjourned to enable the members to take the cars to the wharf to go on the trip down the James River.

Shortly before 5 o'clock the *Pocahontas* left the wharf of the Virginia Navigation Company with a jolly crowd of excursionists. There were four hundred on board, just the four hundred Ward McAllister has so often spoken of. About a third of them were resident physicians and members of the Young Men's Business Association, while the others were visiting surgeons and their ladies. The trip was extended down to Dutch Gap and back, and the guests were greatly pleased with the attractive scenery that loomed up from time to time on either shore.

Mr. Henry Lee Valentine, the president, and a committee from the Young Men's Business Association looked constantly after the comfort of their guests, and a band of music together with the

CITY HALL AND WASHINGTON MONUMENT



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stationary orchestrum of the vessel attended to the musical entertainment of the party on board.

As soon as the boat turned for the return trip, the excursionists were invited to lunch and a splendid collation was served which was prepared by Caterer White, of the Westmoreland Club. The affair was a complete success in every respect, and the guests expressed themselves as highly pleased with their sojourn in the capital of the Old Dominion.

On Friday there were two more business sessions of the Association. The first began in the morning at 9.30 o'clock and the final adjournment took place during the afternoon session. At this session the officers of the Association for the ensuing year were elected and the place decided upon where the Association is to meet next year.

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### THIRD DAY.

The International Association of Railway Surgeons concluded its twelfth annual meeting Friday, shortly after noon, and many of the surgeons departed for their homes, though the great body of them left at 8 o'clock on a special train for the Hot Springs, as guests of the Chesapeake and Ohio Railway Company.

The session in this city was very harmonious, and though no great amount of business was transacted, much was accomplished for the good of the profession in the general interchange of ideas. A great many highly intellectual papers treating of scientific subjects were read and fully discussed, and the matter of preventing the spread of contagious diseases was given especial attention.

### PLEASED WITH RICHMOND.

During their stay in this city the surgeons were shown many courtesies by the citizens generally, and in so far as it was practicable to entertain so large a body without interfering with its deliberations, they were entertained. The surgeons, themselves, were delighted with Richmond, and many of them expressed the hope that not many years would elapse before they would return here in annual session.

In order that our readers may have an opportunity of seeing a few of the beauty spots of the capital of the State of Virginia, we publish for their delectation six views of that city. We only regret that owing to our space being so crowded we have not room for more, Richmond being truly worthy of that small honor.

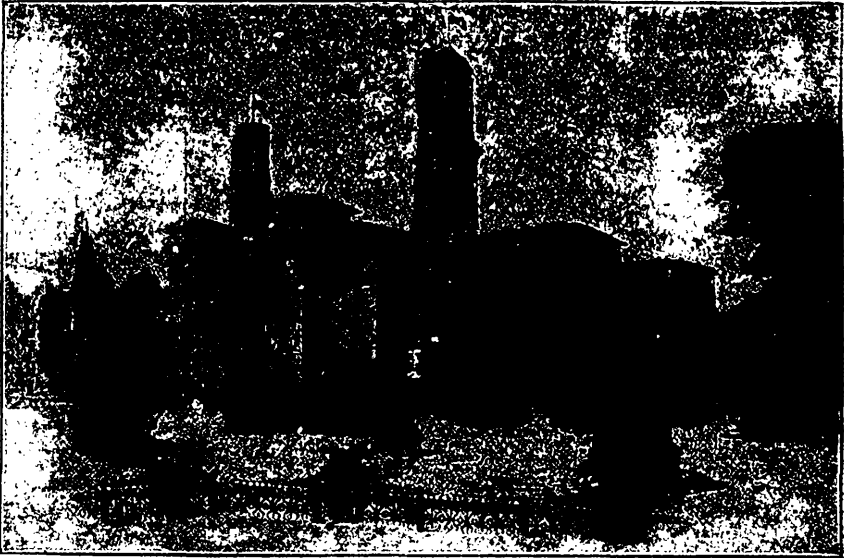
The Association met Friday morning, promptly at 9 o'clock, and for four hours the members were actively engaged in the business before them. It was found impracticable to have read all the papers which had been prepared. The only paper read was by Dr. Charles R. Dickson, of Toronto, on "Instruction of Railway Employees in First Aid." This paper treated entirely of the neces-

sity for educating the men to care for one another when injured, until physicians could be reached. It was shown that by unskilled handling many simple fractures had been compounded ere the surgeon could reach the injured man, and that frequently by the use of septic bandages by the ignorant, poison was introduced in a wound. These points were elaborated on in the discussion which followed the paper.

At this juncture of the proceedings, Dr. Frank J. Lutz, Chairman of the Nominating Committee, reported the following names as nominees for the various official positions:

Dr. Alfred I. Bouffleur, of Chicago, Ill., President.

Dr. Thomas A. Manley, of New York; Dr. N. P. Shinkel, of



THE JEFFERSON HOTEL, RICHMOND, VA.

Mississippi; Dr. N. J. Pettijohn, of Maryland; Dr. H. P. Merrill, of Maine; Dr. W. L. Hoy, of Ohio; Dr. F. P. Drake, of Canada; Dr. N. C. Moore, of Iowa, Vice-Presidents.

Dr. Louis J. Mitchell, of Chicago, Ill., re-elected Secretary.

Dr. Eugene R. Lewis, of Kansas City, Mo., re-elected Treasurer.

Members of the Executive Board: Dr. C. W. P. Brock, of Richmond, Va.; Dr. W. D. Middleton, of Davenport, Ia.

Honorary Members: J. M. Schoonmaker, Vice-President and General Manager Pittsburg and Lake Erie Railroad; Charles B. Price, General Superintendent Alleghany Valley Railroad; Edgar J. Rich, of Boston; B. B. Munford, of Richmond; W. G. Collins, General Manager Chicago, Minneapolis and St. Paul Railroad; E.

P. Broughton, General Superintendent C. and D. I. Railroad; Robert Blickenderfer, Wheeling and Lake Erie Railroad; C. L. Russell, President and General Counsel Mobile and Ohio Railroad.

The ticket nominated by the committee was unanimously elected, and as soon as the vote had been taken the retiring President, Dr. Bruce L. Riordan, of Toronto, turned the gavel over to Dr. Bouffleur, his successor, who was greeted with generous applause.

A vote of thanks was tendered the Young Men's Business Association for the splendid entertainment given the Railway Surgeons



General Robt. I. Lee Monument, Richmond, Va.

the previous evening, and a vote of thanks was also extended to the citizens of Richmond generally for the manner in which they have received the delegates to the convention.

The question of selecting the place where the Association is to meet next year was left to the Executive Board, and after this was decided upon the convention adjourned *sine die*.

#### THE NEW PRESIDENT.

Dr. Alfred I. Bouffleur, of Chicago, had the unprecedented distinction of having been unanimously elected President, the members

rising to their feet when his nomination was made and cheering vociferously. Dr. Bouffleur is the youngest surgeon who has attained this distinction. He was one of the organizers, and has been active in the promotion of the objects of the Association, and his unanimous election was a merited tribute to his energy and interest in the organization, as well as to his great ability as a surgeon.

He graduated with distinction in the college of his State, took the medical course in the University of Heidelberg, and has had large experience in hospital practice both in this country and in Europe. He is chief surgeon of the Chicago, Milwaukee and St. Paul, and also of the Panhandle Railroad, and Assistant Professor of Surgery in the Rush University, Chicago.

The Confederate Memorial Literary Society gave an extremely pleasant reception one evening, from 8 to 10 o'clock, at the Museum, in honor of the visiting surgeons.

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#### SECOND QUARTERLY MEETING OF THE PROVINCIAL BOARD OF HEALTH, 1899.

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THE second quarterly meeting of the Provincial Board of Health commenced at 10.30 a.m., June 1st, at the Parliament Buildings, with Drs. Macdonald (Chairman), Vaux, Cassidy and Bryce in attendance. At the afternoon session Dr. James Henry McCullough, a newly-appointed member of the Board, was also present. After the reading of the minutes and correspondence, Dr. Hodgetts presented a report upon the smallpox outbreak that occurred in Eastern Ontario recently. The epidemic, he said, had caused a good fright, and led to general vaccination.

Dr. Bryce read a report on the results of recent observations at the Muskoka health resorts. His conclusions are that nowhere in the Muskoka district is there any danger from the water supplies; great care is being shown in the treatment of household refuse, so as to prevent effluvia nuisances, and even the smallest resorts are making remarkable progress in modern methods of sewage disposal.

In view of the reappearance of hydrophobia in the counties of Lambton, Victoria and Norfolk, it was decided to interview the Provincial Secretary, with a view to putting in force, by order-in-Council, regulations for the prevention of rabies. These regulations provide for the destruction of animals known to be suffering from hydrophobia, the isolation of suspected animals, the muzzling of dogs, and the treatment of persons at the Pasteur Institute who have been bitten by rabid dogs.

Further correspondence from St. Catharines and Welland was read, protesting against the permission given by the Federal authorities to allow the drainage from the swamps of Humberstone

to flow into the Welland Canal, in view of the latter being the source of water supply for the two towns mentioned, and also Merriton. Bearing in mind that repeated analyses of water taken from below where the drainage enters the canal, had failed to show pollution, the Board decided that there was no ground for interference.

Dr. Cassidy read a report on the subject of medical inspection in the schools, which resulted in the adoption of the following resolution: "That the Provincial Board of Health, having heard the report of the Committee on School Hygiene, expresses the opinion that the systematic medical inspection of the schools of Ontario is essential in the interest of public health."

The Board reassembled at 10.30 a.m., June 2nd. Dr. Bryce referred to a by-law which is now engaging the attention of the municipal authorities of Gravenhurst, and which, if adopted, will put into operation regulations which are in force nowhere else in Canada. The by-law proposes to license all boarding-houses in the town, and to issue permits to those places which accommodate consumptive patients only. The houses of the latter class are to be approved of by the local board of health, and are to be subject to inspection at regular periods. The by-law also provides for the notification of cases of tuberculosis to the health authorities, and prohibits expectoration in public places. A demand for some such provisions as the foregoing has arisen in consequence of the increasing number of consumptives who yearly resort to Gravenhurst for the benefit of their health.

Correspondence was read complaining that the drainage from the Sarnia Oil Refinery was rendering the water of the St. Clair River unfit for drinking purposes. The matter was referred to the Committee on Water Supplies.

An account was presented from the municipality of Colchester for costs amounting to \$421 in connection with the smallpox case there. Dr. Bryce will interview the Provincial Secretary in connection with the claim.

The source of the water supply of Stayner, which is from springs outside the village, was approved of, the water having been shown by analyses to be of excellent quality.

An account for expenses incurred by the Sudbury Hospital in connection with the treatment of certain shantymen who were suffering from diphtheria, will be laid before the Provincial Secretary.

Mr. J. J. Mackenzie read a report detailing the results of the examination of specimens in connection with diphtheria, typhoid fever and cerebro-spinal meningitis.

Plans for the improvement of the sewage system of Stratford were submitted by Mr. Vanbuskirk, City Engineer, and were approved of.

The Board concluded its business about 4.30 p.m., and then adjourned to meet early in the fall.

# The Canadian Journal of Medicine and Surgery

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

145 COLLEGE STREET, TORONTO.

*Surgery*—BRUCE L. RIGDAN, M.D., C.M., McGill University; M.D. University of Toronto; Surgeon Toronto General Hospital; Surgeon Grand Trunk R.R.; Consulting Surgeon Toronto Home for Incurables; Pension Examiner United States Government; and F. N. G. STARR, M.B., Toronto, Lecturer and Demonstrator in Anatomy, Toronto University; Surgeon to the Out-Door Department Toronto General Hospital and Hospital for Sick Children.

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

*Oral Surgery*—E. H. ADAMS, M.D., D.D.S., Toronto.

*Surgical Pathology*—T. H. MANLEY, M.D., New York, Visiting Surgeon to Harlem Hospital, Professor of Surgery, New York School of Clinical Medicine, New York, etc., etc.

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

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

*Gynecology and Obstetrics*—GEO. T. MCKEOUGH, M.D., M.R.C.S. Eng., Chatham, Ont.; and J. H. LOWE, M.D., Toronto.

*Medical Jurisprudence and Toxicology*—N. A. POWELL, M.D., Toronto, and W. A. YOUNG, M.D., L.R.C.P. Lond., Toronto.

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

*Public Health and Hygiene*—J. J. CASSIDY, M.D., Toronto, Member Ontario Provincial Board of Health; Consulting Surgeon Toronto General Hospital; and E. H. ADAMS, M.D., Toronto.

*Pharmacology and Therapeutics*—A. J. HARRINGTON, M.D., M.R.C.S. Eng., Toronto.

*Physiology*—A. B. EADIE, M.D., Toronto, Professor of Physiology Woman's Medical College, Toronto.

*Pediatrics*—AUGUSTA STOWE GULLEN, M.D., Toronto, Professor of Diseases of Children Woman's Medical College, Toronto.

*Pathology*—W. H. PEPLER, M.D., C.M., Trinity University; Pathologist Hospital for Sick Children, Toronto; Demonstrator of Pathology Trinity Medical College; Physician to Out-door Department Toronto General Hospital; Surgeon Canadian Pacific R.R., Toronto; and J. J. MACKENZIE, B.A., M.B., Bacteriologist to Ontario Provincial Board of Health.

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

*Ophthalmology and Otolaryngology*—J. M. MACCALLUM, M.D., Toronto, Assistant Physician Toronto General Hospital; Oculist and Aurist Victoria Hospital for Sick Children, Toronto.

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Advertisements, to insure insertion in the issue of any month, should be sent not later than the fifteenth of the preceding month.

VOL. VI.

TORONTO, JULY, 1899.

NO. 1.

## Editorials.

### SOME OBSERVATIONS ON INFECTIOUS DISEASES IN TORONTO SCHOOLS.

THE annual report of the Board of Health of Toronto for 1898 contains, among other information, an article on infectious diseases in city schools, the period included being from the autumn opening in 1894 to the summer closing in 1898. The diseases are typhoid fever, scarlet fever and diphtheria. Although the information obtained is of a preliminary character and more for

the purpose of collecting and classifying evidence for future study than for any exercise of judgment, yet, in the reporter's opinion, some conclusions may be drawn from a few of the data.

He proceeds on the theory that some physical conditions in a school, such as a method of heating and ventilating, or the system of closets in use, exert an influence in producing a large percentage of the diseases mentioned above, which, for the purpose of the statistics, are grouped as "infectious diseases." In this article we shall, however, take them up separately. Typhoid fever is generally recognized as a water-borne disease, and water, drawn from the tap of the most insanitary school in Toronto, is not more likely to cause that disease in a pupil who drinks it than water taken from the tap at home. Typhoid fever must, therefore, be omitted from the statistics, for, even if it should occur in a pupil, the cause of its attack cannot be justly referred to any condition specially pertaining to a Public school.

Admitting, for the sake of argument only, that all the conditions in the schools, which form the subject of the inquiry, should prove to be defective, could any one of them or all of them together, produce a case of scarlet fever? Certainly not. Fox says: "Scarlet fever spreads like wild-fire in very hot weather in agricultural villages, during the times when children congregate together, as, for example, during hay-making, pea-picking, glean-ing, hop-picking and school fêtes, and this highly infectious disease spreads in towns and cities in very cold weather amongst the poor, who, with their scanty supplies of fuel, huddle together for mutual warmth, diligently closing every chink whereby fresh air might enter their overcrowded dwellings." The factors essential to the development of scarlet fever are: a person not immune to that disease and his contact with the body or body secretions of a scarlet fever patient or objects, which have been in contact with him. If these conditions exist scarlet fever will be developed, for the contagion is particularly active. It appears that the seasonal curve for scarlet fever in Toronto differs from the English one, in that there are here two maxima in each year, one in March, and a second in November, instead of one maximum in October, as in England. That meteorological causes, viz., temperature, humidity and air pressure, account for these maxima in Toronto has not yet been shown. It would be advisable, in the interest of medical science, to study such causes, so as to learn if they exercise an essential influence in spreading scarlet fever, or are coincidences, the real causes being

operative merely through their assistance. There can be no doubt, however, that, just inasmuch as susceptible children are brought into contact, in the primary classes, with other children who come from infected homes, so will scarlet fever spread. So much for simple school influence. And it must not be forgotten that, as the relative percentage of Public schools warmed by the Smead-Dowd system, in Toronto, is large—73 per cent.—and the number of pupils attending them great—75 per cent.—so, also, the percentage of possible centres of contagion in the homes of pupils attending these schools will be correspondingly high. This last argument applies equally to the spread of diphtheria. No one knows better than the bacteriologist of the Board of Health that the Klebs-Loeffler bacillus is the efficient cause of that disease. If the specific germ is not introduced into the mouth or nostrils of a pupil, there will be no evolution of diphtheria, and that disease cannot be traced to any condition such as heating, ventilating or disposal of excreta. It is a personal contagion, carried from an infected to a healthy person by the infected person or those who come into contact with him or his surroundings, such as playmates, nurses and doctors. If the mouths and nostrils of pupil and teacher do not already contain Klebs-Loeffler bacilli, they will not derive them through the system of warming and ventilation used in a public school, especially if rebreathed air is removed from the class-room, as is the case in schools where the Smead-Dowd system of ventilation is in operation.

A remarkable fact elicited by this inquiry is that the contagious disease percentages of Public schools are higher than those of Separate schools, the averages for all closets being 6.10 for the former and 2.35 for the latter.

If a certain kind of closet, let us say the Smead-Dowd conservancy system, is responsible for these untoward results in the Public schools, then why does it not produce similar results in Separate schools in which it has been used for many years? If it were an adjuvant cause in the evolution of enteric fever, scarlet fever or diphtheria, an almost inconceivable amount of systemic resistance to these contagia would have to be present in the children of the Separate schools, in order to enable them to resist the operation of that cause. The possession of any special power of resistance to the diseases in question by the children of the Separate schools, has not been shown and very probably cannot be shown. It is unreasonable to accuse the Smead-Dowd conservancy system of



causing contagious diseases in Public schools and at the same time acknowledge that Separate schools, in which this system has been in operation for several years, are blessed with a very low contagious disease rate.

The following quotations illustrate these points:

PUBLIC SCHOOLS IN WHICH THERE ARE DRY (CONSERVANCY) CLOSETS WITH SMEAD-DOWD VENTILATION. (*In Schools marked by an asterisk part of the closets are operated by water.*)

	Average attend- ance.	Cases contagious disease.	Average contagious disease.
Brant.....	350	23	6.5
Church.....	554	44	7.9
Cottingham.....	266	34	12.7
Crawford.....	341	26	7.6
Dovercourt.....	384	16	4.1
George.....	337	21	6.2
*Hamilton.....	362	30	8.3
Huron.....	598	89	14.8
Leslie.....	285	21	7.4
McCaul.....	530	45	8.4
Perth.....	176	5	2.8
*Phosbe.....	583	25	4.2
Sackville.....	332	14	4.2
	5,098	393	7.31

SEPARATE SCHOOLS WITH CLOSETS OF A MIXED CLASS, MOSTLY SMEAD-DOWD VENTILATION.

	Average attend- ance.	Cases contagious disease.	Average contagious disease.
St. John's (Smead-Dowd).....	87	..	..
St. Helen's (partly S.D).....	296	5	1.6
St. Mary's ".....	557	24	4.3
	940	29	3.08

That the Smead-Dowd system of dry closets cannot be accused of causing this unfavorable condition of affairs in the Public schools will appear by comparing Shirley St. Public school, in which there are inside water-closets with separate ventilation and a percentage from contagious diseases of 3.7, with St. Helen's Separate school, situated in the same neighborhood, which has a partly Smead-Dowd system of ventilation, with dry closets used by two schools, and some privies, but which shows a percentage from

contagious diseases of 1.6. Then St. John's Separate school, which has a Smead-Dowd flushing water closet system, has a percentage from contagious diseases of nil.

To show that outside closets do not improve the health of pupils in the Public schools, compare Elizabeth St. Public school, with outside closets and a percentage from contagious diseases of 16.3, with St. Patrick's Separate school, in the same neighborhood, which has water closets with separate ventilation and a percentage from contagious diseases of 4.0.

While the statistical tables relating to the comparative number of cases of infectious disease in the Public and Separate schools will be read with a certain amount of interest, the conviction will grow on the medical reader that they are only of a preliminary character and that the heating, ventilation, and disposal of excreta in Toronto Public schools have not been proved to bear any relation to the evolution and spread of the infectious diseases, which form the subject of this inquiry.

J. J. C.

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#### NOVELTIES IN THE TREATMENT OF PUERPERAL SEPTICEMIA.

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THE treatment of puerperal septicemia was discussed last April by the Obstetrical Society of France, and, excepting the Denise multivalent serum and Dr. Fochier's fixation abscess method, nothing new was advanced.

Dr. Charles, of Louvain, was not enthusiastic about the treatment of puerperal septicemia with Marmorek's serum, and gave reasons which are now universally recognized as valid, viz., that the streptococcus is not the sole pathogenic agent in this disease, and, on the other hand, there are many different kinds of streptococci. He stated that Dr. Denise, of Louvain, had discovered fifteen different kinds of streptococci, any one of which might cause puerperal septicemia. To remedy this difficulty Dr. Denise had prepared an anti-streptococcus serum (the multivalent), composed of different varieties of streptococci. Unlike Marmorek's serum, it is used in large doses. Dr. Charles stated that, in one case, he had used the Denise serum unsuccessfully; but Dr. Hubert, of Louvain, had reported to the Brussels Academy of Medicine five cases in which cures had been effected by this serum.

It also appears from Dr. Macé's address, that serum treatment

for puerperal septicemia has been abandoned in France, as the results given by Marmorek's serum are defective, and the Pasteur Institute, where this serum was first made, recognizes that it has been furnished under conditions which are unsatisfactory from a rational standpoint.

A special treatment, recommended by Dr. Fochier, of Lyons, consists in producing abscesses in the cellular tissue by the hypodermic injection of spirits of turpentine. He had seen favorable results from it in several cases. In one case, he had tried to produce suppuration in three different parts of the patient's body and failed; the heart's action was very weak and the pulse could not be counted. Full baths of a temperature of 80° Fahr. were used; the patient urinated freely, her pulse improved and the abscesses began to suppurate, but in an order the reverse of that in which they had been produced. In this last case, the cure appears to have been due to the baths, rather than the fixation abscesses. It may be added, that all the speakers eulogized the full bath in puerperal septicemia, though for different reasons. For instance, Dr. Macé classed it as a refrigerating agent; but Dr. Charles and Dr. Fochier considered that, in addition to its refrigerating power, the bath exercises a stimulating influence on the heart, the nervous system and the kidneys, thereby placing the diseased organism in position to more successfully resist microbe invasion. Dr. Macé thought that phlegmatia dolens, peritonitis and secondary myocarditis were contra-indications to the full bath. An accoucheur who would undertake to treat any of these debilitating and painful diseases with full baths, would indeed be courageous. But little was said in favor of quinine or Munde's favorite, antipyrine, as antithermic medicines. Dr. Charles, however, struck the keynote to the successful treatment of puerperal septicemia, by giving priority to the washing out of the uterus. He went further, and introduced an appropriate reference into the therapeutic debate, by declaring that puerperal fever can be prevented by antiseptic precautions, which is a matter of more importance than any method of treatment.

J. J. C.

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#### EDITORIAL NOTES.

**Is Petroleum a Fish Oil?**—A rather curious question is raised and answered by a writer in the *Cycle et Automobile Industriels*. Is petroleum derived from earth or rocks, or is it fish oil formed

from the fossil remains of fishes? It appears that, when the remains of fishes are distilled under pressure, an oil having a strong resemblance to petroleum is produced. This would seem to show that deposits of petroleum are derived from the transformation of the fossil remains of fishes.

**Correction.**—We are pleased to take this opportunity of stating that through a misprint, in the excellent illustrated article, by Dr. T. H. Manley, of New York, entitled "Clinical Report on Three Cases of Unusual Interest," appearing on pages 289 to 298 of our May issue, the name of the firm who manufactured the ribbed abdominal supporter for the case in question, and which is illustrated on pages 297 and 298 of that number of this journal, was misspelt. It should have read *J. C. Schnoter Co.*, not "J. C. Schuotter Co."

**Still Another Acquisition to our Staff.**—It is a source of no little pleasure to us to be able to announce to our readers the addition of another name to our staff. Dr. J. J. Mackenzie, Bacteriologist to the Ontario Provincial Board of Health, has consented to allow his name to be identified with our Department of Pathology. We are much pleased to have him as one of our number, and can assure our readers that they may look forward to having the pleasure of seeing contributions from Dr. Mackenzie's pen frequently. We have, indeed, every reason to be proud of our staff, being, as it is, one of the strongest identified with any medical journal on the continent of America.

**Massage to Promote Uterine Involution.**—Dr. Bose, of Montpellier, employs systematic massage of the womb to favor and accelerate involution after delivery, ordering it to be done for five minutes or so, immediately after delivery and once or twice a day, on the first five or eight following days. The operation, which is very simple, may be done by a nurse, and consists in applying friction in a circular direction to the uterine globe. The results are a more rapid disappearance of the lochia, the descent of the uterus behind the pubes in seven or eight days, and the ability of the patient to get out of bed at this time without incurring the dangers usually ascribed to an early rising after confinement.

**The American Electro-Therapeutic Association.**—The ninth annual meeting of the American Electro-Therapeutic Association will be held in Washington, D.C., on September 19th, 20th and 21st, 1899, under the presidency of Dr. F. B. Bishop, of Washing-

ton. Quite a number of papers of great scientific value have been promised, and the Committee of Arrangements insures the members a very entertaining and pleasurable meeting. Aside from the sessions of the Association, the Committee has completed arrangements for a trip to Mount Vernon, one to Arlington, and several other social features. The headquarters of the Association will be at Willard's Hotel, where special rates will be given to members and their families during the meeting.

**An Early Bacteriological Diagnosis of Tuberculosis Advisable.**—One of the most important duties of the general practitioner is to assist in the early recognition of tuberculosis, because, if a cure is to be looked for, the disease must be dealt with in its early stages. We observe that in reporting the results of the examination of specimens of tubercular sputa, sent to the Provincial Laboratory, Dr. Mackenzie gives the following statistics: Symptoms existing 1 month and under: 18 specimens (positive 3, negative 15), percentage, positive, 16.6; 1 to 2 months: 26 specimens (positive 9, negative 17), percentage, positive, 34.6; 2 to 3 months: 14 specimens (positive 7, negative 7), percentage, positive, 50.0. The fact that a positive diagnosis can be made within two months from the onset of the disease shows that in suspicious cases the bacteriological test should be made very soon.

**The Ingredients of Chartreuse.**—In an article entitled "Alcohol and the Liqueurs," which appeared in the *Revue des Deux-Mondes*, Viscount d'Avenel gives detailed information of the manufacture of chartreuse. More than forty plants are used in making it. The principal one is balm, in varying proportions of from 250 to 500 grammes to the hectolitre; hyssop, peppermint, alpine milfoil, the seeds and roots of angelica, 125 to 250 grammes of each; then in smaller quantities, ranging from 15 to 30 grammes, flowers of arnica, thyme, costmary, poplar buds, Chinese canella, mace, coriander, aloes, cardamoms, etc., etc. This is not all: to each hectolitre are added three litres of an alcoholic preparation containing marjoram, pinks, lavender, four kinds of pepper (long pepper, Jamaica pepper, cubeb and common kitchen pepper), pine tree resin, treacle, hyacinth, nutmeg balsam, rubbed up together in Malaga wine. To make up a hectolitre (22 imperial gallons) of liqueur 2,600 grammes (5.73 pounds) of these ingredients are required, and the retail price is not over 8 francs (\$1.60) per litre. The quality and the age of the alcohol used in making chartreuse are its principal merits.—*Le Progrès Médical*.

**Why is the Negro Black?**—In the *Revue d'Hygiene* the following explanation is offered of the negro's color: At first sight the color of the negro seems paradoxical; it seems that the derm would be better protected by a white pigment, which reflects heat, than by a black one, which absorbs it. Experience, however, proves the contrary. Professor Mosso has shown that, in order to be able to stand solar radiation on the tops of lofty mountains, travellers have to smear their hands and faces with lamp-black. (*Revue Generale des Sciences, 1899, p. 185.*) Mr. C. E. Guillaume offers the following explanation of this phenomenon: The pigment of the negro's skin absorbs heat, which is radiated outwards to his oily skin. Dr. d'Arsonval has shown, by experiments in calorimetry, that fats have a considerable emissive power in the infra-red. In the negro, all radiations of heat emitted by the derm are situated pretty far inside the infra-red (black pigment and red blood), where the fats radiate strongly and grow cool as well. The black pigment protects its derm from solar attacks and cools at the same time by the radiation of heat from the oily layer which covers it. In fact, contact with a negro's skin always leaves a sensation of coolness. As Mr. Guillaume wittily expresses it, "The negro lives in the shade of his skin."

**Ontario Medical Library Association.**—In our March issue we gave our readers a list of books—the first annual instalment for the "Bovell Library," purchased through the generosity of our old friend William Osler. The list will repay a glance over it again, containing as it does many of the latest works on medical subjects proper. In order to enable the Association to keep up with the times an "Endowment Fund" was established some months ago for the prompt purchase of the best new publications as issued, the interest alone to be used. As the fund is only in its infancy, and very little money as yet available, it is hoped that a generous response will be made to this fund by many of the profession, who will not miss a small contribution in so good a cause. Many may not feel justified, for one reason or another, in giving to this fund, but we are all able to help along the Library in another way, and that is by sending it all the old journals about the office. These can be utilized in "exchange" with other libraries. All that is necessary is to pack them in a box, address it to the Ontario Medical Library, corner Bay and Richmond Streets, and freight will be paid on arrival, and an acknowledgment made through this journal. Books of any date will also be gladly

received. They are of some use to the Library. The great majority of old issue are of no use whatever to the regular practitioner except to remind him that he is "getting on in life." Therefore, look over the old book-cases, cupboards, store-rooms and out-of-the-way corners, and send on all you do not need, and, moreover, never look into from one year's end to another. You will earn the gratitude of your better-half at every house-cleaning, and at the same time the thanks of the Library.

**The Best Means to Exclude the Plague.**—Plague has taken a firm hold of India, and is playing serious havoc. A London telegram states that it is also at work in Mecca. Under these circumstances serious repressive efforts will be made to prevent its appearance in Europe. The existence of the plague at Hong Kong, where, since March 4th, there have been 498 cases and 436 deaths, shows the necessity of carefully scrutinizing travellers, particularly the Chinese, who come from China to Canada. It is reassuring to be informed by physicians who practise in China, that only in isolated cases are Europeans living in the East attacked by this disease, but it would be more satisfactory to know the percentage of the European population of Hong Kong who have been attacked. There is no doubt that the bacillus of plague, which has been recently discovered by Yersin and Kitasato, seems to thrive in very filthy spots, such as Chinatown in Hong Kong, and that if introduced into unclean cities, such as Naples, Genoa and Marseilles, it might become epidemic. It would be an error to say, however, that mere filth would cause the plague. Smallpox, a more contagious disease, requires the presence of a specific infection, before it can develop in a new subject, no matter what amount of filth may be present in his surroundings, and so, if the plague is not introduced into Canada by the persons or clothing of Chinese emigrants, we need not fear its advent among us. The first and most important line of defense is to be drawn up in the port of Victoria, B.C., and we hope that the Canadian Government will take the needful precautions to make it efficient.

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#### PERSONALS.

CONGRATULATIONS to Dr. G. A. Carveth on the birth of his latest.

DR. W. H. LOWE has returned from England much improved in health, we are glad to know.

DR. HARRY OLDRIGHT has moved away from Toronto, having purchased a practice at St. Catharines, Ont.

DR. JAMES H. McCULLOUGH, of Owen Sound, has been appointed a member of the Provincial Board of Health.

DR. H. B. ANDERSON will assume the editorship of the *Canada Lancet* as soon as he returns in September from the Old Country.

DRS. G. A. PETERS and F. LeM. Grasett spent two weeks in camp with the Governor-General's Body Guard at Niagara last month.

AMONG the graduates in medicine at the recent convocation at Toronto University was Dr. J. J. Mackenzie, the bacteriologist of the Provincial Board of Health.

DR. E. E. KITCHEN, member of the Provincial Board of Health, has returned after attending the Richmond meeting of the International Association of Railway Surgeons.

DR. BRUCE RIORDAN, Dr. C. R. Dickson, Dr. Herbert Bruce, Dr. W. A. Young and Dr. T. McKenzie returned from the American Railway Surgeons' convention at Richmond, Va., on the 10th ult.

DR. H. P. H. GALLOWAY, who, with Dr. B. E. McKenzie, has charge of the department of orthopedic surgery on the staff of this journal, has been elected a member of the American Orthopedic Association.

DR. J. E. GRAHAM is at present remaining at the Sanitarium at Gravenhurst. We understand he is a little better, and assure the doctor of the sympathy of the entire profession in his recent illness. Every one of his friends hope for his speedy recovery.

DR. T. E. RICHARDSON was operated upon for appendicitis two weeks ago by Dr. J. F. W. Ross. We are pleased to know that he is recovering. The doctor has suffered from two attacks of that disease inside of a very short time, and very wisely decided to take steps to prevent a recurrence.

WHAT is the matter with so many of our *confreres* in the city this summer that such a number of them have evidently run up against the lawn mower? The barbers are having, indeed, a prosperous summer and the gentler sex plenty of encouragement to practise the Hobson art. But why disfigure the face so? Names we will not mention, but simply give the hint.



## The Physician's Library.

### BOOK REVIEWS.

*A Text-Book on Practical Obstetrics.* By EGBERT H. GRANDIN, M.D., Gynecologist to the Columbus Hospital; Consulting Gynecologist to the French Hospital; late Consulting Obstetrician and Obstetric Surgeon of the New York Maternity Hospital; Fellow of the American Gynecological Society, etc. With the collaboration of GEORGE W. JARMAN, M.D., Gynecologist to the Cancer Hospital; Instructor in Gynecology in the Medical Department of the Columbia University; late Obstetric Surgeon of the New York Maternity Hospital; Fellow of the American Gynecological Society, etc. Second edition. Revised and enlarged. Illustrated with sixty-four full-page photographic plates and eighty-six illustrations in the text. 6½ x 9½ inches. Pages xiv. 461. Extra cloth, \$4.00 net; sheep, \$4.75 net. Philadelphia: The F. A. Davis Co., Publishers, 1914-16 Cherry Street.

There are few subjects with which the practitioner must be so thoroughly acquainted as those of Gynecology and Practical Obstetrics, so as to enable him to cope with whatever emergencies he may meet; and there is no one who is more suddenly called upon to exercise care, judgment and tact than the obstetrician is. A theoretical knowledge of Obstetrics may save a student while working with the manikin, but if he cannot go further than that he will prove an utter failure when launched into practice and summoned to deal with the living subject. The author has evidently given a great deal of thought to this point, and has laid great stress upon the practical side of his subject, allowing the theoretical aspect to look out for itself. There is hardly a study which is being subjected to so many changes from year to year as that of Obstetrics, so that any book dealing with it must of necessity soon become old. It is but a short time since Dr. Jarman published the first edition of his work, and it can only be due to a very large demand for it that he has been called upon so soon to rewrite it and publish a second. His book can truthfully be called a guide to practice. He has endeavored to make and has succeeded in making his teaching essentially clinical, not troubling the reader regarding data and statistics which are quite unnecessary as far as practical work is concerned. The second edition of the work has been thoroughly revised by Dr. Grandin, most of the revision, however, having been made in regard to Obstetric Surgery and the nuerperal state, as it is in these that most progress has been made recently. Several new illustrations have also been added.

*International Clinics.* A Quarterly of clinical lectures on Medicine, Neurology, Surgery, Gynecology, Obstetrics, Ophthalmology, Laryngology, Pharyngology, Rhinology, Otology and Dermatology, and specially prepared articles on treatment and drugs, by professors and lecturers in the leading medical colleges of the United States, Germany, Austria, France, Great Britain and Canada. Edited by JUDSON DALAND, M.D., University of Pennsylvania, Philadelphia; Instructor in Clinical Medicine and Lecturer on Physical Diagnosis in the University of Pennsylvania, etc., etc. Vol. I., ninth series. 1899. Philadelphia: J. B. Lippincott Co. 1899. Montreal: C. A. Roberts; 593A Cadieux Street, Canadian agent.

Following almost at once on the eighth series comes the ninth series of "International Clinics." It is seldom that a firm is called upon to publish in

such rapid succession two series of any one work, and it can only be due to a steadily increasing demand from a large army of appreciative and intelligent readers. Vol. I. of Series IX. is considerably larger than that of Series VIII., and has an entirely different staff of contributors. For instance, such names as those of John Ashhurst, Jr., M.D., (the late) John B. Hamilton, M.D., Alfred Fournier, M.D., Thos. R. Pooley, M.D., W. L. Rodman, M.D., and Alex. J. C. Skene, M.D., appear on Vol. I. of this series, who took no part in the compiling of Series VIII. The contents of Vol. I. of Series IX. are made up under the same captions as those of Series VIII., viz., Drugs and Remedial Agents, Treatment, Medicine, Neurology, Surgery, Gynecology, Ophthalmology, Laryngology and Rhinology. Under the heading of Drugs and Remedial Agents, Dr. Horatio C. Wood has a capital article entitled "Cold as an Antipyretic." Under Treatment, the lectures of most interest are those by Prof. J. Grancher, on "The Treatment of Tuberculosis"; by Dr. Martin Mendelsohn on "The Care and Treatment of Phthisical Patients," and by Dr. G. Variot on "The Treatment of Acute Laryngitis in Children." Dr. John Ashhurst, Jr., has an able article under Surgery, entitled "Four Cases of Injury to the Head." The late John B. Hamilton, M.D., has several contributions, entitled "Carcinoma of the Rectum," "Tuberculosis of the Cervical Glands," "Spina Bifida," and "Melano-Sarcoma of the Testicle." Dr. Alexander J. C. Skene, under his department, discusses "The Use of Electricity in Surgery." Altogether this volume is ahead of that of the last series.

*The Study of the Hand for Indications of Local and General Disease.* By EDWARD BLAKE, M.D., Member Royal College of Surgeons; Life Associate Sanitary Institute, Great Britain; Member French Hygienic Society; Honorary Member Michigan Medical Society; Found. Fell. British Gynecological Society, etc., etc. Second edition. London: Henry J. Glaisher, 57 Wigmore Street, Cavendish Square W. New York: G. P. Putnam's Sons. 1899.

A busy man, such as the author of this book, would have little time left at his disposal when called upon to rewrite from cover to cover any book inside of so short a time as four months. It is unquestionably the fact that the study of the hand under many circumstances proves a most valuable aid in the diagnosis of many conditions; and a work such as this gives information which cannot easily be procured elsewhere. For instance, Dr. Blake in his book, after dealing with temperature, color, texture, the nails and their development, parasites, eruptions, whitlow, and hyperkeratosis, in Section VIII., studies the form of the hand, and especially the fingers, such as Heberden's nodes, Haygarth's nodosities, and Dupuytren's contraction. Section IX. is on "Clubbed Fingers, and their Clinical Significance." A most interesting chapter is Section XIV., on "The Pulse, the Dynamics of Respiration, Fallacies of the Radial Pulse and Chloroform Syncope." The book is fairly well illustrated, and is printed on specially good paper. The author has treated fully for the first time cerebro-spinal diagnosis from the hand. He has given some new points in the pathology of arthritis, and of acrosphacelus. The treatment of writer's cramp is given in full, as also the clinical significance of the various forms of tremor.

*Electro-Hemostasis in Operative Surgery.* By ALEX. J. C. SKENE, M.D., LL.D., Professor of Gynecology in the Long Island College Hospital, Brooklyn, N.Y.; formerly Professor of Gynecology in the New York Post-Graduate Medical School; Gynecologist to the Long Island College Hospital; President of the American Gynecological Society, 1887; Corresponding Member of the British, Boston and Detroit Gynecological Societies, etc., etc. New York: D. Appleton & Co. 1899. Toronto: The George Morang Company, Limited, Canadian agents.

The author, who is too well known a member of the profession and writer to require more than passing mention, had as his object for publishing this

work the more general dissemination of knowledge regarding the use of the electro-cautery in general as well as special surgery, Dr. Skene feeling that such would supplement the third edition of his book on "Diseases of Women," in which he considered electro-hemostasis was but too briefly referred to. There is little doubt that many recent improvements have taken place in surgical methods, so that after having had experience which is confirmatory of the value of any particular method, it is but right that such a one should give the profession the result of his experiments. After giving a description of the instruments required, Dr. Skene, in this book, goes on to give the results of the hemostatic process, after which he treats electro-hemostasis in ovariectomy, in myectomy and abdominal hysterectomy, in ovario-salpingectomy, and in appendectomy. He then takes up the treatment of cancer of the uterus by the electro-cautery and hemostasis, the electro-cautery in the treatment of pelvic abscess and diseases of the vulva and vagina, electro-hemostasis in extirpation of the mammary and lymphatic glands, and in extirpation of tumors of the bladder. The book is one which will prove a most valuable adjunct to any work on general diseases of women or general surgery, and we bespeak for the publishers a large and comprehensive sale.

*Saunders' Medical Hand Atlases.* Atlas of Diseases of the Skin, including an epitome of Pathology and Treatment, by PROF. DR. FRANZ MRACEK, of Vienna. Authorized translation from the German. Edited by HENRY W. STELWAGON, M.D., Ph.D., Clinical Professor of Dermatology Jefferson Medical College, Philadelphia, etc. Sixty-three colored plates and thirty-nine full-page half-tone illustrations. Philadelphia: W. B. Saunders, 925 Walnut Street. 1899. Toronto, Ont.: J. A. Carveth & Co., Canadian agents.

For any one publisher to undertake and contract to sell 100,000 copies of atlases is wonderful indeed, but for that firm to have such a run as to encourage them to double that figure is simply phenomenal. Such is the case with "Saunders' Medical Hand Atlases." In one way we can hardly wonder at it, when the beauty of the work is considered. We feel free to say that seldom have we seen colored illustrations showing such perfect workmanship. The best manner to describe them would be to say that they are positively life-like. The delicacy of the tinting of Plate 30, for instance, illustrating acne, is perfect, and helps to show that the artists employed were of no mean character. Plates 23 and 23a, showing *eczema artificiale vesiculosum*, are a credit to any firm of publishers. Such a series of atlases are alone an education to any man possessing them, as the text accompanying each plate is such as to thereafter enable any one to diagnose a case from life with comparative ease.

*The Newer Remedies.* Including their synonyms, sources, methods of preparation, tests, solubilities, incompatibles, medicinal properties, and doses as far as known, together with sections on organo-therapeutic agents and indifferent compounds of iron. A reference manual for physicians, pharmacists and students. By VIRGIL COBLENTZ, A.M., Phar.M., Ph.D., F.C.S., etc.; Professor of Chemistry and Physics in the New York College of Pharmacy, Author of "Handbook of Pharmacy," Member of the Chemical Societies of Berlin and London, Fellow of the Society of Chemical Industry, etc. Third edition. Revised and very much enlarged. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut Street. 1899.

For a physician to attempt to keep informed concerning the constantly increasing number of remedies is almost impossible without the aid of some work such as that of Dr. Coblentz. This book gives an alphabetically and systematically arranged list of all the recent additions to the remedies used in the treatment of disease. The author has given both synonyms and cross references. It is but four years since the first edition of the book was published, only one year elapsing between that and the second, and now a third and still better one is given to the profession. A book like this is of boundless use to

the practitioner, as material of this kind, which is changing almost from month to month, cannot be expected to be found in an ordinary work on medicine or treatment.

A. J. H.

*Clinical Lectures on Neurasthenia.* By THOS. D. SAVILL, M.D., Physician to the West End Hospital for Diseases of the Nervous System, London; Examiner in Medicine in the University of Glasgow, etc., etc. London: Henry J. Glaisher, 57 Wigmore Street, Cavendish Square W. Five shillings, net.

Most of these lectures were originally delivered as part of a post-graduate course organized at the Paddington Infirmary in the year 1891, and the balance at the Welbeck Street Hospital for Diseases of the Nervous System during 1897-98. They were since collected and are now published in book form. The author is strongly of the opinion that it is a pity that the wealth of clinical material, especially of mental and nervous disorders, as found in such institutions as the Metropolitan Workhouses and Infirmarys, should be passed over without any practical benefit to the profession resulting. He also feels that our profession as a body have always been too much inclined to look upon all diseases of the nervous system, especially of a functional type, as almost hopeless, and it is with a hope of remedying such and throwing more light upon this department of medicine, that he consented to publish this work. The lectures number just five, the first comprising the Pathology of the Functional Diseases of the Nervous System; lecture 2, Nervousness or Neurasthenia; lectures 3 and 4, the Diagnosis and Pathology of Neurasthenia; lecture 5, the Mental Symptoms of Neurasthenia and Neurasthenic Insanity.

*An Epitome of the History of Medicine.* By ROSWELL PARK, A.M., M.D., Professor of Surgery in the Medical Department of the University of Buffalo, etc. Based upon a course of lectures delivered in the University of Buffalo. Second edition. Illustrated with portraits and other engravings. 6½ x 9½ inches. Pages xiv.-370. Extra cloth, \$2.00 net. Philadelphia: The F. A. Davis Co., Publishers, 1914-16 Cherry Street. 1899.

Dr. Roswell Park, in writing his "Epitome of the History of Medicine," struck a chord whose note has resounded far and wide. It is scarcely a year since the first edition of his work appeared, so that the author must feel that his labor has at least not been in vain. The book was the outcome of a series of lectures first delivered in the Medical Department of the University of Buffalo, and since that rearranged and enlarged. The work comprises the most important facts and events which have taken place in medicine, dating from the Age of Foundation when medicine in its earlier form came to be known among the Orientals and Greeks; through the Ages of Transition, of Renovation, down to the time of Astley Cooper, Guthrie, Syme and Simpson. The book is full of deepest interest, and there is hardly a doubt that every practitioner of medicine should be in possession of the second edition if he does not have a copy of the first.

*Lord Lister and Surgery.* By ROBERT TURNER, M.A., M.D., F.R.C.S. London: Henry J. Glaisher, 57 Wigmore Street, Cavendish Square W. 1899.

This small pamphlet forms a delightful half-hour's reading in giving an account of the wonderful progress made by Surgery under Lister from the days of the introduction of the antiseptic spray down to the present. It costs but one shilling.

## REPORTS RECEIVED.

Seventeenth Annual Report of the Provincial Board of Health of Ontario, being for the year 1898.

Report of the State Board of Health of Connecticut, 1898.

Selected Articles.

THE TREATMENT OF ASTHMA.

BY ROBERT C. KENNER, A.M., M.D., LOUISVILLE, KY.

THERE is, perhaps, no disease which is more distressing to the patient than asthma.

The paroxysms of dyspnea are very agonizing and often persist for a considerable length of time. The burden on the heart is very great when the attacks are frequently repeated, or continued for a long time.

It is entirely foreign to the purpose of this paper to discuss at length the etiology of asthma.

I hold with Biermer that the true explanation of the symptoms is a "spasm of the muscular tissue of the small bronchi." The causation of this condition has both constitutional and exciting elements. The constitutional elements of causation comprise a neuropathic tendency, nerve lesions, epilepsy and other affections of the nervous system. According to the best observers males have the disease more frequently than females, although my notes show about an equality in the number of males and females. Exciting causes comprise climatic influences and individual susceptibilities to certain odors. Some patients are at once seized with an attack of asthmatic dyspnea when they inhale the odor of ipecac and other drugs. Others cannot bear to have certain animals, flowers or vegetables brought near them. All these are factors which may be said to be true of individuals, but which cannot be classified.

In about 20 per cent. of my cases I have found chronic bronchitis associated with asthma, and emphysema was present in about 15 per cent.

The treatment of asthma should be considered under two heads: First, relief of dyspnea; second, systemic.

To carry out the first indication is a matter of great importance since the burden on the heart during an attack of dyspnea is very great. To relieve these attacks surely and speedily must therefore be our first aim. To accomplish this purpose reference to the textbooks will show that a great number of remedies have been employed. Bromide of potassium, spirits ether comp., belladonna and all of the sedatives, anodyne and anesthetic remedies have been used. Many physicians give chloroform by inhalation to relieve the dyspnea. Ipecac and lobelia were the remedies which the

older practitioners depended upon to accomplish this purpose. But, with a better comprehension of the factors present in these cases, remedies such as ipecac, lobelia, chloroform, and even the bromides, and in a word, remedies which add additional burden to the heart, are losing favor.

To overcome the attacks of dyspnea I have employed only nitroglycerin, strychnine and morphine hypodermic tablets (Sharp & Dohme's). These tablets at once relieve the dyspnea, and do not act as a cardiac depressant as is the case with the anti-spasmodic, sedative or anesthetic drugs usually exhibited in this condition. Conversely, however, the strychnine in these tablets acts as a cardiac stimulant, and shortly after the hypodermic injection we can discern an improvement in the volume of the pulse. The action of these tablets is prompt, and improvement of the symptoms is manifest in a very short time. Often entire breaking up of an attack of dyspnea is seen in twenty minutes after the hypodermic injection. The measures to be instituted to establish a cure of the asthma will, of course, depend to a large extent upon the conditions existing in the case under consideration.

When chronic bronchitis is present we will make little headway if we fail to give constructives and have the patient guard against the vicissitudes of the weather. In treating the disease also we shall have to administer remedies applicable in emphysema when that is present.

In my practice no single remedy has been found equal to the iodide of potassium for extending the time between the attacks of dyspnea and effecting an entire cessation of these attacks. Of course this agent is conjoined in each case with such other drugs as are considered appropriate.

I give below the outline of several cases which have been treated on the lines laid down here, these being only a few of a great many tabulated cases.

Mrs. S. C., age 25, a delicate woman, eight months pregnant. She had had asthmatic attacks for the past week, which had increased in severity and frequency. This attack had persisted for more than an hour, and the patient was almost exhausted from dyspnea. Her pulse was 120. I at once gave her a hypodermic injection of nitroglycerine, strychnine and morphine tablets, and this gave her relief in a short time, and her pulse increased in volume and was lessened in frequency. She was suffering with associated bronchitis, and I gave her cod liver oil made palatable after meals, and iodide of potassium in doses of five grains before meals. On this treatment she made a complete recovery. She would take the iodide potassium for two weeks and then leave it off for a like period. In this way she avoided iodism.

Mr. O. H. R., age 41, had asthma for a year. He had an attack of influenza a year ago, and since that time had had a mild bronchitis. During this time he had begun to have attacks of difficult breathing, and they had grown more frequent and frequently lasted

an hour. I relied upon the nitroglycerine, strychnine and morphine tablets to relieve these attacks and was never disappointed in them. On cod liver oil and iodide potassium given as in the first case he got along well and steadily improved, and is now entirely well.

Mrs. L. F. Q., age 40, had been a great sufferer for the past four years with asthma. The attacks exceeded in their violence and persistency any case I ever saw. The physician who had previously treated her relied upon the inhalation of chloroform to relieve the dyspnea, he having tried all the usual remedies to no purpose. When called first to this patient I lost no time in giving her a hypodermic injection of the nitroglycerine, strychnine and morphine tablets and found my patient got relief in a very short time. She subsequently used these tablets hypodermically when she felt the least premonition of an attack of asthma, and in this way aborted the attack. On these and iodide potassium, plus the regular administration of cod liver oil, she got along well and she has now stopped the employment of the medicines, and has now gone some time without the use of anything.

I can therefore most heartily recommend Sharp & Dohme's asthmatic hypodermics.

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**Life on a Rubbish Heap.**—As we all know, a vast amount of sickness comes about in a mysterious manner, that is to say, no man knows whence it cometh. To discuss this subject would require a treatise, more or less, but there is one particular item that may be adverted to with the full and certain hope of instructiveness to be gathered therefrom. That detail is nothing more than the modern dwelling which is built upon "made" ground, the substance whereof has been built up by the slow increment of cart-loads of ashes, rubble, manure, dust, dead cats, mud, ashes, and the rest of the multifarious abracadabra of house refuse. The result of building on such a foundation is that the body of the house, when heated, draws up all the ground air, laden with noxious effluvia, and possibly with pathogenic bacteria. Of course the provision of perfectly sound, impermeable concrete under the whole house would prevent the main part of the mischief. But how many suburban houses are thus provided? Not long ago the present writer, out of curiosity, went over some houses in the course of erection, the rent of them being from £70 to £80 per annum. The damp-proof courses were made of a kind of tarred paper, and the garden level was raised by a tight packing of wet clay, while the foundation of the hall space—that is to say, a long passage running through the house—was filled up with the same material. In that case life on a mudbank was substituted for that on a dust heap, which we began by contemplating. By all means let intending purchasers or tenants inquire carefully into the history of the sites of the houses in view, and let them have a skilled inspection made by a competent surveyor.—*Med. Press and Cir.*