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Original Contributions.

THE TREATMENT OF TUBERCULOSIS IN ONTARIO.

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WHEN requested by the editor of the JOURNAL to prepare an article upon what is being done in caring for the consumptive patients of the Dominion by the National Sanitarium Association, I felt that a short note with illustrative diagrams might prove more interesting to the busy practitioner than a longer paper, which might require more time in reading.

First, a word as to the Association itself. Organized in 1896, with the express object of founding sanatoria for the treatment of pulmonary tuberculosis, it has thus far erected two at Gravenhurst, with beds for 145 patients: The Muskoka Free Hospital for Consumptives, with seventy-five beds, and the Muskoka Cottage Sanatorium, with seventy beds, the latter for paying patients.

More than $400,000 has been expended by the Association in the establishment and maintenance of these institutions and in the distribution of literature to aid in the fight against this disease. The money expended has been received from various sources, individual subscriptions and bequests, municipal and government grants, patients and others. The Free Hospital is maintained by voluntary contributions. No patient has ever been refused admission to the Free Hospital because of his poverty.

Over 1,500 patients have been cared for by the Association. The instruction of so many in the principles of hygienic living

and in the care of sputum has had its marked influence in assisting to lower the death rate from tuberculosis in Ontario.

No brighter, cheerier wards are to be found anywhere for the care of pulmonary cases, whether those of the Cottage Sanatorium, where each patient has his own room with its transoms, open windows, and hardwood floors, or those of the Free Hospital, with from two to eight beds in each, large, airy and flooded with sunshine.

Every visitor to these institutions expresses himself as surprised at the extent of the buildings, their equipment and surroundings being quite beyond all expectations. There is a largeness about them unsuspected, and with their brightness, sur-

ADMINISTRATION BUILDING, MUSKOKA COTTAGE SANATORIUM.

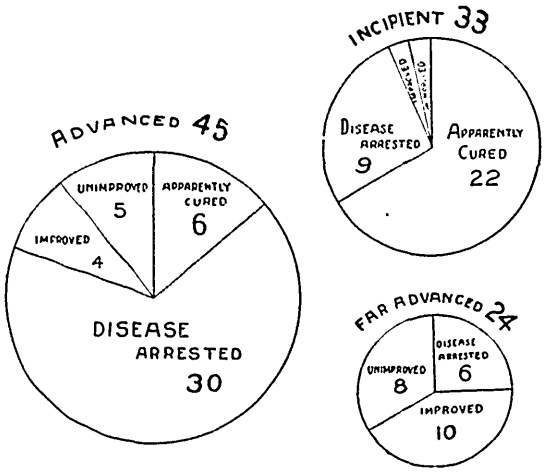
rounded by beautiful park land and situated on the shores of Lake Muskoka, they seem placed in an ideal spot.

For statistical purposes patients are classified on admission as incipient, advanced, or far advanced, according to extent and character of the lesion; on discharge, as apparently cured, disease arrested, much improved, unimproved (stationary and failed).

The following charts, with a short explanatory text, show graphically the results of treatment. The results are not what *may* be accomplished, but what *has been* accomplished. A large proportion of patients, when their disease is well under arrest, wish to leave, to carry out the out-of-door life at home, and when feeling perfectly well, though cough is still present, this is quite natural, considering the long time necessary in the average case to secure apparent cure. Many of those classified with disease

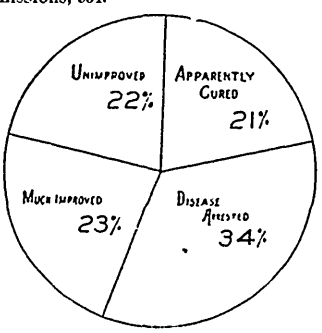
arrested would go on to apparent cure did they remain a sufficient length of time.

Muskoka Cottage Sanatorium—102 cases discharged, October 1st, 1901 to September 30th, 1902. Results in each class.



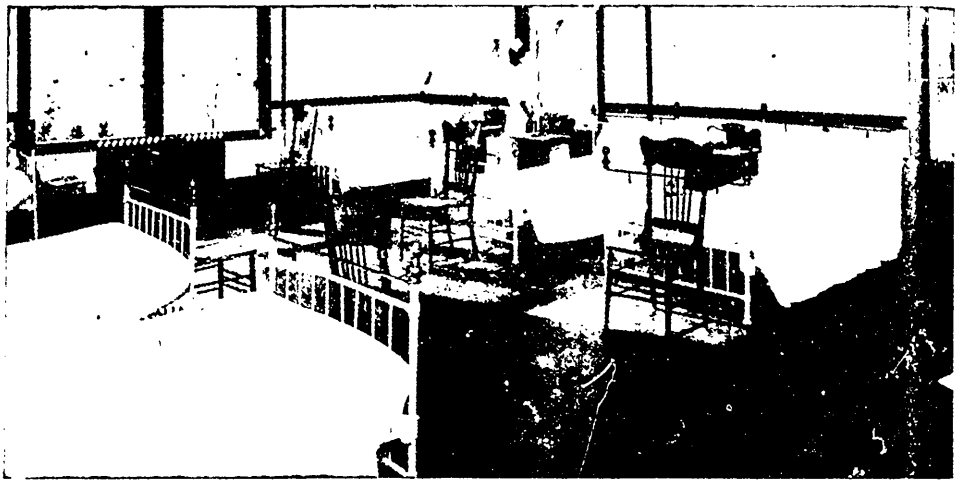
The earlier the treatment of the consumptive is begun, the greater are the chances of recovery. Of thirty-three incipient or early cases, twenty-two, or 67 per cent., were apparently cured; nine, or 27 per cent., had their disease arrested; one was much improved, and only one failed to improve. Compare this with the forty-five advanced cases. Of these only six, or 13 per cent., were apparently cured, while of the far advanced in consumption none were cured, but two-thirds made great improvement under treatment.

Muskoka Cottage Sanatorium—Aggregate results of 7 years of all classes admitted. (In percentages.) Total admissions, 931.



Many of these were advanced and far advanced cases, as follows:

Incipient	Advanced	Far Advanced
29%	42%	29%



ONE OF THE BRIGHT, CHEERY WARDS OF THE MUSKOKA FREE HOSPITAL FOR CONSUMPTIVES.

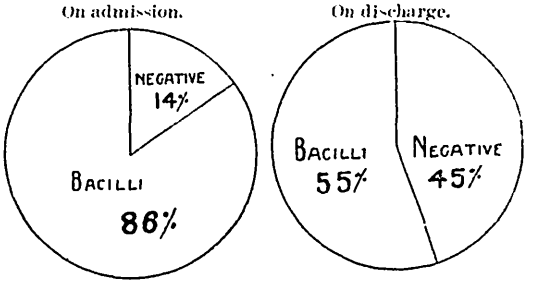
INTERIOR VIEW ROOFED TENTS, MUSKOKA COTTAGE SANATORIUM.

Average days' stay, 138. Average gain in weight, twelve pounds.

In seven years (1897-1904) 931 patients were under treatment. The results of treatment are shown in the above chart. Note the average gain in weight of twelve pounds, with an average stay of a little over four months.

Many patients gain from twenty to twenty-five pounds, and a number each year gain thirty-five to forty-five pounds. One patient gained seventy-three pounds in a stay of ten months.

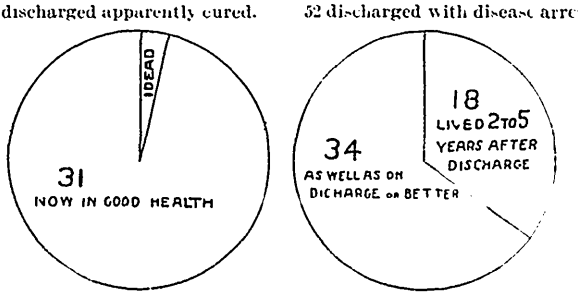
Muskoka Cottage Sanatorium—Effect of treatment as to the presence or absence of Bacilli in patients remaining over three months.



No patients are accepted for treatment other than those suffering with tuberculosis. In doubtful cases close observation is made, and if necessary the tuberculin test applied. 86 per cent. of all those admitted have tubercle bacilli in their sputum, as indicated in the above chart, while at time of discharge, of those treated over three months, 55 per cent. have bacilli, *i.e.*, 31 per cent. of those treated lose the bacilli from their sputum, or forty-five per cent. of those admitted, showing bacilli, lose them under treatment.

Muskoka Cottage Sanatorium—Present condition of patients discharged 1 to 6 years ago. (September, 1897 to September, 1899 inclusive.) Average 5 years.

32 discharged apparently cured. 52 discharged with disease arrested.



The question is constantly asked, Is a patient ever really cured? Is he not usually as bad as ever after his return to his home or to work? Patients whose disease is arrested or who are improved may relapse, but if apparently cured and living under proper conditions of life there is little chance of subsequent illness. The above chart shows that of thirty-two patients dis-

charged, apparently cured, in 1898 and 1899, thirty-one were in good health after the lapse of five years. The cured patients are living and working in all parts of Canada and the United States.

In the following table is shown the mortality in Ontario from consumption since 1897, the year in which such statistics were first available. In corresponding columns the growth of the Association work is noted. There can be no doubt but that the lowered death rate is due, to a great extent, to the wide-spread influence of the sanatorium work, and the fact that these 1,500 patients have gone back to their homes full of the knowledge of the causation and prevention of the disease.

ADMINISTRATION BUILDING, MUSKOKA FREE HOSPITAL FOR CONSUMPTIVES.

It is to be noted that at the time the Association was beginning its work the death rate from tuberculosis was steadily increasing.

Year	Deaths from Tuberculosis	Deaths per 1,000 population living	
1896	None available		National Sanitarium Association formed.
1897	3,154	1.4	Muskoka Cottage Sanatorium opened, 35 beds.
1898	3,291	1.5	Beds increased to 50. 156 patients treated to date.
1899	3,405	1.5	310 patients treated to date.
1900	3,484	1.6	443 patients treated to date.
1901	3,243	1.4	Beds increased to 60. 723 patients treated to date.
1902	2,694	1.2	Free Hospital for Consumptives opened with 75 beds. 938 patients treated to date.
1903	2,722	1.2	M.C.S. beds increased to 70. 1,262 patients treated to date.
1904			1,587 patients treated to date.

For the care of the consumptive poor in the far advanced stages there has been recently opened the Toronto Free Hospital for Consumptive Poor, near Weston, with forty beds. This, with the work of the National Sanitarium Association at Gravenhurst, provides 185 beds for consumptives in Ontario, 115 of which are for the poor, or those able to pay only a small sum towards their maintenance.

A CASE OF MULTIPLE SEBACEOUS CYSTS.

BY ALEXANDER McPHEDRAN, M.B., TORONTO.

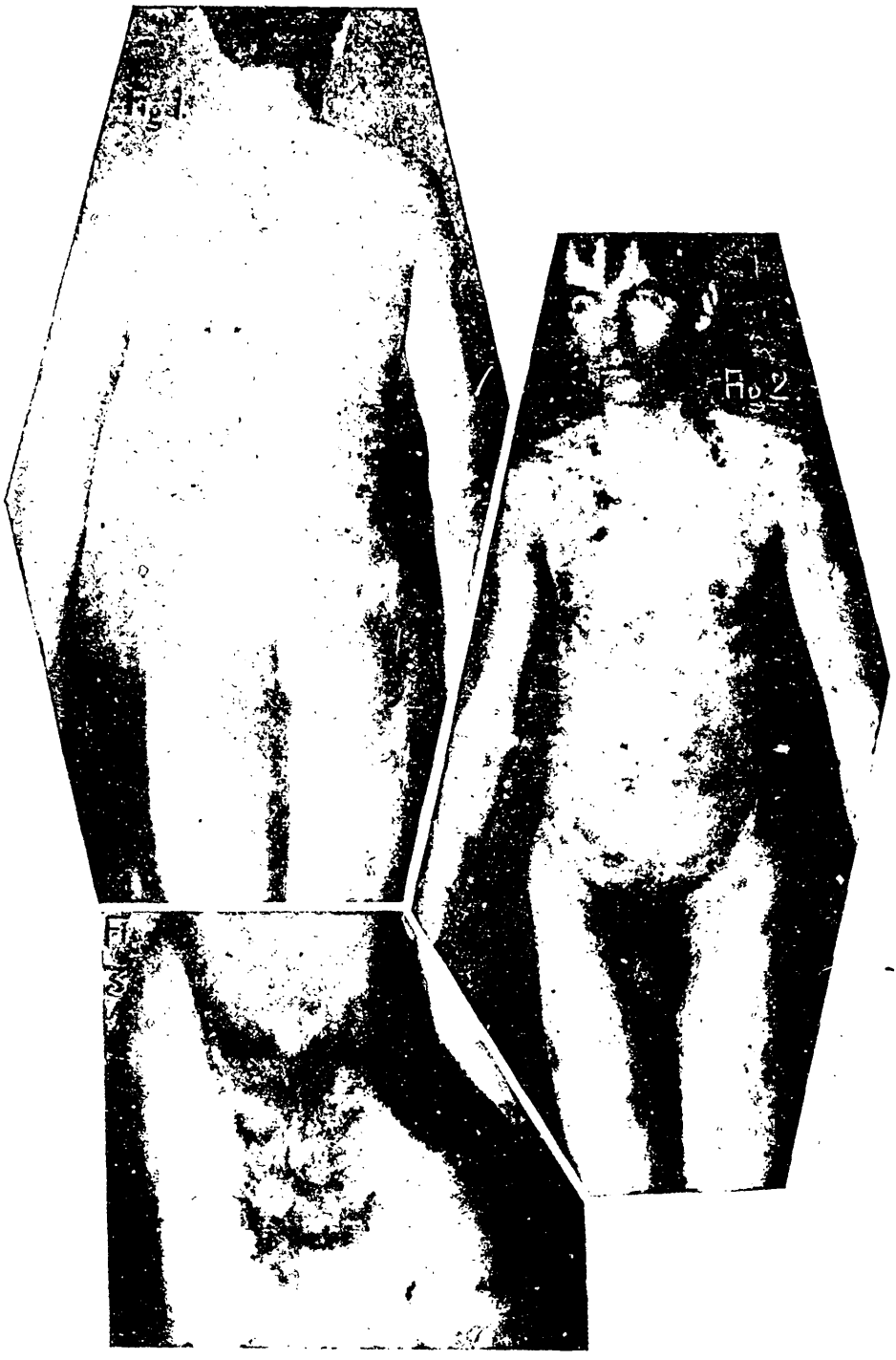
THE following case presented such a vast number of sebaceous cysts that it is an extremely rare, if not an unprecedented, one. There are a few cases on record in which there were from 132 to 250 tumors present.* and Chiari reports one in which several hundreds were scattered over the general surface.†

The number of cysts in the following case probably far exceeds even that of Chiari's:

A. D., aged twenty-five, a healthy man without anything of moment in either his family or personal history. His skin affection was first noticed during adolescence, no attention, however, being paid to it for some years. It developed gradually and attracted attention through the occurrence of acne and the formation of large pustules, which occurred with increasing frequency. The illustrations show the wide distribution of the lesions, but convey a very inadequate idea of their number, as the great majority of them were too small to show in the photograph, or even to be noticeable to the eye. They could be felt as nodules beneath the skin, varying in size, the smallest being barely palpable, and the largest fully two centimetres in diameter. On the body they were so numerous and closely set that the point of the finger could scarcely be placed on the trunk without touching one or more. Over the larger ones the skin was usually closely adherent, to some only loosely. The small nodules were, as a rule, deeply placed and only attached to the superjacent skin by an ill-defined strand of fibrous tissue, doubtless the obliterated duct. The contents of the smaller and of many of the large nodules consisted of thick, sebaceous material that exuded in a white, ribbon-like form through the linear puncture made with a bistoury. In some of the larger nodules the contents were partly sebaceous and partly a yellow oil; in a few they consisted wholly of oil. None of the cysts were pedunculated, but as they grew large, one here and there of the older ones became inflamed. The exudate into the periphery soon became purulent, and in a short time destroyed the capsule of the cyst, converting the whole into a bleb of pus in which the sebaceous contents became liquefied. The wall of the bleb usually sloughed, leaving a large, ulcerated surface, which healed with a broad, deep scar.

* Jamieson, *Edinburgh Med. Journal*, Sept., 1875, p. 223. Maclaren, *Edinburgh Med.-Chir. Soc'y Trans.*, 1888, p. 77. Politzer, *Jour. Cutan. and G.-U. Diseases*, 1891, p. 281.

† Chiari, *Zeitschrift fur Heilkunde*, 1891, Vol. xii. p. 189.



—By permission of the *American Journal of Urology.*

As the cysts were so numerous, an attempt to dissect them out seemed futile, so each day a number of the larger cysts were freely incised, the contents pressed out, and, if possible, the cavity curetted, or swabbed out with carbolic acid. This was a painful process, and, consequently, only a few cysts could be treated at one time. In not a few the treatment was unsuccessful, and required to be repeated. At the same time the acne was vigorously treated, and the general surface thoroughly cleansed daily to lessen the liability to infection of the glands and cysts, and it was rubbed to stimulate the circulation so as to improve the nutrition of the skin.

After two months' stay in the hospital he left very much improved, but still with a great number of small cysts. Whether fresh cysts were forming is uncertain; many small ones grew large under observation, and some were allowed to suppurate in order to observe their natural course. The acne was greatly improved by the treatment, the comedones became much fewer and the skin much healthier in appearance. He has not been seen since. With the improvement in the general condition of the skin it is probable that the formation of new cysts would be much lessened, if not quite arrested. The number of cysts was so very great that a cure seemed almost hopeless; at least, it would require the utmost patience on the part of both physician and patient. Of course, much scarring will result. (Figs. 1, 2.)

The photographs, especially that of the back, show many sloughing cysts, a large one being at the upper end of the anal fissure. The axillary cysts are very large. (Fig. 3.)

ACUTE MENINGITIS.

BY W. T. COUNCILMAN, M.D., BOSTON.

By the term meningitis is understood inflammation of the pia arachnoid, the investing membrane of the brain and spinal cord. Considered as a single membrane, it consists of a serous surface (arachnoid) forming one side of the subdural space and beneath this a loose connective tissue, the pia mater, which carries the blood vessels for the brain and cord. The brain, covered by this membrane, projects into the subdural space as the heart projects into the pericardial cavity. In addition to the vessels, there are numerous lymphatics, which are situated in the adventitial sheaths of the veins and arteries and which are continued with these vessels into the brain. They are true lymphatic vessels with an endothelial lining; they are thin-walled, and, when distended, communicate freely with the tissue spaces. There are no lymphatics in the tissue of the brain itself, nor have lymph spaces, similar to the spaces in other tissues, been demonstrated. The adventitial lymphatics are not continued into the capillary walls. Between the capillaries and the walls of the channels in which they run there are spaces, easily distended, which are in relation with the closely-woven web of the nervous tissue, allowing a free interchange of fluid. Such fluid easily finds its way into the adventitial lymphatics. The relation, by means of blood vessels and lymphatics, between the nervous tissue and the investing membrane is so close that infectious processes in one extend into the other. Strictly speaking, all cases of meningitis deserve the term meningo-encephalitis. The lymphatics of the membrane communicate with the general lymphatic system of the body by means of the lymphatics along the nerves and great vessels.

The pia arachnoid, in the form of the choroid plexus, passes into the ventricles of the brain, and the intra-ventricular fluid finds its way into the interspaces of the membrane through the foramen of Magendie. The deep cervical lymph nodes belong to the membrane. The pia arachnoid contains the few connective tissue cells of the fibrous tissue, the cells of the blood and lymphatic vessels, and a variable number of lymphoid cells.

There are various ways by which infectious agents can gain access to this tissue. They may enter it by means of the blood or by the extension of infectious processes from adjacent regions. The

extension may be direct or by means of lymphatics which communicate with those of the membrane.

All inflammatory processes in the pia arachnoid, however produced, agree more or less in their anatomic features. There are, however, certain minor differences in anatomic lesions which are sufficient to differentiate certain forms of meningitis from others In certain cases these differences are more accentuated than they are in others. The same character of exudation may be produced by the diplococcus intracellularis meningitidis, by the pneumococcus, and by the streptococcus. Even cases of tuberculous meningitis may be found in which there may be a fibrino-purulent exudation without the presence of tubercles. The differences lie mainly in the extent and character of the involvement of the brain, and in the degree to which the intima of the veins and arteries is affected. It would be possible anatomically to distinguish cases of acute epidemic cerebrospinal meningitis from other forms, but the differentiation could not be carried further. All cases of meningitis are cerebrospinal, the meninges of the cord being affected as well as those of the brain. In certain forms, the cord lesions are more marked.

Acute meningitis may be produced by a number of bacteria, but chiefly by those belonging to the pyogenic organisms. The three organisms most generally concerned are the diplococcus intracellularis meningitidis, pneumococcus, and the streptococcus. Of these, the first named deserves the most attention in that it is the cause of the epidemic form of the disease. This organism was first described by Weichselbaum, in 1887, as a specific micrococcus resembling the gonococcus. He found it in six cases of acute cerebrospinal meningitis. The work was confirmed by several investigators, and in 1895, Jager found it in a small epidemic which prevailed in the garrison at Stuttgart. To Jager belongs the credit of first recognizing this organism as the cause of epidemic cerebrospinal meningitis. The description which Jager gave of the organism differs in minor details from that given by Weichselbaum. Weichselbaum has never regarded it as the sole cause of epidemic meningitis but considers that epidemics also may be caused by the pneumococcus. In the very considerable epidemic which prevailed in Massachusetts in 1897, and which was reported by Councilman, Mallory and Wright, this diplococcus was established as the only cause. It was found in thirty-one of the thirty-five cases which came to autopsy. Lumbar puncture was performed in fifty-five cases, and in thirty-eight of these the same organism was found. It was present in all of the acute cases, but rarely in those which ran a more chronic course. Thus, in lumbar puncture, the average duration from the onset of disease until the puncture was seven days in the cases in which the organism was found, and seventeen days in the negative cases.

The organism is one which is cultivated with difficulty. Morphologically, the organisms appear as diplococci occurring as paired

hemispheres, separated by well-marked, unstained intervals, and showing in cultures considerable variations in size. There is a tendency to grouping in fours, or tetrads. In cover-glass preparations from the meningeal exudate, the diplococcus is frequently situated inside leucocytes and sometimes within the nucleus. The appearance is very much like that of gonorrheal pus. The organism is discolorized by the Gram method of staining; in cultures it grows best on blood serum. The colonies are round, colorless, slightly convex or flat, moist and viscid-looking; they may become confluent. The organism has feeble vitality and dies out quickly under cultivation. It has a weak pathogenesis for laboratory animals. The cultures vary in virulence in certain cases, 1 c.c. of a bouillon suspension of a twenty-four-hour blood serum collected and injected intraperitoneally in a guinea-pig will kill the animal in forty-eight hours.*

This type of meningitis is constantly present; it exists in the form of epidemics, which are repeated with some regularity. The disease has peculiar interest in Massachusetts from the fact that it was first described here by Danielsen and Mann, in 1806. There have been four epidemics in the State, each of which has been made the subject of a special report. These epidemics occurred in 1809, 1864, 1874 and 1897. There is a great difference in the morbidity and mortality of the disease in the different epidemics; Hirsch places the mortality at from 20 to 75 per cent. In the last epidemic, in Boston, the mortality was 65 per cent.; the epidemics are usually of short duration. Between the epidemics, sporadic cases appear, which may be more numerous in some years than in others. Before careful bacteriologic examinations rendered the recognition of the disease certain, the character of the infection in sporadic cases was determined by the clinical history, with or without the reports of autopsies. The disease is sufficiently characteristic to make this method approximately correct. In 1897, from the clinical reports, in some cases with autopsies, it seemed probable that here and in Europe sporadic cases were common. The main clinical features distinguishing sporadic cases of epidemic cerebrospinal meningitis from other forms of meningitis were the low mortality (in twenty-four cases from the clinic of Professor Bauer, reported in 1890, there were eight deaths, and in seventeen cases reported from Ziemssen's clinic at the same time there were three deaths), its appearance as a primary affection, and the frequency with which it is followed by secondary affections of the eye and ear.

Since our study of the disease in 1897 there have been numerous reports of sporadic cases, in which careful bacteriologic study of the exudation have determined in the presence of the diplococcus intracellularis meningitidis, and have confirmed the conclusions which we reached in 1897 of the frequency of sporadic cases. Since 1898 there have been sixty-one autopsies on meningitis at the Boston City and Massachusetts General Hospitals, with bacterio-

* Mallory and Wright: Pathological Technic, 1901.

logic study of the exudation. In thirteen of these the diplococcus intracellularis meningitidis was found in culture. In addition to these there were eight cases which were considered due to the same cause but in which the organism was not obtained in cultures. Of these five were chronic, with organization of exudation, the organism having evidently died out, and in three the cultures were negative from unknown causes. All of these were primary and did not differ from the type of disease which we had studied in the epidemic in 1897. The absence of bacteria in carefully made cultures of the exudation in acute primary meningitis speaks in favor of this type, for the diplococcus is rather difficult to cultivate, of feeble vitality and can easily die out.

These statistics give no idea of the frequency of the disease. We know that cases do recover, for there are numerous reports of recovery of cases in which the diplococcus has been found in the fluid from spinal puncture. There is great need of more accurate statistics on this subject, and these are to be obtained by careful bacteriologic examination of fluid derived from spinal puncture, in large number of cases, including those in which the disease may only be suspected.

Examination of the health statistics in Massachusetts shows a gradual decline in the number of deaths from epidemic cerebrospinal meningitis from 1897 to 1902. In 1897, which was the chief year of the epidemic, there were 355 cases. The deaths were most numerous in April, May and June, which are the months in which the epidemics are most fatal. In 1898 there were 259 cases, the epidemic influence being slightly shown by ninety-one cases in the same months. In 1899 there were 240 cases; in 1900, 165; in 1901, 176, and in 1902, 164 cases. These cases were scattered over the State without occurring in sufficient numbers in any one place to constitute an epidemic. There is no way of positively determining whether or not they were due to the diplococcus intracellularis. In the Massachusetts reports, other forms of meningitis were placed under the head of cephalitis until 1901, when the term "other forms of meningitis" was used. In 1900 there were 1,205 cases of cerebritis; in 1901, 1,168 cases of other forms of meningitis, and in 1902, 1,200 cases. The cases described as cerebrospinal meningitis are the primary cases, the secondary cases coming under other forms. It is, of course, difficult to determine, without an autopsy account, whether meningitis is or is not primary. All my experience leads me to the belief that, with rare exceptions, cases of primary meningitis are due to the diplococcus intracellularis. In the thirty-five autopsies made in 1897, all the cases were primary, and the twenty-one found since were also primary. In the remaining forty of the fifty-eight cases only two, in one of which the pneumococcus was found and in one the streptococcus, were regarded as primary. It can be concluded, both from autopsy evidence and from statistics, that sporadic cases of meningitis due to diplococcus intracellularis are of frequent occurrence, but we have no way of determining how

frequent the disease is. Autopsy experience shows that the disease is more frequently not diagnosed when present than the reverse. We have no means of estimating the mortality of meningitis due to the pneumococcus or streptococcus; these cases are usually secondary, and the mortality in secondary meningitis is much higher than in the primary form. Up to 1898 we could not find a case in which the culture of fluid from spinal puncture showed pneumococci or streptococci in which recovery took place. Since 1898 there have been, at the Boston City Hospital, four lumbar punctures in which the pneumococcus was found and three in which the streptococcus was found, all of which cases resulted fatally. To a certain extent we can judge of the frequency of the disease by evidences at autopsies preceding inflammation of the pia arachnoid, shown by thickening due to connective tissue increase and by lymphocyte infiltration with a corresponding increase in the glia of the cortex, and glia thickening and granulations on the surface of the ventricles. This condition, which is not uncommon, can be the result of a preceding acute infection, but certainly not all cases are the result of this.

The presence of these sporadic cases is of importance in the occurrence of epidemics. The diplococcus intracellularis is an organism of feeble vitality; it dies out easily on exposure to drying and light and is incapable of a saprophytic existence. In the absence of intervening infections, it would be impossible for the period of epidemics to be bridged over. Not only this, but there is evidence that this organism can produce other infections and may even live as an inhabitant on the normal mucous membrane. There have been a great many cases reported of the presence of the diplococcus intracellularis meningitidis in the nose. In most of these the diagnosis was made on morphologic grounds, and such cases should be thrown out, owing to the probability that the organism was confounded with the micrococcus catarrhalis, which it resembles in morphology and in staining reaction. The differential diagnosis can only be made in cultures. In fifteen cases of meningitis examined in the Boston epidemic, diplococci decolorized by Gram were found in ten. In twelve cases, chosen at random, similar diplococci were found in two. Attempts were made to cultivate the organisms, but not successfully.

Lord has examined the bacteria of the nose in twenty-one cases. In the nose of a physician who had been in daily attendance in the throat room and who had a severe rhinitis with congestion of the mucous membrane and profuse muco-purulent discharge, he found diplococci which all tests showed to be the meningitidis. In reviewing the literature, Lord accepts but three cases, making, with his own, four, in which the diplococcus intracellularis has certainly been found in the nose. Some of these cases are of considerable interest. Kiefer, after experimenting for some days with the cultivation of the organism with the view of

comparing it with the gonococcus, suddenly acquired a severe purulent rhinitis, with headache, nervousness and an uncomfortable sense of contraction of the neck. The temperature remained normal. Examination of the nasal pus by cultures demonstrated the presence of the diplococcus intracellularis, along with other bacteria: the rhinitis lasted fourteen days. In this case it seemed probable that there was a primary infection of the nose, with a slight meningitis, resulting from extension of the infection through the lymphatics into the meninges. The case lacks the proof which spinal puncture should have given, both of the meningitis and of the character of the meningeal infection, if present. There can be no doubt that extension may take place from the meninges into the nose, just as it does into the ears and eyes. Rhinitis is not an uncommon condition in acute meningitis, and Albrecht and Ghon found the diplococcus intracellularis by culture from the nose in one of their cases of acute meningitis. The evidence which we have justifies us in the conclusion that there is a form of meningitis produced by the diplococcus intracellularis meningitidis, that the epidemics of acute meningitis are due to this organism, that sporadic cases are not infrequent, that, with rare exceptions, primary cases of meningitis are due to this organism; that recovery takes place much more frequently in this type of disease than when infection is due either to the pneumococcus or the streptococcus, that the disease is more common than is generally supposed, that the organism does not live as a saprophyte outside the body, that the organism may be found on the mucous membrane of the nose, where it may produce a rhinitis, and that it is probable that infection of the meninges takes place by extension from some of the adjacent mucous membranes by means of the lymphatics. We can only explain the epidemics of the disease by the assumption that at certain times the power of infection is increased either by an increase in the virulence of the diplococcus or by a decrease in the resistance of the tissues. The study of the influenza bacillus in the past years has shown much the same condition. The organism is constantly present, and not only are sporadic infections produced by it frequent, but the bacillus may live as a harmless inhabitant of a mucous surface. The causes underlying the occurrence of epidemics are unknown, and even atmospheric conditions can not be excluded. With regard to the pneumococcus, we know that the organism is associated with acute croupous pneumonia, but we do not know the underlying conditions which enable the pneumococcus to produce this disease.

Of the sixty-one cases of sporadic meningitis seen since 1897, eighteen were found to be due to the pneumococcus. Weichselbaum regards this organism as one of the most frequent excitors of both primary and secondary meningitis, and both he and Netter believe that meningitis due to pneumococcus may appear in epidemic form. In the report on meningitis in 1898, ten cases were found to be due to the pneumococcus, and in two of these

the infection was primary, no other lesions due to the organism having been found. In but one of the recent cases was the infection primary in the meninges, and even here the accompaniment of an acute nephritis suggests a preceding acute infection. In six cases the infection was secondary to otitis media and mastoiditis: in one case it was secondary to an infection of a tumor of the sphenoid; in one case it was associated with the streptococcus, secondary to fracture of skull and operation; in one case it was secondary to abscess of the prostate; in one case it was secondary to acute infection of ethmoid, "the pores of right cribiform plate contain fibrinous pus in continuity with exudation about right olfactory lobe," in two cases it was secondary to acute croupous pneumonia, in four cases it was secondary to acute bronchopneumonia and pleurisy, and in two cases it was secondary to acute pneumococcus endocarditis.

In but few of these cases did the infection appear to be embolic; in most cases the extension to the meninges was by continuity or by the lymphatics. In its general pathogenic properties, the pneumococcus attacks tissues from mucous surfaces and extends in the body by surfaces. I believe, that the frequency of pneumococcus meningitis is greatly overestimated, and especially its frequency secondary to pneumonia.

Vital statistics with regard to the occurrence of disease are not worth much, owing to errors in diagnosis. The deaths from meningitis and pneumonia in Massachusetts have been taken during a period of five years in order to cover slight inequalities in different years, commencing in 1898, the year following the epidemic of cerebro-spinal meningitis. If there is any marked relation between meningitis and pneumonia it should be shown in the inter-occurrence of the diseases. The greatest number of deaths from what are described as other forms of meningitis occur in August, when the mortality from pneumonia is lowest. It is very possible that the high number of cases in March, April and May is due to confusion of these cases with primary meningitis due to the diplococcus intracellularis, for these months show the highest mortality in epidemics and in sporadic cases due to this organism.

There were eighteen cases of streptococcus infection, and in one the infection was primary. In seven cases it was secondary to fracture or operation wound of the skull; in eight cases it was secondary to otitis media and mastoiditis, in one case it was secondary to acute streptococcus endocarditis, and in one it was secondary to acute bronchopneumonia and acute cystitis. We see from this analysis that, in the two hospitals mentioned, fatal sporadic cases of meningitis are equally divided between the three organisms which are to be regarded as the main etiologic factors. Of the remaining four cases, two were produced by the staphylococcus pyogenes aureus, one was secondary to trauma with following operation, and one was secondary to empyema. In two cases

the nature of the infection was not determined. In one of the cases reported in 1898 the meningitis was produced by the anthrax bacillus and was secondary to a primary lesion on the face. We have never had any cases due to the typhoid bacilli.

The pathologic process in meningitis due to the diplococcus intracellularis consists in inflammation, with purulent, sero-purulent and fibrino-purulent exudation. The most marked lesions are found at the base of the brain, extending from the optic commissure backward over the cura, the pons and medulla. On the convexity of the brain the exudation is usually most intense on the lateral surface, little or none being found in the meninges of the longitudinal fissure. The meninges of the cerebellum are always involved and often the greatest mass of the exudation is found on the upper surface of this structure. In the most acute cases, those dying a few days after the onset, there may be a little more than intense hyperemia of the vessels of the meninges and cortex. In the more advanced cases, dying from five to twelve days after the onset, the amount of exudation is much greater and has a tough, rather gelatinous character. In the chronic cases, in which death has occurred in from fifteen to thirty days from the onset, there is edema and general thickening of the meninges, which is most marked at those localities where the acute process is most evident. In one case, the duration of which was apparently over thirty days, the entire medulla was embedded in a dense mass of connective tissue. In the cord the exudation is most marked along the posterior surface and may be found here in large amount, while the anterior surface may show only cloudiness and injection. There is usually more exudation along the dorsal and lumbar cord than along the cervical.

In eight of thirty-five cases on which autopsies were made in the epidemic studies, there were definite microscopic lesions in the brain, consisting of hemorrhages in the white matter. No abscesses were found. The cranial nerves were affected to a greater or less degree in all cases. Those most affected were the second, fifth, seventh and eighth. They were embedded in the exudation which extended along them, and on section they were found to be swollen and reddened. The gasserian ganglia were examined in a number of cases, and in all they were found swollen and softened. The spinal nerves were also affected; the nerve roots were embedded in the exudation and the spinal ganglia were red and swollen. The exudation was also found around the nerves of the cauda equina.

Microscopically, the exudation in the most acute cases was purulent and the leucocytes were exclusively polynuclear. The absence of eosinophile cells was remarkable. In more advanced cases the number of cells in the exudation was greater and the fibrin was abundant. As the process advanced, large, endothelial, phagocytic cells became increasingly numerous, and in some cases made up a large part of the exudation. They often contained from

one to several polynuclear leucocytes enclosed in vacuoles and showing varying degrees of disintegration.

In the chronic cases the exudation was mainly represented by degenerated pus cells. In these chronic cases there were also numbers of plasma and lymphoid cells.

Microscopically, lesions of the tissue of the brain and cord were absent in but few cases. They were most evident in those cases in which from five to ten days elapsed from the onset of the disease until death. The blood vessels of the convexity were injected. The cortex appeared redder and the tissue edematous. In places there was circumscribed infiltration of the tissue with pus cells, which extended downward from the infiltration in the meninges. This infiltration was usually most marked in the outermost layer of the cortex above the ganglion cells, but in some places it extended among the ganglion cells and even into the white matter. Single pus cells were often found in the brain tissue, apparently remote from the areas of infiltration. In two cases extensive softening, with purulent infiltration and hemorrhage, was found in the cortex of the cerebellum. These pus cells in the brain were irregularly distributed in the tissue, and were found both in places which appeared to be altered by infiltration of edematous fluid and in those in which the intracellular material seemed to be normal. The pus cells in the tissue were often distorted in shape, sometimes extending in long lines, the shapes resembling those seen in pus cells wandering in the tissue of the cornea. Their situation and shape did not seem to indicate the existence of preformed spaces. They were but rarely found around the ganglion cells.

In certain areas in the cortex, particularly about the vessels, large numbers of large endothelial cells resembling those in the meninges were often found. They were apparently formed by proliferation of the cells in the adventitial tissue. They extended often for some distance in the tissue around the vessels where this showed evidence of disintegration, but they seemed to have little or no power of wandering into tissue which was comparatively normal. The presence of these cells is important in relation to the neuroglia cells. Proliferative changes in the neuroglia were constantly present. In the chronic cases there was a distinct increase in neuroglia fibrils, together with increase of cells, which was chiefly marked in the tissue of the ventricles and in the outermost layer of the cortex. In several of the more acute cases numerous nuclear figures were found in the cells of the neuroglia. These were particularly marked in one case. The proliferating neuroglia cells somewhat resemble the large endothelial cells. There is an increase of nucleus with the formation of evident protoplasm about it. The nuclear figures are well marked, showing spindles and centrosomes. Often large cells with several nuclei result from such proliferation. In one specimen in which this was most marked, nuclear figures were also found in the so-called Trabant cells adjoining the ganglion cells.

Analogy with other tissues would indicate that such changes in the intercellular tissue consisting of proliferation of fixed tissue elements and exudation of leucocytes would be accompanied by degeneration of the specific cells of the tissue, namely, the ganglion cells. The most evident changes in the ganglion cells were found in those places where disintegration of the tissue was best marked, and consisted in disintegration of the cell protoplasm. It is difficult to distinguish such conditions from artefacts. Degeneration of nerve cells is not of the same character as degeneration of parenchymatous cells in other organs. The state of our knowledge with regard to structure of ganglion cells and arrangement of granules is not sufficiently definite to enable us to determine with certainty their degenerations.

The most marked changes in the nerves were found in the second, fifth and eighth; the lesions of the nerves represent an extension of the inflammatory process from the meninges.

The dural covering of the optic nerve in the orbit showed little change save dilatation of vessels. The subdural space was dilated and the exudation was found in the pia arachnoid of the nerve. From the meninges the infiltration extended more or less into the nerve itself. In both the optic and olfactory nerves, proliferation of the neuroglia cells was shown similar to that in the brain. The exudation may extend along the optic nerve into the eye.

In acute cases, section of the eighth nerve showed it embedded in a mass of pus, its sheaths softened, broken up and in places entirely gone. The nerve was infiltrated with numbers of pus cells, partly in the form of lines running through it, partly in a more diffuse infiltration. The seventh nerve often showed as great a degree of infiltration as the eighth. Longitudinal section of the fifth nerve extending into the gasserian ganglion showed intense neuritis in the nerve on the cerebral side of the ganglion. Similar changes of the nerve roots and ganglion of the spinal cord were found in all cases which were examined. In some of the more chronic cases, lesions of the nerve roots of the spinal cord were more marked than in the acute cases

In the chronic cases there was marked thickening of the meninges due to connective tissue formation and a marked increase of the neuroglia of the cortex. There was little evident exudation, circumscribed yellowish foci marking the remains of it. The meninges at the base were opaque, and were enormously thickened, and there were bands of organized tissue extending from point to point. In one of the most chronic cases, in which the duration of the disease could not be ascertained with any accuracy, owing to the mental condition of the patient when brought into the hospital, the meningeal changes simulated general paralysis. The only evidence of exudation was in the ventricles, in which masses of partly organized fibrin were found adherent to the lining. In another case the entire medulla was so embedded in a dense mass of connective tissue that it was difficult to remove it. Chronic hydrocephalus is

not uncommon in such cases. It is due to closure of the foramen of Magendie by organization of the exudation about the cerebellum.

There is some difference in the character of the lesions due to pneumococcus and streptococcus, as compared with those due to the diplococcus intracellularis, but no difference between lesions due to the pneumococcus and streptococcus. Endovascular lesions, consisting in cellular infiltration behind the endothelium, were found in both arteries and veins in meningitis due to the pneumococcus and streptococcus. The endothelium was preserved and often formed festoons projecting into the lumen of the vessel, with the cell accumulations behind it. The endothelial cells were swollen, but otherwise unaltered. I do not believe that the large cells arise from proliferation of the endothelium, but they seem to reach their position by emigration from the interior of the vessel. In meningitis due to these organisms there is also less tendency to involvement of the tissue of the brain and cord, nor is the extension along the nerves so marked. The cases of these forms of meningitis have not been so numerous nor has their anatomic study been so thorough as in the cases due to intracellularis.—*Journal of the A. M. A.*

Chronic Myositis Rheumatica and Its Treatment by Massage.—G. Norstrom discusses this condition, which he says is not, as is generally believed, a rare disease, but is, on the contrary, one of the most frequent affections of the human body, though as it is seldom diagnosed, it is but little known. The principal features of the malady are inflammatory deposits in the substance of the muscle, which may vary greatly in size and may become as hard as cartilage, and pain, mostly resembling that of chronic rheumatism. The errors in diagnosis to which the condition may give rise are very numerous, and illustrative cases are described in which what had been considered to be rheumatism, renal calculus, growing pains, Bright's disease, torticollis, migraine, neuralgia, cystalgia, writer's cramp, sciatica, tarsalgia, etc., proved to be chronic myositis. The treatment consists in massage, more or less energetic, according to the consistency or age of the deposit. Great patience is necessary on the part of the patient and operator, as long standing cases in old people may require several months of energetic friction. In order to prevent relapses the treatment should be continued until palpable changes are completely removed, although in young people one may leave a small residue which by the treatment has been reduced to a soft condition, in the hope that nature will remove it. —*Medical Record,* March 11th, 1905.

Selections, Abstracts, Etc.

PHIL GILHOOLEY'S OPINION OF CHRISTIAN SCIENCE.

F'WAT is me openion of Christshun Scoience, is it? Bedad, its aisier to ax that kuistion than it is to anser it. Doorin the coors av me marred loife I have bin accoostemed to raloy, in sooch matthers, upon Mrs. Gilhooley's joodgment. Mrs. Gilhooley is a wummun of vhast bridth of intilliet, and has masthered all the secrets of asthrology and Spiritaalism, and moint-radin, and whin her coosin, woife of wan of the Word Bosses of Boston sint her an invite to vishit her, I tould her that I tought she ought to avale hirsilf av the opportunity av intercoorse wid the intellectooal and advanced society av that ceinter of thot and coolshure; wid the oondersthandin, howsomiver, that she was not to investigate the mystheries of Boodhism You see, I was in mortial dred that she wud becom imbood wid that ould raligen, and get to be a macatma, or mahatma, or f'wat iver it is called, and ind her days in pious contimplashun instid of moindin the childer. Well, whin Mrs. Gilhooley ratoorned to the bussum of her family I vintured to ax her the question vou have axed me.

Christshun Scoience, is it? says she. I ought to know all aboot it, for I had the priviledge of attindin at the Mother Church in Boston, an havin the trooth out av the new Bible, "Science and Health, wid Kay to the Schriptoors," wich Mother Eddy, as she is irreverently called by her disciples, declares is a new rivilashun, and which is red ivery Soonday in all the churches av the danominashun all over the wurruld.

The leadin docthrine, the foondamental foondashun of Christshun Scoince is the silf-ivident proposisshun that moind is ivirything and matther is nothin. Whin mortial moind occepts this trooth, she says, the wurruld will be reginerathed, and avil and sin, and disase will dishappear.

Hould on, says oi, do oi quoit conprehind the manin of this new revelashun? Moind is ivirything, matther is nothin. P'fat? is moind mate and close and f'wisky?

Bedad, thin we shud have a foine shupply av those useful materials, seein the vhast ixtint and profundity av yure moind, Mrs. Gilhooley. My! but it's a moighty consolin docthirne entirely— Oi f'ish oi had known this docthrin bafore, thin oi

f'wud have taken the wurruld asier, and not torminted meself about dollars and cints.

"Whist!" says oi. "Oi think oi hare one of the childer cryin."

"Yis," sis Mrs. Gilhooley, "it is little Teddy. The dare boy is onder the dalushun that he has a bile in his oxther.* Oi hav throid to convince him that he is misthaken, but widout succiss. "But," says oi, "has he a bile, Mrs. Gilhooley?"

Says she, "There is marely a big lump and rid swelling be in pain, for the new reivilashun, on page 46, says, 'You say a boil is painful, but that is impossible. The boil simply manifests your belief in pain, through inflammation and swelling, and you call this belief a boil. Now administer mentally to your patient a high attenuation of truth on this subject, and it will soon cure the boil.' It is a mare matther of belafe, you see, and oi have thried to insthill the blessed trooth into Teddy's moind, but still he howls."

"Phwat was it you administhered to Teddy, Mrs. Gilhooley?" says oi.

"A high attinuation av trooth," says she.

"What do you mane by a high attenuation?" says oi.

"Phy," says she, "that manes the very smallest, infinitesimal amount, and homeopathy informs us that the higher the attenuation the greater the power."

"Oh," says oi, "that is it, is it? And how do you administher it, Mrs. Gilhooley: wid a spoon intarnally, or like a poultice, ixtarnally?"

"Nayther," says she, "oi administhered it mintally."

"Oh," says oi, "how did you administher this hoigh attinuation av trooth into Teddy's moind? Did the bye take the rimidy?"

"Oi am afreid," says she, "thot he did not; if he had taken it the bile would have been cured."

"Well, well," says oi, "oi quoite agree wid you, Mrs. Gilhooley, that whin yure new Boible tills us that Teddy is not in pain, thot he only belaves he is in pain, that is the very highest attinuation of trooth mortial mind can consave. Whin the bye would not take the medicine, f'why didn't you hould his nose?"

Jist thin, f'wat wid the discrorrsin, and the salt hirrin oi had for dinner, oi began to feel dhry, and axed Mrs. Gilhooley had she airy a dhrop of butthermilk to wit me f'whistle wid.

"Me dear Phil," says she, "thot is another of the mortial delushuns the wurruld is throubled wid. Listen to the new revelashun, page 384: 'You say, or think, because you have partaken of salt fish, that you must be thirsty, and you are thirsty

*Arm-pit.

accordingly; while the opposite belief would produce the opposite result.' "

"Maybe," says oi, "but in moi presint deluded condishun, the mane difficoolty oi foind is to convince meself av the opposite belafe. I throid wanse, f'whin I was carryin the hod, and had nothin to ate for lonch but a bit of bread, to convince meself that I had some chase. Oi broke the bread in two, and says to meself, this pace is bread, that pace is chase, but, begorra, oi found that whin oi came to ate the chase, altho oi cud make me oies belave it was chase, oi cuddent make me mough. Oi am afraid, Mrs. Gilhooley, it will be such a long toime bafore oi can convince meself that oi am not thirsty, oi will have to thrubble you to get me some butthermilk at wanse."

F'win oi was ragalin me moind, or me stummac, oi dunno f'which, f'wat's the odds, says oi to meself, oi bagun to think it was toime to ate, too, so says oi, "oi fale somef'wat fattigood, Mrs. Gilhooley, wud you have the kindness to give me somethin to ate?"

"Aate," says she, "oh, the ignerance of mortial man. Rivallashun taches us, page 113, 'Fatigue is an illusion of physical weakness; control your mind, and so destroy this illusion. Mortal mind first made that weariness.' "

Faix, by this toime oi bagun to get fattygood in my moind as well as in me mortial body, and oi am afreered oi sphoke rather crossly to me intillictool parthner. "Well, well," says oi, "maybe it is me moind, indade, oi know me moind is wary now, f'wat's the odds f'wich it is, let us have some food to refresh us—moind and body, or aither, just as it plases you."

Mrs. Gilhooley was very patient wid me, as becomes such a shuperior wumman to an ignorant man, so all she says is to rade again from her Bible, page 118:

"Food neither strengthens nor weakens the body, but mortal mind declares that proper food supplies nourishment and strength to the human system."

"Well, well," says oi, "ravaled ralegiun, as taught by Chrishun Scoince, may daclare that food does not streengthen the body, but moi mortial moind daclares it does, so plase let us have somethin to ate."

Jist thin, as oi rose frum me sate, a pane sthruck me in the shmall iv me back, as if oi had a stroke from Tim Doolan's shellelala, and oi gave out iv me a howl enough to froighten the childer.

"Oh, Phil," says me woife, "f'wat's the matther?"

"Oh, Biddy," says oi, "oi'm kilt entirely—the lumbago has got me in me back—worra-worra—oi can't move."

F'wat do you think Biddy anshwered me, p. 47: "Your mortal mind makes its own pain."

"Thin," says oi, "your religun tells me that oi haven't got a pain—oh, worra, there it is agen, in me back—does it?"

"Yes," says she, "all pain is in the moind."

"Indade, thin," says oi, "oi didn't know thot me moind was in me back, but it must be, if the pane is in me moind, for, as sure as eggs is eggs, ivery toime oi move, oi have a diabolical pain in the shmall av me back, as if oi was sthruck with the bar of the dure. Ouch, there it is again. Biddy, darlint, hand me down me dhudeen from aff the mantel, and now, darlint, a match."

Jist as oi shruck off the match, didn't some of the brimstone, badd cess to it, fly off and lite on me finger. Oi gave a joomp, and that makes the lumbago attac me again, and batwane the two oi howled louder and louder.

"F'wat's the matther now?" says Biddy.

"Oi've burrnt me finger," says oi, "besides thot torturin lumbago in me moind."

For me ralafe f'wat did the dare creashur do but turn to her Boible again and read (p. 54): "You say, I have burned my finger. This is an exact statement, more exact than you suppose; for mortal mind, and not matter, burns it."

"Oi suppose, oi dunno, thot oi was properly rebuked for sayin thot oi had burned moi finger, whin it was the burnin brimstane that did it; but begob, oi was nonplushed. Pain is in me moind, and me moind is in me back. Me moind is thirsty, not me stummac. Me body was not fattygued whin oi had been carryin the hod all day. Teddy is cryin for nothin—food doesn't strengthen me body—me body is an illushun. Oi give it up, says io, it is quoite beyant me comprehenshun."

"Well it moight be," says she, "for does not Mother Eddy tell us to ixpict unbelavers loike you 'who do not ondersthand its ('Science and Health') proposishuns well enough to pass judgment upon them.'"

"Well, Biddy," says oi, "there is wan consolin fact, ivery thing matarial may be an illushun, but f'whisky is rale, for f'whisky is spirit, and so oi will have a toombler of poonch to comfort me moind, f'which is disthracted, what wid the lumbago in me moind and Teddy's cryin wid the bile in his oxther, and the tachin of the new rivillashun."—*Jas. H. Richardson, M.D., Toronto.*

THE POSITION OF THE KIDNEY AFTER NEPHROPEXY.

BY AUGUSTIN H. GOELET, M.D.,

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RESTORATION of the prolapsed kidney to its normal position, the author believes, is essential to restore to normal action the kidney already crippled in consequence of the displacement, which interferes with its circulation and function. He does not share the belief of those who regard the abnormal mobility of the organ as the sole cause of the symptoms, but rather its abnormally low position.

If downward displacement of the kidney causes inflammation of the organ, as has been shown,* because of interference with its circulation and function, it is not reasonable to believe that fixation in an abnormally low position will effect any change in the condition so far as the kidney is concerned.

The prolapsed condition of the kidney seriously interferes with its circulation and function, and when fixation is made lower down than normal the same condition prevails, with this difference, that it is permanent, whereas before fixation the recumbent position of the subject permitted normal replacement with consequent relief for some part of every twenty-four hours, which is not possible after such fixation. An additional objection to fixation too low down, below the rib, is that compression of the kidney by the corset or clothing is permitted, and it cannot escape as before. Such compression is a constant source if irritation. Hence fixation of the kidney lower than normal leaves both patient and kidney in worse position than before.

The author takes this occasion to repeat the position he has maintained throughout, viz., that splitting or peeling of the fibrous capsule of the kidney is both unnecessary and unwise, because just as firm attachment can be secured without much mutilation, and restoration of the kidney to its normal position will reestablish normal action and the associated nephritis subsides, provided the operation is resorted to early, before permanent structural changes have taken place. In other words, he believes that any case of nephritis due to or associated with prolapse of the kidney that is curable by splitting or peeling off the fibrous capsule may likewise be cured by fixation alone, without depriving the kidney of its fibrous capsule, if the organ is restored to its normal position.

The kidney suspended by its partially detached fibrous cap-

**Medical Record*, December 20th. 1902.

sule by sutures securing it to the muscles exposed in the incision, must necessarily cause attachment of the kidney too low down.

The author believes his method* of inserting the sutures and bringing them out and tying them on the surface at the upper angle of the incision is the best way of securing the kidney in its normal position. He reports 184 consecutive nephropexies by this method without mortality and without a failure to secure permanent fixation with subsequent relief of symptoms.—Abstract of a paper read at the second annual meeting of the American Urological Association at Atlantic City, June 9th, 1904.

Large Tumor of Frontal Lobe.—Philip King Brown, San Francisco, and W. W. Keen, Philadelphia (*Journal A. M. A.*, March 11th), report a case of an immense tumor (angiosarcoma) of the frontal lobe. The symptoms were insidious, there was very little pain, but some mental impairment and later blindness. There was also disturbance of the olfactory sense, exophthalmos and other symptoms indicating localization. The operation involved a removal of bone for a circumference of 37 cm. in the left frontal region. The tumor extended back to the limits of the incision; it had eroded the posterior wall of the frontal sinus, the orbital plate and the two plates of the frontal bone, as far back as the posterior limit of the frontal. Notwithstanding the pressure on the nerves of the eye and its muscles and on the eye itself, a single dose of five grains of phenacetin controlled the only pain of any note from first to last.

The Limitations of the Value of Nitro-Glycerin as a Therapeutic Agent.—H. P. Loomis has tested the effect of this drug on arterial pressure in patients by means of the sphygmomanometer, and also in animals, and finds that high arterial pressure in man is not perceptibly affected by it nor is dilatation of the blood vessels apparent. Some of the conclusions reached are as follows: The usual dose of nitroglycerin of 1-100 grain is too small to produce any effect in pathological conditions; 1-50 grain is a minimum dose. It is a perfectly safe drug to use. Even in large and repeated doses the author has never seen any ill effects. Its effects are very transient, as shown by the experiments on the dogs, and the ordinary dose of 1-100 grain every four hours could not possibly have any effect on the arteries. Nitroglycerin is said to increase the quantity of urine in chronic Bright's disease, but after keeping accurate records of the daily amount of urine passed, the author was never able to satisfy himself that any increase seen was due to this drug. In conditions due to arterial spasms, so-called, such as angina pectoris, migraine, asthma.

nitroglycerin may be of benefit, in full doses often repeated, but not in arterial sclerosis where the arteries themselves are more or less changed.—*Medical Record,* March 18th, 1905.

Manuel Garcia: Teacher, Discoverer and Man.—J. E. Newcomb pays a graceful tribute to Manuel Garcia, the inventor of the laryngoscope, who celebrated the hundredth anniversary of his birth on March 17th. Descended from a Spanish family remarkable for its artistic achievements, Garcia reached eminence as a master of singing, and for his studies on the nature of the voice. In the course of these he hit upon the principle of the laryngoscopic mirror, and in 1855 presented to the Royal Society of London the memorable paper entitled "Observations on the Human Voice," in which his method was described. At first the importance of the discovery was not realized, but through the efforts of Czermak and Turck the value of Garcia's work was made manifest and the modern science of laryngology rendered possible.—*Medical Record,* March 25th, 1905.

Radiotherapy and Surgery, with a Plea for Preoperative Radiations.—W. J. Morton says that in the treatment of carcinoma the best interests of the patient demand a combination of X-ray and surgery. The new growth must be removed, but the cutting out process carries with it another most dangerous feature, and that is incision of infected lymphatics, and the risk of leaving behind some of the neoplastic cells. On the other hand, radiation will not remove the tumor, but it will clear up of cancer cells all the outlying territory up to the tumor itself, and so render the operation a comparatively safe one. The plan followed by the author is as follows: Practice X and radium radiations thoroughly, say six weeks to two months, before operation; and practice it as well after operation, say for about the same period of time. In this manner we avoid the Scylla of "soiling the wound," and the Charybdis of failure to remove the tumor. The radiation should not be carried to the point of producing destruction of tissue, but should just barely give rise to a mild dermatitis. This preoperative radiation does not interfere with wound healing or favor the occurrence of gangrene. A number of illustrative cases are cited and figured, and the author's general conclusions are summed up as follows: (1) Radiation treatment exerts a retarding effect upon the growth of some cancers; (2) it cures some cases—the ratio to operative measures is not here discussed; (3) Preoperative radiation will increase the ratio of cures by operation; (4) preoperative radiation transforms some inoperable cases into operable cases; (5) preoperative radiation is recommended as a precautionary measure, probably quite as important as preoperative antiseptic preparation for surgical operation.—*Medical Record,* March 25th, 1905.

Proceedings of Societies.

FIFTH ANNUAL MEETING OF THE CANADIAN ASSOCIATION FOR THE PREVENTION OF CONSUMPTION.

THE fifth annual meeting of the Canadian Association for the Prevention of Consumption and Other Forms of Tuberculosis, held in Ottawa on March 13th, was both interesting and successful. There were representative men from Montreal, Kingston, Toronto, Hamilton and London, beside many from the immediately surrounding country. The North-West Territories were represented by Dr. J. D. Lafferty and the Maritime Provinces by the Hon. F. A. Laurence, M.P.

The Hon. Senator Edwards took the chair promptly, and opened the proceedings with a brief but appropriate address. In substance he said:

"The business this afternoon, as I understand it, as that of the ordinary annual business meeting, the reception of the report of the Executive Council, and the election of officers. It is gratifying to me, and must be gratifying to all those connected with and interested in the work of the Association, to see such an attendance here this afternoon. It exceeds greatly all my expectations. It shows plainly the interest being taken in our work.

"At one time it was thought unwise to attempt to gather a large meeting this year, but the march of events has created a juncture which, in my judgment, justifies the large and influential meeting gathered on the present occasion.

"In accordance with a previous understanding, Mr. Geo. H. Perley in the House of Commons moved a resolution which led to a very full and satisfactory discussion. The resolution was simply that the time had come when Parliament should take active steps to check the progress of consumption. Practically the same resolution will come up in the Senate whenever we have a reasonably full attendance of the doctors who are members of that body, which I hope will be in a few days. With these remarks, I now declare this meeting open for the transaction of business."

The report of the Executive Council having been called for, was presented and read by the Secretary. It set out the gracious acceptance of the office of Honorary President by His Excellency,

the Governor-General, Earl Grey; that an influential deputation had waited upon the Premier, the Rt. Hon. Sir Wilfrid Laurier, and had laid before him the views of the Association respecting the needs of the country with reference to the devastations wrought by the various forms of tuberculosis. The Premier expressed his sympathy with the object of the deputation, said the ravages of consumption were certainly alarming, and that everyone must feel that something ought to be done promptly. Certain difficulties had been referred to by members of the deputation; that such existed could not be denied; still, he would faithfully report the representations of the deputation to his colleagues for their consideration; and that on the occasion of the visit to Ottawa of the Hon. Premier Haultain, of the North-West Territories, a deputation had waited on him and solicited his co-operation. He assured the deputation of his warm interest in the work of the Association, and his readiness to assist in every way in promoting its objects.

Petitions to County Councils.—In appendix No. 6, pp. 51, 52, of the Transactions of last year, section 4 of the report of the Committee on the Relation of the Governments to the Crusade against Consumption in man and the domestic animals, reads as follows:

"To this end, the Executive be instructed to prepare a memorial setting forth the necessity and urgency of the immediate establishment of at least one large sanatorium in each province, and that it is the duty and obligation of the Federal Government to provide assistance for the erection and maintenance of these institutions, as they are a necessity and in the interests of the whole people, and that the Executive forward a copy of this memorial to the municipal body in each province most directly representative of the people, and in provinces where such municipal bodies do not exist, then to the Provincial Assemblies, and endeavor to secure their co-operation and support of our petition, and when secured that the Executive of this Council then make application to the Federal Government to provide such assistance for the erection and maintenance of such institutions."

A sub-committee was appointed by the Executive Council, Dr. Bryce, convener, by which these instructions were carried out. Petitions were prepared and printed in both English and French. Either directly from the office of the Secretary, or through the members of the committee resident in Manitoba, North-West Territories and British Columbia, the documents were distributed so as to reach the County Councils, the Provincial Boards of Health, the members of the Provincial Assemblies, and the Medical Health Officers in every part of the country.

In response, replies containing assurances of co-operation have been received from widely separated points in the Dominion. They are still coming in, and many more are expected. As a sample of what is being done in this way, we report that, to this date, twenty-four petitions addressed to His Excellency, the Governor-General in Council, have come from British Columbia. In fact, there is but one mind and one voice in that province regarding the matter.

Affiliations.—The British Columbia Association for the Prevention and Treatment of Consumption and Other Forms of Tuberculosis, and the Colchester Association for the Prevention of Tuberculosis, have been recognized as in affiliation with the Canadian Association for the Prevention of Tuberculosis.

Lectures.—During the year, the Secretary has, on invitation, lectured on the "Cause and Prevention of Consumption," in fourteen places in Eastern Ontario, eleven places in Prince Edward Island, nine places in Nova Scotia, and two, St. John and Moncton, in New Brunswick. The Secretary has also been permitted to address the quarterly meeting of the Lanark County Public School Teachers' Association, and the Eastern Ontario Dairymen's Association at the annual meeting in Brockville.

Distribution.—In the last year not less than 785,000 pages, setting out "How to Prevent the Spread of Consumption," have been put into circulation, making in all nearly one and a half million pages distributed by the Association.

Parliamentary Action.—The work has probably received its greatest impetus this year through the presentation of the following resolution to the House of Commons: "That in the opinion of this House the time has arrived when Parliament should take active steps to lessen the widespread suffering and the great mortality among the people of Canada caused by the various forms of tuberculosis." This resolution was brought into the House by the member for Argenteuil, Mr. G. H. Perley. One to the same effect will be brought into the Senate by our President, the Hon. Senator Edwards, at an early date. Thus far the resolution has been received with such general favor that there is room for hope that sooner than could have been anticipated at our last annual meeting, something effectual may be done to stay the ravages of this plague. In these circumstances, the Executive Council think that the Association has abundant reason to feel encouraged in its effort to inform the people and to secure the adoption of measures of relief.

The resolution of Sir James A. Grant, M.D., regarding the medical inspection of schools, both public and private, had been sent to the Ministers of Education in all the provinces.

The Treasurer's report showed the state of the finances to

be fairly satisfactory. The expenses had certainly been kept well within the income, but the income from members' fees, etc., was less than might have been expected.

The great interest of the meeting centred around the question as to what action should be taken at the present juncture. Sir James A. Grant moved, seconded by Mr. Perley:

"Whereas the following resolution was agreed to unanimously by the House of Commons on the 20th of February, 1905, viz., 'That in the opinion of this House the time has arrived when Parliament should take some active steps to lessen the widespread suffering and the great mortality among the people of Canada caused by the various forms of tuberculosis';

"It is hereby resolved that this Association do now and hereby respectfully petition the Dominion Government to take such action as may be expedient to constitute a Royal Commission with authority to enquire into and report upon what active steps should be taken to lessen the widespread suffering and the great mortality among the people of Canada caused by the various forms of tuberculosis."

By arrangement between the mover and seconder, Mr. Perley first spoke to the resolution as follows:

"Since the resolution was before the House of Commons there had been considerable private discussion as to what the next step should be, and the matter was carefully considered this morning by the Executive Council. They thought it best that the resolution to be proposed to this meeting should take the precise form of the one now before you. It simply asks the Dominion Government to appoint a Royal Commission, whose business it would be to interview the authorities of the provinces as to what they would be willing to do, and what form the Commission thought the co-operation of the Dominion Government ought to take, and then the Commission would report back to Parliament as to the best ways of accomplishing this object. There is no need that we should ask the Dominion Government to do anything that would contravene either the letter or the spirit of the B.N.A. Act. The Dominion has a right to take such steps as it thinks best with regard to any matter of public health. Public Health, as such, is not mentioned in the Act, and it is, therefore, a joint matter between the provinces and the Dominion. Either can take steps to put down this dread disease, and the first thing is to find some workable plan under which the Dominion should do certain things and the provinces certain other things. They should work hand in hand, because even the Dominion Government, powerful as it is, cannot cope with this matter alone. It requires the combined efforts of the general, the provincial, and the municipal authorities, as well

as the co-operation of benevolent individuals, to secure the desired end. This present movement ought to be satisfactory, but, of course, we do not expect to turn the world over this year. I am glad to say that we got more satisfaction from the members of the House than I think any of us expected to get. The object we have now in view is to take the next step, which will in due time lead up to the active intervention of the Dominion Government in the way of a substantial grant."

Sir James A. Grant, in supporting the resolution, said: "I do not suppose that any person here will labor under the impression that we have not had the entire sympathy and co-operation of the Government. From the very inauguration of this Association, down to the present time, we have received the warmest support from the Honorable the Minister of Agriculture, Mr. Fisher. Judging from what the Association has already received from the Dominion Government, I am sure that when this resolution is placed before them it will command the closest attention. Because we all know, and the Government of the Dominion knows, the fearful loss entailed upon the whole country by the ravages of consumption, a very great part of which can be prevented."

Prof. Robertson said: "I think it gratifying that a member of our Executive did the country the large service of bringing this matter before Parliament. You will observe that in the resolution which was adopted by the House of Commons, Parliament declared that the time 'has arrived.' It is not for us to say that the time is opportune. Parliament has stated that 'the time has arrived when Parliament'—not this Association—'should take some active steps.' Parliament has decided that itself. It is for us to keep the necessity for action before Parliament. Having decided that something must be done, the next thing is to get information as to what that 'something' should be, and how it should be done. To formulate such a scheme is fitting work for the Commission for which it is now proposed to ask, and I kn of no more momentous question that concerns the welfare of Canada to-day."

Dr. Sheard, Toronto: "I think that the Executive should be congratulated upon having put into practical shape the wisest move ever made by this Association. Everyone who has paid any attention to this matter knows that the handling of tuberculosis is a very expensive matter, for which no one likes to assume responsibility, and which everyone is anxious to push over upon the shoulders of someone else if he can. I think that if the idea, as embodied in the resolution, is carried out, and a Commission appointed which will make full and exhaustive enquiries, so that they can find out the best mode of action, I think we will have

taken a very important step. I think this Association should lend its every energy towards pushing the thing to a finish and bringing home to the Dominion Government the great importance of appointing a Commission which will take the work seriously in hand and collect the necessary information to enable the Government to lessen this dread disease."

Dr. Rutherford: "As you are aware, I have, from time to time, pointed out that there were difficulties in the way of the Dominion Government taking hold of this question. I am very glad that this resolution has been drawn up in such a way that I don't think anyone can raise any objections to the object outlined in it. It simply urges upon the Dominion authorities the necessity of taking some definite action at the earliest possible moment, which is what everyone wants."

Dr. Hodgetts: "I hail with pleasure a resolution of this kind, as nothing will really be done until such a Commission is appointed. I trust it will be a stimulus to the people of Ontario to go still further in health matters. I think we should have a Minister of Health in the Province of Ontario. Over one-quarter of our expenditures in Ontario are given to health matters, and we should have a man to look after it more particularly. I trust we will be able to stir up our province in that direction and carry out this good work in that way."

Dr. Noble: "As regards the question, there are many difficulties to be encountered. Even if we had a sanatorium I am not sure we would have what we most need. The battlefield for tuberculosis is in the home, not the sanatorium. Assuming the correctness of Sir James Grant's figures, we have about one death from tuberculosis every hour the whole year through in Canada. If the whole truth were known, possibly a good deal more than one in every hour. Our need would not be met by having one sanatorium in each province. The distribution of literature is a great benefit, and I think the plans adopted by the Montreal Association of having a dispensary is a very good one. Some do not consider that a patient is suffering from tuberculosis until the bacilli are found in the sputum, but the doctor who discovers it only at that stage will not have many cures to report. When we are in doubt, the patient should be treated as a candidate for tuberculosis. The resolution has my hearty support, but after all it is individual effort that will reach the home that is going to do the best work."

Dr. Bryce: "I think it is now three years since a resolution showing the necessity for co-operation between the Dominion, the provinces and the municipalities regarding the work of eradicating tuberculosis was adopted. During the last year, we have been dealing with the counties and other municipalities,

and have elicited considerable information. It is gratifying that this resolution still carries on the same idea of co-operation between the Dominion and Provincial Governments and the municipalities. The adoption of the course proposed will enable us to find out for what and in what way co-operation is really practicable."

Dr. Third: "I agree with Dr. Sheard that there are many difficulties in the way. I am not one of those who think that the sanatorium offers the final solution of a problem. We have had general hospitals for many years, yet only a small percentage of people who are ill go to hospitals, and I am sure only a small percentage of tuberculous patients will ever go to the sanatoria for consumptives; the great mass will ever remain in the home, and it is here, I am convinced, the battle must be waged and won. Some may say, 'Compel all consumptives to go to these special institutions.' With a disease so general as tuberculosis this could not be done. Legislation must only keep pace with public opinion. We must 'make haste slowly,' that there may be neither coercion nor hardship. Besides, many of these incipient cases continue to work, occasionally, throughout the greater part of their illness, without injury to themselves, and with great advantage to those depending upon them. Of course, these patients should be carefully instructed how to care for and disinfect sputum. I see no reason why sanatoria for incipient cases should not be, to some extent, self-supporting. A deep-rooted conviction that our methods are right, voluntary individual responsibility, and determined effort, the outcome of these two, must be fundamental factors in the stamping-out process. The practice in vogue in Montreal, as outlined by Dr. Adami here to-day, appears to me to be along the right lines. These organizations should be, as far as possible, in close touch with the central organization, which, again, should have the pulse of the best organization in the world engaged in this work. I do not wish to decry the work the sanatoria have done or are doing. They are doing good work, and deserve generous support. Let us, however, not rely too implicitly on the sanatorium for the eradication of this universal scourge."

Dr. Barrick: "For five years this subject has been before the Dominion of Canada. The consensus of opinion of those who have been working upon this line is that it is a question so broad that nothing short of all that the Dominion Government can do, and all that the Provincial Governments can do, and all the municipal authorities can do, is required to cope with it. It has never been thought that the mere matter of sanatoria was going to be the end of the work in view. Every report of this Association every year says that we do not depend upon munici-

pal sanatoria alone, but on all matters of hygiene, the teaching of the public, the teaching of the whole public. There is nothing, however, that will teach the public more effectively than a municipal sanatorium, one in each county, where the people who suffer from this disease can go and learn how they should take care of themselves in their own homes. It has been said that home treatment is the only thing. What is to be done with the people who have no homes? What is to become of the people who live in boarding-houses when they get sick? Where is your home treatment then? We have to have sanatoria, so that when the people are seized with this disease and have no homes in which to be cured, they may have a place where they can, at the expense of the Dominion and Provincial Governments, the municipal authorities, and benevolent individuals, all combined, be cured, like those who have homes. I am in hearty sympathy with the resolution which has just been moved. I believe it is the next step to be taken, and it is the immediate step. I also believe, with Dr. Noble, that in our municipality we must take the next step to help this matter."

Mr. Edwards: "I have been chairman at a great many meetings, but I have never put before a meeting a resolution that I think so important as this one. Is it your pleasure, gentlemen, that the resolution be adopted?" (Carried unanimously.)

The meeting then proceeded with the election of officers, with the following result:

Honorary President—His Excellency, the Governor-General.

Honorary Vice-Presidents—Rt. Hon. Sir Wilfrid Laurier, G.C.M.G., K.C., D.C.L. (Oxon.), LL.D., P.C.; Rt. Hon. D. A. Smith, Baron Strathcona and Mount Royal and High Commissioner for Canada in London, England; His Honor Wm. M. Clark, K.C., Lieut.-Governor of Ontario; His Honor Sir L. A. Jette, K.C.M.G., Lieut.-Governor of Quebec; His Honor, the Hon. A. G. Jones, P.C., Lieut.-Governor of Nova Scotia; His Honor J. B. Snowball, Lieut.-Governor of New Brunswick; His Honor Sir D. H. McMillan, K.C.M.G., Lieut.-Governor of Manitoba; His Honor Sir H. Joly de Lotbiniere, K.C.M.G., Lieut.-Governor of British Columbia; His Honor D. A. McKinnon, Lieut.-Governor of Prince Edward Island; His Honor A. E. Forget, Lieut.-Governor of North-West Territories; F. T. Congdon, Esq., Acting Commissioner of the Yukon.

President—Hon. W. C. Edwards, Senator, Rockland, Ont.

Vice-Presidents—James Thorburn, Esq., M.D., Toronto, Ont.; Wm. Bayard, Esq., M.D., St. John, N.B.

Honorary Treasurer—John Mortimer Courtney, C.M.G., I.S.O., Deputy Minister of Finance, Ottawa, Ont.

Secretary, Lecturer and Organizer—Rev. Wm. Moore, D.D., Ottawa, Ont.

Executive Council—Appointed by His Excellency, the Governor-General: Hon. Sydney A. Fisher, B.A., P.C., Minister of Agriculture, Ottawa, Ont.; R. L. Borden, Esq., K.C., M.P., Halifax, N.S; F. Montizambert, I.S.O., M.D., F.R.C.S., Director-General of Public Health, Ottawa, Ont.; H. Beaumont Small, Esq., M.D., Ottawa, Ont.; J. W. Robertson, Esq., Ottawa, Ont.; G. H. Perley, Esq., M.P., Ottawa, Ont.; Sir James A. Grant, M.D., K.C.M.G., Ottawa, Ont.; Hon. G. W. Burbidge, Judge of the Exchequer Court, Ottawa, Ont.; James Manuel, Esq., Ottawa, Ont.; E. J. Barrick, Esq., M.D., Toronto, Ont. Elected by the Association: Rt. Rev. Dr. Hamilton, Bishop of Ottawa, Ottawa, Ont.; Chas. A. Hodgetts, Esq., M.D., Sec. Provincial Board of Health, Toronto, Ont.; J. G. Adami, Esq., M.D., Montreal, Que.; E. P. Lachapelle, Esq., M.D., President, Provincial Board of Health of Quebec; R. L. Botsford, Esq., M.D., Moncton, N.B.; Hon. F. A. Laurence, M.P., Truro, N.S.; J. G. Toombs, Esq., M.D., Mount Stewart, P.E.I.; Gordon Bell, Esq., M.D., Winnipeg, Man.; J. D. Lafferty, Esq., M.D., Calgary, N.W.T.; C. J. Fagan, Esq., M.D., Provincial Board of Health, Victoria, B.C.

The meeting then adjourned.

In the evening a large audience gathered in the Assembly Hall of the Normal School to hear the instructive and interesting address of Dr. J. G. Adami, Professor of Pathology, etc., McGill University, Montreal, Que., on "Adaptation and Tuberculosis." His Excellency, the Governor-General, presided, and in a brief address introduced the lecturer, who, upon taking the floor was listened to with close attention while he proceeded to unfold the mutual relation and interaction between the invading bacillus and the defensive forces of the human body. It is impossible for a layman to attempt to condense a discourse which, though it occupied nearly an hour in delivery, was a model of compactness and brevity. The common judgment was that it was a valuable contribution to the literature of the subject. It is to be published as an appendix to the annual report.

After the usual votes of thanks to all whose services it seemed fitly to acknowledge in this way, the meeting adjourned, to meet on the call of the Executive Council early in 1906.

The Canadian Journal of Medicine and Surgery

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Editorials.

FRESH AIR, WITH BEEF, EGGS AND MILK, OF THE FIRST IMPORTANCE IN THE TREATMENT OF CONSUMPTION.

FRESH air, with beef, eggs and milk, continue to head the list in the therapy of pulmonary consumption; but all these agencies should work together, if the best results are to be obtained. Some

two years ago an American, named Hubbard, while exploring in Labrador, perished miserably of starvation, though surrounded by the purest air in the world. *Per contra*, if a consumptive were to be shut up in a close room and fed on prime beef, the limit of repletion would soon be reached and he would reject his food. Pure, cold air acts as a stimulant to nutrition. It enables one to eat with a good appetite. The introduction into the lungs of air containing 20 per cent. of oxygen and the circulation of that gas through the capillaries cause nutritive changes to progress steadily throughout the body. Worn-out or exhausted cells are displaced and carried away, to be thrown out as effete material. If work be done, or if exercise be taken in pure air, waste of tissue is increased. Increased waste of tissue excites a craving for food. When a sufficient quantity of food is taken, fresh pabulum is introduced through the blood, and its utilization by the cells of the tissues of the body accomplishes the work of repair.

The consumptive patient has an organism in which there is a marked tendency to rapid metabolism, and he is made so by heredity. But this natural tendency may be intensified by over-work at a laborious occupation, or by dissipation. His lungs are small, weak, and are predisposed to congestion. The consumptive is inclined to leanness, and he does not fatten easily. His assimilative organs do not extract the largest amount of nutriment out of the food he eats, and he requires a larger quantity of food to produce fatness than an individual who has a sound organism.

Ulcers of the lungs resulting from the break-down of tubercular lymphatics are benefited if the sufferer inhales pure air night and day. However, it would be useless to expect the purest air in the world to heal such tuberculous ulcers if a sufficiency of nutritive food were not supplied so as to furnish the raw material necessary for the repair of the ulcerated tissues. An anecdote told of a distinguished veterinarian in the French army illustrates the necessity of prescribing nutritive food, if a physician would assist in the repair of ulcerated tissues. On being asked what treatment he used for galled shoulders in horses, he replied, "Oats."

The importance of nutritious food in the treatment of tuberculous disorders is well understood by the medical directors of sanatoria for consumptives, who strive by fresh air, exercise in suitable cases, and bitter tonics to increase the quantity of nutritive material introduced into the organisms of their patients. A French medical authority says: "Consumptive patients must be made to

eat, with or without appetite, with or without the consent of their stomachs; hence the necessity of gavage."

Of course, these remarks, or others of a similar nature, are made by a great many writers of the medical press; but they will bear repetition, because in them is found the pith of the successful treatment of pulmonary consumption, and also because tubercular disease is very common.

A sanatorium is the best place for a consumptive, because while he is an inmate of such an hospital he is made to breathe pure air. and also because he requires the watchful eye and the directing voice of a physician to overrule his whims, to keep his appetite up to the top notch, and to see that a sufficiency of the best nutritive material is introduced into his frail organism every day in the week.

A practitioner who uses his stethoscope freely soon learns that tubercular diseases of the lungs are pretty common—more common than the public believe. There are many individuals in the community who, without being consumptives in the common acceptation of the word, are "delicate," or "have weak lungs," yet they do pretty good work, lead useful lives, and support their families. It is impossible to place all such persons in sanatoria; in fact, it would not be feasible to build enough sanatoria to hold them, even if they were willing to enter such institutions. In some cases of this kind reluctance to enter a sanatorium is, of course, likely to be overcome by the obstinacy of a pulmonary complaint and the persistence of grave symptoms; and, if recourse to it be not delayed too long, sanatorium life is most useful, often helping to turn the scale in favor of the prolongation of a useful life. It is also true that, even when the resistance to tubercular invasion is high, a regulated sanatorium life gives the best and quickest restoration to health and usefulness.

Ambition, or the struggle for existence, often interfere to prevent a man from stepping down and out of a lucrative situation to take a holiday, or the open-air treatment with the regulated diet, and all the advantages that these agencies imply. Should this be so, rest of body and mind, fresh air in the dwelling, beef, eggs and milk, together with the medicinal use of cod liver oil, arsenic and the glycero-phosphates, will help to stave off the evil day.

J. J. C.

EPIDEMIC CEREBRO-SPINAL MENINGITIS FROM THE PUBLIC HEALTH STANDPOINT.

FROM the report of the Registrar-General of Ontario for 1903, we learn that for that year 114 deaths from cerebro-spinal meningitis occurred in this province. As the report of the Registrar-General is always a year behind, no information can be gleaned as to the incidence of the disease in question in Ontario during the year 1904. During the current year occasional items of news, culled from the papers, show that cerebro-spinal meningitis has claimed a few victims in different parts of the province. For instance, during last March a single death caused by it occurred in a village situated in the western part of this province. During the same month four deaths from it occurred in Russell County, Ontario.

In reply to our inquiry as to the history and cause of this last outbreak, Dr. Hodgetts, Secretary of the Ontario Board of Health' says: "Three deaths occurred in one family, the son and daughter dying at home. The father was the last of the three to develop the disease, and was taken suddenly ill at his brother's a day or two after the burial of his daughter. The fourth death occurred in a house immediately opposite the house of the first case, being a nephew of the patient just referred to. This young man (married) had assisted to nurse his cousin.

"As evidence of communicability the facts are as follows: The first case, a young shantyman, returned home ill and died two or three days after his arrival. The father went away immediately after the funeral to be married, and shortly after his return home a daughter was brought from school in Ottawa, and in less than three days from her return home was taken ill and died. The father and the nephew were taken ill about the same time; both died. The houses were, in my opinion, unsanitary places to live in, being built on the ground with little or no ventilation, as is the custom with log houses, and altogether the general surroundings were unsanitary and bad."

Again, as an evidence of its communicability, Dr. A. B. Craig died at Philadelphia on March 13th of cerebro-spinal meningitis, which he contracted from a patient on whom he had been in attendance.

In the city of New York it has prevailed epidemically during the past winter and spring, and 830 persons, the majority of them children, have fallen victims to it up to April 10th, 1905. A com-

mission of experts, appointed to investigate the disease, had its first meeting on March 21st. They decided, among other matters, to issue cards to doctors in hospitals, with blanks to be filled in with data from the bacteriological standpoint, showing the evidences of communicability and what is known of the biology of the disease micrococc' with reference to differentiation, agglutination and pathogenesis. Clinically they will ir quire about the effect of drying on the cocci and their viability in spray as bearing on isolation and infection. Complete information about the patients' surroundings and the conditions under which they were stricken with the disease will also be collected. It is probable that the scope of the investigation will be world-wide, and that information will be sought from hospitals all over the globe. We may, therefore, expect that any data of a bacteriological or cl.nical character which Canadian hospital doctors may possess about this disease will be placed at the disposal of the New York commission on cerebro-spinal meningitis.

In an original article, which appeared in the *Journal of the American Medical Association*, and is republished at page 298 of this number, Dr. Councilman writes: "Acute meningitis may be produced by a number of bacteria, but chiefly by those belonging to the pyogenic organisms. The three organisms most generally concerned are the diplococcus intracellularis meningitidis, the pneumococcus and the streptococcus. Of these the first-named deserves the most attention, in that it is the cause of the epidemic form of the disease. This organism was first described by Weichselbaum in 1887, . . to Jäger belongs the credit of first recognizing it as the cause of epidemic cerebro-spinal meningitis." The disease which is caused by this organism occurs epidemically or sporadically, and is characterized by an inflammation of the meninges of the brain and spinal cord and a great diversity of clinical manifestations. The germ is found chiefly in the polynuclear leucocytes, both in the tissues and in the cerebro-spinal fluid, sometimes in the fluid of the joints. The diagnosis should be confirmed by the demonstration of the diplococcus intracellularis meningitidis in the fluid removed by lumbar puncture.

On account of the fact that the disease is concealed in the nervous centres of the patient, it seems unlikely that the causative germs should be carried on the persons or belongings of those who have been in contact with the sick, or that direct transference of the disease from the sick to the well should occur. An explanation of the probable method by which the disease is communicated

is given by Leube, as follows: "*The disease does not appear to be contagious from person to person.* The mode of infection is probably similar to that which obtains in diphtheria, *i.e.*, communication of the disease occurring by direct or indirect transference (by means of healthy persons) of material containing cocci, especially from the nose and the pharynx of meningitis patients."

With regard to the route by which the germs reach the meninges, Strümpell and Weigert believe that as the germs are found in the secretions of the nose, infection takes place through that channel, and it has been suggested that the meninges may be reached by way of the Eustachian tube and ear. Dr. Councilman says, among other conclusions expressed in the article from which we have already quoted, "That the diplococcus intracellularis meningitidis may be found on the mucous membrane of the nose, where it may produce a rhinitis, and that it is probable that infection of the meninges takes place by extension from some of the adjacent mucous membranes, by means of the lymphatics. We can only explain the epidemics of the disease by the assumption that at certain times the power of the infection is increased either by an increase in the virulence of the diplococcus, or by a decrease in the resistance of the tissues."

Inasmuch as the disease is transmissible the patient should be isolated and the discharges, especially from nose, ear and lungs, should be disinfected.

Physicians interested in the preventive treatment of disease may derive some satisfaction from this view of the etiology of cerebro-spinal meningitis. Moreover, when one considers the deadly character of this disease, death occurring in from 20 to 70 per cent. of the cases, attention to the hygiene of the nose and throat, especially during the season when it prevails, should not be neglected. In this connection it may also be stated that the rhinologists advise the use of antiseptic solutions sprayed into the nares and throat as preventives. This is not all, however; for as lack of ventilation and crowding in cabins, houses, barracks, tenements, prisons and workhouses are important predisposing influences, the opposite conditions of life should be made to prevail, if the disease in question is to be kept in abeyance. Neither is the fresh air of the country a cure-all, for epidemics of it have been more frequent in rural districts than in the cities. Not that the pure air of the country is at fault, but rather the lack of it, owing to overcrowding and uncleanliness in the dwellings. J. J. C.

THE GARCIA CENTENARY.

On March 17th, 1905, the centenary of Manuel Garcia, the discoverer of laryngoscopy, was celebrated in a public manner in London, England. During the morning he was received at Buckingham Palace by the King, and decorated with an honorary commandership in the Victorian Order. At a gathering, held at 20 Hanover Square, he received a message from the King of Spain, containing the announcement that the Grand Cross of the Order of Alfonzo had been conferred on Senor Garcia, and also a message from the German Emperor, who conferred on him the Great Gold Medal of Merit. Addresses and messages were also presented by representatives of universities, laryngological societies, academies of music, and personal tributes from many of the great singers who had been his pupils. A portrait of Senor Garcia, painted by Mr. Sargent and subscribed for by friends and admirers throughout the world, was also presented.

During the proceedings the patriarch was, of course, seated; but his great age was not evident in his bearing. He sat upright, a spare figure, with short, white hair, white moustache and handsome, aquiline features. In the evening he was entertained at a banquet in the Hotel Cecil.

Garcia is of Spanish birth, but has lived the greater part of his life in England. He visited America in 1825, and took the leading part in the "Barber of Seville," then produced for the first time in New York. He retired from the stage in 1825, and devoted himself to teaching and writing on music. His greatest distinction rests on the fact that in 1854 he improvised or adopted certain appliances for the visual study of the action of the vocal cords in singing.

He practised auto-laryngoscopy by placing against his uvula a dentist's mirror, illuminated by solar light from a hand mirror. He repeated his experiments so as to be able to study the two great functions of the larynx, the production of sound and respiration. He may, therefore, in a certain way be regarded as the first laryngoscopist. Fifty years ago, March 22nd, 1855, his paper, "Observations on the Human Voice," was presented before the British Royal Society.

Although nothing of special interest from the musical standpoint resulted from Garcia's invention, it was not allowed to perish.

Three years later, 1857, Türck, Professor of Pathology at Vienna, and Czermak, Professor of Physiology at Pesth, simultaneously published papers in which they related their experiments and showed that it was possible to see the larynx by means of artificial light. Since then the use of the laryngoscope has brought into existence a branch of medical practice from which brilliant results have flowed.

Without wishing to introduce controversial matter, it may be remarked that the discoverer of auto-laryngoscopy was fifty years of age when his great discovery was announced to the world of science. Senor Garcia certainly deserves the gifts of kings, the laudatory addresses of universities, and the acclaim of the laryngologists of the twentieth century. It must also be a source of intense satisfaction to admirers of genius the world over to know that the honors conferred on him were given to the living man, centenarian though he be. Posthumous honors carved upon a man's tomb can only interest posterity. A gift such as Manuel Garcia gave to medicine is rare indeed. J. J. C.

SURELY NOT AN ATTEMPT ON THE PART OF CHRISTIAN SCIENTISTS TO SUBSIDISE THE MEDICAL PRESS!

A LETTER appears in our Correspondence column, in this issue, which is, to say the least of it, interesting. It is from the Publication Committee of the First Church of Christ Scientist, and is dated "Boston, Feb. 25th, 1905," and is signed by one of the publishing staff of the Christian Science "firm," one "Alfred Farlow," evidently one of the tools of Mary Baker Eddy.

We were much surprised on the reception of this "friendly word."

It is ludicrous for Christian Scientists, who aim at eradicating medical science, root and branch, to appeal to us so pathetically for sympathy just because writers will persist in smuggling attacks on Christian Science into pamphlets and periodicals.

We quite agree with Mr. Farlow that it is "only fair and just that all *incorrect* allusions" to Christian Science, or to anything else, should be suppressed, if possible, but we do not see how that could be accomplished without a censorship of the press, which, we fear, would not be acceptable in this year of grace.

Mr. Farlow's "kind" suggestion that Christian Scientists "would gladly assist publishers in determining the accuracy of matter relating to Christian Science," is certainly very "kind," but we trust he will not be offended because we decline, with thanks, his proffered assistance.

Mr. Farlow knows perfectly well that it is a war to the knife between us and Christian Scientists, and must deem us simpletons to suppose that we would allow them to meddle with our arms.

We deem ourselves quite competent to judge for ourselves in the matter, and, even if we doubted our capability, we would decline to call in the aid of those whose brains are so befuddled as to accept the following as revealed Truth (with a big T):

1. "All human knowledge must be gained by the five corporeal senses." Yet,

2. "The evidence of the senses is *never* to be accepted" (S. & H., 384).

3. Without reversing them, "Their evidence is to be reversed" (S. & H., 60).

4. "How can man be dependent on such material senses for knowing, seeing, or hearing?" (S. & H., 485).

5. "All error grows out of the evidence before the senses" (S. & H., 535).

6. "The senses are unnatural, impossible and unreal" (S. & H., 543).

7. Yet, "Sight hearing—all the senses of man—are eternal. They cannot be lost" (S. & H., 482).

Mr. Farlow desires us to extend the same "courtesy to Christian Scientists that is accorded to other denominations."

We would be sorry to wound the feelings of any of the estimable people who have been deluded by Mrs. Eddy, but we do not hesitate to say that we entertain for Mrs. Eddy, and her whole system, unbounded contempt.

Mrs. Eddy has dubbed her six hundred pages "Science," and declares that there can be no other science.

"There can be no physical science. Christian Science eschews what is called natural science" (S. & H., 21).

What her science is may be judged from the following specimens:

"Agassiz drops from his summit, for he virtually (*sic*) affirms that the germ of humanity is an egg" (S. & H., 542).

"*One* distinguished anatomist argues that mortals sprung from eggs" (S. & H., 543).

Mrs. Eddy's science denies that mortals, or any animal, springs from eggs, as follows:

"The propagation of their species by butterfly, bee and moth, *without the customary presence* of male companions, *is a discovery corroborative* of the science of mind" (S. & H., 541).

"The late Louis Agassiz, by his microscopical examination of a vulture's ovum, strengthens the author's view of the scientific theory of creation. He was able to see, in the egg, the earth's atmosphere, the gathering clouds, the moon, and stars, and a small sun" (S. & H., 539).

Such stuff as this is hardly worthy to be called nonsense; it is merely idiotic mumbling.

"Science and Health" claims to be:

"A revelation from God" (S. & H., 1).

"The child called Wonderful" (3) (see Isaiah—"Counsellor, *the mighty God,* the everlasting Father, the Prince of Peace") (Miscellaneous Writings of Mrs. Eddy, 321).

"The guiding orb of truth, the daystar" (preface, S. & H.).

"The Star of Bethlehem" (M. W., 320).

"The little book which was brought down from heaven by the mighty angel" (M. W., 550—see Rev., chap. x.).

"God's right hand, grasping the universe" (M. W., 364).

We are loth to sully our pages with this blasphemy. So far from extending any "courtesy" to Christian Science, on religious grounds, we pronounce it to be a deliberate fraud, concocted to gull credulous people out of money.

1. It is a fraudulent appropriation of the writings and views of one Dr. Guimby.*

2. Although Mrs. Eddy says that when she wrote it, she was "only a scribe, transcribing what God indited" (*sic*) (M.W.S., 11), she claims to be its "author," and as such had the audacity to copyright it in 1870.

3. She kept it from publication during six years in order

*See "A Complete Exposure of Christian Science or Eddyism, and the Plain Truth Regarding Mary Baker G. Eddy." By Frederick W. Peabody, *member of Boston Bar*, 1901.

to find out whether it could be "*profitably* published" (preface to S. & H.).

4. She declares it to be "*the Holy Ghost*" (S. & H., 579), and sells it at a profit of $2.50 for the cheapest edition. (See Acts viii. 20: "Thy money perish with thee, because thou hast thought that the gift of God can be purchased with money.")

5. "Science and Health" has been, from time to time, altered, sections being dropped, or transposed; and as selections from it are read every Sunday, *responsively,* purchase of new editions is required.

6. In order to prevent any one from poaching on her preserves, she issued an ordinance, expressly "forbidding the teaching of Christian Science for money" (M.W., 315), and notwithstanding boasts that she had 4,000 students in seven years, from each of whom she received $300, for twelve lectures, at first, and for seven lectures afterwards, she herself being the only teacher. Concerning this fee, she says, she "was led to name $300"; "the amount greatly troubled me; I shrank from asking it, but was finally led, by a strange providence, to accept this fee. God has since shown me the wisdom of this decision."* (4,000 at $300 = $1,200,000).

7. To enhance the sale of her book, she not only publishes testimonials, which occupy seventy pages of M. W., but has the audacity to publish a testimonial from God, as follows: "The perusal of the author's publications heals sickness constantly" (S. & H., 443).

8. She claims that looking merely at another of her books, viz., "Christ and Christmas," has cured sickness—"A mother writes: 'Looking at the pictures in your book healed my child'" (M. W., 372).

9. Besides these books, the faithful have to purchase hymns, weeklies, quarterlies, journals, music, poetry, portraits of Mrs. E., etc., etc., all issued by the Christian Science publishing establishments.

10. To further increase her emoluments, Mrs. Eddy hit upon the device of "souvenir spoons," about dessert size, adorned with a representation of Mrs. Eddy, portrait and house; price, $3.00 silver, $5.00 gold plated. In Christian Science journal, Mrs. Eddy enjoined every one of her followers to buy a spoon

*See Peabody.

for each member of his family. Looking at this spoon is certified, in *Christian Science Sentinel*, to have restored sight to a lady.

11. Over fifty institutions exist on this continent which teach Christian Science, transmuting leather cutters, masons, caretakers, anybody, in fact, into Christian Science healers—if they can scare up $100.

12. Lastly. Success in Christian Science healing depends upon money—no pay, no cure. In Christian Science journal a healer writes: "When I first began the healing work I rebelled against charging for it. One day I was called to see a patient. . . . As I disliked to charge for my work, I was so much distressed that the patient received no benefit from the treatment. Then it came to me that we had been told to charge for our services. That settled it, and the patient was better at once."

We take leave of Christian Science with disgust. Mr. Farlow must look elsewhere for any sympathy for such an egregious imposture. J. H. R.

"BEING DONE GOOD."

NEVER look a gift horse in the mouth, be the gift from saint or sinner, is a good rule to follow. A friend must have thought his physician needed a laugh, and so he gave him a book in which the author, a rheumatic, laughs at himself and at the many "cures" he takes. Beginning with the allopathic physician's treatment, he tries the various sanatoria, homeopaths, electricians, "specialists," right down to the Christian Scientists. It is an odd sensation to laugh at one's self, at one's methods, and then at one's neighbor and his methods, and we feel it would be positively selfish not to share the smile; so, Brother Chip, "here's looking at you":

"Of all the ill winds that blow good to the doctors and the druggists, rheumatism is the greatest. It is in respect of that familiar metaphor a perennial cyclone. It is the most reliable old pot boiler that doctors have, and if anybody should really find a cure for it, the doctors would be scared to death."

"To be done, good, by the cautery, the victim bares his back and the doctor proceeds to swipe. The odor of burning flesh quickly fills the room. The most rheumatic victim becomes spry. He does the czardas, the hoochee-koochee, the can-can, and the

Highland fling, and accompanies himself with song. The doctor is surprised, and says the young women come to him especially for this form of nerve tonic. In your mind's eye you see whole trainloads from young ladies' seminaries coming to town to sample Paquelin's popular pacifiers."

"An Italian came along. He had evidently worked around new buildings, and had been in the habit of drinking directly from the hose used by the man who mixes the mortar. The author had engaged the representative of the Tree Planting Society to remove the vegetarian caterpillars from the tree directly in front of the house. The apparatus used for this purpose consists of a pump; a barrel of bug poison, mounted on a waggon, and a long hose leading from the barrel. The Italian arrived just as work on the caterpillars was to begin. The faucet end of the hose was shut off and lay on the sidewalk. All hosiery looked alike to this fellow. He reached for it and turned the tap.

"For God's sake, Johnny, don't drink that!" shouted the caterpillar man from the waggon, with one hand on his heart.

"The Italian cursed him for his stinginess, but passed on, alive.

"Which goes to show that a man will put anything down his throat. He begins on pins and buttons when a baby and never lets up."

"In the author's case, however, nothing that the allopath had in stock seemed strong enough to budge the enemy. A hundred efforts were made to reach his base of supplies, but it was no use. Every resource of the allopath was tried—arsenic, strychnine, salol, protonuclein, ammonial, iodide of potassium (on a mercurial poisoning theory which didn't pan out) and the pharmacopeia knows what all—everything which had ever killed or cured a human being or been avoided by a dog, has been introduced to and into this case. It became so that this expert could tell in a few minutes, by sniffing around in a drug store, whether the proprietor was out of any particular drug, or just how much he had left. This applied to goods in stoppered bottles and included the full line, except soap, cologne, candy, hair-brushes and hot-water bags, though when in these departments the scent sometimes wandered and chased the quarry in among the red flannel chest protectors and the liver pads."

Speaking of Turkish baths he says: "The first thing you do at a Turkish bath is to pay a dollar. Then you write your name and address in a large book. This proves valuable in case you are

not able to remove the remains unaided. Your jewelry and valuables you leave in the safe, because some Turk not yet sobered up may go home in your clothes. One side of the establishment is for men and the other for women. Should Dr. Mary Walker enter, she would leave her duds on the men's side and escape to the women's room through a private door. The sight of her clothes on the women's side would create needless alarm, and might ruin the business.

"This is no society function, hence bathing suits are not needed."

"Emerging in your natural beauty, or pristine elegance, you approach the platform scale and are weighed in. Allow one-quarter pound tare for the towel and your net weight may be easily computed. You then step from the scale to the hot room.

"A number of other Adams are in the hot room, some well done and some rare. The stout men show the best results. It is not a case of grilled bones with them, as it proves to be with the rest of us. A two-hundred pounder hardly bakes at all. He stews in his own gravy, while a lean man, shut in for the same term, must drink a gallon of water in order to raise even a dew."

"You must drink plenty of water when in the hot room. They tell you that ice water is the thing to take. You see, the idea is to convert you into a percolator and thus wash you from the inside out. The heat sets all the bodily machinery at work. A glass of water goes in, and in three minutes, provided the pumps work, beads forth on the surface."

"Thus you sit and percolate during the first ten minutes. Your steady drip on the marble floor, if heard in the night at home, would rout you out of bed to light the lantern and make a search for leaking pipes."

Speaking of the dilution of drugs by homeopathic physicians, the author continues: "The homeopath makes no claim that the human body can be nourished by food suggestions. At present he claims to remove disease only by the drop whose potency cannot be lost, no matter how large the quantity of liquid in which it is diluted. If a stone be thrown in the Atlantic at Coney Island, it sets up a ripple which washes the western shore of Africa. Homeopaths, bathing abroad, would find these ripples large enough to dive through. Other folks would not notice them. So with sound. The rag man's bells set up vibrations which go ringing through space for all time, for nothing is lost in nature. Such portions of the sound waves as are not converted into heat, by impact with

solids, push onward to eternity. Hence we may infer that there is a lively old rag-time festival out on the edge of the universe. There will be babies' cries, political oratory, toots from whistles, the ocean's roar, Parsifal, Fourth of July, and the pleading of lonely cats. Only the homeopath's ear or touch will detect these sound fragments and ever-moving ripples. Scientists admit that they exist, but also admit that they cannot hear or see them."

Christian Science does not seem to have found a panacea for the rheumatism, according to the mortal mind of Edward B. Lent. Listen, for surely this outstrips "Sister Mary's Top Note": "You cannot understand Science unless you grasp the fundamental principles of Mind, Matter and Mortal Mind. The best way to do this is to close your eyes and think of the most vacant lot beyond the universe. Mentally strip it of all the rubbish you find there, old chairs, mattresses, tin cans, goats, bedsprings, ash heaps; then cut out the land and the atmosphere; also, bounds of space and limitations of distance and time—as so far and so many hours from the Bowery. Get this conception of nothing as blank as possible, then turn out the light. There you have it—a perfect zero. A place which is not, never was, and won't. Keep a mental grasp of this vacuum, then listen! Don't speak above a whisper, don't let the still, small voice within titter or suppress a giggle. Keep your mental ears straight up, and with patience wait. Presently, you hear Nothing. You hear that great emptiness; that mass of ciphers; that spot without climate, without boundaries, apart from the universe; the nucleus of the soap bubble; and what does it say? 'I am Something! I am Something!'

"'Somebody let the cat in.' That is your conclusion, and after all your trouble to think off an inclosure of Nothing, the blamed cat gets in and you find Nothing claiming to be Something.'

W. A. Y.

EDITORIAL NOTES.

The Prophylaxis of Venereal Diseases.—The attention of hygienists has been directed of late towards the prophylaxis of venereal disease, and it is to be hoped that as one outcome of discussions which have taken place some practical advance will be made in the protection of the innocent and unsuspecting. It is unthinkable that a man would deliberately infect his bride with

gonorrhea or syphilis, and yet there is abundant medical evidence to prove that whatever the bridegroom's intentions may have been he is occasionally only too successful in transferring either of these diseases to the partner of his joys and sorrows. Every man and every woman also should present, before marriage, a clean bill of health. For sentimental reasons this regulation may seem to be one of great severity, but, if examined in the light of public hygiene and the scientific practice of medicine, it will be found to be entirely commendable. Under such a regulation illicit intercourse would not be interfered with, and venereal disease would pass from one to another as in the past, but persons desirous of contracting marriage would be obliged to prove their freedom from the venereal taint, showing that from the standpoint of hygiene there is no barrier in each case to the establishment of conjugal relations. It would also help to take the treatment of venereal diseases out of the hands of incompetent persons. A man may flatter himself that his gonorrhea is cured, though he dare not indulge in wine for fear of bringing back the enemy. If the law here alluded to were placed on the statute book he would be obliged to place himself under proper medical treatment, so as to be permitted to enter the married state. In like manner, also, a syphilitic patient would be obliged to show that he is free from all local manifestations of his complaint, and that a suitable time has elapsed since the primary attack and the disappearance of secondary symptoms. For obvious reasons the reporting of venereal diseases to boards of health, together with the names of the patients, would not be a popular law. To report the cases without the names would interest the statistician and throw a searchlight on the irregular sexual relations of a certain per cent. of a population, but would not help to repress venereal diseases. A campaign of instruction through leaflets, issued by boards of health and placed in the hands of physicians, would be useful. In a good many instances the simple reading of a well-written pamphlet giving the prophylaxis of venereal diseases would be a useful reminder and might help to prevent a relapse. In other instances a man about to place himself in a position where he is liable to contract a venereal disease will not bother himself about logic or leaflets, and, if he is under the influence of liquor, may forget all about the preventive rules just at the time when they would be of service. Although of immense importance, the prevention of venereal disease must always be something to be wished for rather than something

which can be definitely accomplished. But the treatment of these diseases is a question which particularly interests physicians, and they should thoroughly equip themselves for the work. Some physicians should keep dispensaries, where the poor could receive treatment for venereal diseases, scientific in character and free from publicity. A hospital professor of medicine is engaged in teaching medicine to his students and a large amount of public clinical material is the breath of his nostrils; a private physician is engaged in treating the disease of A. B. or C. D., and the prejudices of his patients against exposure should be paramount. In any case, whether done at an hospital, a private dispensary, or a doctor's office, the distribution of leaflets with adequate explanations would be a useful preventive measure of venereal diseases.

Gonorrheal Conjunctivitis.—Every patient who has gonorrhea, if accountable, should be warned to look out for his own eyes and for the eyes of those who may be brought into close relation with him or his belongings. Neither should it be forgotten that besides the wife and children of a patient, his nurse or his physician may suffer from the disease innocently acquired. Some few years ago one of the intern staff of the Toronto General Hospital lost the sight of an eye from purulent conjunctivitis, which he acquired on account of his attendance on a case of gonorrhea in that hospital. This unfortunate result is an illustration of the fact that energetic and enlightened treatment, begun by specialists as soon as gonorrheal conjunctivitis appears, will not always prevent blindness. Clean midwifery will greatly diminish the number of cases of blindness from ophthalmia neonatorum; but whenever there is much reason to suspect that the vagina of a puerperal woman harbors the gonococcus, the Crédé method should be employed on the eyes of the babe to which she gives birth. This consists in letting a drop or two of a 2 per cent. solution of silver nitrate fall from a glass rod on the cornea, while the lids are held apart, and allowing the solution to flow into all parts of the conjunctival sac, without any additional manipulation of the lids. The efficiency of the Crédé method is indicated by the statistics of Leopold (*Berliner Klin. Woch.*, August 18th, 1902), who reports 2,146 deliveries, with but three cases of purulent conjunctivitis, although by microscopic evidence 98 and by clinical evidence 200 of the women had gonorrhea. Even when, because of the neglect or inefficiency of preventive measures, purulent conjunctivitis occurs, careful treatment begun before the cornea has become

visibly involved will almost invariably prevent blindness. Authorities agree that in nearly all cases early efficient treatment will save vision. On this account the laity and the medical profession should be thoroughly educated on this subject. Furthermore, mawkish sentiment should not be allowed to stand in the way of the public good, and the laws of some States providing for the compulsory notification of all cases of inflammation about the eyes of infants are deserving of and should receive our imitation.

Facial Erysipelas.—In the *Detroit Medical Journal* for March, Dr. Spohn, of Elkhart, Indiana, writes interestingly on facial erysipelas. From different physicians Dr. Spohn obtained reports of 1,000 cases of erysipelas, 900 of which were of the facial variety. Of the facial cases the beginning point of the disease was: In 3 in the scalp; in 3 over the cheek bones; in 7 in the eyes; in 60 on the ears; in 90 on the mouth; in 737 on the nose. This shows that not only were 90 per cent. facial; but also that about 82 per cent. began at the nose. Dr. Spohn incriminates a previous chronic catarrh as the principal causative factor in facial erysipelas. This is especially true of those cases in which the disease begins on the nose. Many such cases have ulcers of the septum narium which become infected from streptococci and from them the disease spreads. However, all wounds and abrasions in which the streptococci pyogenes are found do not develop erysipelas. There is something lacking in this part of the germ theory which bacteriologists have not been able to clear up. Perhaps it may be that the vital resistance of the tissues of the patient must be lowered before he can contract this disease. Dr. Spohn concludes that "the history of facial erysipelas, the cause of the disease and the beginning point of so large a per cent. of cases should be a plea to every physician to urge on his patients open and free nostrils, proper breathing and cleanliness of the nares."

Detention Hospitals for Sick Immigrants Entering Canada.—During the season of 1902-3 temporary detention hospitals were provided by the transportation companies at the three ports of Quebec, Halifax and St. John, the release of patients therefrom being under the control of the medical inspectors of these ports. The detention hospital at Quebec is said to be the largest and probably the best equipped institution for that purpose in America. Last year, up to November 30th, 1904, 880 patients were treated in it. The medical service at the detention hospitals is supplied

at a minimum cost to the immigrant. Last year a minimum daily charge of 50 cents per capita was made; but it is understood that during the current year a higher charge will be made should the fee mentioned prove insufficient for the cost of maintenance and treatment. From May 1st to June 30th, 1904, the cost of maintenance and administration of the Quebec Detention Hospital was:

Medical service	$ 203 33
Attendants and guards	487 48
Housekeeping	1,742 41
Transportation of immigrants from wharf to hospital and return	299 75
Total	$2,732 97

The large charge for hospital guards is due to the compulsory nature of the detention. In addition to immigrants detained on account of disease others are included, chiefly the children or other relatives of the patients. Dr. Bryce, chief medical inspector, remarks, in his annual report for 1904, that the strictness of the inspection of immigrants at Canadian ports has resulted in a more rigid examination of immigrants before leaving European ports and in lessening the number of persons requiring treatment for disease at the Canadian detention hospitals.

Getting Ready for the Metric System.—The policy of the Canadian Government in supplying metric system outfits to the High Schools is for the purpose of being ready for the change. If England and the United States make a change to the metric system, Canada would probably have to follow their example. There is at present a strong movement on foot in England and the United States with this end in view, and it behooves the Canadian Government to be ready for it. It is a gratification to learn that Canadian educational circles are being prepared for the new method, and this much is probably all we have any right to expect. It would be far more gratifying if Canada were to take the lead in this matter and were to show English-speaking countries the right way. J. J. C.

PERSONALS.

DR. G. A. PETERS, we are glad to say, has almost recovered from his recent illness.

DR. J. F. W. ROSS, of Sherbourne Street, returned from the South about three weeks ago and has been greatly benefited by the trip.

DR. J. W. MACCALLUM and Mrs. MacCallum returned from England a day or two ago, after spending two months in the land of "The Rose."

DR. ALEX. MCPHEDRAN, another of the ranks laid aside by illness, has returned to the city after a trip South, and, feeling his old self again, resumed his consultation work.

DR. C. R. DICKSON, of Sherbourne Street, has purchased from Hon. Justice Clute his beautiful residence, No. 192 Bloor Street West, near Avenue Road. Dr. Dickson will move there on the 1st of this month.

MR. WM. A. MACDONALD, M.B., begs to announce to his colleagues in the medical profession that he has commenced the practice of his profession in Toronto at No. 8 Bloor Street East, and devotes his attention exclusively to the diseases of the ear, nose and throat.

Obituary

DR. JOHN HERALD CROSSES THE BAR.

DR. JOHN HERALD, Professor of Materia Medica and Therapeutics at Queen's University, Kingston, died at the Toronto General Hospital on April 12th. He was admitted to the hospital the previous Sunday, and on Monday an operation was performed. Some hope was entertained for his recovery, but he sank gradually till the end came. Deceased was born in Aberdeen, Scotland, in 1855, his father being the Rev. James Herald (Presbyterian). John Herald was educated at Queen's University, Kingston, and graduated with honors in 1876, receiving the degree of M.A. in 1880. He graduated in medicine at the same institution in 1884, and was subsequently appointed to the staff of his Alma Mater. For some years he had been a member of the governing body of the University. Politically, Dr. Herald was a Conservative, and in the municipal campaign of 1894 was elected Mayor of Kingston. He was a Methodist. His wife, who survives him, was Miss Grafton, of Dundas, Ont.

Dr. Hastings, of Toronto, and Dr. Dickson, of Hamilton, were brothers-in-law of Dr. Herald. Deceased was Past High Chief Ranger of the Independent Order of Foresters. The remains were removed to Dundas for interment.

Correspondence.

The Editor cannot hold himself responsible for any views expressed in this Department.

A FRIENDLY WORD.

To the Editor of THE CANADIAN JOURNAL OF MEDICINE AND SURGERY :

Sir,—Inasmuch as occasional criticisms, unkindly and misleading sentences, and sometimes lengthy attacks on Christian Science are being woven into books and pamphlets, purporting to have been written on other subjects, we deem it but just to publishers that we should call their attention to this fact. In writing on other subjects it is not necessary to include an attack on Christian Science, and such an attack cannot but interfere with the mission of the book containing it, while at the same time it undoubtedly jeopardizes the good name of the publisher.

We believe all publishers will agree with us that it is only fair and just that all incorrect allusions to Christian Science should be eliminated from manuscript intended for books and periodicals, and we would suggest that Christian Scientists would gladly assist publishers in determining the accuracy of matter relating to Christian Science. Christian Science is comparatively new, and many write, not after a correct knowledge of the subject, but from a mere cursory reading and from data carelessly gathered from flippant critics.

The body known as Christian Scientists is largely recruited from the intelligent and educated classes, and the number is rapidly increasing, and we assume that all publishers desire to extend the same courtesy to Christian Scientists that is accorded to members of other denominations, that they will welcome the information which this letter is intended to convey, and will accept it in the same friendly and brotherly spirit in which it is written. Yours sincerely,

ALFRED FARLOW.

Aortic Regurgitation with Chronic Miliary Tuberculosis in a Man Twenty-two Years Old.—M. Leale reports this case, which seems of special interest, on account of the infrequent association of these two lesions. It is also unusual to see well developed aortic regurgitation in so young a subject.

News of the Month.

CANADIAN MEDICAL ASSOCIATION.

THE thirty-eighth annual meeting of the Canadian Medical Association will be held at Halifax, N.S., on the 22nd to the 25th of August, 1905. All members are invited to be present and contribute to the success of the meeting by contributing a paper or a demonstration or joining in the discussions.

The Committee on Papers and Business desires to call attention to the following extracts from the Constitution:

"All papers (or abstracts thereof) should be in their hands at least three weeks before the date of meeting.

"A copy of every address, discourse, or paper read before the Association shall at once be handed to the General Secretary, and shall become the property of the Association, and shall be preserved with the other documents, etc.

"Members desiring their papers to appear in any particular journal shall present a duplicate copy with the name of the journal marked thereon."

In order to make proper arrangements *re* accommodation, all intending to contribute or to be present should communicate with the General Secretary without delay.

Dr. John Stewart, of Halifax, N.S., is President, and Dr. George Elliott, 203 Beverley Street, Toronto, is General Secretary.

A LIBRARY, A LABORATORY AND A NURSERY.

DR. OSLER, who is soon to enter upon the duties of the regius professorship of medicine at Oxford, arrived in Montreal on April 14th from Baltimore, and after declining to be interviewed by the newspaper men addressed the body of medical students at McGill University, lunched at St. James' Club with a number of well-known local physicians, and in the evening delivered a speech at the medical faculty dinner at the Windsor Hotel.

Instead of being met at the station by a band of indignant sexagenarians armed with bitter anathemas and knock-out drops, the famous lecturer was received by a few friends and driven to the residence of Dr. Shepherd, whose guest he was during his visit in Montreal. By noon hour, at which Dr. Osler was to address

the students, Molson Hall was crowded, and when the professor arrived a little later there were vociferous cheers of welcome. Applause and laughter interrupted the doctor quite frequently as he proceeded to speak.

Dr. A. Cummings, President of the Medical Association, presided, and on the platform were Principal Peterson and a score of physicians. The address was, as Principal Peterson observed, marked by humor, professional knowledge and wealth of literary allusion, sweeping from St. Chrysostom to George Eliot. Wit and lore were brilliantly blended.

Apart from the general mass of his remarks, Dr. Osler advised the students to study two things—books and men. Perhaps the famous theorist spoke from experience when he said: "To no man is it given to know the truth, the whole truth, and nothing but the truth. But what is the student but a lover, courting a fickle mistress. Truth is the best you can get with your best endeavor. Thus you will learn to be content. If you retain your modesty it will enable you to avoid that terrible mental blindness where you cannot recognize truth if it stares you in the face—the condition that faced Harvey when he discovered the circulation of the blood, and dared not publish it abroad for twelve years because the scientific leaders could not conceive that great truth.

The speaker epitomized his advice to young medical men as follows: "There are three things the practitioner needs: a note-book, a library, and quinquennial brain dusting. The note-book is necessary to keep live observations on all cases, serious, obscure, and mistaken diagnosis. With regard to brain dusting I advise merciless self-severity, and broad charity to others, but especially always that you play the game fairly. The ambition of every young doctor should be to have three well-stocked chambers—a library, a laboratory and a nursery. You may not achieve the first at once, but you can start at least, and, if necessary, for the sake of the first two, leave the nursery to the future."

ONTARIO HOSPITALS ASSOCIATION.

THE annual meeting of the Ontario Hospitals Association was held on April 12th at the Parliament Buildings, and a deputation waited upon the Premier to ask for an increase in the grant to hospitals, or to have them, at least, placed upon a certain basis. At present there is provided 50 cents per patient, which is found insufficient. A further grant of 25 cents per patient is asked. The total grant to hospitals is $110,000. As the number of patients grew the grant per head automatically decreased. Those members of the deputation who spoke were Dr. O'Reilly, Dr. Powell, Ottawa; M. May, M.L.A., Ottawa, and Dr. Ferguson.

The Premier promised consideration.

At the annual meeting Dr. O'Reilly presided, in the absence of Edward Gurney. The statistics show that in Ontario hospitals 39,223 patients were treated in 1904, as against 35,912 in 1903. The total revenue for 1904 was $844,881, including the Government grant, which amounted, when divided, to just about 17 cents per day for each patient entitled to receive it. The actual average cost for each patient was 89 cents a day, and the total expenditure for 1904 was $841,829, as compared with $784,643 the previous year.

These officers were elected: President, Edward Gurney, Toronto; vice-presidents, C. O'Reilly, M.D., Toronto; George Orme, Ottawa; B. W. Robertson, Kingston; Adam Beck, M.L.A., London; J. Billings, Hamilton; H. Malcolmson, Chatham; secretary-treasurer, J. Ferguson, M.A., M.D., Toronto: committee, M. O'Connor, Toronto; Robert McLaren, St. Catharines; J. H. Stratford, Brantford; P. L. Chabot, Ottawa; James McLaughlin, Owen Sound; T. L. Kenny, Sarnia; Robert Melvin, Guelph; T. Cochrane, Sudbury.

DR. OSLER'S SUCCESSOR.

Dr. Lewellys Franklin Barker, who has been chosen by the trustees of Johns Hopkins University as professor of medicine, and who will, along with Dr. William Sydney Thayer, the new professor of clinical medicine, fill the vacancy caused by the resignation of Dr. William Osler, spent his youth and was educated in Ontario. Born near Philadelphia thirty-seven years ago, his parents, when he was a child, removed to Norwich, Ontario. He was trained in Pickering College, and studied medicine in the University of Toronto, from which he graduated in 1890. The year following he was house surgeon in the Toronto General Hospital, and in 1892 he went to Baltimore, where he studied and practised. In 1900 he took the chair of anatomy in Rush Medical School, now the University of Chicago, which chair he held until a year ago, when he became professor of medicine. Dr. Barker is tall and commanding of appearance, and within the age limit in which his predecessor said a man could do his best work. He is credited with the possession of inexhaustible energy and an enduring affection for his work. He has written several books, and has done much work for the medical journals. His best known literary work is a translation of Werner Spalteholtz's "Hand Atlas of Human Anatomy," and his book, "The Nervous System and Its Constituent Neurones," published in 1899, is widely used In 1899 he visited the Philippine Islands as one of the medica commissioners representing the Johns Hopkins. In 1901 he was appointed by the Secretary of the Treasury a member of a special committee to decide the existence or non-existence of the plague in

San Francisco. During a great part of last year he has been in Germany studying clinical medicine. The action of the trustees in dividing Dr. Osler's chair of medicine is not the first instance of the kind at Johns Hopkins. When the chair of physics was made vacant by the death of Dr. Rowland some years ago two men were appointed to succeed him. Dr. Parker's appointment was received with satisfaction by the student body. Dr. Osler is expected to sail from New York on May 17 to assume the work of regius professor of medicine in Oxford University.

SECURE PROOF OF DEATH AND THUS PREVENT PREMATURE BURIAL.

A PARLIAMENTARY bill to provide security against burial alive has been drafted by the Association for the Prevention of Premature Burial. The bill proposes that—

1. No burial shall take place without a medical certificate of death.

2. No certificate shall be given without a personal examination of the body, and the certificate shall state the signs from which death is inferred.

3. The appointment by the Home Office of death verifiers in every district of England and Wales, who shall give their whole time to the duties.

4. The municipal authorities shall have power to establish waiting mortuaries, in which bodies shall remain until putrefactive decomposition sets in.

These proposals were discussed at the annual meeting of the Association at Frascati's in January.

Dr. Walter Hadwen, of Gloucester, who, at the request of the late Miss Frances Power Cobbe, undertook the task of severing her head from her body, to make sure that she would not return to consciousness after burial, advocated the establishment of mortuaries.

"Who has the right to say that instances of burial alive are few, seeing that the only witnesses of such tragedies are the boards of the coffin?" he asked.

Dr. Hadwen further alleged that 999 medical men out of every 1,000 give a certificate of death without an examination of the body.

"No one in the world can be absolutely certain that death has taken place unless there are signs of putrefaction," declared Dr. Hadwen, in support of his contention that waiting mortuaries should be provided.

These public mortuaries would be well-arranged and properly

ventilated buildings, comprising a hall for the bodies and separate apartments for infectious and judicial cases. There would be none of the ghastliness of death, said Dr. Hadwen, but friends would see the bodies of their loved ones surrounded with flowers.

In the hand of each reputed corpse would be a bell, which would ring on the slightest movement of the body, and every possible appliance to aid in the work of resuscitation would be in readiness.

A resolution in favor of the reforms was carried.

ITEMS OF INTEREST.

Dr. Adam H. Wright's New Work on Obstetrics.—Dr. Adam H. Wright, Professor of Obstetrics in Toronto Medical College, has a new work on obstetrics in the press, to be published in April by Morang & Co., Toronto.

"The Theory of Evolution" and "The Descent of Man."—The New York Pharmacal Association, of Yonkers, N.Y., have recently issued a handsome and unique folder which graphically illustrates, in colors, "The Theory of Evolution," and "The Descent of Man," as promulgated by the well-known scientist, Haeckel. The pamphlet is very interesting, indeed, and it will repay any physician to send for a copy, all he has to do to secure one being to mail his card to the publishers.

For "The Busy Practitioner."—One of the most concise and complete books of reference for medical men is Martindale's "Extra Pharmacopeia," containing, as it does, dose, method of administration, incompatibility of all preparations in the British Pharmacopeia, as also valuable notes on all the newer remedies. Messrs. Martindale & Sons are to be congratulated on the excellent arrangement of their books and the convenience and help it will undoubtedly give to the busy practitioner. We are pleased to inform our readers that a supply of their latest edition (the 11th) has just been received by W. Lloyd Wood, who will be glad to supply the profession at the same price at which they are sold in Great Britain, 9s. 6d. ($2.30) each.

Special Article—Immunity.—Chapter VII of the article on Immunity in *The Journal A. M. A.*, March 11th, gives the definition of acquired immunity, which may be active, as in vaccination, where the anti-bacterial or antitoxic elements appear to form a permanent endowment of the blood, or passive, as in diphtheria, where the immunity is temporary; these elements being soon exhausted or thrown off. The methods of attenuation or of increase of the virulence are mentioned, as also the nature

of acquired immunity. The notable facts of the modifications of resistance at different periods of life are also mentioned, and the use of the biologic test for species, which has acquired such importance from a medicolegal point of view. The part of the leucocytes in acquired immunity is mentioned, and of the bacteriolytic enzymes, which latter, however, are considered most likely accidentally to increased resistance and not to be of special importance of themselves in combating infections.

Fifteenth International Medical Congress to be Held at Lisbon, Portugal.—The fifteenth International Medical Congress will be held at Lisbon in April, 1906. At a meeting of the National American Committee, held at St. Louis last September, the following officers and members were appointed to represent the Congress: John H. Musser, M.D., 1927 Chestnut St., Philadelphia, Chairman; Ramon Guiteras, M.D., 75 W. 55th St., New York, Secretary; Dudley P. Allen, M.D., C. S. Bull, M.D., E. C. Burnett, M.D., E. G. Brackett, M.D., H. E. Bell, M.D., Frank Billings, M.D., Herman M. Biggs, M.D., Herbert L. Borell, M.D., T. J. W. Burgess, M.D., Wm. T. Corlett, M.D., William T. Councilman, M.D., Wm. H. Carmalt, M.D., Richard C. Cabot, M.D., Charles H. Dana, M.D., N. S. Davis, Jr., M.D., E. C. Dudley, M.D., Simon Flexner, M.D., Chas. H. Frazier, M.D., R. H. Fitz, M.D., W. E. Fischel, M.D., C. M. Green, M.D., Chas. Lyman Greene, M.D., H. A. Hare, M.D., L. Hektoen, M.D., W. H. Howell, M.D., Edward Jackson, M.D., E. G. Janeway, M.D., A. Jacobi, M.D., C. G. Jennings, M.D., George B. Johnson, M.D., W. W. Keen, M.D., Howard A. Kelly, M.D., Chas. Kollock, M.D., L. S. McMurtry, M.D., James H. McBride, M.D., A. T. McCormack, M.D., K. A. Mackenzie, M.D., J. B. Murphy, M.D., R. Matas, M.D., Chas. S. Minot, M.D., Robt. M. O'Reilly, M.D., William Osler, M.D., Chas. Powers, M.D., W. F. R. Phillips, M.D., B. Alexander Randall, M.D., J. B. Roberts, M.D., W. L. Rodman, M.D., M. H. Richardson, M.D., C. C. Rice, M.D., Chas. A. L. Reed, M.D., Presley M. Rixey, M.D., H. M. Sherman, M.D., Fred'k C. Shattuck, M.D., Geo. H. Simmons, M.D., Wm. G. Spiller, M.D., Chas. G. Stockton, M.D., Geo. Sternberg, M.D., E. L. Trudeau, M.D., Victor Vaughn, M.D., John A. Witherspoon, M.D., J. Collins Warren, M.D., J. C. Webster, M.D., Wm. H. Welch, M.D., John A. Wyeth, M.D., Horatio C. Wood, M.D., Walter Wyman, M.D. The Executive Committee, appointed from this group, were: Frank Billings, M.D., William Osler, M.D., Frederick Shattuck, M.D., Abram Jacobi, M.D., and J. H. Musser, M.D., Chairman. Any communications regarding the presentation of papers at this Congress, can be sent to Miguel Bombarda, Secretary at Lisbon, or to Dr. Ramon Guiteras, Secretary for this country.

The Physician's Library.

BOOK REVIEWS.

The Naked-Eye Anatomy of the Human Teeth. By THOS. E. CONSTANT, Licentiate of the Royal College of Physicians, London; Licentiate in Dental Surgery; and Member of the Royal College of Surgeons, England. Bristol: John Wright & Co. London: Simpkin, Marshall, Hamilton, Kent & Co., Limited. 1905.

This book has the merit of adhering closely to the anatomy itself of the teeth and associate parts. Embryology, physiology, histology, and morphology have been excluded entirely, and though perhaps primarily intended for students, it should be in the library of both the progressive surgeon and dentist.

The illustrations are many, and while Gray's "Anatomy" has been utilized for a few of these, yet the majority are from photographs specially made, the specimens illustrating the development of the teeth being secured from the museum of the Odontological Society of Great Britain.

Besides the anatomy of the temporary and permanent teeth, and the jaws and teeth at various periods of life, the tongue, soft palate, tonsils, salivary glands, the fifth cranial nerve and vascular relation of the teeth and contiguous parts are fully dealt with.

E. H. A.

The American Year-Book of Medicine and Surgery. Being a yearly Digest of Scientific Progress and Authoritative Opinion in all branches of Medicine and Surgery, drawn from journals, monographs, and text-books of the leading American and foreign authors and investigators, collected and arranged with critical editorial comments by eminent American specialists, under the general editorial charge of GEO. M. GOULD, M.D. Two separate volumes, General Medicine and General Surgery. Two octavos, about 700 pages each, fully illustrated. Philadelphia and London: W. B. Saunders & Co. 1905. Per volume, cloth, $3.00 net; half Morocco, $3.75 net. Canadian agents: J. A. Carveth & Co., Limited, Toronto.

This year's issue of Saunders' American Year-Book of Medicine and Surgery is fully the equal of any of its predecessors, and in one or two respects even its superior. The two volumes may be fairly called a comprehensive review of medicine and surgery for

the twelve months previous, all the material being compiled under the supervision of one whose ability as a literary writer is unquestioned, by a number of departmental editors familiar to those who peruse the medical literature of the day. In the volume on Surgery, the department of general surgery is edited by Drs. J. Chalmers DaCosta and John H. Gibbon; obstetrics, by Drs. B. C. Hirst and W. A. N. Dorland; gynecology, by Dr. John Baldy; ophthalmology, by Drs. W. L. Pyle and S. H. Brown; diseases of the nose, throat and ear, by Drs. D. B. Kyle and J. L. Davis; orthopedic surgery, by Drs. V. P. Gibney and J. H. Waterman; and anatomy, by Dr. C. A. Hamaan. The volume on Medicine has as its departmental editors Drs. A. Stengel and D. L. Edsall, who contribute to general medicine; Drs. J. P. C. Griffith and J. C. Gittings, who edit pediatrics; Drs. D. Riesman and A. O. J. Kelly, pathology and bacteriology; Dr. Archibald Church, nervous and mental diseases; Dr. L. A. Duhring, cutaneous diseases and syphilis; Drs. R. W. Wilcox and A. A. Stevens, materia medica, experimental therapeutics and pharmacology; Dr. G. N. Stewart, physiology; Drs. John Marshall and J. H. W. Rhein, legal medicine; Dr. S. W. Abbott, public hygiene and preventive medicine; and Drs. Walter Jones and Reid Hunt, physiologic chemistry. The reader will find in those two volumes a digest of the most recent medical and surgical literature, well boiled down, yet readable, and sufficiently illustrated to make the text increasingly interesting.

The Practical Medicine Series of Year-Books. Comprising Ten Volumes of the Year's Progress in Medicine and Surgery. Issued monthly under the general editorial charge of Gustavus P. Head, M.D., Professor of Laryngology and Rhinology, Chicago Post-Graduate Medical School. Vol I.—General Medicine. Edited by Frank Billings, M.S., M.D., Head of the Medical Department and Dean of the Faculty of the Rush Medical College, Chicago, and J. H. Salisbury, M.D., Professor of Medicine, Chicago Clinical School. Vol. II.—General Surgery. Edited by John B. Murphy, M.D., Professor of Surgery, Northwestern University Medical School. Series 1905. Chicago: The Year-Book Publishers, 40 Dearborn Street.

These are neat little volumes of 347 and 545 pages respectively.

The volume on "Medicine" contains a review of the literature of general medicine for the past year. The work is well arranged and contains valuable contributions, under the following headings, viz., diseases of the respiratory organs, the circulatory organs, blood and blood-making organs, infectious diseases, parasitic and metabolic diseases, diseases of the kidneys and the ductless glands.

Vol. II., on "Surgery," covers a very wide range, and contains several wood cuts. These volumes, while designed for the general practitioner, will be found of great practical use to those interested in special lines, as they can purchase the volume separately in which they may have a special interest. W. J. W.

Clinical Chemistry and Microscopy. By FRANCIS CARTER WOOD, M.D. New York: D. Appleton & Co. Canadian Agents: Morang Co., Limited, Toronto.

The up-to-date practitioner of the present day is distinguished from his predecessor of twenty years ago by the fact that he applies the results of modern researches on the blood, sputum, urine, and other secretions and excretions of the body to the solution of his problems of diagnosis. Just inasmuch as he uses these methods intelligently and carefully is he superior to other practitioners who employ only the older means of physical diagnosis.

It has been shown that a considerable number of cases which were supposed to have typhoid fever, with rapid and progressive anemia, had an entirely different disease, acute lymphatic leukemia, a diagnosis of which can be made only by an examination of the blood. Again, an operation is occasionally performed for the removal of tumors of the abdominal cavity, when, if the blood had been examined, the patient would not have been subjected to the shock and danger of an operation. Such patients may be the subjects of myelogenous leukemia, and an operation under these conditions is unjustifiable. Again, the question of testing for albumin in the urine is of the greatest importance in connection with the question of life insurance, and also with the problem of early diagnosis of chronic nephritis at a stage at which the disease can be improved by treatment.

So, too, the identification of the different sugars in the urine, upon which special stress has been laid, enables the practitioner to distinguish between true diabetes and the alimentary melliturias, the latter being of importance from a dietary point of view, but not of bad prognostic import.

The study of sputum may enable the practitioner who employs suitable staining methods to diagnose tuberculosis before changes in the lungs, sufficient to give rise to physical signs, make their appearance, and thus the patient gains six months or a year at a period when climatic treatment is most useful.

The diagnosis of carcinoma of the stomach is often impossible by the ordinary means employed in physical diagnosis. Analysis of the gastric juice, however, frequently enables the surgeon to obtain such strong diagnostic hints of the condition involving the stomach that an operation is warranted. Such

operations are the only successful ones, for when a tumor can be palpated the patient is beyond the reach of a radical cure.

The new text-book by Prof. Francis Carter Wood, of Columbia University, has been prepared with special attention to the needs of the practical clinician. It is the result of a good many years of teaching and laboratory work in Columbia, and in one of the largest hospitals in New York City.

The section on the examination of the blood, which is one of the most difficult for the practitioner to master without direct laboratory teaching, has been made especially full, and, owing to the liberality of the publishers, a series of eight colored plates has been introduced into the text, the drawings being made by the author directly from the specimens as stained for routine examination. The practitioner, therefore, has an atlas of the diseases of the blood such as is given in no other published work. Besides these, the text has been embellished with numerous photographs of blood taken from various diseases in which the morphological findings are most important. The practitioner sees before him the exact picture which he would see through the microscope, the plates being entirely untouched, and representing naturally the exact conditions which they are intended to illustrate. Great stress is laid upon the practical details of blood counting, estimation of hemoglobin, and also on the testing of blood stains for the various blood pigments, while throughout the book the various tests for blood in the different excretions have been carefully amplified, with special directions for stomach contents and feces. Wood's "Chemical and Microscopical Diagnosis" devotes a very considerable space to the discussion of the blood findings in disease. The different anemias are classified and the morphological changes which are found are discussed in detail. Special stress is laid upon the changes in the blood in surgical conditions, in anemia in children, and in the obscure types of blood diseases intermediate between anemia and leukemia.

Malaria comes in for a full discussion. A colored plate shows the stained parasites of all forms of fever. The methods of dissection of mosquitoes, to demonstrate infection by malaria, are given, with diagrams, so that anyone may carry out the procedure, and the recently discovered parasitic diseases are also fully represented.

The acquisition of Porto Rico and Panama has rendered the subject of filariasis of immense importance to American physicians, as this disease affects one-fourth to one-half of the population of these countries, so that the practitioner will welcome a full description of the varieties and also photographs. The section on trypanosoma is also of interest to Americans, as it is found in the Philippines. The physicians of the North-West will be

interested in the discovery which has been made concerning the probable etiology of spotted fever.

The physician who has a laboratory at his disposal will find a very full discussion of the Widal reaction, of the methods of making blood cultures, and of the results which may be obtained thereby, and of the modern methods of testing for blood by the precipitin reaction. These procedures are more fully given than in any other English text-book.

The examination of the stomach contents and the feces is treated especially from the point of view of diagnosis. The practitioner is not asked to carry out a large number of procedures and then told that these procedures are of no practical value. The methods given are selected as the simplest and most practical.

The section on "Parasites" is very fully illustrated, and is thoroughly up-to-date, many illustrations being from photographs and drawings of specimens in the author's collection.

Under "Sputum," we may call attention to the completeness with which the methods of demonstration of the tubercle bacillus under various conditions are emphasized and described.

The chapter on "Urine" is one of the largest in the book, and contains much that is new and not to be found in other text-books of clinical diagnosis. The needs of the practitioner are consulted. An especial feature is the introduction of a number of pages giving the reaction of drugs when they appear in the urine. Special space is given to the detection of lead, the method usually given in text-books being quite erroneous. The frequency of lead poisoning, however, warrants a full discussion of a suitable method. The reactions of iodine in the urine are also given in full, and likewise those for mercury, the detection of the latter being especially important in connection with the treatment of syphilis.

Casts and crystals in the urine are illustrated by many photographs, as are the various other deposits found in that fluid.

A section is devoted to the results of recent methods of determining the functional efficiency of the kidneys from the point of view of surgical diagnosis. The only text-book which treats this subject fully is one translated from the German and now some four years old. The advances in these four years are fully presented by the writer.

The section on "Exudates" is illustrated by many photomicrographs of bacteria, while the exposition of the recent results obtained in the cytological examination of the pleural, peritoneal and spinal fluids occupies a number of pages. The injection of animals is considered and a plate gives the anatomical findings after the injection of the guinea-pig with tubercle bacilli.

Recent progress in infant feeding was largely developed by the study and analysis of the relation of human and cow milk. The methods of analysis of both fluids are fully given.

An appendix has been added, containing full directions for the making of staining fluids, the care and purchase of apparatus, the necessary reagents, the preparation of normal solutions, the cleaning of slides and cover glasses, and the removing of dyes from the hands, thus completing a very practical book.

The International Medical Annual. A Year-Book of Treatment and Practitioners' Index. Contributors: Prof. A. H. Carter, M.D., F.R.C.P.; Frank J. Charteris, M.B., Ch.B.; Wm. M. Browning, M.D., Minneapolis; Prof. C. A. Ewald, M.D., Berlin; E. Henry Fenwick, F.R.C.S.; A. E. Giles, B.Sc., M.D., F.R.C.S.; Edward W. Goodall, M.D.; Wilfrid Jas. Hadley, M.D., F.R.C.S.; Prof. Græme M. Hammond, M.D., New York; Robt. Hutchison, M.D., F.R.C.P.; Robt. Jones, F.R.C.S.; Priestly Leach, M.D., F.R.C.S.; John MacIntyre, M.B., C.M.; P. Lockert Mummery, B.C., F.R.C.S.; Wm. Murrell, M.D., F.R.C.P.; Jos. Priestley, B.A., M.D., D.P.H.; R. J. Probyn-Williams, M.D., M.R.C.S.; Walter E. Rahte, M.D., Philadelphia; Prof. Boardman Reed, M.D., Philadelphia; Prof. A. W. Mayo Robson, D.Sc., F.R.C.S.; De Lancy Rochester, M.D., Buffalo; Prof. Robt. Saundby, M.D., F.R.C.P., LL.D.; J. W. Watson Stephens, M.D., D.P.H.; Purves Stewart, M.A., M.D.; Geo. Fred Still, M.A., M.D., F.R.C.P.; Prof. Ralph Stockman, M.D., F.R.C.P.; A. Hugh Thompson, M.A., M.D., F.R.C.S.; Wm. Thorburn, F.R.C.S., B.Sc., M.D.; Hunter F. Tod, M.A., M.B., F.R.C.S.; A. H. Tubby, M.S., M.B., F.R.C.S.; Joseph Turner, F.R.C.S., L.D.S.; J. W. Thomson Walker, M.B., F.R.C.S.: Norman Walker, M.D.; Otto Walker, M.D., Nordrach; P. Watson Williams, M.D., M.R.C.S. Twenty-third year. New York: E. B. Treat & Co., 241 and 243 West 23rd Street. 1905. Price, $3.00.

To regular readers of the International Medical Annual any commendatory words of ours are quite unnecessary. To physicians who have not had the advantage of using such a work of ready reference we would say that it is worth a good deal more than the price asked for it. The Dictionary of Materia Medica and Therapeutics gives the reader, among other information, accounts of the newer synthetic drugs. The Dictionary of Treatment, arranged alphabetically, gives a review of medical and surgical progress for 1904 by many contributors. This is the principal part of the book, and occupies 510 pages. In Part III. there are some references to sanitary science. The 1905 volume is a little larger than its predecessors; but the price has not been raised. In looking through the volume, it is pleasing to note that the CANADIAN JOURNAL OF MEDICINE AND SURGERY appears pretty often among the references.

J. J. C.

The Marriage of William Ashe. By MRS. HUMPHRY WARD. Toronto: William Briggs.

One of the charming novels of the season. A husband absorbed in politics, while the beautiful, vivacious, almost entrancing to the reader, Lady Kitty thinks all life's guerdons well lost for love's sake—a man's man for a hero, a womanly woman for a heroine—weak, perhaps, but very human. As some one has gracefully said: "In all Mrs. Ward's long gallery of distinguished heroines Lady Kitty most vibrates with life, and her story is likely to leave with its readers most of that fragrance of rosemary which is for remembrance." W. A. Y.

The Outlook's April Magazine Number.—James Bryce, George Kennan, Edith Rickert, Garret P. Serviss and J. Horace McFarland are among the contributors to *The Outlook's* illustrated magazine number for April. Notable illustrations are those from photographs by Mr. James Ricalton of the siege of Port Arthur, accompanying Mr. Kennan's "Story of Port Arthur"; those picturing the marvels of photography in astronomy, as described by Mr. Serviss; the charming pictures of spring buds and blossoms with Mr. McFarland's "The Awakening of the Trees"; the fine architectural illustration of Mr. Maurice B. Biscoe's "Church Architecture," one of three informative papers on this topic; and the reproductions of the best work of "A Historian in Bronze"—Mr. James T. Kelley.

The New International Encyclopædia. Editors, DANIEL COIT GILMAN, LL.D., President of Johns Hopkins University (1876-1901), President of Carnegie Institution; HARRY THURSTON PECK, Ph.D., L.H.D., Professor in Columbia University; FRANK MOORE COLBY, M.A., Late Professor of Economics in New York University. 21 volumes. New York: Dodd, Mead & Co. 1904.

To undertake so stupendous a task as the publication of an encyclopædia, such as this great work has already proven itself to be, is something few men would care to even contemplate. It must be remembered at the outset that this series of volumes does not consist simply of the old International Encyclopædia revised and here and there rewritten, because such is not the case. The New International contains very little indeed of what appeared in the old work, just a small portion of the text that has been found to have "successfully withstood the test of searching criticism," and "as satisfying the most exacting requirements," otherwise the work being new throughout.

The first point about the International that calls for particular attention, and one of the most important, is the very high literary standing of the editors. Their ability and intimate connection

with three of the foremost educational institutions in the United States, make them peculiarly well suited for so great an undertaking. It would be impossible to enumerate the names also of the contributors to the encyclopædia, suffice it to say that they include such men as F. Sturgis Allen, chief editor of Webster's International Dictionary; Fred. R. Bailey, M.D., College of Physicians and Surgeons, New York; David Josiah Brewer, LL.D., Associate Justice of the United States Supreme Court; Archibald Church, M.D., Professor of Mental Diseases and Medical Jurisprudence, Northwestern University Medical School; Adolphe Cohn, Ph.D., Professor of Romance Languages and Literature in Columbia University; Harry A. Cushing, LL.D., Lecturer in History and Constitutional Law, Columbia University; William Herbert Hobbs, Ph.D., Professor of Mineralogy, University of Wisconsin; Louis H. Gray, Ph.D., Associate Editor of the *Orientalische Bibliographie;* Albert Warren Ferris, A.M., M.D., Associate in Neurology, College of Physicians and Surgeons, New York; David Starr Jordan, Ph.D., President Leland Stanford, Jr., University; Harold Jacoby, Ph.D., Professor Astronomy, Columbia University; Ed. W. Hopkins, Ph.D., LL.D., Professor of Sanskrit and Comparative Philology, Yale University; Lewis Fredk. Pilcher, Professor of Art, Vassar College; Alex. Dana Noyes, A.M., Financial Editor New York *Evening Post,* and hundreds of others equally well known in educational, literary and financial circles. The New International Encyclopædia can be safely said to be the most comprehensive and complete work of its kind in the English language. It recently received the Grand Prize at the Louisiana Exposition, the highest award in the gift of the directorate of that great World's Fair.

To attempt to say what it contains in its twenty-one volumes would be well-nigh impossible. On the other hand, what it does not contain might be summed up in but few sentences. It goes, almost in detail, into every subject, *e.g.,* geography, literature, law, medicine, religion, biography, science, anthology, climatology, anatomy, and vegetable life; in fact, so comprehensive is it that it would be nearly correct to state that on hardly any subject will the purchaser not find a fund of information which will many times repay the investment. One of the chief characteristics of the work is the attractiveness in which the subjects are presented to the reader, and the wonderful convenience of its general arrangement. The New International Encyclopædia is not a series or collection of monographs as is more than one of its competitors, but a most comprehensive compilation of subjects making it an every-day work of reference for popular use, its authors not making it too technical to be intelligible, but accurate, comprehensive, lucid and convenient, in other words, an ideal encyclopædia.

It has already been subscribed for by nearly 120 universities and colleges, 50 state normal schools, 20 state libraries, and by

over 1,000 Public Schools and libraries. That alone must of necessity prove its value as an encyclopædia.

A most valuable addition to the work as one suitable for a course of study is a companion volume, containing courses of reading, enhancing very much its value to those desirous of adding to their fund of knowledge upon almost any subject.

The International is splendidly illustrated with colored plates, maps, and engravings, which add immensely to its value. Perhaps the best manner in which to express an opinion of the book is to say, purchase it. It is worth every dollar charged for it, and you will never regret your bargain. W. A. Y.

Medical Diagnosis. The Medical Epitome Series. A Manual for Students and Practitioners. By Austin W. Hollis, M.D., Attending Physician to St. Luke's Hospital, New York; Physician-in-Chief to the St. Luke's Hospital Out-Patient Department; Attending Physician to the New York Dispensary. The series edited by Victor Cox Pedersen, A.M., M.D., Instructor in Surgery, and Anesthetist and Instructor in Anesthesia at the New York Polyclinic Medical School and Hospital.

The above "Medical Diagnosis" is not descriptive of methods of examination or explanatory of physical signs. Nor does it deal with details, such as blood analysis, chemical analysis of stomach contents, etc., but simply a collection of symptoms of the various diseases which would be useful as a hand-book for the student, for examination purposes, and helpful to a practitioner in making a differential diagnosis.

The work is concise, complete and accurate in its symptomatology, and evidently prepared with great care. A. R. G.

Mental Defectives: Their History, Treatment and Training. By Martin W. Barr, M.D., Chief Physician Pennsylvania Training School for Feeble-minded Children, Elwyn, Pa. Illustrated by fifty-three full-page plates. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut Street. 1904.

This work treats in an admirable way a much-neglected subject. It is an injustice to deal with weak-minded children as if they were all of the same grade. In the case of the idiot there is no well-founded hope of cure, and it is a waste of energy to teach defectives of this grade anything but the most simple facts; while, on the other hand, the training of many who are mentally below par secures an encouraging result in the imbecile, prevents backward children from degenerating into imbecility, and obtains for a considerable proportion of this class a degree of development which makes them useful citizens.

Those who have never been so situated as to be able to see many patients of this class would be surprised to learn what a large proportion of children are mentally unfitted to hold their own with their fellows of a similar age; and it is for a physician a large step in gaining a liberal education to spend a few days in a good school devoted to the education of the feeble-minded. Notwithstanding our boasted educational advancement, there are few civilized countries where so little has been done for these unfortunates as in Canada.

Dr. Barr's book is one of the very best upon a subject upon which much has been written in recent years. It would greatly enlarge the vision of many men who are in the practice of medicine and would enable them to give advice which would be highly beneficial, both to the patient and to the family who are seeking guidance in reference to the future of those who are mentally below a normal standard. B. E. M.

Clinical Treatises on the Pathology and Therapy of Disorders of Metabolism and Nutrition. By PROF. DR. CARL VON NOORDEN, Physician to the City Hospital, Frankfort, A.M. Authorized American edition. Translated under the direction of Boardman Reed, M.D., Professor of Diseases of the Gastro-intestinal Tract, Hygiene and Climatology, Department of Medicine, Temple College; Physician to the Samaritan Hospital, Philadelphia, etc. Part V., Concerning the Effects of Saline Waters (Kissengen, Homburg) on Metabolism. By Prof. Carl von Noorden, Frankfort, and Dr. Carl Dapper, Bad Kissengen New York: E. B. Treat & Co. 1904.

This treatise by Drs. von Noorden and Dapper deals with the effects of the mineral waters of Kissengen and Homburg on metabolism. In Ragocksy water (Kissengen) and in Elizabethquelle water (Homburg) the principal ingredient is chloride of sodium. The investigations were made principally on sick people. The following results were noted: (1) In gastric catarrh an active and permanent increase in the production of hydrochloric acid; (2) in nervous dyspepsia a decrease of hydrochloric acid; (3) it was found unnecessary to exclude fats, raw fruit, solids and vinegar from the diet; (4) the use of the saline water did not interfere with the absorption of the fats; (5) the use of the water did not increase the metabolism of the proteids; (6) the excretion of uric acid was slightly increased when dilute saline mineral waters were taken. The clinical methods adopted by the observers enabled them to pronounce decidedly on the effects of these saline waters on sick people. J. J. C.