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THE EYE SYMPTOMS IN HYSTERIA.

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MR. CHAIRMAN and Fellows,—Of all the protean manifestations of hysteria, none are more remarkable than those which affect the eye.

The various functions of this organ are so dissociated by hysteria that a study of its symptoms here, in doing away with one function while sparing another, shows a cleverness that even the greatest physiologist might envy. Hysteria can effect every possible dissociation in the complicated functions of vision. First, it may obliterate at once the whole of the visual function, which is the most radical and the least common result, producing as it does total blindness. Second, it may cause the visual function to disintegrate, dividing and subdividing it into its elementary components, and thus affording a beautiful example of how composite functions are decomposed. This latter we can observe especially in the study of the visual fields.

While total blindness is uncommon, its actual existence has for a long period been recognized. In his recent excellent work on the major symptoms of hysteria, Prof. Janet relates the case of a laundress, who, while at work, got some water mixed with soap and lime in her face, owing to the explosion of a boiler. She was menstruating at the time, and as a result of the accident felt much agitated and very giddy. It was soon noticed that she could no longer see. The amaurosis remained complete for two years, after which the vision improved and rapidly returned to normal. In a personal observation the vision failed rapidly after a severe attack of hysterical convulsions, so that in a few weeks the blindness was complete. The diagnosis in this case offered considerable difficulty, and an unfavorable prognosis was given by some of the oculists who examined her eyes. In view of the existence of the stigmata of hysteria, which were present to a marked degree, I felt confident of recovery. The condition persisted for several months, when sight was gradually restored. An error in diagnosis would often be averted by a careful physical examination, conjoined with the use of the ophthalmoscope. The frequent absence in these cases of the corneal or conjunctival reflex should put a physician on his guard, notwithstanding that the pupillary reflexes to light and accommodation may be perfect.

In another case which I examined for the Toronto Street Railway Company about four years ago, there was complete double amaurosis.

The patient, a young woman of about twenty years of age, while riding on a street car, received a severe shock and some slight burns from a fuse blowing out near her face. As a result of the accident, severe traumatic hysteria developed, and with it total blindness. The patient was seen by my friend, Dr. Colin Campbell, two years after the accident, the amaurosis still remaining complete without even the perception of light. From him, I recently learned that the blindness remained complete for three years and nine months. It then began to improve, and in six weeks the visual fields were normal and the vision perfectly restored.

After these few remarks on the complete disturbance of vision, let us turn to the second group above mentioned, in which dissociation becomes more marked and more delicate functions are analyzed and separated.

In this group are found affections of the external ocular muscles producing ptoses, strabismus, etc., about which there are as many complications as about vision itself. Again, the internal muscles, particularly those of the crystalline lens, may be affected and the function of accommodation become dissociated. From the spasm of accommodation may result many most remarkable disturbances, such as monocular diplopia, macropsia, etc. At times objects are seen double by a single eye, which from the point of view of optics is quite paradoxical; again, they are seen too large or too small or deformed in various ways. Prof. Janet relates instances in his "Névroses et Idées fixes," in which objects appear too large or too small in one of their halves only, and quite normal in the other. Again, the disturbance of the visual field is a most important symptom and to its narrowing or concentric contraction I would now like to direct your attention.

As you will remember, the visual field is the extent of the surface which an eye can see simultaneously without moving. If the visual field of a normal subject be taken out with a perimeter, it will be found to consist of an irregular circle more extended on the external and inferior sides, where it measures almost 90° , while on the internal and superior sides, owing to the obstacle formed by the nose and the eyebrows, it measures barely 60° , these being the angles formed by the fixation point, the eye and the limit of the visual field. The above measurements indicate the field for white in the normal subject, and are fairly constant. Other colors, however, are not perceived over as large an extent of surface as white, but are arranged concentrically within it, so that the different colors occupy a definite area, the contour of which, while closely resembling that for white, comprises a less extensive surface. Thus the smallest or innermost field is for violet, green is the next largest, red the next, yellow the next, and blue the largest of all, except the white. This arrangement of the different color fields in definite concentric circles is most interesting from a physiological standpoint. I would here, however,

direct your attention only to the field of the two colors, red and blue, the latter forming a circle from 10 to 20° larger than the red in a normal field. Now, the examination of the visual field of an hysteric will often demonstrate a remarkable fact which probably exists *only* in this neurosis, viz., a *concentric contraction* of this field. The extent of the simultaneous vision becomes smaller, so that instead of being from 60 to 90° in extent for white, it is almost circular at 20 to 30° or even less. A further change also frequently takes place, in that there is a reversal of the fields for red and blue, so that the field for red, instead of being the smaller, is equal in size or larger than that for blue. Another remarkable phenomenon is that in proportion as the field for white contracts, the fields for the other colors gradually become more restricted and are finally, if the contraction for white is extreme, "squeezed" out of the centre, in the order above named, the violet being first obliterated.

I would like now to direct your attention to a further personal observation which occurred in the nervous wards of the General Hospital. As the eye symptoms played a prominent part in the diagnosis, I will mention some of the notes in regard to her general condition.

F. S., female, age 17, entered the nervous ward of the General Hospital, complaining of dizziness, frequent head aches, pain and pressure sensation over heart, weakness and numbness of left fore-arm, inability to walk, and at times nausea and vomiting (duration, two years). Family history presents nothing of note.

—NERVOUS SYSTEM.

I. *Subjective.*

(a) *Psychical*: Her first symptom was a feeling of giddiness, which still returns whenever she attempts to walk. An indescribable feeling is continually present in her head, except sometimes for an hour or two. While it lasts, patient is very depressed. Her thoughts are always wandering. Eyelids feel heavy to her, and everything looks dim. Strange imaginings continually come to her. At night she imagines she sees people walking about the room or standing by her bed, and has heard voices. One night she heard her dead aunt talking distinctly; this she is inclined to believe was not merely imagination. She is quite sure she has heard people walking about in the halls, when her mother assured her there were none. Yet she does not like to say what may not have been true. Her memory has failed her during the past few weeks, she thinks. She dreads to be left alone. The least sound gives her a shock. Lately has been getting despondent, and losing interest in things generally.

(b) *Somatic*: A peculiar feeling in the head, of the nature of a severe headache, is her chief symptom.

Her heart also troubles her greatly; sometimes it is a dull pain, sometimes a sensation of pressure over the heart, and sometimes palpitation troubles her, or at times the sensation is so oppressive that she feels she cannot breathe or speak. She complains of a sharp pain in left wrist and at times a numbness and weakness of the whole of the left lower arm, so that she cannot use it. Hands and feet are continually feeling cold, and sometimes have a clammy sweat on them. Complains also of a choking sensation in throat which is worse at night, or when she swallows. Sometimes has burning sensation in eyes.

II. *Objective.*

General. Patient appears to be in a state of great nervous irritability and distress. On the slightest provocation in the shape of a slight noise or new sight (as of a person coming into room) she startles and her whole body jerks and trembles, but especially the muscles of her right side. A light touch will cause a similar spasm. She turns her head from one side to the other in a distressed fashion, and is evidently in a very emotional state of mind. She says that she feels very sick and cries at the slightest sympathy shown her. On being spoken to and encouraged, she brightens up somewhat and can answer questions intelligently. Her cerebration is active.

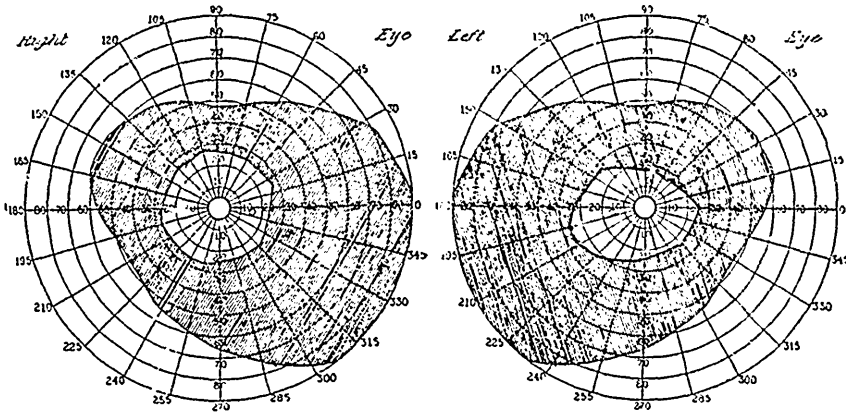
I will not detain you with details of the physical examination, which presented nothing definite. Soon after her admission the ward note reads as follows:

Dec. 1st, 1907. Patient passed a bad night. Had visions of people walking about her bed, and trying to harm her. This morning she is excited and very unwell; at times she tries to get out of bed, saying that people are chasing her. Her head troubles her greatly and she has been very nauseated all morning.

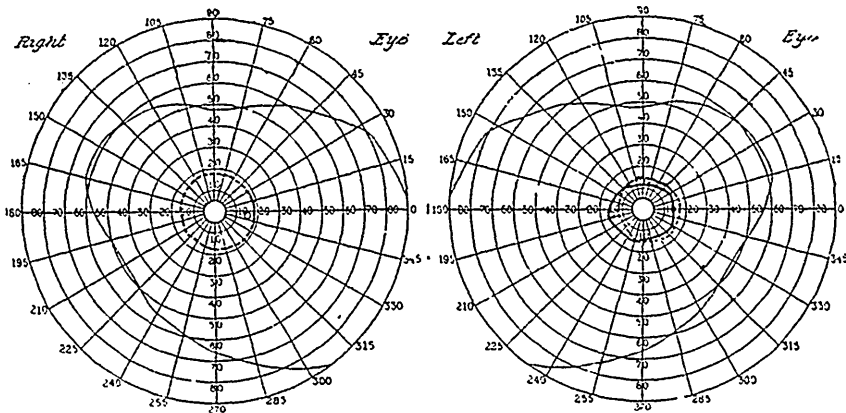
This afternoon patient lost all control of herself, began moaning and crying out. She became quite unmanageable and *unconscious* of almost everything about her. She endeavored to leave her bed, but was unable to walk. Clonic spasms present over entire body. Her eyes were kept almost closed. She threw her head from side to side in hysterical fashion.

As several of the symptoms indicated a cerebral neoplasm, I examined her optic discs, but could not discover any evidence of neuritis. While this was important negative evidence, it was not sufficient to exclude a new growth. I then had the visual fields examined with a perimeter and the result at once removed any doubt in regard to the diagnosis, excluded a brain tumor, and afforded incontrovertible evidence that the patient was

suffering from hysteria. I may add that after the attack, the cutaneous sensibility, which previously had been normal, became markedly disturbed, so that the skin could be transfixed with a needle in any part of the extremities without pain, complete analgesia being present. In the fields for white, that of the right eye is nearly circular, averaging about 25° , while that of the left is more oblong, varying in width from 15 to 25° ,



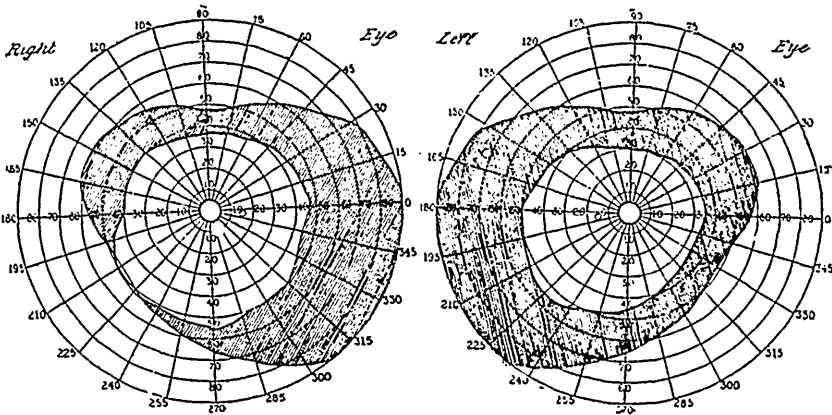
No. I.—Fields for white. December 2nd, 1907.



No. II.—Fields for red only in right eye and for red and blue in left. Red, dotted line; blue, continuous line. December 6th, 1907.

and in length from 25 to 35° . Chart No. I. On the next charts you will notice that the field for red is considerably more contracted than that for white, and here you may also notice that the field for red, instead of being smaller than that for blue, is in reality somewhat larger, thus producing a reversal of these two fields as described above. Chart No. II. The third pair of charts indicate the result on February 11th,

about six weeks after the attack, and here you will notice that the field has nearly doubled in its dimensions since first taken. Chart No. III. Interesting in this connection is that the ward notes taken at this time show a corresponding improvement in the cutaneous sensibility. The patient gradually improved and on March 1st notes are as follows: Fields of vision almost normal and anæsthetic areas have disappeared. She is up and about the ward all day. Yesterday she was about the hospital grounds for exercise and did not seem to be depressed afterwards. She could run up and down stairs as well as anyone, could dust and clean about the ward, and help in various ways.



No. III.—Fields for white. February 11th, 1908.

March 5, 1908. Patient complained of none of her former symptoms, appeared to be quite well, and was discharged.

In conclusion, I would like to point out that when at all pronounced a contracted field of vision can be readily detected at the bedside by the simple means of the finger test and without the aid of any special apparatus such as a perimeter. Its importance is so great in the differential diagnosis, which is often most perplexing, between an obscure organic disease and hysteria, that I am confident you will frequently be repaid for the slight trouble in searching for it. Should these few remarks serve to direct attention more closely to certain eye symptoms in relation to general medicine or prove of any assistance to you in the elucidation of a doubtful case, the pleasure to me will be sincere.

TYPHOID FEVER DURING PREGNANCY.

By BENSON A. COHOE, M.D.,
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THE rarity with which typhoid fever was found to occur during pregnancy led the earlier teachers of medicine to believe that the impregnated woman possessed an immunity against typhoid infection. When in the light of statistics this view became no longer tenable, it was still asserted by many, that while pregnancy did not confer an immunity, it at least prevented a severe attack. Gradually, however, as the evidence accumulated, it became apparent that the fate of the pregnant woman, exposed to typhoid infection, was in no great measure unlike that of her non-pregnant sister, either in regard to susceptibility to infection or in severity of attack. The occurrence of several cases of typhoid fever in pregnancy during the past year, in the Johns Hopkins Hospital, stimulated an interest in a study of all of the cases which have come into the wards of the hospital, together with a resumé of the literature bearing upon the subject, in order to test the authenticity of the more modern conception.

Prior to the middle of the last century, when the subject first found a place in the text-books on obstetrics, scanty mention was made in the literature concerning the association of typhoid fever and pregnancy. The earliest recorded observations are those of Louis in 1829. Towards the close of the century, the growth of bacteriological methods gave an impetus to the study of the placental transmission of the typhoid bacillus, and numerous observations began to appear in the literature.

Incidence: The occurrence of typhoid fever during pregnancy in hospital practice is comparatively rare. In the reports of Guy's Hospital covering a period of twenty-eight years only seven cases were noted. Ziegler, in Vienna, reported twenty-four cases from a series of 1,852 (1.3 per cent.); Liebermeister, twenty-four in a series of 1,420 (1.2 per cent.). The statistics of these observers make no distinction between typhoid occurring in men, women and children. Curschmann found forty-five cases associated with pregnancy in a series of 1,817 of typhoid fever in females at Leipzig and Hamburg (2.5 per cent.); Martinet noted sixteen cases in a series of 460 in females (3.5 per cent.); Galtammer, twenty-six in 640 cases (4 per cent.). These figures, however, include young and old women as well as those of the child-bearing period. In the Johns Hopkins Hospital up to the time of writing there have been 1,914 cases of typhoid fever admitted to the wards. In only eighteen of these has the disease been complicated with pregnancy. The greater number of cases of typhoid fever, as shown by the hospital records, have occurred in males in the proportion of 2.4 : 1. Of this lesser number of cases in females, about 77 per cent. occurred between the ages of 15 and 40, which may be

regarded as the child-bearing period, giving a total of 433 patients in whom the association of typhoid fever and pregnancy was a possibility. With such a restricted reckoning, pregnancy has been found in 4.3 per cent. of the cases occurring in women of the parturient age, a much higher percentage than the older figures might lead one to infer. In private practice the occurrence is probably still more common and the observations of various authors in regard to epidemics would seem to show that pregnancy offers no protection against typhoid infection.

Age: The greater number of the patients in whom the disease was complicated with pregnancy were in the third decade of life. The ages ranged from 17 to 39 years. Two were in the second decade, twelve in the third and four in the fourth. This is in no way remarkable since the child-bearing age and the period of increased susceptibility to typhoid infection may be regarded as fairly synchronous.

The duration of pregnancy: The duration of pregnancy at the time of typhoid infection in the 18 cases varied from five weeks to eight months. Five of the cases were less than three months pregnant and ten were between three and six months. In only three cases did the infection occur in patients more than six months pregnant. The average duration was about five months.

Sacquin tabulated 59 cases of fever, in which the pregnancy was interrupted, in order to show the relation of abortion to the duration of pregnancy, and found:

During the second month of pregnancy, 2 cases aborted.

“	third	“	“	22	“	“
“	fourth	“	“	11	“	miscarried.
“	fifth	“	“	10	“	“
“	sixth	“	“	1	“	“
“	seventh	“	“	8	“	cases of premature labor.
“	eighth	“	“	4	“	“
“	ninth	“	“	1	“	“

The reports of Sacquin and others show that abortion occurs most frequently towards the end of the first half of pregnancy, from the third to the fifth month. For this reason, abortion and miscarriage are noted more commonly than premature labor.

The frequency of abortion: Abortion resulted in ten of the eighteen cases (55 per cent.). In the remaining eight, the fever did not interfere with the course of the pregnancy. This rate of abortion is slightly less than the figures of other observers. The reports of Guy's Hospital noted 85 per cent. of abortions in pregnant women during typhoid fever. Vivay has reported 66 per cent. of abortions; Martinet, 60 per cent.; Penot, 56 per cent., and Sacquin, 64 per cent. The statistics of this latter observer,

compiled from 310 cases, in which pregnancy was interrupted in 199, are of interest in this connection. A subdivision of his statistics, according to completeness of data, showed that in a series of 169 cases, the pregnancy was terminated in 103, with 22 maternal deaths. Of this number, 124 of the patients were less than seven months pregnant, and of these 72 either aborted or miscarried, while the remaining 52 came to term. Of the second group of 45 patients, more than seven months pregnant, premature labor occurred in 31 with 6 maternal deaths.

A termination of the pregnancy may be expected in about 66 per cent. of the cases, or in other words the chances are two to one that the patient will abort.

Abortion in relation to the febrile period: The time of abortion in the ten cases varied from the fifth to the seventy-first day of the typhoid infection, the average being the twenty-second day. Two cases aborted during the first febrile week, three during the second, two during the third, and one during the fourth, sixth and seventh weeks respectively. The patient, who aborted on the fifth day of the disease, was but five weeks pregnant and was suffering with a chronic nephritis at the time. The patient with delayed abortion on the seventy-first day was convalescing from a severe attack of typhoid, when suddenly, after a period of normal temperature, the fever rose to 105°, labor pains began, and a six months' fetus was born dead.

A study of the statistics of other observers indicates that the time at which abortion most commonly takes place is during the latter half of the second week or the early part of the third week of the typhoid fever.

The mortality: The maternal death rate was extremely low, an *exitus letalis* occurring in but one of the eighteen cases (5.5 per cent.). This is slightly greater than half the mortality rate of the hospital for typhoid in general (9.1 per cent. in 1,500 cases). Nor could death in this one case be attributed as resultant directly upon the pregnancy. The patient, five months pregnant, in the course of her typhoid fever developed an acute nephritis, with a resulting œdema of the glottis, which proved fatal. At autopsy multiple abscesses of the kidneys, due to *B. typhosus*, were found.

The reports of other observers show a considerably higher maternal death rate. Mueller places the mortality of the mother at 21 per cent. Sacquin in 233 cases noted 37 deaths (16 per cent.). Curschmann in the Hamburg epidemic found 7.8 per cent. of deaths in 38 cases. At Guy's Hospital the death rate was one in seven, or 14 per cent. Vinay noted 17 per cent. of deaths. Accordingly the average mortality may be estimated as not greater than 15 per cent. The general mortality in typhoid fever is known to be variable, ranging from 5 to 12 per cent. in private practice and from 7 to 20 per cent. in hospital practice. It would seem that the

impregnated woman has as favorable a chance of recovery as the unimpregnated.

The prognosis in regard to the survival of the foetus is much more grave. In no less than seven of the ten cases which aborted, the foetus was born dead. In one case of premature labor at eight months, the child lived for seventy-one days. In the two remaining cases the foetus survived one day. In each of the eight cases in which the pregnancy was not terminated during the fever the foetus was carried to term.

The survival of the child, in typhoid patients, in whom premature labor results, would seem to be the exception rather than the rule. Morse studied sixteen cases of abortion in typhoid fever. In ten of these the child was born dead, and in the remaining six death resulted in from five minutes to three weeks after birth. Trovenaint, conversely, reported a case of premature birth at the end of the seventh month, in which the child survived and the mother died.

Complications: These were noted in less than half of the eighteen cases, and were not more numerous nor severe than in the non-pregnant typhoid patient. In three of the patients with complications abortion did not occur. The only fatal case was one of this group, in whom an œdema of the glottis developed following an acute nephritis. In the second patient signs of hyperthyroidism and a severe secondary anæmia developed. In the third an otitis media was lighted up. This latter patient had an attack of acute lobar pneumonia preceding her typhoid infection, but carried the foetus to term through the double infection.

In only one instance did uterine hæmorrhages follow the abortion among the patients in whom the pregnancy was interrupted. This patient, aborting on the twelfth day, ran a severe case of fever, with uterine hæmorrhages complicating pleurisy, pneumonia and cystitis, followed by recovery. Another case presenting grave complications was that of a patient with chronic nephritis, who aborted on the fifth day of her typhoid infection. After a protracted course, with intestinal hæmorrhages, a relapse on the fifty-seventh day and a subsequent recrudescence of the fever on the eighty-seventh day, the patient was discharged well at the end of four months.

The complications of labor, such as uterine hæmorrhages, were not more frequent than in normal cases, a fact which accords with the observations of other writers. Mueller states that the complications of typhoid are rare in pregnancy, and that if there be no interruption of pregnancy the reaction of the typhoid infection is apt to be slight. If the pregnancy is terminated in the early weeks of the disease, the patient is likely to be but little affected by the miscarriage; later on in the course of the disease, however, when she is weakened and emaciated, the reaction is apt to be more severe.

The causes of abortion: There has as yet been no satisfactory hypothesis formulated which would serve to explain all cases of abortion occurring during the course of typhoid fever. For many years it was held that a prolonged hyperthermia acted directly upon the foetus, causing its death and at the same time exciting uterine contractions with subsequent abortion. The experimental work of Claude Bernand and of Runge furnished evidence in favor of this view. It has been actually demonstrated in several clinics that the foetal heart rate does increase in direct proportion with a rise in the maternal temperature. Lynch observed this phenomenon in several of the cases at the Johns Hopkins Hospital. Gusserow stated that the danger to the child is proportionate to the elevation of the temperature, and to the duration of its influence. A prolonged elevation of temperature may, doubtless, at times cause the death of the foetus. Opposed to this theory is the fact that cases are on record in which a temperature of 104°, or more, maintained for days did not cause a termination of the pregnancy. In one of our cases, in which the temperature frequently rose to 105°, a live foetus of six months was born on the twelfth day of the fever and survived one day. One patient passed through an acute lobar pneumonia with high fever, and a subsequent attack of typhoid with moderate fever, and carried a living child to term. Other instances might be cited to show that an elevation of temperature of a degree common in typhoid is not *per se* lethal for the foetus in utero. Moreover, experimental evidence has been adduced by Doleris and Doré to demonstrate that pregnant animals, subjected to a high temperature, under conditions which they believed more closely simulated that of an individual during fever, were able to carry a live litter to term.

Numerous other theories have been promulgated to explain the abortion. Bourgeois and others believe that the spasmodic intestinal contractions, so common in typhoid, may reflexly excite uterine contractions. Grisoile has suggested that in cases with pulmonary complications the strain of coughing may produce abortion. Even more fanciful is the view expressed by Goltdammer that a hæmorrhagic endometritis is the cause of abortion. The pathologists have taught us that a typhoid endometritis very rarely, if ever, occurs.

In a certain proportion of cases, by no means large, a foetal bacillemia is known to occur with subsequent death of foetus, and in such cases a dead foetus may give rise to abortion. In the cases where foetal death does not ensue, the cause of abortion is obscure. The theory of Sacquin seems the most plausible one offered. He believes the process to be a very complex one, and probably due to a toxic action affecting the medullary centres, causing an excessive reaction upon the pregnant uterus.

The infection of the foetus: It has been shown that the foetus may become infected with *B. typhosus* through placental transmission of the

organism. This infection is known, however, not to be the rule, for in the majority of cases in which the foetus has been born dead bacteriological evidence of infection has been wanting. It is believed that in order for the transmission of the bacillus from the maternal to the foetal blood to take place, there must exist some lesion of the placenta, such as hæmorrhagic infarct. This injury of the placenta may antedate the typhoid fever or result during its course from the toxins in the maternal blood. An intact syncytial layer is presumed to act as a germ filter and for this reason the chances of foetal infection are less during the later months of pregnancy than during the earlier period. The typhoid bacillus was found present in the circulating blood of the foetus in but two of the ten cases which aborted. Such bacteriological findings afford the only sure proof of foetal infection, since intestinal lesions are rarely found. The presence of agglutinins in the foetal serum, as shown by the Widal reaction, does not furnish conclusive evidence of foetal infection. Staubli has demonstrated experimentally that there is a passage of formed agglutinins from the maternal blood through the placenta and that the foetus receives an intrauterine passive immunity from the mother.

Treatment: The treatment of the pregnant woman during typhoid fever does not differ materially from that of the ordinary typhoid patient. A typhoid infection is no indication for the production of abortion. Hydrotherapy is not only not contraindicated, but proves beneficial. The pregnant women have been found to bear tubbing well, and tubs at a temperature of 80 to 85° may be given for elevation of temperature over 102.5° every three or four hours with good results.

CONCLUSIONS.

1. Pregnancy confers no immunity against typhoid infection.
2. The association of typhoid fever and pregnancy occurs most commonly towards the end of the first half of pregnancy, from the third to the fifth months.
3. Abortion follows in about two-thirds of the cases, and takes place most frequently during the second and third febrile weeks.
4. The prognosis for the mother is good, the mortality being not greater than in the non-pregnant typhoid patient.
5. The production of abortion is not indicated.
6. Infection of the foetus through placental transmission may occur but it is not the rule.

Please remember the date of the Ontario Medical Association in Hamilton, May 26th, 27th and 28th.

THE MEDICAL INSPECTION OF SCHOOLS.*

By HELEN MACMURCHY, M.D., Toronto.

IT has taken a long time to realize the relation of preventive medicine to the school. In the school-room preventive medicine finds its most promising field. So far as the adult population is concerned, the function of the physician is like the work of the Good Samaritan. There are grievous wounds to treat aseptically and antiseptically, and to bind up. We often find our patient stripped of his raiment. Too often the food and wine that he needs we are not able to give him. But the physician who is devoted to preventive medicine cannot get over the thought that the wounds should never have been made, and the raiment should never have been stripped off. We must get near enough to the children to protect them before those thieves of germs have grievously wounded their bodies, before adenoids have stolen their chance of normal growth and development, before eye-strain and other nerve-strains have used up the nervous energy which should have been available for growth, play and study.

Nearly all the civilized countries in the world now have a system of medical inspection of schools. Germany has an excellent system, thoroughly organized and scientific. Norway, Sweden, Finland, Denmark have good systems, well carried out. Japan established her system in 1888 and has now about 800 or 900 school doctors, more than any other country.

In Great Britain, the evolution of the school medical officer has been very rapid. First of all, there was for years an uneasy feeling that somebody ought to do something. Dr. James Kerr, Dr. Leslie McKenzie, and above all, Sir Lauder Brunton, did great work as pioneers. Then at last came the South African war. Sir Conan Doyle said that we ought to erect a monument to Kruger as big as St. Paul's because he had brought about for us what we had never been able to do for ourselves—the unification of the British Empire. When that monument is built, the apostles of preventive medicine should subscribe liberally to it, for probably the bill for the medical inspection of schools would not be law yet if it had not been that Paul Kruger and his doings set our recruiting sergeants to work. When it came to rejecting something like 60 per cent. of recruits for sheer physical inefficiency—when we needed recruits—the nation woke up to the consciousness that it had been living in a fool's paradise and that it was the business of everybody to set about finding ways and means to avert that threatened degeneracy of the nation. It was but a few straight steps from the recruit back to the schoolboy, and an intense interest was aroused in the enquiries that pointed only too plainly to the source of the evil.

*Read at the Academy of Medicine.

In an article in the February number of the *World's Work*, dealing with the results on child life of some noteworthy social experiments—among others that of Messrs. Cadbury at Bournville, the celebrated “cocoa village”—a writer remarks that while “the height of a Bournville boy of 11 years of age averages 4 feet 9 inches, that of a Birmingham slum boy of the same age is 4 feet 2 inches, the respective weights being 4 stones 13 pounds and 3 stones 11 pounds. The chest measurement of a Bournville boy, too, it might be mentioned, is three inches greater than that of his little slum brother in the Midland capital. Moreover, during the last six years the death rate at the village of Bournville has been 7.5 per 1,000 compared with 17.9 per 1,000 in Birmingham, while the infantile mortality during the same period was 78.8 as compared with 170 per 1,000 in Birmingham.”

The Board of Education in England, as that Department of the British Government is called, moved none too soon or swiftly—indeed it had to be propelled powerfully from behind before it was projected into anything like a progressive position on the matter. Though one of the greatest political storms of the present century, so far, raged round the finally rejected Education Bill of 1906, yet the clause therein contained making medical inspection of schools compulsory was highly approved of by both political parties and assented to almost without question.

The Government, however, made no effort to provide for this by a separate Act, and indeed, as late as 1907, just seven months ago, gave out an excuse for not doing anything, the excuse that the Government were waiting the action of the International Congress of School Hygiene. This was a particularly scandalous instance of political disingenuousness, for it is well known that Sir Robert Morant, the Under-Secretary of the Board of Education, did all that he could to belittle, retard, and indeed ruin the work of this International Congress. In this he did not succeed, and immediately after the Congress rose a bill making medical inspection of schools compulsory passed both Houses and received the Royal assent. It came into force on January 1st, 1908, and within a few weeks of the passage of the Act a medical department in connection with the Board of Education was created, the chief appointments in which were given to Dr. Newman and Dr. Eichholz. This is another instance of the harm that may be done by a man of the stamp of Sir Robert Morant. “Dressed in a little brief authority,” he certainly showed himself again unable to make a good use of that power.

The *British Medical Journal* said editorially: : “We have no hesitation in saying that the man designated by medical and public opinion for the office was Dr. James Kerr.” No one else would have had any hesitation in saying the same thing. The man for the head of that department was Dr. James Kerr, who first began in Bradford that work of medical inspec-

tion of schools, which will make his name to be remembered when the name of Sir Robert Morant has been forgotten. It was so recognized by all, and he was sent for by the Government and the place as good as offered to him. But Sir Robert Morant blocked the appointment, as he had tried to block the work of the Congress. An outbreak of indignation in the *British Medical Journal* and elsewhere expressed the feeling of the profession on the subject, but all in vain.

It seems to me that the progress of preventive medicine has been stopped, not once nor twice, among ourselves, by just such arbitrary use of "a little brief authority." When will those intrusted with any power learn to use it for the common good, and when shall we take the trouble to require that at their hands?

The profession in Great Britain and particularly the committee appointed by the British Medical Association are now working hard on the organization of the medical inspection of schools. The chief problems are these:

1. The methods and manner of medical inspection in schools.
2. The qualification of the teacher in hygiene, and the assistance the teacher can give in the inspection.
3. The duties of the school nurse.
4. The question of remuneration.

The following, among other things, have been brought to light:

1. A tendency of school boards to underrate the amount of work. Every child should be examined carefully twice in his school life. It is not the work of a few minutes.

2. The sudden need for teachers trained in hygiene.

3. The school nurse, especially in large cities, is indispensable to the successful working of the scheme. She makes it effective. In New York, where it was begun by Miss Lilian Wald, 98 per cent. of the children who would otherwise have been excluded were able to return to their classes through the help of the school nurse. She is a link with the home. (List of school nurses in the United States: New York, 65; Boston, 20; Baltimore, 5; Los Angeles, 3; Grand Rapids, 3; Jersey City, 3; Orange, N.J., 1.)

4. There is a great tendency to underpay the school medical inspector. The Medical Inspection of Schools Sub-committee of the British Medical Association recommend that the payment should be at the rate of £50 per annum for the attendance of half a school day per week, half a school day being defined as two hours.

The Board of Education has issued two most valuable memoranda on the medical inspection of children in public elementary schools, which were republished in full in the *British Medical Journal*, the first on Nov. 30th,

1907, and the second on Feb. 8th, 1908. Many of the statements are of great interest and usefulness to ourselves.

Great exception has been taken by the *British Medical Journal* and other authorities to the remark in the first circular that it is advisable that the work should be organized under the Medical Officer of Health.

Great progress and greater promise are already shown in Great Britain. It is already proposed to have open air schools (*cf.* France). People are beginning to see that children go to school too young.

The work of medical inspection of schools is well organized and well carried out in New York, Boston, Chicago, and other American cities. Almost any country you can name is doing more than we are doing. The schools on the gold fields of Australia are inspected by the school physician. In Canada it is in successful operation in Halifax and Vancouver, also in Hamilton and Montreal. Montreal voted \$11,000 for this purpose on December 23rd, 1907. We live in Toronto.

THE TREATMENT OF ACUTE PNEUMONIA.*

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BY pneumonia must be understood in this discussion the acute inflammation of the lung excited by the pneumococcus.

A few facts about the pneumococcus have an interesting bearing in relation to the treatment.

The pneumococcus cannot survive long outside the body. An hour or two or less suffices to destroy it, though, in favorable circumstances, e.g., in sputum kept moist and warm, it may live and retain its virulence for a fortnight. If it is so easily destroyed the wonder is where the supply comes from, for it seems to be a ubiquitous germ, and is very often found in a virulent form in the mouth and saliva of healthy persons.

Pneumonia, though a germ disease, is not infectious, that is, it does not spread from the sick to the healthy. Epidemic and house, or room, pneumonia has been described, but for the most part in pre-bacterial days, and much remains to be learnt about it. Our knowledge then of the natural history of the germ and of its mode of propagation is defective.

Pneumonia is said to be increasing in frequency and fatality. Figures seem to prove this in America, but I do not think it true for this country. Cases of pneumonia are at times unusually frequent, as they are just now, but I have always supposed that this was explained by an outbreak of influenza, and for that reason the statistics, I quote in my book, are taken from periods before 1890, when influenza made its appearance here. To

* Read at the Harveian Society, London. *Practitioner* (British), April, 1908.

test this opinion, I took the figures of the Registrar-General for pneumonia and influenza since 1890, and the mortality curve for the two diseases is strikingly similar. So that I think the conclusion justified that the fluctuation in pneumonia is entirely explained by the outbreak of influenza.

Pneumonia being a germ disease, the questions in respect of treatment which arise are :

1. How can the germs be destroyed, or their access to the body prevented, or failing this, how can the body be protected against them? (*Prophylactic and Preventive.*)

2. If the germs have gained entrance into the body, how can they be destroyed there (*anti-bacterial*), or their effects neutralized (*anti-toxic*)?

3. How can the symptoms which arise in the course of the disease be dealt with (*symptomatic*)?

1. *Prophylactic and Preventive.* We know so little of the conditions which determine an attack of pneumonia that we cannot do very much to prevent it.

Prophylactic. Virulent pneumococci are so often present in the saliva, it follows that healthy persons must have considerable powers of resistance. But the resistance may be reduced in many ways. For instance, by exposure to cold, by the failure of health consequent on illness or accident, and by specific diseases, especially measles and influenza. The risk is greatest where two or more of these predisposing causes are associated. Thus no influenza patient should be allowed to run the risk of chill and over-fatigue till the post-febrile depression stage is past. During this stage, the temperature is constantly subnormal, and thus becomes a clinical index of value. With measles, the risk is during the febrile stage, especially of the illness or soon after. No doubt the infection in this and other specific fevers is from the mouth, and nothing is more likely to diminish this risk than a careful mouth-toilet, and thus the cleansing and disinfection of the mouth are not only good nursing, but good doctoring. Lastly, the toxins of the pneumococcus have a long, lasting and injurious effect upon the body, by permanently lowering its resistance, and rendering those who have had one attack not less but more liable to another.

Anti-bacterial and Anti-toxic treatment is directed to destroy, or check the development of the pneumococci, to increase the powers of resistance of the body to the germs, or to neutralize their effects. We have no means at present by which the germ can be destroyed or checked. The disease runs its own course, and nothing so far is known which will cut it short. Subcutaneous injections of quinine or of camphor in sterilized oil have been suggested, but their anti-bacterial action is not established. There is no serum or vaccine which can be relied on. There may be different strains of pneumococcus, at any rate it seems that the only service-

able vaccine is one derived from the patient's own pneumococcus, but as this takes fourteen days or so to prepare, the patient will be dead or well before his own vaccine is ready. If this vaccine is to be useful, it must then be for the empyemata or other complications which may follow. With so acute a disease as pneumonia, the serum or vaccine must be ready for use at once, and though we have nothing of the kind at present, with the example of diphtheria before us, it is not too much to hope that before long we shall have some anti-toxic method applicable to pneumonia.

Symptomatic. The third method of treatment is to watch the symptoms as they arise, and modify and control them as seems necessary. The study of the natural history of pneumonia shows that it is a disease which, in the healthy and young, tends to get well of itself. This has led to what is called the *expectant* method of treatment, as opposed to the more active virulent measures formerly in vogue. We now assist nature to throw off the disease, rather than lay heavy hands on what was thought to be the disease itself, lest by that means we do a fatal violence to the patient. Symptomatic treatment implies that, for a mild case of pneumonia, in a young and healthy person, where no symptoms are in excess, little special treatment is required, and that such treatment only becomes necessary where the symptoms are severe or out of the common.

GENERAL TREATMENT OF A MILD UNCOMPLICATED CASE.

The patient will, of course, be put in bed, for he has rarely either inclination or power to leave it. The room should be kept cool and fresh, at a temperature not above 60° F. The windows may even be open, for fresh air does nothing but good, provided the patient is not in a draught. Actual open-air treatment has been advocated, but though it may be possible in a hospital to place the patient at once in the open air, it is impracticable under the conditions in which pneumonia develops in private practice. The patient should not be too warmly covered up. A rough blanket may be quite sufficient covering.

The diet should consist chiefly of milk and beef-tea, with which one or two eggs may be beaten up. Two or three pints of milk and two eggs in the twenty-four hours are ample for an adult. It is important to bear in mind that harm may be done by giving more milk than can be completely digested. The fever causes a craving for fluid, and milk is often given in quantities too large to be properly digested; it then lies in the stomach and undergoes fermentation, producing much discomfort, and even troublesome vomiting or diarrhoea. It is best where the thirst is extreme either to dilute the milk with some effervescing water, or, if sufficient food is taken, to slake the thirst with water acidulated with lemon-juice or with phosphoric acid. A prejudice seems to exist against giving

water in fevers, for which there is no good reason. Stimulants are in ordinary cases unnecessary. The usual indications for their administration are given by the pulse and heart. A simple purge is generally required at the commencement, and nothing is better than a dose of castor oil, or a pill of calomel and colocynth. If the skin is hot and dry, a diaphoretic mixture will do good, and in children a hot bath often gives great relief. Where a diaphoretic mixture is not indicated, an acid draught with some quinine or strychnine will help to clean the tongue and improve the appetite. Expectorants are unnecessary, and, if active, are injurious, for they have no effect upon the consolidated parts, and the last thing to be desired is to cause secretion into the air-tubes of the rest of the lungs. The pain in the side, if not relieved by counter-irritation or hot poultices, will be quickly relieved by a few leeches.

As soon as the fever is past, and the appetite returns, solid food may be given and a tonic administered.

When convalescence is established, care is still necessary. It is a good rule not to allow the patient to leave the bed until the temperature has been normal for at least ten days. The heart has been heavily taxed during the attack, and requires time to recover itself. Premature getting up easily causes dilatation.

Next, the pleura has been generally involved during the attack, and mischief may continue and develop during convalescence often quite insidiously. Thus pus has been found in one or both pleura, and even the pericardium too, without any symptoms to suggest it. Such cases have been even known to die quite suddenly during an apparently perfectly normal convalescence. Therefore it should be made an invariable rule to examine, as a matter of routine, the pleura and pericardium regularly, even when the convalescence appears to be running a normal course. Again, the nutrition of the lung in general has been profoundly affected, so that there is a tendency to catch cold on slight exposure, and a liability of bronchitis may easily develop, if care is not taken. Even emphysema may be sometimes traced quite clearly to an attack of pneumonia.

For all these reasons, care is necessary during convalescence and for some time after, but with care recovery is usually complete.

SPECIAL TREATMENT, THAT IS, THE TREATMENT OF SPECIAL SYMPTOMS.

Fever.—There is a relation between the temperature, pulse, and respiration in pneumonia which may be regarded as the normal for the disease. Thus, with a temperature of 103°, the pulse should be 120 and the respiration 40, and departure from this normal, whether above or below, should be noted carefully and watched. A temperature of 103° for the few days a pneumonia lasts will do but little harm of itself, and

need not be treated. There are two classes of cases in which the temperature will call for treatment; in the one it runs up suddenly to a considerable height (hyperpyrexia), and in the other it continues at a high general level without much remission throughout the twenty-four hours.

Hyperpyrexia, in the strict sense, is even rarer in pneumonia than it is in rheumatic fever, but it is still more dangerous. It requires the immediate use of the cold bath, if there is to be any chance of saving life. Cold baths have been used as a routine treatment even in ordinary cases with a temperature which cannot be called abnormally high. Patients have been plunged into water almost at a freezing temperature many times each day, as long as the fever lasted, and that without the bad effects which might have been anticipated. The bath, as ordinarily administered to the adult, is attended with a good deal of fatigue, and, since the result desired can be attained in other ways, e.g., by sponging, cradling, or packing, the cold bath is reserved for exceptional cases.

Cradling is the simplest in practice, and is certainly very efficacious. The patient is stripped, or, at any rate, covered only with a light sheet or night-dress; a cradle is put over extending from the chin to the feet, and over this is laid a single sheet, and, if necessary, ice-bags may be hung inside. In this way the temperature may be considerably lowered and kept down.

Wet packing is useful when the skin is dry and pungently hot.

A *hot bath* is for children better still at a temperature of 105° to 108°, a few handfuls of mustard being mixed with the water. After being removed from the bath, the patient is laid, without being dried, between blankets; a powerful reaction soon sets in with profuse sweating, and continues for some hours, during which time the child, who has been restless before, often sleeps quietly and wakes up much refreshed. I have given such a bath to children daily in the evening, or even twice in the day, and always with the greatest benefit.

Antipyretic drugs have two disadvantages, the first that their action is so transient, and the second that they are so likely, when freely used, to produce faintness or collapse. For these reasons they are now but little used.

Cardiac failure is the great risk in pneumonia, and the knowledge of this fact yields two prime indications for treatment, first to counteract it when it develops, but, more important still, to avoid everything which tends to produce it or aggravate it. It is for this last reason that the old depressant treatment by repeated bleedings, full doses of antimony, aconite, veratrin, etc., has been abandoned, as well as most of the antipyretic remedies.

The causes of cardiac failure are not the same in all cases. It may be the result of previous disease, or be due to acute degeneration of the

cardiac muscle, consequent on long continued high temperature, or to the action of some blood poison developed by the disease itself, or to over-distension of the right side from the obstruction in the lungs. Each of these causes must be treated, as best it can be, by cardiac tonics and diffusible stimulants. Of the cardiac stimulants, digitalis, strophanthus, and caffeine are the most useful. Digitalis wants watching, for it is cumulative in action, and may produce more slowing of the pulse than is wanted. Strophanthus is less to be relied upon. Caffeine combined with nux vomica is the most serviceable for prolonged use. To meet any sudden emergency, such as collapse, ether and alcohol by the mouth, or subcutaneous injections of ether or strychnine, are in common use. Adrenalin, or camphor dissolved in sterilized oil, has been administered subcutaneously. Musk and camphor may be also given in pill form.

Bleeding. When the lungs are greatly engorged, the patient cyanosed, and the right heart over-distended, great relief may be given by bleeding. But the bleeding must be free and rapid. Several ounces—a pint or a pint and a half—should be withdrawn from a large vein rapidly. As the blood flows, the color improves, the heart's action becomes less labored, and the urgent symptoms may pass off. The loss of so much blood leaves the patient weak, and such a bleeding is, therefore, suitable only for special cases. The typical case is that of a young, full-blooded, healthy, well-fed adult, with florid complexion and well-developed muscles. Bleeding is contra-indicated in weakly, unhealthy, anæmic persons, in the very young or the aged. In properly selected cases free bleeding is of great use, and has, I have no doubt, saved many lives, but in private practice prejudice often prevents its employment when it would undoubtedly do good.

Bleeding is sometimes spoken of as useful on theoretical grounds, because with the blood there are removed some of the toxins upon which some of the grave symptoms are supposed to depend. This reason does not appeal to me, and I think such a theory mischievous in practice, as likely to lead to bleeding in unsuitable cases. Dermaclysis, or the subcutaneous injection of large quantities of water or normal saline solution, has been advocated as another way of diluting the toxins, or assisting in their elimination; but it does not commend itself to me, for it does not seem to be based on sound theory.

Stimulants are not required in an ordinary case in the healthy and young, but will probably be necessary from the first in the aged and weakly. In persons of alcoholic habits, or where nerve symptoms or marked asthenia develops, stimulants have often to be given freely. They may even be our sheet anchor, for as pneumonia, though a very intense fever, is of short duration if life can be preserved for a few days till the crisis comes, recovery will take place. Alcohol in some form is the stimu-

lant generally used. Ether may be given, but its action is more transient, and it is often distasteful.

Oxygen is very useful, for, under its administration, cyanosis lessens, the heart beats more regularly and slowly, the patient becomes less restless, and may fall asleep. If, however, it is to do good, it must be employed early, and its administration not deferred until the patient is moribund. When given dry, it is sometimes irritating. It should be allowed to bubble through water, or, what appears to be better still, equal parts of water and alcohol.

Pain. The stitch in the side, so commonly present at first, tends to disappear after twenty-four hours or so. If hot poultices do not soon give relief, other measures must be used. Subcutaneous injections of morphia or heroin locally have been used, but they are undesirable for general reasons, and are uncertain in their action. The best and most trustworthy remedy is the application of two or three leeches over the seat of pain. This rarely fails to take the pain away, which usually does not return. Poultices are objectionable on account of their weight, and, for the purposes of counter-irritation, a spongiopilin jacket is better upon which spirits of camphor or even turpentine is freely sprinkled. The use of cold applications to the chest instead of hot has been highly recommended in the belief that they reduce temperature, check pain, and control the inflammation. Cloths wrung out of ice-cold water, an ice-bag, or Leiter's tubes with cold water circulating through them have been employed. In my own experience, cold applications have not been so successful or so agreeable to the patient as the ordinary poultice or counter-irritation.

Cutaneous hyperæsthesia is not common. When *local* it occurs, as a rule, over the inflamed parts, and may be easily removed permanently, or, at any rate, for the time, by brushing the part over with tincture of aconite.

When *general*, it may be relieved by tepid sponging, but, as it depends upon a general cause, probably toxæmic, it is more difficult to treat.

Cough is rarely severe enough to call for treatment. If it causes much distress or pain some sedative may be required, but the pain in the side is better relieved by leeches than by narcotics.

Hiccough is a very grave symptom. It is usually associated, I think, with diaphragmatic pleurisy. It causes great distress, and is very obstinate to treatment. Even morphia injections often fail to relieve.

Delirium has several causes—high temperature, some serious complication like pericarditis, previous alcoholic habits, or asthenia. These must be sought out and dealt with accordingly. For most of them stimulants are required. If sedative medicines are necessary, bromide of

ammonium, with or without chloral, will be found useful, combined, if thought fit, with hyoscyamine and cannabis indica.

Hyoscyamine, which is so useful in mania, is a risky remedy in pneumonia, and I have abandoned its use.

Veronal also, in my experience, is a sedative which is not free from serious objection.

Sleeplessness is due to many causes, chief among which are pain and high temperature, which may be treated in the usual way. In children, there is no better sedative than a hot bath, and, in the adult, wet packing or a cold douche to the head may have the same effect.

If, in the adult, twenty-four hours are passed absolutely without sleep, something must be done to give rest, or the patient will die of exhaustion. If ordinary remedies fail, and we cannot waste much time in trying them, we are driven to consider the question of morphia.

Narcotics of any kind have to be used with great discrimination in pneumonia, if they are not to do more harm than good. The great objection to them is that they diminish the sensibility of the respiratory tract, and thus check cough and expectoration. Yet where the patient cannot sleep, sleep must be given, and if ordinary remedies fail, nothing seems left but morphia, and the greatest benefit is often obtained from it. I am always guided myself in its use by the amount of secretion in the air-tubes. The cases, in which it should *not* be used, are those in which there are the signs of congestion in the non-consolidated parts of the lung. Such cases are practically always fatal, and morphia simply accelerates the end. When the rest of the lungs is not congested, i.e., shows no signs of bronchitis, morphia may be given without risk and with great benefit. If it is decided to use it, it is best given in the most effective and certain way, i.e., by subcutaneous injection, and not by the mouth. When a patient is at last got to sleep by morphia, the sleep is very profound. It may be so deep that the suspicion may arise that the apparent coma is due to the morphia, but with the doses used, coma is impossible, and the deep sleep is simply that of exhaustion.

The digestive tract rarely gives any special symptoms which require active treatment. If food is refused nasal feeding must be adopted. Vomiting is rarely troublesome. Diarrhœa is more common, but both these symptoms are likely to depend much upon the diet, and are generally controlled by change of food. Looseness of the bowels is not usually important, and generally ends with the fevers.

Symptomatic treatment is often disrespectfully spoken of, as if it was unscientific. Yet it is based upon long clinical observation and experience, and if remedies have been proved to do good, that is a fact which remains a fact even if we cannot explain it.

After all, if we cannot treat the disease, we can treat the patient, and if we can relieve his symptoms, or the disease or discomfort they cause, we must so far do good, and we have daily proof that we do. There is no disease in which careful watching and skilful treatment show better results than in pneumonia.

DISCUSSION.

After the reading of this paper, remarks were made and opinions expressed by Drs. D. B. Lees, W. H. Blenkinsop, Percy Kidd, Sidney Phillips, Arthur Latham, Ewart, J. Edward Squire, and W. H. Willcox, of which reports or summaries follow :

D. B. Lees, M.A., M.D., F.R.C.P. Dr. Lees said : The subject, which we discuss this evening, is one of the most important in the whole range of medicine. When we remember that of every five or six cases of pneumonia one is fatal, that the total annual mortality from it is more than 1,000 per million living (which means more than 40,000 deaths every year in our population of forty millions), and that a large proportion of its victims are fathers and mothers of children, bread-winners and educators, often in important and responsible positions, whose death is an irreparable disaster to their children, to the community in which they live, and possibly to the whole nation, we cannot but be impressed with the gravity of the subject. The proper treatment of pneumonia is a question which has interested me profoundly for more than thirty years; it was the main topic of the Harveian Lectures which I had the honor to deliver before this society five years ago. What I wish to do this evening is to state, as briefly and lucidly as possible, what seem to me the most important points of treatment, which we ought to keep in mind. And let it be remembered that every case of pneumonia is a fight for life. In every case immediate attention is necessary; rest in bed, skilled nursing, and a visit of the doctor twice a day are essential.

I. *The Right Heart.* It is the right heart which fails in pneumonia—rarely the left. The left heart may be dilated, if there is a concurrent infection by influenza, diphtheria, typhoid, or rheumatism, or if the heart or arteries have been previously diseased. But, in an ordinary pneumonia in a previously healthy person, careful percussion shows that the left border of the cardiac dulness is only slightly displaced to the left, not more than the distension of the right side will account for. But a dilatation of the right auricle may often be detected on the third day of pneumonia—sometimes even on the second day. This observation is not difficult if careful light percussion is practised in the innermost part of the right interspace. In the normal heart, the right auricle yields a dulness at this spot which measures about a finger-breadth (2 centimetres).

In pneumonia, this often increases to two finger-breadths, and then there will be one finger-breadth in the third space also. A rapid dilatation of the right heart always gives rise to acute dyspnoea, and with the dyspnoea are associated a dusky pallor, a small pulse, a sense of cardiac oppression, restlessness, and inability to sleep: symptoms which may be summed up as *right-heart misery*. Immediate relief may be given by a few leeches, applied between the right nipple and the costal margin, but, in neglected cases, venesection may be necessary. The relief will usually last for forty-eight hours, but it may then be found that the auricle is again dilated, and that the urgent symptoms have returned. The leeches or venesection should then be repeated. Two small bleedings, often only one, will usually suffice to carry the patient in comparative comfort to the time of the crisis.

II. *The Lungs*. At one or more places, in one or both lungs, a rapid multiplication of pneumococci is taking place, with steady production of toxins. Fortunately, the pneumococcus is very susceptible to changes in its environment, and, in particular, to changes in temperature of the culture-medium. Bacteriological investigation has demonstrated that a lowering of temperature of as little as 6°-10° C. causes a marked reduction in the number of colonies formed in a given time. Careful clinical observation of cases of pneumonia treated by icebags has shown that, after an icebag has been applied over a pneumonic area for several hours, it is usually possible to demonstrate a diminution in the degree of dullness at the spot where the ice has been, frequently also a diminution in extent of the dull area, and, in addition, a freer air-entry. Small areas of recent origin often become completely resonant in a short time. For more than twenty years I have employed this method of treatment, and have found it extremely efficient, if the following points are attended to:

(1) The feet and lower limbs must be kept constantly warm by additional hot-water bottles: (2) the condition of the right heart must first be ascertained, and any considerable dilatation relieved by leeches; (3) the precise position and extent of the dull areas in both lungs must be ascertained by careful percussion; (4) two icebags—one in front and one behind—must be applied so as to have the worst area between them; (5) if possible, after a few hours, a third icebag, and perhaps a fourth, should be applied to the next greatest area; even a fifth icebag is often tolerated, with skilful nursing; (6) the physical signs must be carefully ascertained at least once every day, and the position of the icebags shifted accordingly; (7) nothing must intervene between the ice bag and the skin; (8) the ice must be renewed as often as necessary, about every two hours.

The ice gives so much relief that the frequent disturbance is gladly tolerated by the patient, provided (and this is essential) that the right heart is not over-distended.

III. *The Mouth, Throat, Nose, and Air-Passages.* It is practically certain that the infection of the lung depends upon the presence of the pneumococcus in the mouth, throat, or nose. It is, therefore, of extreme importance to arrest the further supply of infective material by a careful antiseptic treatment of these cavities. The mouth should be rinsed with equal parts of Sanitas fluid and water; the throat sprayed with 1 in 2,000 solution of perchloride of mercury in glycerine and water; the nose sprayed with a parolein spray containing a little oil of eucalyptus and 1 per cent. cocaine. Each of these measures should be carried out at least three times daily. In addition, I have observed much benefit from the constant wearing of Yeo's "respirator-inhaler," the sponge of which is saturated with a combination of volatile antiseptics—carbolic acid, creasote, and iodine, with spirit of ether and spirit of chloroform. Unless dyspnoea is specially great, patients can wear this simple inhaler without difficulty. If the dyspnoea is too great, probably the right auricle will be found to be in need of relief.

IV. *Sleep.* Sleep is of the first importance; not a single night's rest can be spared. At his first visit the physician must ensure that the patient shall sleep the following night. At first the causes of sleeplessness are pain and pyrexia; both can be checked by icebags, but the former often requires subcutaneous morphine. In the early days of the disease, morphine is absolutely safe, and is of the greatest assistance. If any other drug is required, let it be chloralamide, (not chloral) or bromide with brandy. But sleep is essential. When the right heart is much dilated morphine is a dangerous drug. But if the right heart has been relieved, and ice applied to the lung, the patient will often fall asleep without any hypnotic. But, if needful, morphine may now be given without fear.

V. *Diet.* Milk is the food most easily taken. Both its digestibility and its nutritive value may be increased by adding to it malted-milk powder, which is composed of desiccated milk, malted barley and wheat, and some alkaline salts. Half an ounce of this in 6 to 8 ounces of milk every three hours will be sufficient. But when the right auricle is strained, it may be wise to reduce the quantity of fluid in the food, and to give only 2 ounces of milk with the half-ounce of malted-milk every two hours. When the right heart has been relieved by leeches or venesection, it is safe, and beneficial, to give large quantities of water by the mouth, both to satisfy thirst and to assist in the elimination of toxin by the kidneys. Half a pint of water may be given every three hours, 4 pints in all, during the day after the bleeding. This is of considerable value.

VI. *Respiratory Stimulants.* The hypodermic administration of liquor strychninæ should be begun as early as the fourth day. The dose should be rapidly increased to 6, 8, or even 10 minims, and, in the later part of the attack, it should be given twice or three times daily. Oxygen is dis-

tinctly helpful, but I have never seen it save a life. Fresh air, without draught, should be freely supplied. A "bronchitis-kettle" should never be allowed. Ammonium carbonate may be useful if there is much bronchitis present. In pneumonia, apart from influenza, the value of alcohol, quinine, or digitalis is, I think, doubtful. Atropine is useful, but too apt to increase delirium.

The worst cases of pneumonia are those in which much bronchitis is present, and especially the septic cases, in which the temperature ranges below 102°. Many of these offer no hope of successful treatment, unless a therapeutic serum or a vaccine can be made available, and of this there is no immediate prospect. Patients suffering from diseased heart, lungs, liver, or kidneys, from feeble vitality, from general constitutional disease, or from chronic poisoning by alcohol or tobacco, have but a poor chance of recovery from pneumonia. Yet some of these may be saved with care, and I am convinced that, if the measures advocated above are adopted, a very considerable reduction may be effected in the total mortality from pneumonia.

W. H. Blenkinsop, B.A., M.B., M.R.C.P.I. Dr. Blenkinsop gave an account of his personal experience in practice in the treatment of pneumonia. He laid great stress on the importance of active measures in combating the effects of the disease. He had found local bleeding by the application of leeches of great service in the early stages, and also that the application of local remedies, such as croton oil liniment, was of great benefit in many cases. He believed that stimulants were of great benefit, and that their application should not be postponed until too late. He had found the use of alcohol very valuable in many cases.

Percy Kidd, M.A., M.D., F.R.C.P. Dr. Kidd said: It would be impossible to discuss the various points raised by Dr. West's paper, and by other speakers. I shall, therefore, confine myself to a few points. I was glad to hear what Dr. West said about the use of leeches. For the relief of pain, I believe there is nothing to compare with them, and I have never known them to fail. My experience leads me to doubt whether the merits of leeches are adequately appreciated by the majority of practitioners at the present time. It has happened to me several times at consultations, in cases of pneumonia, when I have suggested the use of leeches, to be met with the remark that it would be almost impossible to get them at the local chemists, and that it would be necessary to send to one of the large London firms for them. I fully recognize the importance of careful cleansing of the mouth to which Dr. West alluded, but I should hesitate to adopt the somewhat drastic local treatment of the naso-pharynx and mouth advocated by Dr. Lees, in view of the disturbance of the patient that it would involve. For I believe that rest is of the utmost importance in every case of pneumonia, and, when once the diagnosis has been estab-

lished, the less the patient is disturbed for physical examination the better during the active phase of the disease.

And, while I agree with Dr. Lees as to the very great importance of the state of the heart, I would urge that the condition of the nervous system is almost as decisive. The onset of severe nervous symptoms, such as delirium, tremor, restlessness (I do not refer now to alcoholic cases), is a very bad omen, indeed, in many of these cases, the prognosis is hopeless from the first with our present methods of treatment.

We know that the great danger of pneumonia is toxæmia, and it is probable that cardio-vascular and respiratory failure in this disease is largely attributable to implication of the nervous system. The treatment of restlessness and insomnia is, therefore, a matter of the greatest moment to the patient. I should like at this point to make a few remarks about the use of opium. My attention was strongly directed to this question by a paper written by Sir Samuel Wilks, more than fifteen years ago, in which he examined and criticized the superstition that opium is absolutely contra-indicated in pneumonia, and gave instances of the beneficial action of the drug in certain cases. Since that time I have frequently used opium for the relief of insomnia and restlessness with excellent results. Of course it must be given with discretion, and I should say that, for the first three or four days of the disease, it may be safely administered, preferably in the form of an injection of morphia gr. $\frac{1}{6}$ to gr. $\frac{1}{4}$, at night, provided that cyanosis and other signs of respiratory failure are absent. After the fourth day, and until the crisis has been passed, I should be very chary of prescribing opium. Though, in some of the less severe cases, sponging, bromides, and other remedies may suffice, many troublesome cases of restlessness and insomnia can only be relieved by opium, and the relief afforded by a few hours' sleep may be of vital importance to the patient.

As regards stimulants, I should rely on alcohol and strychnine, which I believe to be safer and more effectual than digitalis. But strychnine should be given in sufficient doses, by hypodermic injections, and at an early date, the chief indications for its use being a weak and rapid pulse. Thus, in a young child, 1-100 grain may be given every three hours for four or five doses, and then continued at larger intervals, if necessary.

Sidney P. Phillips, M.D., F.R.C.P. Dr. Phillips thought, in treating pneumonia, that it was important to consider what were its chief dangers: hyperpyrexia occurred in only 2.8 per cent. of 593 deaths in adult pneumonia cases collected from the metropolitan hospitals, and was therefore a very rare cause of danger. He did not think right heart failure was the commonest cause of death; the circulation was possible without any contraction of the right ventricle, but intra-cardiac thrombosis, contributed to by the hyperinotic state of the blood in pneumonia, was likely to occur

when the right heart was overloaded. Dr. Walshe wrote that the commonest cause of death in pneumonia was asphyxia, but probably some of the cases ascribed to asphyxia were toxæmia, which Dr. Phillips thought was by far the commonest cause of death in pneumonia. And the period of danger was usually just at or after the crisis. It was at this time that, in a case of local *unilateral* pneumonia, one found that the lungs on *both sides* were apt to become suddenly the seat of profuse bronchial flux, which swamped the lungs, and almost invariably the patient died. He thought this could only be attributed to paralysis of the muscular fibres of the bronchi, the result of profound toxæmia acting on the nervous system. Dr. Phillips thought a cardinal point in the treatment was to guard against this by commencing the administration of alcohol, digitalis, and strychnine about the fifth day of the disease, and, whenever there were indications of collapse at the crisis, to ply these stimulants with the greatest freedom, even to 20 ozs. of alcohol a day, and though treatment might be of little avail in pneumonia, he thought death was sometimes averted by free stimulation at the crisis. Dry cupping was useful at the commencement of the disease, but he thought venesection at that stage of little effect, though very useful if the venous system was much engorged later on. Statistics showed pneumonia to be most fatal at certain seasons of the year, and when the air was very dry, the wind east, the temperature low, and if there was fog, he thought the steam kettle very useful. Quinine was a non-depressing antipyretic, which was useful, if given about the time of the crisis, assisting the natural fall of pyrexia; oxygen inhalation was serviceable, and the more continuously it could be given the more valuable its effect.

Arthur Latham, M.A., M.D., F.R.C.P. Dr. Latham said that the treatment of pneumonia was far from satisfactory at the present time. It was clear from the discussion that very different views were held as to the proper line of treatment. It was also well known that in the various London hospitals very different lines of treatment were adopted. The statistics, recently prepared for the Royal Society of Medicine, showed that, in spite of these differences, the mortality from pneumonia was almost identical in the large London hospitals. This mortality amounted to 20 per cent.; in other words, one person in five treated for this disease died. That fact was sufficient to show that it was their duty to see whether the treatment of pneumonia could not be improved upon. In his opinion, the treatment of pneumonia, apart from the question of vaccine treatment, to which he would refer later, was summed up under two headings: (1) The necessity of limiting the absorption of toxin, i.e., the prevention of auto-inoculation; (2) symptomatic treatment. It was absolutely essential that a patient suffering from pneumonia, or indeed from any acute intoxication, should be treated, so far as movement was concerned, on exactly

the same lines as a patient suffering from enteric fever. The reason for this was that movement increased the amplitude of the respiration, and so led to a free circulation of the lymph and to a greater absorption of toxin. It had been shown by Freeman and others that massage of a joint, infected by gonococci, led to a greater absorption of toxin, and that this could be shown by its effect on the opsonic curve, and, in some cases, by the clinical results. Again, heavy percussion of the chest of a patient, suffering from pulmonary tuberculosis, had been shown to have exactly the same effect on the opsonic curve as an injection of tuberculin, that was to say, heavy percussion might be followed by an increased absorption of toxin. How sensitive this auto-inoculation was, could be best demonstrated in a case of tuberculous laryngitis. If a patient, suffering from this disease, read aloud for an hour, the movement was sufficient to cause a greater absorption of toxin, and the effect on the opsonic curve here also was exactly the same as the effect produced by an injection of tuberculin. The practical deduction was that the less a patient suffering from pneumonia was moved, the better were his chances of recovery. He had watched the practice of several physicians in this country and abroad, who were in the habit of making a daily and elaborate examination of the chest in this disease, and even of sitting their patients up for this purpose. He was satisfied that this resulted in a greatly increased mortality. Again it was an undoubted clinical fact that a patient, who was treated with complete rest from the initial stages of the disease, had a better chance of recovery than a patient who was moved from his home in some jolting vehicle on the fourth, fifth, or sixth day of the disease. He did not suggest that no examination of the patient's chest should be made from day to day, but no movement, causing any respiratory exertion, should be allowed. The anxious search of some physicians for the presence of fluid or pus seldom gave any information in the first week of the disease, and the careful mapping out of the area of consolidation seldom if ever led to any advantage to the patient. All the information required could be obtained by light percussion and auscultation, and a careful examination of the position of the heart.

With regard to symptomatic treatment, he believed that oxygen should be used from the commencement of the disease, but that it should be administered in such a way that it was freely diluted with air. Given in this way, it did much to limit respiratory embarrassment or movement. He had great faith in the value of leeches for reducing the initial pain. He never hesitated to give small doses (gr. $\frac{1}{6}$ to $\frac{1}{4}$) of morphia hypodermically in pneumonia, at any stage of the disease, if there was not much associated catarrh of the other portions of the lung. He believed that morphia was the best drug for sleeplessness in this disease, and that the use of veronal might be attended with most unpleasant results in any

condition resulting from profound toxæmia. With regard to stimulants, he waited until the pulse showed some sign of flagging, and then gave strychnine and digitalin together hypodermically, with increasing doses of alcohol, until the crisis was past. He thought that it was not sufficiently borne in mind that the crisis was a critical time. Patients often died immediately after the crisis, because these stimulants had not been given in sufficient doses as the temperature came down, and for twenty-four hours afterwards.

He had said that the present day treatment of pneumonia was far from satisfactory, and he believed that, in the near future, a great advance might be made by the adoption of vaccine treatment. The lung tissue had some peculiar power of resistance to the pneumococcus, for an abscess of the lung, as the result of pneumonia, was very rare, whilst in other situations the pneumococcus frequently led to abscess formation. This fact encouraged the belief that vaccine treatment might be of great service. The results of vaccine treatment obtained by Boellke, in a few cases of severe pneumonia and one case of pneumococcic endocarditis, were most encouraging. The results of vaccine treatment in cases of delayed resolution of the lung, and in pneumococcic infection of other portions of the body, were also most encouraging. He had recently been able to show that it was possible to produce immunization against bacterial invasion by the administration of the appropriate vaccines, e.g., tuberculin, staphylococcic, streptococcic, by the mouth. In two cases of pneumonia he had recently administered dead pneumococci by the mouth, and in both cases this was followed in eight hours by a marked fall in the temperature, which was progressive, in one case on the third day, and in the other on the second day.

William Ewart, M.D., F.R.C.P. Dr. Ewart approved of the use of leeches in pneumonia both for the relief of pain, when applied locally in the early stages, and also later for the relief of the over-distension of the right heart, which was indicated by the marked cyanosis of the patient.

He thought that it was a great mistake to postpone the use of stimulants, and strongly advocated their use early when the patient was in a position to absorb them. He had found alcohol in the form of wine very valuable, and, where milk was ill borne, he believed that whey in liberal amounts was a most useful form of nourishment.

J. Edward Squire, C.B., M.D., M.R.C.P., D.P.H. Dr. Squire spoke of the good effects of alcohol in certain cases. He urged the importance of complete rest for the patient, and spoke of the dangers of too frequent clinical examination, as he believed that this in some cases delayed, and even obviated, the crisis. He had found dry cupping very valuable, and believed that this remedy was not used nearly enough in

this country in the treatment of pneumonia. He insisted on the great importance of allowing the patient plenty of fresh air, and spoke of the good results which he had seen follow the open-air treatment of pneumonia.

W. H. Willcox, M.D., B.Sc., M.R.C.P., D.P.H. Dr. Willcox had seen remarkable benefit result from the proper application of bleeding, either by means of six or more leeches over the right hypochondrium, the bleeding being encouraged by hot fomentations afterwards, or else by a venesection. The secret of success in the use of bleeding was the proper selection of cases in which to apply it. Bleeding was of very great benefit in cases in which there was over-distension of the right side of the heart. This was indicated by marked cyanosis and dyspnoea, by visible pulsation in the epigastric region caused by the distended right ventricle, and by an increase in dulness to the right side of the sternum in the fourth interspace, which was produced by the over-distended right auricle.

The dulness in this region, in cases of right heart distension, often extended to one or two inches to the right of the sternum, the normal extent of dulness in this region being only about half an inch. In cases with these signs, bleeding was always of benefit. If venesection was performed, Dr. Willcox considered that the removal of four or five ounces of blood was quite sufficient, because the sole object of venesection was relief of over-distension of the right side of the heart. He had several times proved, by actual percussion of the extent of the right border of the heart before and after venesection, that the removal of this quantity of blood caused the dulness, to the right side of the sternum to become reduced to the normal limit. The removal of greater quantities of blood was only calculated to enfeeble the patient, and, in addition, it prevented one from safely repeating a venesection, should the right heart become again embarrassed, as sometimes happened in cases of broncho-pneumonia, where two small venesections at intervals were often of great value. He considered that the reason that venesection had found disfavor with many people in cases of pneumonia, was that it had been applied in unsuitable cases. It should not be performed in cases in which the left ventricle was failing, and the right heart not over-distended, since it might do harm. This condition often resulted in influenzal and other toxic types of pneumonia, and it was recognized by the greyish slightly flushed complexion, by the feeble pulse and weak heart sounds. The dilatation of the left ventricle could easily be demonstrated by the increase in the extent of the dulness of the left border of the heart, the dulness reaching an inch or so to the left of the left nipple line.

Dr. Willcox advised, in cases of heart failure, the use of oxygen which was bubbled through a wash-bottle containing absolute alcohol. He had used this with great benefit, in some cases of pneumonia with failing heart, the oxygen being administered through an inverted glass funnel held over the mouth and nose. He was led to try this remedy from the observation of some experiments made in the Physiological Laboratory of St. Mary's Hospital by Dr. Collingwood.

It had been undoubtedly proved that, in animals suffering from heart failure as the result of an overdose of chloroform, oxygen bubbled through absolute alcohol had an extraordinary stimulating effect on the heart, and often caused it to recover when oxygen alone had quite failed. He considered that the use of oxygen, bubbled through absolute alcohol, was worthy of extended trial in cases of pneumonia with cardiac weakness.

Dr. Willcox laid stress on the importance of the examination of the chest in cases of pneumonia. This should be done with as little disturbance to the patient as possible. The physical signs of the front of the chest can readily be ascertained without discomfort to the patient, and, by gently rolling him on to the side, the back of the chest can be quickly examined without any harm resulting from the temporary movement.

Prolonged examination and heavy percussion were no doubt harmful, but it was quite easy for a patient to be examined once a day, and the physical signs determined without any harm resulting, provided that due care was exercised. In some cases of pneumonia, an empyema developed early, and, unless the physical signs were carefully watched, such a complication would not be recognized, and possibly a fatal result occur, which might have been obviated. He believed that great benefit would result from the inoculation of cases of pneumonia with a vaccine made from the pneumococcus organism. This method of treatment had been little used at present, but the results so far were very promising. He had applied this form of treatment in a severe case of pneumonia following on pneumococcal peritonitis. The pulmonary symptoms persisted in a very acute form for over three weeks, no crisis resulting. And it was only on the application of treatment by inoculation, with an appropriate vaccine, that the patient commenced to improve, and then speedily made a rapid recovery.

An unusually good programme has been arranged for the meeting of the Ontario Medical Association this year in Hamilton. It will be held on 26th, 27th and 28th of May.

CURRENT MEDICAL LITERATURE

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MEDICINE.

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

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DIABETES AND THE DUCTLESS GLANDS.

Dr. Arnold Lorand, of Carlsbad, delivered a very instructive and illuminating lecture on diabetes. His clinical researches were based on observations on over 700 cases of diabetes, and he had experimented on animals. According to Dr. Lorand, diabetes is brought about by morbid changes in the ductless glands, the thyroid, pancreas and adrenals. He pointed out that lesions in the brain very seldom give rise to true diabetes, although glycosuria is common. He maintained that Claude Bernard's famous puncture of the fourth ventricle of the brain gave rise only to glycosuria, and not to diabetes proper. He did not deny the influence of mental shock in producing diabetes. He thought it was a common cause, but it acted through its influence on the ductless glands. He pointed out analogies between Graves' disease and diabetes. Graves' disease was due to exaltation of the functions of the thyroid gland, and that when the gland atrophied, it was followed by myxœdema. Even in advanced cases of diabetes, myxœdematous symptoms may arise. The rôle of the liver he thought of secondary importance; that changes in that organ were secondary. Glycosuria could be distinguished from diabetes by a test meal of beef, rice and honey. Any very decided quantity of sugar in the urine indicated diabetes, but small quantities, like a half per cent., did not. In the genesis of diabetes he was strongly of opinion that large meat-eaters were specially prone to the disorder; indeed, a meal of meat and carbo-hydrate brought out the latent tendency to diabetes better than a purely meat or carbo-hydrate diet. Children of diabetics often showed their morbid tendency when tested in this way. Extirpation of the whole of the pancreas was followed by diabetes. In the treatment he advocated meat to be given once a day, and allowed a moderate quantity of carbo-hydrate. He allowed green vegetables and certain fruits like oranges and apples, also cream and sour milk. The great danger, he considered, in diabetes was not the sugar in the urine, but acetone and diacetic acid. He had found very beneficial effects from thyroid extract in removing diacetic acid from theurine. He thought theserum or milk of goats, whose thyroid had been extirpated, might prove of benefit. At all events, such milk had very decided soporific properties, and a dog living on such milk was practically useless, as it was always falling asleep. *Med. Press and Circular*, February 26.

ACUTE LEUKÆMIA.

In the *Bulletin of the Johns Hopkins Hospital*, March, there is a study of this rather rare condition by Emerson, with the report of three cases treated in the hospital during the past year.

Case 1 was in a male, æt. 35, white; came complaining of weakness; past history negative; father a heavy drinker. Illness began eight weeks before. So weak that he had to go to bed; dyspnœa on exertion, no pain, nausea or vomiting. He was pale, but had no swollen glands, no increased micturition, no swelling of the feet, no coughs, no sweats, no hæmorrhage, but slight oozing from the gums for some time past; he had lost appetite and considerable weight. Examination showed pale mucosæ with no staining, heavily coated tongue, no visible enlargement of tonsils nor palpable glands; pulsating veins; a few rales and tubular modification of the breathing in the left axilla; the heart was not enlarged but there was a blowing systolic murmur at the pulmonic area; the liver extended 5 cm. below the costal margin. Hæmoglobin 25 per cent., reds 944,000, whites 428,000. Differential: large mononuclears, 97.2 per cent.; small mononuclears, 1.9 per cent.; polymorphonuclear neutrophils, 0.51 per cent.; neutrophile myelocytes, 0.34 per cent.; polymorphonuclear eosinophiles, 0.25 per cent.; mastzellen, 0.05 per cent.

The predominating cell was a palely-stained mononuclear with vacuolated nucleus, and abundant basophilic protoplasm, whose size varied from that of a lymphocyte to a giant cell. Very few normoblasts were present. It took fully half an hour to allay the hæmorrhage from the pin-prick in the ear, made to get the blood for the above examination.

MALIGNANT ENDOCARDITIS.

In the *Medical Record* for Dec. 7th, Meyer of New York, reports six cases of malignant endocarditis. With regard to the etiology, the most striking feature was the predisposing influence of pre-existing endocardial disease, as follows:

- Case 1. Cardiac trouble from infancy, clubbing of fingers and toes.
- Case 2. Cardiac trouble in childhood, hypertrophied dilated heart.
- Case 3. Uncertain.
- Case 4. Chorea, acute articular rheumatism, and cardiac trouble eight years.
- Case 5. Blood-tinged sputum four years before, dyspnœa, and œdema of legs one year, slight clubbing of fingers.
- Case 6. Acute articular rheumatism one year before, uncertain.

This agrees with the findings of other observers, Kanthack and Tickell observed old cardiac lesions in 85 per cent. of 84 cases at St.

Bartholomew's, and Wyssokowitch caused endocarditis in animals by injecting cocci after the valves had been injured by violence.

Age. All were young individuals between 17 and 31 years of age. It is rare in children. At Mount Sinai in 1905 there were 527 cases of all kinds, 43 were cases of endocarditis and only one malignant; while old people are subject to endocarditis, the malignant variety is rare among them.

Cause of infection. In hospital cases this is difficult. Case 1 may have been due to an otitis media; Case 2 to a slight pneumonia; Case 3 to a slight tonsillitis; the other three could not be traced.

Fever is almost always present, sometimes with wide daily ranges. The pulse rate varied with the temperature and showed nothing distinctive. Petechiæ were present in all six cases and strengthened the diagnosis. In several cases they appeared in successive crops. In three cases they did not appear until 17, 26 and 28 days after admission. There was no regularity in the appearance of the crops. Conjunctival petechiæ are important, as they may be found before they occur elsewhere, as in two of the cases.

The relation of the petechiæ to the culture findings was not very evident. Blood cultures made twenty-four hours after the appearance of the spots proved negative on two occasions; in one case (of these) the culture was positive the day before.

Retinal hæmorrhages were found in three cases, and seemed to forebode approaching death. The urine of five of the cases contained red blood cells at various times, in one case corresponding with the appearance of the petechiæ, in that case probably due to embolism. Two of the cases were complicated by cerebral emboli, and one by embolic aneurism of the ulnar artery, probably bacterial in origin.

There was enlargement of the lymphatic glands in three out of the six cases; it was not regularly accompanied by a leucocytosis.

The diagnosis is difficult. In all of the cases there was evidence of cardiac involvement, but this is not true of all cases, and a case is reported where the symptom complex of a streptococæmia with a cardiac murmur and allied conditions increasing in severity was diagnosed as a malignant endocarditis, and on post-mortem there was found no evidence to support the view.

Treatment is symptomatic and we have no means at our command of combatting the disease. Broadbent says that the salicylates are worse than useless, but the writer believes that as they are considered useful in endocarditis of the simpler forms they may have a place here. Quinine was used in one case, but apparently did not affect the course of the disease. Treatment by sera has not been encouraging, and the injection of formalin was not used because Park had found it dangerous in septi-cæmic rabbits.

OBSERVATIONS ON THE ABSENCE AND MARKED DIMINUTION OF THE HYDROCHLORIC ACID OF THE GASTRIC CONTENTS IN CANCER INVOLVING ORGANS OTHER THAN THE STOMACH.

In the *Maryland Medical Record*, Jan., Friedenwald and Rosenthal call attention to the findings in this regard. The acidity of the gastric contents in 29 cases were investigated. Of these there were 9 cases of cancer of the breast, 5 of cancer of the uterus, 7 of cancer of the rectum, 2 of cancer of the tongue, 4 of cancer of the face, one of cancer of the intestines, and one of cancer of the pancreas. In all cases an Ewald test breakfast was given, and removed at the end of an hour, and the gastric contents examined for total acidity and percentage of free HCl.

In 19 cases, or 65 per cent., there was either an absence, or diminution of free HCl. That this persists even after removal of the carcinomatous growth was shown in 10 cases where examination was made after total extirpation of the growth. In not one did free HCl return.

It would seem, then, that this should be made use of in making a diagnosis. The explanation is quoted from Moore:

"It is not the total alkalinity of the blood, which is the determining factor in the power of the oxyntic cells to separate a fluid of acid reaction from the blood plasma, but rather the effective concentration in the hydroxyl ions and hydrogen ions respectively. If we suppose that the failure or reduction in quantity of the acid is an indication through the mechanism of the oxyntic cells, that the concentration of the hydrogen ions in the blood of carcinomatous patients is decreased and the concentration of the hydroxyl ions increased; then we have indications from analogy with the changes which occur in other growing cells under like conditions that such a change would probably give rise to increased cell growth and division."

SURGERY.

Under the charge of H. A. BEATTY, M.B., M.I.C.S., Eng., Surgeon Toronto Western Hospital; Consulting Surgeon Toronto Orthopedic Hospital; and Chief Surgeon Ontario Division, Canadian Pacific Railway.

INJURIES OF THE SPINAL CORD.

A. R. Allen, Philadelphia (*Journal A. M. A.*, March 21), discusses at length the injuries of the spinal cord due to external violence, such as gunshot wounds, fracture-dislocation with involvement of the cord and involvement of the cord in spinal concussion without spinal lesion. Stab

wounds of the cord are not considered. After describing the anatomic conditions, he points out the liability to injury of the different regions of the cord. A vertebral dislocation without injury to the intervertebral disc is considered by him an absolute impossibility in spite of the numerous instances reported to the contrary. More careful histologic study, he thinks, would have revealed an injury. Fractures and dislocations in the thoracic region, above the tenth thoracic vertebra, are not so frequent as those in the cervical region or as those below the tenth thoracic vertebra. In the upper thoracic region, dislocation without fracture is impossible, and, while it is theoretically possible in the lumbar region, the vertebrae slipping forward or backward, there are many who think that fracture always plays a part. In the cervical and lower thoracic region self-reducing dislocation without fracture frequently takes place. It has been claimed by many that the spinal musculature is a preventive factor against dislocation, but Allen considers this an error. A number of cases are on record, however, in which fracture has been caused wholly by muscular action. In injuries to the spinal column the cord may be injured in various ways, transversely squeezed, cut in two, obliquely, or even longitudinally lacerated. Allen reports nine fatal cases, with autopsy; six of them following fracture-dislocation, one due to gunshot wound, one was a pure self-reducing dislocation without fracture, and one followed spinal concussion without spinal lesion. In his comments on these cases he calls attention to various special features, such as the hæmaturia that sometimes follows, even with no kidney trauma, which he thinks can be explained by a traumatic anæmia causing necrosis of renal parenchyma; the question of erection centers in the cord as shown by penile turgescence; the danger from operative interference; the cause of hæmatomyelia in simple spinal concussion, etc. As regards operation, he takes a conservative position, but says that in compound fractures it may be often advisable, but here one should do as little as possible in the way of removal or reposition of fragments. Of course, if there is a lamina driven into the spinal cord, its removal is indicated, but any attempt to remove all existing débris is condemned. It is better to trust to Nature, with the aid of immobilization. When the canal is opened the greatest care should be taken to avoid pressure on the cord, and he would remove blood clots, etc., by irrigation with warm sterile salt solution, after time has been given for the oozing from small vessels to cease, rather than by sponging. There is much testimony in favor of operating in fracture-dislocation involving the cauda equina. The treatment of the bladder troubles and the trophic disorders must be carried out along the lines of general medicine and surgery.

SPLENECTOMY.

A series of interesting papers on excision of the spleen is published in the *Annals of Surgery* for January, 1908. Bogart reports the case of a child, aged 8, whose spleen was ruptured by his having been run over by a truck. There was dulness on percussion in both flanks, abdominal tenderness and rigidity, and the patient was so profoundly collapsed that, before operating, blood was transfused from the patient's mother. In about half an hour the patient's pulse had dropped from 140 to 110, and had increased in force and volume, his color had improved, and his general condition seemed to justify an exploratory abdominal incision. A considerable amount of blood was found free in the peritoneal cavity, and the spleen was widely lacerated. The organ was removed after ligation of its pedicle. The abdominal cavity was sponged dry. Death took place three and a half hours later. On post-mortem examination there was found an extensive retro-peritoneal hæmorrhage, due to a rupture of the left renal vein and several small lacerations of the liver.

Fiske records a case of excision for gunshot wound of the spleen. The situation and direction of the wound of entrance, and the physical signs, pointed to an injury of the spleen. On opening the peritoneum, about a pint and a half of fluid blood escaped and some clots. In the spleen was a wound which admitted two fingers. The organ was excised, the pedicle being first ligated *en masse*, and then the individual vessels secured. The abdomen was flushed out with saline solution, and the wound closed—an iodoform drain being left in. Recovery was complete in about three weeks.

In reporting a case of splenectomy for Banti's disease, Gaston Torrance reviews the literature of the subject, and gives a short résumé thereof. In 1882, Banti described a disease, characterized by enlargement of the spleen, without obvious cause, the organ being firmer than usual, but still preserving its natural contour. A progressive anæmia develops later, with occasional periods of remission; the skin becomes bronzed or pigmented, with some jaundice. This stage of the disease may last for from three to ten years. The second stage, in which the urine is scanty, high colored, loaded with urates, and containing urobilin, may last only a few months. In the third stage there is ascites with Laennec's cirrhosis. The author has collected and gives a short résumé of each of thirty-six reported cases subjected to operation, with a mortality of 25 per cent.

Mary Almira Smith reports what she believes to be the fourth case of excision of the spleen for carcinoma. The patient was a woman, aged 49. After her first confinement the abdomen did not return to its normal size, and she complained of a dragging sensation and became easily

fatigued. About two years later she first noticed a tumor in the abdomen, which rapidly increased within the next three months, and became very sensitive. This proved to be a proliferating cyst adenoma of both ovaries of malignant type, and was removed by operation. Ten years later she complained of pain in the left side, rapid emaciation, and loss of strength. Eventually a large, firm, nodular mass was found under the left costal arch, filling the whole left side, which was dull on percussion. The urine was normal. Red corpuscles, 5,500,000; whites, 8,500; hæmoglobin, 70 per cent. The abdomen was opened and the tumor found to be an enlarged spleen, which was removed. The patient made a good recovery from the operation, and returned to her family duties, but subsequently died from recurrence seven months after the splenectomy. The microscopic examination showed it to be a colloid carcinoma.—*Edinburgh Medical Journal*, March, 1908.

ARE THE INTESTINES ABLE TO PROPEL THEIR CONTENTS IN AN ANTIPERISTALTIC DIRECTION?

The above question has been answered, (Edwin Beer and Carl Eggers) both affirmatively and negatively. Only recently Wilms, in his exhaustive review of the literature of this subject, arrived at the negative conclusion. The experimental work of the writers and clinical observations point to an affirmative reply.

The experimental method has failed in the past, because the data that were collected proved inadequate and inconclusive. Our more extensive study, we trust, will harmonize many of the apparently widely divergent views and results found in the literature.

1. If segments of the small or large bowel be reversed and the continuity of the bowel be re-established, subsequent exposure and study of the behaviour of the reversed segment will demonstrate whether this segment of the bowel is capable of acting in the reversed direction—i.e., capable of propelling its contents in an antiperistaltic direction. In four such experiments it was demonstrated at subsequent laparotomies that the direction of the peristaltic wave is reversed in the reversed loop, that it has become isoperistaltic with the bowel above and below the anastomoses. At first the waves run irregularly orad or rectad, but later the downward (antiperistaltic with reference to their original direction) waves predominate.

2. If extensive segments of the bowel are reversed and the animals have daily defecations, one must infer that the intestinal contents have been moved downward by antiperistalsis, as no other adequate force is

conceivable. As another series of our experiments did not materially affect the regularity of the animals' defecations, they also point to the power of the bowel to propel its contents in an antiperistaltic direction.

3. Cannon and Murphy's recent observation of the behaviour of experimental ileus cases (*x-ray* studies) in which the contents proceeded regularly as far as the obstruction and then moved backward (*orad*), also point to a similar antiperistaltic activity.

4. Last of all such well authenticated clinical observations, as the vomitory of stained enemata shortly after introduction into a normal intestinal canal, can be explained by active antiperistalsis alone.—*Surg., Gyn. and Obs.*, Jan., 1908.

GYNÆCOLOGY AND ABDOMINAL SURGERY.

Under the charge of S. M. HAY, M.D., C.M., Gynæcologist to the Toronto Western Hospital, and Consulting Surgeon Toronto Orthopedic Hospital.

CONGESTIVE CONDITIONS IN THE FEMALE SEXUAL ORGANS AND APPENDICITIS.

Georg Glücksmann (*Berl. Klin. Woch.*, August 26, 1907) says that the neighborhood of the appendix to the right adnexa makes difficult the differential diagnosis between appendicitis and disease of the ovaries and tubes. The folds of peritoneum that directly connect the organs render infection of one liable to be communicated to the other. Appendicitis may be complicated by irregularity or pain of the menstrual periods. On the other hand, the appendix may be diseased with normal adnexa. Dysmenorrhœa may be of nervous origin, entirely reflex from the disease of the appendix. The author cites two cases in which an attack of acute appendicitis began on the same day as the coming of the menstrual period. The menstrual congestion may have precipitated the attack. It causes the appendix to become turgescient and rigid. Infection may arise more readily at this period. The author advocates an early examination, in spite of the appearance of the menstrual period, in all cases in which appendicitis is suspected.

TREATMENT OF DYSMENORRHŒA.

Oscar Polano (*Münch. Med. Woch.*, August 27, 1907), after enumerating the causes and varieties of dysmenorrhœa, describes a new method of treating those cases that are benefited neither by operation nor by any other method of treatment, and which form the bulk of the clinical material met with by the physician, which is affected by this form of trouble. This method of treatment is harmless and simple and may be applied by the

patient herself after instructions by the physician. It consists of the application to each breast a few days before the menstrual period and throughout its occurrence of one of Bier's suction glasses. The air is exhausted by a syringe or a rubber bulb, and the application should last for from one-quarter to one-half hour daily. It causes a marked congestion and swelling of the mammary gland which is painless. Its effect on the dysmenorrhœa is very satisfactory. Its application is based on the well-known relation of the breast secretion and the ovarian function.—*Am. Jour. of Obs. and Diseases of Wom. and Children*, Dec., 1907.

PARESIS OF THE BRACHIAL PLEXUS AFTER OPERATIONS ON THE PELVIS.

A. Horst (*Zent. f. Gyn.*, Dec. 7, 1907) states that paresis of the muscles supplied by the brachial plexus is not uncommon after pelvic operations owing to pressure of the arms on the edge of the operating table and on portions of the body. In some of these cases the disability remains for a long time and necessitates a long course of treatment. It occurs especially in operations that necessitate a long period of narcosis. The radial nerve is pressed upon by the upper arm lying across the edge of the table. Forced hyperextension combined with abduction of both arms may affect the entire brachial plexus. This pressure may be made by the head of the humerus in the axilla, or by the scapula, or by the clavicle upon the ribs. These cases occurred at the University Clinic in Berlin in spite of great care in the anæsthesia. The author has constructed a shoulder rest furnished with inflated rubber cushions over the rest, and since the use of this apparatus there have been no more arm paralyses.—*Amer. Jour. of Obs. and Diseases of Women and Children*, Feb., 1908.

ATTEMPTS AT ABORTION IN THE COURSE OF EXTRA-UTERINE PREGNANCY.

N. Guerdjikoff (*Ann. de Gyn. et d'Obst.*, October, 1907) has observed in less than a year three cases of extra-uterine gestation in which attempts had been made to produce abortion during a supposedly normal pregnancy. Each resulted in the death of the patient. In the first case the abortive measures were employed at about the sixth week of pregnancy, and septic infection took place as a result. In the second case the attempt was made five weeks after the last period. Chills appeared some three weeks later, followed by abdominal pains and tubal rupture ending in

peritonitis. In the third case the abortion was attempted at about the seventh week of pregnancy. Five days later rupture of the tube occurred and fibrinous peritonitis. The immediate results of attempts at abortion in such cases seem to be slight abdominal pains corresponding to uterine contractions, and more or less abundant loss of blood. The tubal abortion occurs some time later as a result of infection. Rupture into the peritoneum is followed by pelvic or general peritonitis and death. A marked endometritis is found at autopsy and we may suppose that infection has extended through the cavity of the uterus and thus reached the sac of the extra-uterine gestation. Intervention in such cases can be of use only when it is undertaken very early, before the symptoms of peritonitis have set in.—*Am. Jour. of Obs. and Dis. of Wom. and Children*, Dec., 1907.

INSTRUMENTAL PERFORATION OF THE NON-PREGNANT UTERUS.

Felix Heymann (*Berl. Klin. Woch.*, August 12, 1907) has collected sixty-four cases of instrumental perforation of the non-pregnant uterus, one of which he observed. This accident is often caused by the curette, yet it may also be caused by the use of forceps, dilators, intra-uterine electrodes, and other dull instruments. Of his sixty cases, forty-seven were caused by the curette. Some cases were predisposed to rupture of the uterine wall by softening or degeneration of the muscular tissue, or by uterine paralysis. Diagnosis is generally made by the sudden passing of the instrument into an unresisting cavity. In other cases it is made only from abdominal pain or during operation for other diseases. In thirty-two cases it accompanied some other condition that necessitated operation. Thirty times it caused abdominal pain. In many cases, on the contrary, it caused no pain. Two deaths occurred from sepsis, one due to carcinoma, the other to a gangrenous myoma. Perforation is much more dangerous when made by an injecting instrument, the solution entering the abdominal cavity. Aside from this complication it is generally susceptible of cure by conservative treatment, such as rest and cold applications. The uterine walls tend to close at once and heal easily. Dangers are hæmorrhage, which is generally slight, infection, which is infrequent from this cause alone, and peritonitis. When injection fluid has entered the abdomen the best resource is total extirpation of the uterus.—*Am. Jour. of Obs. and Dis. of Wom. and Children*, Dec., 1907.

The British Columbia Medical Association meets this year in Vancouver on the 20th and 21st of August. An excellent programme is expected. Dr. R. Eden Walker, New Westminster, is Secretary.

OBSTETRICS AND DISEASES OF CHILDREN.

Under the charge of D. J. EVANS, M.D., C.M., Lecturer on Obstetrics, Medical Faculty,
McGill University, Montreal.

ERUPTIONS OF THE NAPKIN REGION IN INFANTS.

Dr. H. G. Adamson, in *Brit. Jour. of Children's Diseases*, January, 1908, discusses the diagnosis of the eruptions of congenital syphilis from certain non-specific napkin area eruptions of common occurrence.

Three conditions give rise to lesions which may be confounded with those of infantile syphilis. These are (1) simple infantile erythemas, (2) streptococcic impetigos, (3) seborrhœic dermatitis.

With regard to the first of these, the author states that their diagnosis from the eruptions of congenital syphilis generally demands a good deal of care. The lesions are usually limited to the lower portion of the body and are absent from the face, palms, and soles; they lack the characteristic copper color of syphilitic eruptions and their course varies from day to day. The rash disappears on removal of the conditions of local irritation and regulation of the digestive functions.

Seborrhœic dermatitis may be easily distinguished from syphilitic conditions. The healthy clear complexion associated with a bright red color and granular surface of the patches and the particular involvement of the flexures mark the disease from syphilis.

Streptococcic impetigo. In this condition the palms and the soles of the feet are usually free, and the bullæ are well formed and tense, which serves to distinguish them from the bullæ of syphilis.

The eruptions of congenital syphilis are characterized by their appearance at about the age of 4 to 8 weeks; they consist of disk-like coppery red macules, maculo-papules, scaly papules, or rarely bullous or crusted. Eruption situated about the genitals, buttocks, thighs and often around the mouth and on the palms and soles, invading flexures and convex surfaces alike mark the syphilitic, usually the other signs of syphilis developed to clear up the diagnosis.

SYPHILIS IN CHILDREN.

In his opening address (*Brit. Jour. Children's Diseases*, January, 1908) before the Society for the Study of Diseases in Children, Dr. Clement Lucas deals with the subject of inherited syphilis. He prefers the term "inherited" syphilis as being distinguished from "congenital" and "hereditary." The cause of the syphilis is undoubtedly the *Spirochæte pallida*.

The discovery of the cause of the disease necessitates the rearrangement of the views as to its transmission. He thinks inheritance from the father alone is now entirely out of count, and also that infection of a mother by a syphilitic fœtus thus can never occur. He lays it down as a maxim that syphilis is invariably transmitted through the syphilized mother.

When virulent the spirochæte penetrate the chorion and occasion miscarriage, but when the virus is attenuated, whether by time or by treatment, the placenta forms a complete protection to the developing fœtus. Separation of the placenta at birth allows infection to take place through the umbilical vein; thus may be explained the regularity of the secondary exanthematous stage from a fortnight to three months after birth. In these cases the separation of the placenta is the first stage and corresponds to the chancre of acquired syphilis.

With regard to the subject of the transmission of syphilis by the mother's milk, the author mentions a case which he exhibited in 1881, where a woman became inoculated with syphilis shortly after the birth of her child, and in spite of the presence of the disease she nursed it for some months, and up to two years of age the child showed no signs of inherited syphilis. This proves that the milk of a syphilitic woman may be received into the alimentary tract of an infant without conveying any infection to the child.

He thinks that enlarged spleen and liver associated with rickets may be proved almost invariably to be of syphilitic origin. He thinks that the condition known as "infantilism" is probably the result of the inherited disease attacking both testicles or both ovaries at an early age, producing fibrosis and atrophy.

SOME EXPERIENCE AND OBSERVATIONS ON CONGENITAL SYPHILIS IN INFANTS.

Dr. George Carpenter, in *B. J. of Children's Diseases*, Feb., 1908, draws attention to what he designates a concealed variety of "snuffles," in which there may be a considerable muco-purulent discharge from the posterior nares finding its way into the stomach and thus escaping notice.

Speaking of the cranio-tabes, he says that in 60 per cent. of cases where the condition is present the parietal bones only are involved. Cranio-tabes is most often found in the second and third months of life. He is very strong in considering cranio-tabes as a sign of syphilis, and states that it is just as much a symptom of the complaint as an enlarged liver and swollen spleen. Cranio-tabes does not occur in the rickety age. Whenever he finds cranio-tabes in an infant he suspects syphilis, though

he admits that his suspicions have not always been verified by the test of mercurial treatment. Unlike cranio-tabes, Parrot's nodes occur in the rickety age and not in the syphilitic. In 57.5 per cent. of his cases of Parrot's nodes an undoubted history of syphilis could be obtained. He considers these nodes a syphilitic manifestation and not a rachitic disorder. He considers that syphilitic children are not more liable to rickets than are the non-syphilitic or sick children in general. He states that it has not been uncommon in his experience to find multiple epiphysitis as the sole manifestation of hereditary syphilis. In doubtful cases when enlargement of the spleen occurs associated with signs of rickets, syphilis should be suspected. He thinks it doubtful that the splenomegaly is a part of rickets.

During the syphilitic age enlargement of the liver is very common, though the liver is often found enlarged in syphilitic infants clinically, yet pronounced alterations therein or the finding of naked eye pathological changes after death is not usual. Interstitial hepatitis is the common mode of attack. Gummata visible to the naked eye is, however, quite rare in infants.

SOME BONE LESIONS OF CONGENITAL SYPHILIS.

Dr. G. A. Sutherland, in *B. J. of Children's Diseases*, Feb., 1908, claims that syphilitic lesions of the bones during the first three months of life are common. They are (1) syphilitic epiphysitis, (2) changes in the skull, (3) osteo-genesis imperfecta syphilitica.

The occurrence of pseudo paralysis coming on gradually without marked fever or constitutional disturbances, and without any source of septic infection is usually due to syphilitic epiphysitis.

CONGENITAL SYPHILIS.

Dr. George Pernet, in *B. J. of Children's Diseases*, Feb., 1908, considers the term "congenital" syphilis, though not scientifically correct, as being preferable to "hereditary" syphilis. He contends that the conveyance of syphilis by the spermatozoon to the ovum does not take place. Syphilis transmitted to the child is always of maternal origin.

He concludes his remarks by reiterating his opinion that congenital syphilis is derived from the mother, and that Colles's law is really a law.

SEROFIBRINOUS PLEURISY IN INFANTS.

J. Brudzinski (*Archiv. de Medic. des Enfants*, Sept., 1907) considers the new physical sign, the "Signe du Sou," which is elicited by placing a

sou over the suspected part of the thorax and tapping it gently with another, while the corresponding level on the opposite side is auscultated; the sound is appreciated as if it were conducted through the thorax. If, for instance, we suspect a pleurisy at the right apex anteriorly we percuss over the coin in this region and we auscultate over the right apex behind. In examining axillary conditions we auscultate on the same side of the chest and at the same level, but close to the vertebral column, so as to bring as great a thickness of lung as is possible between the points of percussion and auscultation. We should compare the notes obtained at different levels. In the case of the normal lung the note is dull and entirely devoid of all metallic tinkle; but an effusion produces a distinct metallic tinkle, and if there is much fluid this note is silvery in character. Pulmonary consolidation, on the other hand, elicits even greater dullness than the normal lung. Brudzinski considers this sign (in children at least) as pathognomonic of pleural effusion and even more certain than exploratory puncture. Though the latter will differentiate between serous and purulent effusion, it may nevertheless miss an encysted pleurisy. By means of this sign Brudzinski has in many instances detected axillary pleuritic effusion; and has verified his diagnoses by exploratory puncture. He has not found, as is generally held, that purulent effusions are more common than serous. We are advised to close one auditory canal with the finger while listening with the other. We are a little puzzled how one should proceed. To place a coin at one spot, to tap this coin with another, and to close one ear while the other is listening; to do all these things together would require acrobatic endowments such as most physicians do not possess.—*The Medical Times*, April, 1908.

THE BIER STAUUNG TREATMENT IN MASTITIS.

Paul, in a communication to the Gynæcological Society of Dresden (*Zeit f. Gyn.*, No. 8, 1908), reported 10 cases of mastitis occurring in the Dresden Clinic. Of these 10 cases 5 were treated with incision without stauung, 1 with incision and stauung, and 4 by the stauung method only. The results were most satisfactory in all cases. Four cases of mastitis resolved in two days without incision. The five cases treated by simple incision ran a long tedious course.

Kannegiesser agrees with Paul in considering the treatment very satisfactory, and thought that in the parenchymatous form of mastitis small incisions in connection with the stauung treatment, gives better results than the former treatment by large incisions alone.

Zacharias, in a paper on this subject in the same journal, reports that during seven years 52 cases of mastitis occurred in 2,214 puerperal women. Several of these had both breasts involved, so that there were a total of

63 infected breasts in the 52 women. In 30 cases the ordinary anti-phlogistic treatment was carried out with the result that 10 cases had to be incised, 33 per cent. Thirty-three of the breasts infected by mastitis were treated by means of Bier's stauung, of which only 6 per cent. required incision. The author considers that this method of treatment is of supreme value when applied early. A special point is that during the treatment it is unnecessary to interfere with the nursing of the child. The treatment is applied two or three times daily for 30 minutes with interruptions of 10 minutes. In general the treatment was only kept up for four days.

THE FERMENTS OF MILK AND THEIR RELATION TO PASTEURIZATION.

Dr. R. G. Freeman (*Jour. A.M.A.*, Nov. 23, 1907) reviews the recent work of Spolverini and others upon the ferments of human milk. He also goes into the question of the effect of heat upon these ferments, referring particularly to the work of Hippias, who found that the fat spitting ferment is weakened by a temperature of 145° F. and destroyed by a temperature of 147° F.

He states that a temperature of 140° F. maintained for twenty to thirty minutes is sufficient to destroy tubercle bacilli unless they are enveloped in a thick mucopurulent material, or protected by a film formed on the surface of the milk.

Dr. Freeman suggests that milk for infant feeding should be pasteurized at a temperature of 140° F. (60° C.) continued for forty minutes. He states that such milk is unaltered in taste and retains its ferments and biological qualities unimpaired.

RETROVERSION AND ITS TREATMENT.

W. P. Graves (*Boston Med. and Surg. Jour.*, July 4, 1907) advises Alexander's operation when the uterus can be easily replaced and there is no necessity for inspecting the abdominal cavity. Where it is desirable to open the abdomen and no marked relaxation or excessive adhesions exist, Mayo's internal Alexander is the operation of choice. In cases of many adhesions and marked retroflexion, or with much sagging of the diaphragmatic support, the uterus should be attached to the abdominal wall in a manner so that it will stay. Attachment of the uterus to the abdominal wall by a suture merely through the peritoneum is an inefficient method of ventral suspension. Intra-abdominal shortening of the round ligament is an inefficient treatment for retroversion.—*Am. Jour. Obs. and Dis. of Women and Chil.*, Feb., 1908.

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EDITORIAL.

THE GLOBE AND THE MEDICAL PROFESSION.

We do not find fault with any paper discussing any public question in a fair and proper spirit. This is always of advantage to the people. But, while this is true, it is not fair nor right for any paper to come to conclusions that are not well founded. It must be admitted that the medical profession, as a whole, regret very much when any one of its membership does an unprofessional or criminal act. It must be admitted, however, that before the Medical Council can act it must be in possession of evidence to justify it in doing so.

It is a well known fact that when the Ontario Medical Council tried a short time ago to restrain certain parties from what was regarded as objectionable advertising, the press denounced the action of the Council, and some papers boldly declared that the action of the Council was founded on the amount of advertising certain parties did. Now, this is not correct.

Then, again, when in this Province, and at Ottawa, and in the Maritime Provinces, attempts were made to curtail the evils of the sale of many proprietary medicines on the market, the press came forth, the *Toronto Globe* included, and opposed the efforts of the medical profession. The *Globe* objected to the condition of making it necessary that the formulæ must be published. The position was taken that, after a person had spent time and money on a formula, he should not be compelled to make public the knowledge thus acquired.

This can easily be shown to be a wrong position. Such publication of the composition of any medicine would strengthen the claims of such as had merit, and would soon put off the market the vast majority which have no merit at all, and too frequently contain dangerous drugs. The medical profession only sought the good of the people in all this. In Australia a very useful Act has been passed on this subject, and already is bearing good fruits in arresting the sales of some dangerous mixtures.

As guided by some advertisements, women who wish to get rid of the products of conception, find out what to buy and where to go for the relief they desire. These women too frequently succeed in inducing abortions and then fall into the hands of some regular and thoroughly conscientious

medical practitioner, who may in this way be dragged into a great deal of trouble, anxiety, expense, and, perhaps, public odium.

From an editorial in the *Globe* of recent date, we take a few sentences. "The medical profession, as a profession, is on trial in Ontario to-day." "The Medical Council, to whose keeping is committed at once the honor of the profession and the protection of the public, cannot be ignorant of the 'infamous and disgraceful conduct' which is a crime against social morality and in the eye of the law is murder." "But it is with the medical profession and the part it plays in this infamous business we have to do to-day." "If it (the Council) has not the courage, or if honorable members of the profession have so little professional spirit as to suffer known scoundrels among their number rather than do their plain duty, then the dignity of the profession must suffer loss."

In the *Globe* of Saturday, 4th April, there appears an editorial dealing with the Medical Council again, and calling upon it to take action upon those who are guilty of "infamous or disgraceful conduct in a professional respect." This is all very true, but there must first be evidence. It will not do for the Medical Council to start making investigations without evidence. It is well known how difficult it is to secure evidence of a trustworthy character. It is, therefore, absolutely necessary that the Medical Council should act with dignity and caution in its efforts to discipline members of the profession. It will not do for it to be rushed into an investigation on the mere say-so of some one, or on evidence that cannot be relied upon. If the Council were to take action against any practitioner upon insufficient evidence, the press would be the very first to come forth and denounce the attempt to take away a man's means of livelihood.

In one sense the medical profession is always on trial. This may be said of all professions and classes. But we make bold to state that, man for man, the medical profession will stand comparison with any other class in the country. Any member of any profession may go astray; but this does not taint all. If some of the newspapers that throw stones at the medical profession would only clear their own columns of some of the advertisements they carry they would do more for humanity.

THE PREVENTION OF VENEREAL DISEASES.

For some years the prevention of venereal diseases has occupied a good deal of attention, both among members of the medical profession and those who take an interest in all social questions which aim at the welfare of the community. Too much attention, indeed, cannot be devoted to this very important subject. Syphilis and gonorrhœa have been the

means of much sickness and suffering, and have both a long list of deaths to their credit.

The question has often been asked, how can these diseases be best prevented? And, as might be expected, the answers are many and very varied—often quite contradictory. From these various answers we will in time arrive at the true solution.

The plan of having licensed houses, under inspection, has been advocated, and tried; but it has proven a failure. It is wrong in principle, and cannot work out well in practice. There will always be those who have disease and who would not confine themselves within the limits of these houses. Then, again, no inspection can be so thorough as to prevent the spread of disease in many instances.

Places of free treatment have been tried. In this way it is hoped that those who become diseased will go to one of these dispensaries and be treated efficiently. Well, there are many who are careless and will not go at all, or will not go regularly enough, or for a long enough period, and so the treatment will be faulty.

Reporting these cases affords no protection to the general public. This is self-evident. That some person in the employ of a great city receives the report that a certain person has syphilis or gonorrhœa, does not in the least safeguard the community.

What, then, should be done? Several things are open to those who would desire to see the prevalency of these diseases lessened.

In the first place, as this is a very far-reaching moral question, the churches should take it up and deal much more freely with these subjects than has been the case in the past. It should take a place with temperance, and theft, or any other breach of the moral law.

Then, again, the medical profession ought to avail itself of every opportunity to spread light upon this subject. One of the subjects that the profession has ever boasted in taking a deep interest in is that of preventive medicine. Here, then, is a large field for its thought and attention. We think that the medical profession in the past, like the churches, has been very remiss in the discharge of its duty regarding these diseases.

To spur on the churches and the medical profession, many individuals have taken this work up of their own initiative, and have formed societies for the spread of useful knowledge on these diseases, and their causes and prevention. These societies in France, Germany, Britain, and the United States may well feel proud of what they are accomplishing along these lines. They hold meetings, give instructions, circulate timely literature, and are doing a good work. These societies should receive the cordial support of the medical profession.

But the general press of the country, both religious and secular, could do much. In the first place, it could refrain from the publication of many advertisements that are only calculated to deceive the unwary, or lead the innocent astray.

But this subject should be made one of national and provincial concern. Arrangements should be made that instructions be given in the schools and colleges by the teachers, or by properly qualified persons chosen for the purpose. The law should be so amended as to permit of some teaching on this topic as upon temperance, or hygiene. Funds should be set aside for this purpose to defray the expense of such teaching or the printing of suitable literature for distribution throughout the schools and colleges.

In France and Germany many members of the medical profession have taken this question up with much zeal. They do not enter upon the moral aspect of it at all. They deal with it only as a violation of the laws of health, and hope that by pointing out the dangers of these diseases they may influence many to live proper lives. From these countries come words of encouragement.

Let any one who is capable of forming a judgment visit the large cities, and let him observe the ravages of these diseases upon the health of the community, and no arguments will be required to prove the need for every effort that can be put forth to lessen their evils. Sterility, blindness, disease, insanity, deformities, deaths, all tell of the need that those who look upon this as a serious subject should be up and doing.

There is no preventive so valuable as knowledge. Until the public conscience was aroused nothing could be done towards the prevention of tuberculosis; but now all over the world people have wakened up to the view that it is a preventable disease, and they are going to do something to prevent it. So here. Get the people to realize that the diseases caused by sexual vices are serious, and then there is some hope that something really useful will be done.

THE TREATMENT OF THE NERVOUS AND THE INCIPIENT INSANE.

Dr. D. Campbell Meyers has done good work in directing attention so often to this important subject. At various medical conventions, and for a number of years, he has advocated the cause of these patients. It must be admitted that the accommodation which has been provided at the Toronto General Hospital is very largely due to his efforts.

In the report which he has submitted on the work of the first year, there is abundant evidence to show that these wards were not instituted

a day too soon. There were in all 100 patients. Of these 76 were admitted to treatment, while 24 were only in under observation. Of the latter group, 16 were found to be insane and were either sent to an asylum or home. Of the 76 cases affected with nervous affections other than insanity, 64 suffered from neurasthenia, 2 from hysteria, 2 from catalepsy, 1 from epilepsy, and 7 remained at the end of the year.

Of the 69 whose treatment had terminated, 26 recovered, 35 were improved, and 8 were unimproved. A study of those who left as only improved show that 9 had finally become well.

Of the 69 cases above referred to, no less than 50 suffered from that form of neurasthenia known as psychasthenia. Many of these would have become insane.

Dr. Meyers dwells with much emphasis on the need for proper isolation wards for noisy and insane cases. The admission into a ward along with nervous cases of one who is visibly insane may cause much harm, and seriously disturb treatment and the progress that is being made by some towards recovery. A marked instance of this is given.

We are glad to notice the progress that has been made so far, and shall look forward for other reports of progress. There is no doubt about the wisdom of setting aside special wards for nervous cases. They cannot successfully be treated in the general wards.

THE FEEBLE-MINDED IN ONTARIO.

This unfortunate class has been notoriously neglected in the past. The report of Dr. Helen MacMurchy comes at an opportune moment. In this report we find that on 1st January of this year there were in all 1,760 feeble-minded persons whose location and condition were known. No doubt there are many others not yet located. Of this number, 809 were women, 219 were girls, 447 were men, 135 were boys, and 150 were children in school.

The report goes on to summarize the care given to those at present in Ontario, the work they can do, the degree of education they possess, their history in relation to maintenance in Government or charitable institutions, or what they cost the Province, and their offspring.

Of the whole number, 39 are reported as being unable to do anything. The great majority are able to do something, such as sewing, knitting, laundry work and housework. If they were placed under proper supervision, they could be made to earn much of the cost of their care, or custody. But they require to have their powers trained.

Many of them can read and write, though very few do either well. In the case of the children, they should not be taxed with long hours, an

hour or so a day is enough, and the limit should be the most elementary subjects, such as reading, writing, and a little arithmetic.

A large proportion of these feeble-minded persons are or have been at some time in institutions, homes, or refuges. The total cost for their maintenance in this way is very material. As many as 123 of them have been in the Mercer Reformatory. The annual cost of an inmate is \$268.13 and this would call for an expenditure on this group of \$32,711.86 during the year.

Attention is then given to the Institution at Orillia for feeble-minded children and idiots. It is pointed out that some of these remain there for years, and cost a large amount to the Province. There is one group of children in the Orillia Institution which have been there for an average of eight years, making a grand aggregate cost of \$13,713.60. Prevention, one would think, would pay better.

The report then takes up the offspring of these mentally defective people. As might be expected, the record is a very bad one. It has been observed that nearly all the feeble-minded children are the offspring of feeble-minded parents. The report states that "there is very grave doubt as to whether the children of a feeble-minded mother are ever normal mentally."

Mentally defective children should not be allowed to attend the usual classes in our schools. There ought to be some provision made for them. They should be segregated in some way. The most hopeful period is from 3 to 13 years of age. In England, the United States, France, Finland, Norway, Denmark, Sweden, Switzerland, etc., there are special classes for these children. In Germany there are 203 special schools for them, located in 116 German cities.

The report shows that the feeble-minded cost the Province about \$50,000 a year.

An effort should be made to reach these feeble-minded children in their own homes in a friendly way. This is the strategic point according to the report. We wish to congratulate Dr. Helen MacMurchy.

THE COST OF CRIMINALS.

There is an increase in crime in Ontario. The importation into this country of some of the worst elements of the Old World is one of the causes of this. Dr. R. W. Bruce Smith reports thus:

"Although the year closes with the largest number that have been in confinement in the jails of Ontario within the past twenty years, this increase is not due to any increase in crime in the Province, but is largely due to Canada, and especially Ontario, being made the dumping ground

during the past year of some most undesirable immigrants. Every jail I have visited within the past six months has had among its prisoners persons who have been only a few months in this country. Some of them have spent most of their lives in English prisons. Several have admitted that they had been discharged by English magistrates on condition that they would emigrate to Canada. There must be something radically wrong with our immigration regulations that will permit such apparent neglect in the inspection of persons seeking and obtaining passage as immigrants to this country. The whole system of *encouraging* such people to seek a home in Canada is wrong, and the sooner the conditions complained of are recognized and changed the better."

The above is plain language, but it is not too plain. For some time past a very low order of humanity has been pouring into this country. In the vast majority of instances those who come from Italy, Hungary, Macedonia, Galicia, Russia, etc., are of the lowest orders even of their own country. Let it be the rule of the future that the mental and moral standard will be taken into account even more than the physical. It is bad enough to land into one of our hospitals, still worse to land into one of our jails or asylums.

The cost of maintaining the prisons of Ontario in 1907 was \$164,-852.39, an increase of \$6,678.38 over 1906. The cash revenue from jail labor during 1907 was \$65.40, and was earned at Perth and Woodstock jails. The cost of maintenance in county jails increased last year from 22 cents a day to 27 cents, while the number of persons committed were 11,804, an increase of 994 compared with 1906. There were 23 commitments for murder, a decrease of one, and 23 for manslaughter, an increase of six. For crimes against the person the commitments numbered 868, an increase of 116; against property, 2,936, an increase of 433; against public morals and decency, 457, an increase of 72; against public order and peace, 6,833, an increase of 664. Last year 258 insane persons were committed to jail, a decrease of 51. The number of prisoners sentenced to penitentiary was 7,059, an increase of 663, and the percentage of sentences to commitments was 59.80, as against 59.17. The total sentences amounted to 229,752 days, a decrease of 35,499. In 1907, of the prisoners sentenced, 24.48 were of temperate habits, and 16 per cent. could not read or write. Of nearly 11,000 prisoners only 24 escaped during the year, and the total number sentenced was 7,059, an increase of 663.

The increase was largely made up of prisoners sentenced to short terms, the increase of prisoners sentenced to over two months' imprisonment being only four. For drunkenness 4,774 persons were committed, a larger increase and a larger number than in any previous year since 1888.

With a population of two millions, there were 11,804 persons sent to jail in Ontario last year.

The foregoing figures are startling, and must receive attention. An analysis of the crime of this country shows that a very large percentage of it can be traced to these recent additions to our numbers. The Governments of the Provinces and the Dominion would very speedily intervene in the event of persons importing a bad breed of cattle or horses.

THE ONTARIO MEDICAL ASSOCIATION.

This Association will hold its twenty-eighth annual meeting in the Normal College Building, Hamilton, on 26th, 27th and 28th May. A very interesting programme has been arranged for, and the meeting will be in its scientific and social aspects an undoubted success. It remains to be seen whether or not the profession will attend in such numbers as to make it an undoubted success numerically.

We would urge upon our readers to make an effort to patronize this good old society. Last year it was thought well that it should meet outside of Toronto. This should be taken advantage of by the members of the medical profession to put in "a good appearance." There is strength in numbers. We take the position that this Association should move from year to year, and that London, Kingston, Ottawa, etc., etc., should receive a visit from it. One of the reasons why this has not been the usual practice in the past is the fear that the attendance would not be sufficient to justify going to these places. We believe that this plan should be carried out, anyway, and let the results take care of themselves. In time the attendance will adjust itself. When the Association meets from year to year in the same place there is a tendency to too great a degree of sameness in the membership and methods.

In another portion of this issue we give a full announcement of the programme; it will make a good three days' medical and social enjoyment. We understand that the medical profession in Hamilton is leaving nothing undone to merit the confidence of the Association last year in selecting that place.

We have always felt that for this Province the Ontario Medical Association is by far our most important association. Nothing should be done at the forthcoming meeting in the way of adopting any hard and fast rules from the Canadian Medical Association that would in the least degree interfere with the autonomy and usefulness of the Ontario Medical Association. This is such a fundamental principle that we feel it will appeal to our readers. It will not do to quote the British Medical Association and its various branches. The analogy will not apply to this country. The local conditions here are widely different from those found in Britain.

We bespeak for great caution in the matter of any constitutional change that may come up that would make the Ontario Medical Association a mere branch of the Canadian Medical Association.

THE TREATMENT OF PNEUMONIA.

In another portion of this issue we give the paper by Dr. Samuel West and the discussion thereon. Several things are made clear in the paper and the discussion.

1. The need for perfect rest and fresh air, with good nursing and light nourishment in moderate amounts.
2. The injury that is often done by over examination of the patient. Too much percussion and attempts at forced respiration to find out the conditions are bad.
3. There is a general consensus of opinion that the employment of opium or morphine to relieve pain is quite proper; and that the use of a few leeches for this purpose is very helpful.
4. Cardiac tonics and stimulants are called for in most cases. Of these strychnine comes in for a large measure of praise. Some use digitalis, but it must be closely watched. Alcohol stimulants still hold their ground in the estimation of nearly all the speakers. Moderation is the word of most, but Dr. Phillips advocates large quantities, up to 20 ounces a day.
5. Expectorants are not thought to be of any value, indeed, likely to do harm by increasing the flow of fluids into the bronchial tubes.
6. Oxygen finds many advocates. It should be employed early and well diluted.
7. Bleeding is finding more favor than it did some years ago.
8. Much attention is paid to the period of crisis. The patient should be prepared for this by the judicious employment of cardiac tonics and stimulants, and that these ought to be continued for some time after the crisis is over.
9. There is some difference of opinion on the application of heat or cold locally. Dr. D. B. Lees is a firm advocate of the application of one or more ice-bags over the inflamed area, and that this treatment should be resorted to early.

PERSONAL AND NEWS ITEMS.

ONTARIO.

Dr. Reid, lately of Erin, Ontario, has removed to Spokane, Wash.

Dr. H. R. Ross, formerly of Brantford, has gone to Langdon, Alta., where he has commenced practice.

Dr. E. A. McCullough, associated with Dr. N. A. Powell, of Toronto, is much improved in health.

Dr. J. M. Shaw, who was located at Keene, Ont., has gone to Regina, Sask.

Dr. B. A. Cohoe, who graduated from Toronto in 1901, is now one of the assistant physicians at Johns Hopkins, Baltimore.

Dr. D. C. Murray is now practising in Shelburne, Ont., having removed from Atwood.

Dr. S. Johnston, of Toronto, who is devoting his time to anæsthesia, is now in Paris.

Dr. and Mrs. Mullen, of Brampton, celebrated their golden wedding on March 4th.

Dr. E. G. Hodgson has returned from post-graduate work in Europe and is now located on the corner of Bay and Adelaide streets, Toronto.

Hon. Dr. Willoughby is retiring from the Ontario Legislature, after 20 years' service, on account of ill health.

Dr. Hopkins, of Marshville, and Dr. Jory, of St. Catharines, have been appointed associate coroners.

Dr. Austin Huycke, late of Cobourg, has gone to New York for post-graduate work, and will afterwards locate in British Columbia.

Dr. Cattermole, who formerly practised at Milverton and lately in Toronto, has been appointed assistant in the asylum at Penetanguishene.

Dr. D. G. McRobbie has located in Hamilton, after disposing of his practice in Shelburne.

Dr. T. B. Richardson has been appointed to the Surgical department of the Toronto General Hospital, taking the place of Dr. Scott, who preferred to retain his connection with St. Michael's Hospital.

The Council of London is asking for plans for an isolation hospital to cost about \$30,000. The plans submitted a short time ago would call for an expenditure of \$75,000.

Dr. Macklem, who was elected Mayor of Goderich in January, had an action brought against him to unseat him. He has been confirmed in his position and the action dismissed with costs.

Dr. Lepper, who has been in practice at Bolton for twenty years, has sold his practice to Dr. A. A. Jackson, of Mono Mills. Dr. Lepper intends locating in Toronto.

Dr. Unsworth, who has been in charge of the Sanitarium for Consumptives at Hamilton, has resigned and intends going to Europe for post-graduate study.

Dr. Spohn, of Penetanguishene, has gone back to practice and taken his son into partnership with him. Dr. Spohn was superintendent of the asylum there. Dr. McCollum, of London, succeeds him in the asylum.

Dr. R. W. Irving, formerly of Gananoque, has been appointed Superintendent to the Ironquille Sanitarium for Consumptives at Kamloops, B.C.

Dr. Lelia Skinner, of Toronto, was married on 18th April, 1908, to Mr. H. B. Gordon, of Toronto. The marriage took place in the Central Presbyterian Church.

Smallpox is still prevalent in Ontario. From time to time new cases are reported. Some day the disease will assume an aggravated form and then there will be a general recourse to the merits of vaccination.

The Protestant Hospital, Ottawa, had a fire a few days ago. It began in the roof and did about six hundred dollars' worth of damage. The house surgeons and nurses made an excellent fire brigade. No patient was injured.

The bill of Toronto to ask for power to grant \$50,000 to Grace Hospital, the Western Hospital, and St. Michael's Hospital, was not ratified by the Legislature on the ground that such money grants should be voted by the people.

The Minto Hospital in New Liskeard is proving a marked success. This is one of the most up-to-date hospitals in Ontario, and is a great credit to those who have taken part in its establishment and management.

An action was brought against Dr. S. H. McCoy of St. Catharines and Dr. Duggan of Niagara, for certain bad results that followed the operation of circumcision on a child. It was claimed by the plaintiff, the child's father, that the doctors had not properly sterilized the instruments nor the part to be operated upon. The doctors showed that they had taken every care in this respect and the verdict was given in their favor.

QUEBEC.

Dr. D. A. Shirres, of Montreal, who is a well known neurologist, has gone for a trip to Jamaica.

Dr. Charles C. Gurd, Montreal, is going to Germany for a few months' post-graduate work.

The Quebec Board of Health has issued an order excluding from schools children suffering with pediculi or scabies.

MARITIME PROVINCES.

Dr. J. A. Murray, of West River, has removed to Wolfville.

Dr. W. B. Almon has resigned his position as physician to the Salvation Army Maternity Home in Halifax.

Dr. W. H. Eagar, of Glenwood, Nfld., has gone to Montreal for treatment.

Dr. E. F. Moore has located in Wolfville. He was formerly in practice in Cheverie.

Dr. H. K. MacDonald, who practised for some time in Lunenburg, has located in Halifax.

Dr. T. W. P. Flinn has been appointed Medical Inspector of Immigration at Halifax by the United States Government, in place of the late Dr. C. D. Murray.

Dr. J. L. Cock, who has recently secured the double diplomas of L.R.C.P., Lond., and M.R.C.S., Eng., has located in the office of the late Dr. Goodwin, of Halifax.

Dr. A. Yale Massey, a graduate of Toronto University, and who practised for some years in South Africa, has located in St. John's, Nfld. He will devote himself to diseases of the eye, ear, nose and throat.

Several friendly societies of New Aberdeen, C.B., gave a banquet to Drs. Sullivan and McDonald on their return from doing post-graduate work in Scotland.

WESTERN PROVINCES.

Dr. Elwood McDonald, of Elm Creek, has been appointed a coroner.

Dr. T. H. Whitelaw has been appointed Medical Health Officer of Edmonton. The salary is \$2,000 a year.

It would appear from information that has been collected by Dr. Bell, of Winnipeg, that tuberculosis is on the increase in Manitoba.

It is proposed to submit a by-law for \$225,000 to improve the hospital accommodation of Winnipeg.

Edmonton has already voted \$30,000 for the erection and equipment of a municipal isolation hospital.

The Federal Government is going to grant, in the National Park, a free site to Alberta for the establishment of a hospital for consumptives.

Calgary is to have a hospital that will cost \$150,000. Dr. Stewart, of Calgary, has been visiting hospitals with the view of securing ideas.

Ninette has been selected as the site for the Manitoba Sanitarium for Consumptives.

Dr. Culton has taken the office and practice of the late Dr. Tierney, of St. Albert, Alta.

The Saskatchewan Public Health Department has issued a circular on the "Cause and Prevention of Smallpox."

Dr. Pierce has been appointed the resident pathologist at the Winnipeg General Hospital, in place of Dr. Webster, who resigned the position to devote his whole time to anæsthetics.

It is interesting to note that the School Management Committee of Winnipeg in its report dealt with the subject of the medical inspection of school children.

BRITISH COLUMBIA.

Dr. A. T. Watt has returned to Victoria after investigating the work that is being done at Seattle to arrest the plague there.

New buildings, to cost about \$60,000, will be erected for the accommodation of the insane.

Dr. J. E. Schon, of Princeton, and Dr. F. T. Stainer, of Victoria, have been appointed coroner and deputy coroner respectively.

Dr. G. H. Manchester, lately Medical Superintendent of the Hospital for the Insane at New Westminster, has in contemplation the establishment of a sanitarium on the Weir Mitchell plan near Vancouver.

The recently elected Medical Council of British Columbia is as follows: Vancouver, Drs. McKechnie, Tunstall, and Proctor; Victoria, Drs. Jones and Fagan; New Westminster, Dr. Walker; Revelstoke, Dr. Sutherland. Dr. Jones is chairman, and Dr. Fagan secretary.

Dr. Doherty, Superintendent of the Provincial Asylum, has advised the erection of a new building with accommodation for about 1,500 patients. There is much need for a properly equipped laboratory. The annual cost per inmate was \$178.

According to the report of the Provincial Board of Health, the past year was a very healthy one. It is urged that a law be passed making it necessary for children to produce a certificate of successful vaccination before entering school. The report also speaks in terms of high praise of the value of the antitoxine serum in diphtheria.

FROM ABROAD.

The Local Government Board, Britain, has issued a carefully prepared circular on the subject of the humane slaughtering of animals.

The Dublin Corporation has declared cerebro-spinal meningitis to be a notifiable disease under the Contagious Diseases Act.

A meeting was called a short time ago to consider the establishment of a memorial to the late Professor Annandale.

There has been a reappearance of the plague in San Francisco. Active measures have been instituted to arrest the spread of infection.

Dr. Andrew Halliday Douglas, the oldest fellow of the Royal College of Physicians of Edinburgh, died on March 10th, in his eighty-ninth year.

A stringent law has been introduced in Vienna against the sale and importation of quack proprietary medicines and instruments.

Sir Henry D. Littlejohn has resigned his position as Medical Health Officer for Edinburgh and police surgeon, after a service in both offices of 46 years. He is now in his eightieth year and enjoys excellent health.

Prince Roland Bonaparte has offered the Academy of Science the sum of 100,000 francs to be given in grants to stimulate original research work.

A complimentary dinner was given to Sir Malcolm A. Marris on the occasion of the recent honor conferred upon him when he was knighted with the title K.C.V.O. Sir Malcolm Marris well merits the distinction.

From various parts of Britain come the reports that the medical inspections of schools are being very thoroughly performed and indicate the great need for such inspections.

The University of Cambridge has made arrangements to celebrate on June 22nd, the hundredth anniversary of the birth of Charles Darwin, and the fiftieth of the publication of the "Origin of Species."

The old Cancer Hospital of Glasgow is to be greatly enlarged and improved. It is proposed to expend about £22,000 on new buildings and equipments.

The University Bill for Ireland, which was carried through the House of Commons by Mr. Birrell, is bound to stimulate very materially the interests of higher education, especially medical education.

The Recorder of Dublin, in opening the criminal sessions, said that there was a close connection between poor housing, insanitation, drink and crime. He stated that 24,000 families lived in single rooms.

Professor Ehrmann, of Vienna, has observed that the skin lesions of syphilis yield very readily to the use of ultra violet light. It was found useful in syphilitic eczema, psoriasis, gummata, and pigmentations.

The medical profession will be sorry to hear of the continued poor health of Professor Koch. His two years' stay in Africa appears to have made serious inroads upon his constitution.

Sir Alfred Cooper, the well-known surgeon of St. Mark's Hospital of Fistula, died on 3rd March. He was in his sixty-ninth year. He was an excellent surgeon and an able writer.

Robert Edward Bickersteth, F.R.C.S., consulting surgeon to the Liverpool Royal Infirmary, died a short time ago. He was the fourth distinguished member of the medical profession in line of descent.

The British Association for the Advancement of Science has nominated Professor J. J. Thomson, of Cambridge, as president of the association for the Winnipeg meeting next year.

In the general hospitals of Prussia for the year 1903 there were treated 8,412 cases of perityphlitis. In 1906 the number of cases had risen to 16,781.

According to the latest report of Dr. J. F. S. Hay, Inspector of Mental Hospitals in New Zealand, there are 3,206 insane persons in the 8 asylums for the island. The total population is 888,578. The largest asylum is at Dunedin, with accommodation for 754 inmates.

The British House of Commons has granted a civil list pension to Mr. J. Hall-Edwards, the distinguished x -ray experimenter. Mr. Hall-Edwards' health has suffered severely on account of his researches with many applications of x -rays in disease.

An investigation has been conducted for some time on an outbreak of enteric fever in the west end of Glasgow. It was found that a woman who had the disease sixteen years ago is still infective. The source of infection on this farm seems to be responsible for the spread of the disease.

The Parliamentary Commission on Public Health for France has approved a bill for the annual inspection of all places where pharmaceutical preparations are kept for sale. This will include druggists' shops, doctors' surgeries, veterinary surgeons' offices, perfumers' places of business, etc.

The serum diagnosis of syphilis by the method of Bordet and Gengou, of Paris, was discussed in a series of papers at the Berlin Medical Society. Dr. Fleischmann claimed that the Bordet-Gengou reaction is of great value.

It has been pointed out by Dr. Boudin that the statue of Æsculapius was represented as carrying a serpent entwined round a staff or his arm. In time the serpent came to be the emblem of the Æsculapian art of healing.

The medical colleges in Italy are suffering severely for lack of clinical material and facilities for clinical teaching. Several influential deputations have waited upon members of the Government for assistance to secure better accommodation for clinical work.

Florence, Italy, has now a well organized system of furnishing medical attendance upon poor women during confinement. Several of the staff of the Medical College have the work under charge, and have arranged for a sufficient number of assistants.

The Medical Society of St. Louis, Missouri, has requested the postmaster and the health department to warn all persons handling mail matter to discontinue the habit of licking stamps and their fingers with their tongues, claiming that this practice is dangerous to public health.

M. Henri Durrant, the founder of the Red Cross Association and initiator of the Geneva Convention, will celebrate his eightieth birthday on 8th May. The Red Cross Society was founded in 1863, and the Geneva Convention in 1864. A medal is to be struck in honor of the occasion.

Dr. D. B. St. John Roosa, of New York, died 8th March, from heart complications during Bright's disease. He was a distinguished authority on diseases of the eye and ear, and was president of the New York Academy of Medicine in 1893-4.

Both Houses of Parliament in Britain have appointed a select committee to enquire into and report upon the law regarding indecent literature and pictures and advertisements relating to things indecent and immoral.

The recent report of Dr. Bulstrode, of Britain, on tuberculosis, has again called forth a good deal of discussion on the methods of the spread of the disease. Arguments are advanced for the dust theory of Koch and Cornet, and the droplet theory of Flügge. There is every reason to think that there is truth in both views.

Dr. Niven, Health Officer for Manchester, Eng., claims that the statement of the Royal Commission on Tuberculosis that "tuberculous milk powerfully reinforces the store of human tuberculosis" must be borne in mind in the milk supply of all cities. He contends that the sources of the milk supply should be supervised.

At the Institution for the Treatment of Rabies at Berlin, there were treated during the year 234 patients. Of this number treated by the Pasteur method only 4 died. In 67 per cent. of the cases the diagnosis was confirmed by inoculating animals from the patients. In the remainder of the cases the diagnosis was clear and made on clinical appearances.

Professor Rubner, of Berlin, contends that the real factor influencing the growth of the child was the inherited rate of cell proliferation and cell division. Food was not the only factor. If the inherited quality of cell proliferation did not exist in a normal state, development would be retarded.

A very interesting communication appeared recently in the *American Journal of the Medical Sciences* from the pen of Dr. F. Fremont-Smith on the subject of arteriosclerosis in the young. He contended in the article that the condition is more frequent among the young than is generally supposed. A number of cases are reported.

M. Remlinger and M. Nouri, of Paris, have been conducting some experiments with the view of determining whether or not fish may act as carriers of the bacilli of typhoid fever and the vibrios of cholera. He concluded the digestive organs of fish living in polluted water may become infected.

By a recent decision in the Court of Special Sessions of New York, it becomes illegal for a corporation or company to carry on a medical or surgical practice. The action was instituted by the New York County Medical Society. This decision will affect a large number of corporations in the city and State.

According to the researches of Professor Elliot Smith, the ancient Egyptians of five thousand years ago had attained marked skill in the treatment of fractures. This is made clear by the discovery of remains of splints and their models, and by the examination of bones that reveal the evidences of fractures.

Professor Von Esmach died 23rd February, in his eighty-fifth year. He was professor of surgery in the University of Kiel. He had a distinguished career as military surgeon, teacher, and author. In 1887 he received the rank of nobility and on his retirement the Emperor conferred upon him the title of "Excellency."

The Chicago Pasteur Institute reports that since 1890 there have been treated in all 3,130 patients. Of these, 38 were infected by human beings, 2,779 were bitten by dogs, and the remainder by some other animal. There were only 7 deaths. In all 7 gave up the treatment, and two of these were again attacked and died.

There is a bill before the German Parliament which imposes severe penalties upon any one who offers for sale or advertises any drug in such a way as to give rise to wrong impressions of its merits. The bill prohibits puffing up preparations of a proprietary nature in such a way as to mislead the public.

There has been a keen discussion in Edinburgh by the students and supporters of the Minto College for the Medical Education of Women, looking towards the opening of the University classes to the women medical students. The Court of the University does not favor mixed classes, a view shared in by the lecturers and the male students. There are about 100 women students, and the cause of their asking admission to the University classes was brought about by the sale of Minto House, where their classes met.

Professor Deycke, of Constantinople, has announced a new treatment for leprosy. He claims to have obtained a fatty substance which he calls "nastin" from the cultivation of a bacillus found in lepers. By the injection of this he obtains a distinct reaction. These injections, combined with benzoyl chloride, has secured very excellent results in all but hopeless cases.

The second annual Hospital Conference for Great Britain was held a short time ago. It was decided that patients who could pay should be asked to do so for their food, medicines and dressings. The right of the medical profession to representation on the boards of hospitals was also taken up, but voted down. There was a good deal of discussion on the merits of such hospitals as permitted patients to have the choice of their own medical attendants, or the cottage hospital plan. Much attention was paid to the abuse of the out-patient department by those who can pay, and that steps should be taken to remedy the evil.

OBITUARY.

EDWIN GOODMAN, M.D.

Dr. Edwin Goodman, who died at St. Catharines on 9th April, was born in Grimsby in 1833, and was educated at the old Grammar School, and later at the University of Toronto, where he was prize man and honor man six times. He was a surgeon of the 19th Regiment during the Fenian raid in 1866. With the late Dr. Mack he established the local hospital, Nurses' Home and Protestant Orphanage. At the time of his death he was president of the St. Catharines Gas Company, vice-president of the Security Loan and Savings Company. He is survived by a widow, four sons and one daughter.

GEORGE P. WESTLAND, M.D.

Dr. George P. Westland, one of London's old-time and highly esteemed residents, died at his home, 287 Queen's avenue, on 7th April, after an illness extending over a year and a half. Dr. Westland was in his seventy-third year, and came to Canada from Liverpool, Eng., when 18 years old. He settled in Toronto, and graduated from the Ontario College of Physicians. He had lived and practised homœopathy in London for nearly fifty years. Besides his wife, he is survived by two sons and one daughter.

F. N. BURGESS, M.D.

Dr. Burgess was born in Hants County in 1841. He took his preliminary education in the Academy of Wolfville. He studied under the late Dr. Parker. He took his medical course at Harvard University, Boston, where he graduated in 1865. He served in the U. S. army during the civil war. After the war he settled in Hants County. In 1901 his health began to fail and he then removed to Hantsport, where he limited his work to office and consultation practice. He took an active part in the local medical societies. He was of a most genial disposition and much esteemed by all who knew him.

J. W. PEAKER, M.D.

Dr. J. W. Peaker, the well-known physician of 347 Bathurst street, Toronto, who had been ill since last November, passed away on 5th April,

aged 43 years. Two weeks previously Dr. Peaker was stricken with paralysis, and he had gradually sank until his death occurred. Deceased was a graduate of the Toronto Medical School and afterwards took a post-graduate course in England. Dr. Peaker was a son of Mr. William Peaker, a well-known business man of Brampton. A widow and one child survive. Drs. E. and K. Peaker, dentists, of Parkdale, are brothers of deceased. The late Dr. Peaker was a member of Zetland Masonic Lodge and the Knights of Pythias, and was an adherent of Broadway Methodist Tabernacle.

ALEXANDER M. SOMMERVILLE, M.D.

Dr. Sommerville died on 10th March, 1908, at Rothsay, N.B. He was in his fifty-eighth year, and had been in poor health for some time. For fifteen years he had been practising at Hatsfield, where he had a large practice and was highly respected.

J. K. TIERNEY, M.D.

Dr. Tierney died at St. Albert, Alta., at the age of 34. He was a graduate of McGill. He had been in practice in the West for ten years. He leaves a widow and two children.

VICTOR W. STEWART, M.D.

Dr. Stewart died at Denver, Col., on 10th February, 1908. He was a graduate of the University of Toronto of the class of 1905.

WILLIAM R. PRINGLE, M.D.

Dr. Pringle died suddenly at Schreiber, 17th February, 1908. He had held the position of surgeon to the Canadian Pacific Railway in that place for some time.

HUGH McCOLL, M.D.

Dr. Hugh McColl died on 19th April, 1908, at his home, 40 Askin street, London. Ont.

In September, 1906, owing to a severe illness, followed by continual ill-health, he was forced to retire from the active duties of his loved pro-

fession, and to quietly rest at his home in London in the care and enjoyment of the companionship of his sister and aged mother.

He was 64 years of age, and was born in the Township of Westminster, his parents being pioneer settlers in that district. Dr. McColl graduated with honors in New York in 1870, and taking post-graduate courses in Germany and England, settled in Lapeer, Michigan, where he was a prominent physician and surgeon for over 35 years.

In January of the present year, he presented his splendid collection of medical works to the library of the Western Medical College in London, accompanied by this message to the students: "Let knowledge grow from more to more, but more of reverence in us dwell."

He was an elder of the Presbyterian Church in Lapeer for over 20 years. Esteemed by the public and his profession for his rare medical skill, he was still more beloved for his whole-souled kindness and genuine manliness—truly a man of the Dr. McClure type among his fellows. He was a past president of the Michigan State Medical Society.

His aged mother, now in her 92nd year, and still in the possession of all her faculties, and the following sisters survive him: Mrs. Annie Armstrong, of London, widow of the late James Armstrong, M.P.; Mrs. J. H. Elliott, Westminster; Miss Flora McColl, 40 Askin street, London, and Mrs. Isabel Eastman, wife of the Rev. Mr. Eastman, Meaford, Ont. Funeral was private at the family plot, St. Thomas, Ont.

BOOK REVIEWS.

ALCOHOL AND OTHER DRUGS IN FATIGUE.

The Influence of Alcohol and Other Drugs on Fatigue. The Croonian Lectures delivered at the Royal College of Physicians in 1906. By W. H. R. Reeves, M.D., F.R.C.P., Fellow of St. John's College, Cambridge. London: Edward Arnold, 1908. Price, 6 shillings net.

Alcohol has occupied a large share of scientific attention for many years. The present work is a revised form of the Croonian Lectures of 1906. These lectures pass under review caffeine, cocaine, strychnine, and tobacco. On all of these topics the author has some very helpful suggestions. With regard to caffeine, the author remarks that it "increases the capacity for both muscular and mental work, this stimulating action persisting for a considerable time after the substance has been taken without there being any evidence, with moderate doses, of reaction." "When taken in excess the stimulating effect is transitory and followed by loss of power even to a great decrease." Strychnine is given as capable of increasing the power for both muscular and mental work, and as capable of postponing the onset of fatigue. Cocaine is a stimulant which, in

moderate doses, is capable of increasing very materially the power of the muscular system for work. It also stimulates mental activity. Its action is most pronounced in the presence of fatigue, either mental or physical. With regard to alcohol, the general results of experiments are to the effect that in strict moderation it increases muscular work, but lessens the capacity for mental work. The increase in muscular work is uncertain and temporary. The book contains very much valuable information and should be carefully studied.

STUDY OF MEDICINE IN THE BRITISH ISLES.

The History of the Study of Medicine in the British Isles. The Fitz-Patrick Lectures for 1905-6, delivered before the Royal College of Physicians of London, by Norman Moore, M.D., Cantab., F.R.C.P., physician to St. Bartholomew's Hospital. Oxford: At the Clarendon Press, 1908.

The history of medicine is not studied as much as it ought to be. It adds much to the interest of present day knowledge to know also something of the past. This book of Dr. Moore's is very interesting, as it throws much light upon the development of the teaching and practice of the healing art in Britain. There is a good deal of the biographical method in these lectures, and this increases their interest for the reader. One here gets an insight in medicine in the Middle Ages, and its steady growth since. We would wish to see such books widely read.

POTTS ON NERVOUS AND MENTAL DISEASES.

By Charles S. Potts, M.D., Professor of Neurology in the Medico-Chirurgical College at Philadelphia. New (second) edition, thoroughly revised and greatly enlarged. In one 12mo. volume of 570 pages, with 133 engravings and 9 full-page plates. Price, cloth, \$2.50 net. Lea & Febiger, publishers, Philadelphia and New York.

The handling of nervous and mental diseases in a single volume offers manifest advantages to practitioners and students who wish a good grounding in two very important subjects which have an obvious relationship. That Dr. Potts has accomplished this acceptably is indicated by the demand for repeated printings of his first edition, and now by the call for a revision. His book has always been noted for its clearness and evenness, the inclusion of everything to be expected in a manual, and the omission of recondite matters, which find their proper place in the large special works or in monographs. Dr. Potts carries his reader as far as most will care to go, qualifying him for examination or general practice on both subjects, and for their further pursuit in case he wishes to specialize. He has brought this new edition thoroughly abreast of the present day, incorporating all important advances and making many additions.

The section on mental diseases has been completely rewritten to represent the radical change in the whole point of view from which this field is now regarded. As the book has grown larger by about one hundred pages in spite of condensation wherever possible, it may be said that the amount of information it contains has been increased in greater ratio than its pages, and the same is true of the illustrations. A number of colored plates have been introduced. In its new edition the book goes forward to fresh usefulness. From a very careful perusal of this book we can speak in words of high praise of its contents. The publishers have done their part well.

INTERNATIONAL CLINICS.

A Quarterly of Illustrated Clinical Lectures and especially prepared original articles on Treatment, Medicine, Surgery, Neurology, etc. Edited by W. T. Longcope, M.D., Philadelphia. Vol. 1, 18th series, 1908. Philadelphia and London: J. B. Lippincott Company, 1908. Charles Roberts, Montreal, Canadian Agents.

The present volume contains four articles on treatment, five on medicine, four on surgery, three on gynæcology, one on neurology, two on pathology, and a review of the progress during 1907 in treatment, medicine and surgery. The volume is well illustrated and is got up in attractive form. The contributors are well-known writers. The volume is a good one and does justice to this excellent series.

TREATMENT OF DISEASE.

The Treatment of Disease. A Manual of Practical Medicine. By Reynold Webb Wilcox, M.A., M.D., LL.D., Professor of Medicine at the New York Post-Graduate Medical School and Hospital, Consulting Physician to the Nassau Hospital, Visiting Physician to St. Mark's Hospital, etc., etc. Second edition. Philadelphia: P. Blakiston's, Son and Company, 1908. Price \$6 net.

Dr. Wilcox, as a writer upon medical topics, needs no introduction to our readers. As the author of works on therapeutics, nursing, pharmacology, etc., he has acquired for himself a well-earned reputation. The present edition contains nearly 1,000 pages. The subject matter of the book is divided into Infectious Diseases, Constitutional Diseases, the Intoxications, the Digestive System, Diseases of the Blood, the Ductless Glands, the Vascular System, the Respiratory System, the Urinary System, the Nervous System, the Muscular System, Parasitic Diseases. The various diseases are discussed under the headings of synonym, definition, pathology, etiology, symptoms, and treatment. As the title indicates, the main attention of the author is devoted to treatment. His experience of some twenty-five years in the active work of teaching students has enabled

the author to form a clear conception of what is required for the student and the general practitioner. Viewed from this standpoint, the book will prove eminently useful to those who procure a copy and make themselves familiar with its contents. For ready reference this work is arranged to suit everyday practice, as one can find easily what he wishes in an up-to-date form, and briefly stated. The book is a veritable storehouse of information.

COSMETIC SURGERY.

The Correction of Featural Imperfections. By Charles C. Miller, M.D. Second edition enlarged, including the description of numerous operations for improving the appearance of the face. 160 pages; 96 illustrations. Prepaid, \$1.50. Published by the author, 70 State Street, Chicago.

We would repeat of this edition our expression of opinion of the former edition, that it is a very useful little book. The author has been able to condense a large amount of information into a small book. The illustrations are numerous and good. They really aid the text very much, which should be the primary object of all illustrations. The descriptions of operations are brief but clear. This little book makes it quite clear that much can be done to remedy the deformities and impairments of the face, nose, eyes, and ears.

MISCELLANEOUS.

WALTER B. GEIKIE, M.D., D.C.L., LL.D., HONORED.

One of the most pleasant of events occurred at the Toronto Academy of Medicine on 7th April, 1908, when the portrait of Dr. W. B. Geikie, formerly Dean of Trinity Medical College, was presented to the Academy. It is needless to state that all present felt that the honor had been well earned by Dr. Geikie.

Dr. George A. Bingham made the presentation on behalf of the graduates of Trinity Medical College. In his address he referred to the fifty-one years of service of Dr. Geikie in the teaching of medicine. He started his career in 1856 and from that year to 1860 Dr. Geikie filled two chairs of the Medical Faculty of Victoria University. His health then broke down and he removed to Aurora. While there he attended to a large practice and came in to the city to deliver daily lectures. In 1869 he was appointed to the chair of Anatomy of Victoria University. In 1870, Dr. Rolph, Dean of the Medical Faculty of that institution, resigned on a matter of principle and Dr. Geikie left with him, founding Trinity Medical College,

in 1871, where he was Professor of Medicine. In 1877 Dr. Geikie became Dean of Trinity Medical College, and this position he occupied till the amalgamation with the Faculty of Medicine of Toronto University in 1903. Until 1907 Dr. Geikie was one of the medical examiners of the University.

Dr. Geikie, in accepting the portrait, spoke as follows:

To the President and Fellows of the Academy of Medicine, Toronto:

Gentlemen,—I accept with much pleasure the portrait just presented to me by Dr. Bingham on behalf of the graduates of Trinity Medical College in such kind and pleasing terms, representing the more than warm feelings entertained towards me personally by the graduates of my old College. Fifty-one of the best years of my life were spent as an earnest medical educationist. Thirty-two of these, from April, 1871, till June, 1903, were specially devoted to the founding—establishing on as firm a foundation as possible—and building up of Trinity Medical College, with all the energy I possessed, ever keeping in view and promoting, as far as was in my power, the best interests of every student who entered the College during that long period.

I therefore appreciate this presentation, coming from her graduates very highly. It vividly recalls many past and most pleasant years—years to me of continuous delight in daily meeting my classes. With all my heart I thank every graduate who has had a share in this presentation, who was as loyal to his College as I was, and who now cherishes, as sincerely as I do, her glorious memory.

I regard this presentation as a fresh and marked evidence that the hearts of our graduates continue to beat, as my own does, with mingled pleasure and pride, as we think of the magnificent work Trinity Medical College did, for practical medical education during the long and useful years of her existence. No wonder that my whole heart was given to promoting and stimulating so great and so grand a work. It is, however, and I think our graduates will all agree with me, very largely, perhaps chiefly, to commemorate the glorious and long continued usefulness of our College, that this presentation is now made. The numerous high positions our graduates occupy where they are practising their profession and the eminence attained by so many of them, in Canada and elsewhere, bear testimony stronger than any words of mine can do to the excellence of the professional training they received within her walls.

I may here mention, as illustrative of the fact just stated, the well-known names of Professor Alexander H. Ferguson, of Chicago, and Teskey and G. A. Bingham of Toronto, who, with many others, are eminent as surgeons, and, did time permit, the names of many might be given who are distinguishing themselves in all the various branches of the profession in Canada or in other countries.

It is not surprising, therefore, that with hardly an exception they are as loyal to the memory of their College, and that her name is and always will be as dear to them as it is to me. Great and long continued as my work in connection with the College was, the general success of her graduates has always been to me an inspiration and a joy.

In this connection I have only one regret, and one wish—the regret is at my not having done more than I did for my College and for her students. The wish is that what I did do had been done very much better.

A College like ours was worth the labor of many a life, as her teaching was a blessing to the men she taught—a credit to our city and country, and a boon to the public, who require and deserve to have the very best and most practically taught medical men we can produce, sent out to practise their profession—men who are capable of successfully coping with the frequent and great responsibilities so often met with at the bedside.

Earnest medical teachers like to have students who in pursuing their studies have an aim as high as this. To take such a stand requires men of at least average capacity, for it has to be kept up. This cannot be done by young men of the type of one of Charles Dickens' characters, who appeared to be physically and mentally more like "a swelled boy" than a fairly able young man. Good men are known by their steady and good work, maintained throughout their entire course. Thus, and thus only, can they acquire the good and full knowledge they require to have. And this is what is sure to tell in the long run, and on the real success of a doctor. A young man's capacity increases with regular and diligent study, and grows, as the body does, with his growth. A man may thus reach "brainhood"—a word I have just now coined, intended to denote a well-developed and well-furnished *brain*, as "manhood" denotes a well-grown physical frame.

Cultured men of this kind, although now and then the grossly ignorant may pass them by to employ the illiterate and untaught, will have and retain the respect of all who know them, provided their characters are of the best, which is indispensable—and they will soon secure and retain the confidence of intelligent people who are fortunate enough to call them in.

While to-night my remarks have necessarily referred to my own College and her graduates only, it goes without saying that I entertain no feelings other than those of kindness and sympathy towards all well-conducted medical colleges which now exist, or which may hereafter be established amongst us, and nothing pleases me better than to hear of their full success.

Gentlemen, I again thank you for the portrait, and have pleasure in presenting it to the Toronto Academy of Medicine.

Dr. Ross, President of the Academy of Medicine, expressed his thanks on behalf of the recipients of the portrait, for its presentation, especially as it was the picture of so prominent a medical educationist as Dr. Geikie.

The portrait is the work of Mr. J. W. L. Forster.

ONTARIO MEDICAL ASSOCIATION PROGRAMME.

TUESDAY MORNING, MAY 26TH.

Medical Section, 10 a.m. (1) Vaccine Therapy in Medicine and Surgery, W. L. Silcox, Hamilton. (2) One Year's Experience with the Therapeutic Inoculation of Bacterial Vaccines of the Toronto General Hospital, George W. Ross, Toronto. (3) The Opsonic Treatment of the Diseases of the Skin, D. King Smith, Toronto; discussion on bacterial vaccines to be led by W. Gibson, Kingston. (4) Neurasthenia from the Ætiological Standpoint, H. B. Anderson, Toronto; discussion to be led by J. A. Bauer, Hamilton. (5) Rare complications of Pregnancy, with report of a case, A. Dalton Smith, Mitchell; discussion to be led by G. S. Glassco, Hamilton.

Surgical Section, 10 a.m. (1) Conservative Surgery of the Tubes, with report of five cases, L. W. Cockburn, Hamilton; discussion to be led by T. Shaw Webster and S. M. Hay, Toronto. (2) Method of Treatment of Sprained Ankle, J. Sheahan, St. Catharines; discussion to be led by F. N. G. Starr, Toronto, and T. H. Balfe, Hamilton. (3) Obstruction due to Cancer of the Large Bowel, H. A. Bruce, Toronto; discussion to be led by W. Gunn, Clinton, and Henry Howitt, Guelph. (4) The Surgical Treatment of Compression Paraplegias, A. Primrose, Toronto; discussion to be led by A. B. Welford, Woodstock, and L. W. Cockburn, Hamilton.

Section of Preventive Medicine, 10 a.m. (1) Diphtheria Antitoxins as prophylactic and Curative Agents, W. Goldie, Toronto. (2) Medical Inspection of Schools, Helen MacMurchy, Toronto. (3) Control of Minor Contagious Diseases, H. Sinclair, Walkerton. (4) Precautionary Measures Necessary to Prevent Infection in Typhoid Fever Patients, J. A. Amyot, Toronto. (5) Sewage System for Towns and Smaller Cities, T. Aird Murray, C.E., late of Leeds, England. (6) Anti-Variolous Vaccines, Charles A. Hodgetts, Toronto.

TUESDAY NOON.

Clinic and luncheon at the City Hospital.

TUESDAY AFTERNOON.

General Session, 2.30 p.m. (1) President's Address. (2) Ballot for the Committee on Nominations, and appointment of scrutineers. (3) Symposium—Arterio Sclerosis: (a) Pathology, J. J. Mackenzie, Toronto; (b) Cerebral Manifestations, Colin K. Russell, Montreal; (c) Ocular Manifestations, Hermon Sanderson, Detroit; (d) Aortic Arch Manifestations, Thomas McCrae, Baltimore; (e) Muscle Manifestations, Harry C. Buswell, Buffalo; (f) Visceral Manifestations, J. A. Bauer, Hamilton; (g) Treatment, A. McPhedran, Toronto. (4) Report of scrutineers.

Meetings of Committees, Standing, Temporal, and Special.

TUESDAY EVENING.

Smoking Concert at the Yacht Club, Hamilton Beach. The Committee on Arrangements are providing an entertaining programme.

WEDNESDAY MORNING, MAY 27TH.

Medical Section, 9.30 a.m. (1) Remarks on the Duties of Medical Examiners in Life Insurance, G. S. Glassco, Hamilton. (2) Remarks on the Fees for Life Insurance, Norman Walker, Niagara Falls; discussion on life insurance to be led by W. H. Merritt, of St. Catharines, J. H. Howell, of Welland, E. M. Hooper, of St. Catharines, and T. F. McMahon, of Toronto. (3) Non-Alcoholic Cirrhosis of the Liver, R. J. Dwyer, Toronto. (4) Some Points in the Treatment of Puerperal Septicæmia, A. H. Wright, Toronto; discussion to be led by H. S. Griffin, Hamilton. (5) Addison's Disease and Adrenal Insufficiency, Benson Cohoe, Baltimore. (6) The Estimation of the Pressure of the Cerebro-Spinal Fluid, R. D. Rudolf, Toronto. (7) The Medical Superintendent, Charles O'Reilly, Toronto.

Surgical Section, 9.30 a.m. (1) Exstrophy of the Bladder, report of a case, F. N. G. Starr, Toronto. (2) Report of an extraordinary case of foreign body in the bladder, Edwin Seaborn, London; discussion to be led by E. B. O'Reilly, Hamilton, George E. Armstrong and A. E. Garrow, Montreal. (3) The Hyperæmic Treatment, H. P. Lyle, New York City; discussion to be led by V. P. Gibney, New York, S. H. Westman, Toronto, and E. B. O'Reilly, Hamilton. (4) Ulcer of the Stomach, W. E. Olmsted, Niagara Falls. (5) Duodenal Ulcer, A. E. Garrow, Montreal; discussion to be led by J. W. Edgar, Hamilton, G. A. Bingham, Toronto, and Robert Lucy, Guelph. (6) Mechanical Ileus, Operation, Recovery—Remarks on the Diagnosis and Treatment, George T. McKeough, Chatham; discussion to be led by P. Stuart, Guelph, H. P. Lyle, New York, and A. E. Garrow, Montreal. (7) The Surgical Aspect of Hæmophilia with special

reference to Hæmarthrosis, Beverley Milner, Toronto; discussion to be led by V. P. Gibney, New York, Clarence Starr, Toronto, and George E. Armstrong, Montreal.

Section for the Eye, Ear, Nose and Throat, 9.30 a.m. (1) Lateral Sinus Suppuration and Cerebellar Abscess, J. P. Morton, Hamilton. (2) Tubercular Uveitis, J. W. Stirling, Montreal. (3) Glaucoma, R. A. Reeve, Toronto. (4) Clinical Measurement of Relative Accommodation, Lucien Howe, Buffalo. (5) Accessory Sinus Disease, Perry Goldsmith, Toronto.

WEDNESDAY AFTERNOON.

General Session, 2.30 p.m. (1) Address in Surgery, Charles L. Scudder, Boston. (2) Gangrene and Abscess of the Lung, George and E. Armstrong, Montreal. (3) Results of the Bier-Klapp Treatment of Tuberculous Sinuses and Joints at the Hospital for the Ruptured and Crippled, New York City, Virgil P. Gibney, New York, and C. E. Preston, Ottawa.

Business Session. Reports of committees, election of officers, etc., 4.30 p.m.

WEDNESDAY EVENING.

The annual dinner to be given in the Royal Hotel, at which the members will be the guests of the medical men of Hamilton.

THURSDAY MORNING, MAY 28TH.

Medical Section, 9.30 a.m. (1) Mouth Breathing, John Hunter, Toronto. (2) Report of a Case of Cerebro-Spinal Meningitis, Recovery, A. R. Gordon and Alan W. Caufield, Toronto; discussion to be led by G. S. Glassco, Hamilton. (3) A Plea for Rational Therapeutics, George Acheson, Galt; discussion to be led by V. E. Henderson, Toronto. (4) The Treatment of Appendicitis, G. R. Cruickshank, Windsor; discussion to be led by G. D. Farmer, Ancaster, D. H. Arnott, London, and H. A. Bruce, Toronto. (5) Some Points in the Diagnosis and Treatment of Diabetes Mellitus, Campbell Howard, Montreal; discussion to be led by Graham Chambers, Toronto. (6) Rheumatism, J. C. Meakins, New York; discussion to be led by J. T. Fotheringham, Toronto, and R. Y. Parry,

Surgical Section, 9.30 a.m. (1) Pyelonephrosis and Pregnancy, J. F. W. Ross, Toronto; discussion to be led by Henry Howitt, Guelph. (2) Transplantation of the Omentum in Hepatic Cirrhosis, Edmund E. King, Toronto; discussion to be led by T. H. Balfe, Hamilton. (3) Pancreatic Cyst, D. E. Mundell, Kingston; discussion to be led by George E. Armstrong, Montreal, and Clarence Starr, Toronto. (4) Hypodermic Anæsthesia, D. Dunton, Paris. (5) Spinal Analgesia—History, Technique, Phenomena, Results, Duncan Anderson, Toronto; discussion to be led by G. A. Bingham, F. W. Marlow, and Samuel Johnston, Toronto, and A.

H. Perfect, West Toronto. (6) The Third Dimension in the Visualization of Surgical Procedures, N. A. Powell, Toronto. (7) The Treatment of Acute Diffuse Suppurative Peritonitis without Drainage, C. F. Moore, Toronto; discussion to be led by G. A. Bingham, Toronto, W. E. Anglin, Kingston, and Angus McKinnon, Guelph.

Section of Obstetrics and Diseases of Children, 9.30 a.m. (1) A Fatal Form of Eclampsia, K. C. McIlwraith, Toronto; discussion to be led by J. D. Balfour, London. (2) Obstetrical Technique, Frederick Fenton, Toronto. (3) Some Complications of the Puerperium, report of a case, J. R. Stanley, St. Mary's. (4) Missed Abortion, R. Ferguson, London. (5) Mole Pregnancy, with specimen, C. R. Charteris, Chatham. (6) A Case of Spasmodic Stenosis of the Pylorus in an Infant, with recovery, H. T. Machell, Toronto. (7) Pyo-pneumo-thorax due to a Fusiform Bacillus, Allen Baines, Toronto.

THURSDAY AFTERNOON.

General Session, 2.30 p.m. (1) Address in Medicine, Charles L. Stockton, Buffalo. (2) X-Ray Diagnosis in Medicine and Surgery, with lantern slide demonstration, Lewis G. Cole, New York. (3) Psychiatry in Relation to General Medicine, C. K. Clarke, Toronto.

Business Session. Unfinished business, installation of officers, etc.

THE CANADIAN HOSPITAL ASSOCIATION.

The annual convention of the Canadian Hospital Association was held in Toronto on 20th and 21st April, 1908. There was a good attendance present of those interested in hospital work from all over the Dominion. An interesting programme had been arranged by the committee. The meeting was held in the Parliament Buildings.

The President, Miss L. C. Brent, gave an excellent address on the work of the Association, and many topics of interest in the management of hospitals.

Dr. W. J. Dobbie, of Weston, gave an address on the management of tuberculosis in sanitarium. He regarded the disease as of a special character and that it required to be treated apart from other institutions.

Dr. Helen MacMurcny, Toronto, read a paper on "The Milk Supply." She emphasized the need for the utmost care in the procurement of pure milk.

Dr. A. D. McIntyre, Superintendent of the General Hospital, Kingston, gave an excellent address on "Fumigation." He did not believe that disinfection was of as much use as had been thought. He threw considerable doubt on the utility of fumigation as being capable of destroying germs.

There was a reception in the evening at the Hospital for Sick Children.

Dr. C. Sheard, in his address, condemned the flocking of visitors to the wards of hospitals. They caused much confusion in the administration of these institutions and often brought contagion into the wards. A mother would visit some one in a hospital when her children had measles or some other infectious disease at home. No visitors allowed, was one of his axioms in the management of an hospital for contagious diseases or for children. He contended that it was not possible to avoid contagion always in hospitals, as there would be cases of patients coming into the wards whose cases were not clearly defined. Infection would be introduced from without by visitors also.

Miss Brent said that contagious diseases brought in by visitors had cost the Children's Hospital \$15,000.

Dr. C. K. Clarke, of the Toronto Asylum, urged that there should be a close relationship between the hospitals and the asylums. The nurses should be shifted from one set of institutions to the other in order to gain an experience in both. This would be of great help to them in their future work. He claimed that nursing in this country and in the United States was ahead of that found in Germany. He claimed that a good asylum nurse must receive some training in a general hospital also. He urged that there should be reciprocity in this matter.

Dr. H. M. Hurd, Superintendent of the Johns Hopkins Hospital, Baltimore, regretted that general practitioners did not take a greater interest in mental diseases. He congratulated Ontario upon the proposal to establish the new Clinic, which would awaken a new interest in this important subject among both nurses and medical men.

Dr. D. C. Meyers thought that few yet realized what a boon to society the establishment of the new Clinic would be. He thought, however, that it would be a mistake to send to that institution all acute nervous cases. He thought that in many cases it would be absolutely wrong to send nervous cases of a certain kind to a hospital for the insane.

Closer relation between the institutions for the insane and the general hospitals was also urged by Dr. Bruce Smith, Provincial Inspector of Prisons. The abandonment of the practice of sending insane persons to prison pending their transfer to hospitals for the insane was, he considered, a distinct advance.

Dr. W. C. Herriman, Mimico, thought it was impossible to draw a hard and fast line. In every nervous clinic cases of insanity would be found.

"The hospital is a public utility," said Mr. Del T. Sutton, editor of the *National Hospital Record*. At the same time people who could afford to pay for treatment should be made to do so. If it cost \$10 to maintain

a paying patient he should not be admitted on paying \$5. Every hospital, he added, should be an educational centre in public health and hygiene.

Miss M. M. Grey, Superintendent of the Hospital for Incurables, addressed the meeting on the subject of nursing incurable patients, while Dr. H. M. Hurd, Superintendent of the Johns Hopkins Hospital, Baltimore, spoke of the proper length of the period of study for nurses. Miss Patton, Miss Tolmie and Miss Chesley took part in the discussion.

The following officers were elected: President, Dr. Dobbie, Weston; First Vice-President, Dr. Macintyre, Kingston; Second Vice-President, H. E. Webster, Montreal; Third Vice-President, Miss Brent, Toronto; Fourth Vice-President, W. W. Kenny, Halifax; Fifth Vice-President, L. L. Cosgrave, Winnipeg; Secretary, Dr. J. N. E. Brown, Toronto; Treasurer, Miss Patton, Toronto.

MEDICAL PREPARATIONS, ETC.

RHEUMATISM DUE TO GRIP.

In speaking of the treatment of articular rheumatism, Hobart A. Hare, M.D., Professor of Therapeutics in the Jefferson Medical College and editor of the *Therapeutic Gazette*, says: "Any substance possessing strong antipyretic power must be of value under such circumstances." He further notes that the analgesic power of the coal-tar products "must exert a powerful influence for good." The lowering of the fever no doubt quiets the system and removes the delirium which accompanies the hyperpyrexia, while freedom from pain saves an immense amount of wear, and places the patient in a better condition for recovery. The researches of Guttman show conclusively that these products possess a direct anti-rheumatic influence, and among those remedies, antikamnia stands pre-eminent as an analgesic and antipyretic. Hare, in the latest edition of his "Practical Therapeutics," says: "Salol renders the intestinal canal antiseptic." This is much needed in the treatment of rheumatism. In short, the value of salol in rheumatic conditions is so well understood and appreciated that further comment is unnecessary. The statements of Professors Hare and Guttman are so well known and to the point and have been verified so often, that we are not surprised that the wide-awake manufacturers placed "Antikamnia and Salol Tablets" on the market. Each of these tablets contains two and one-half grains of antikamnia and two and one-half grains of salol. The proper proportion of the ingredients is evidenced by the popularity of the tablets in all rheumatic conditions and particularly in that condition of muscular soreness which accompanies and follows the grip.

TREATMENT OF UTERO-VAGINAL CATARRH.

By C. E. BRANDENBURG, M.D., N.Y. City.

Fifteen months ago Mrs. X. came to me for treatment, giving the following history: Six years previously she had a miscarriage, since which she had been troubled with a profuse leucorrhœa of a very foul odor. At her menstrual period she suffered greatly and flowed excessively. On examination the cervix was found to be nearly four times its normal size, and so badly eroded as to have every appearance of a cancer, and had been mistaken for such by one physician. The uterus was soft and boggy and very much enlarged. She had been to the hospital on two occasions and each time had been curetted, but this seemed only to aggravate the general condition. For over a year I treated her with every means at hand, but to no purpose. I was making preparations for an operation, which would have meant the removal of the uterus, when my attention was drawn to Glyco-Thymoline, and I determined to give it a thorough trial before operative measures were to be further introduced. An intrauterine douche of Glyco-Thymoline in 25 per cent. hot solution was administered and lamb's wool tampons saturated with Glyco-Thymoline pure was used. She began to improve from the first application. The leucorrhœa became less and the odor disappeared entirely. The cervix took on a healthy look. The uterus decreased in size and became firm; in fact she is now nearly well after nine weeks' treatment with Glyco-Thymoline.

INSTEAD OF MORPHIA OR OPIUM.

We meet with many cases in practice suffering intensely from pain, where, because of an idiosyncrasy or some other reason, it is not advisable to give morphine or opium by the mouth, or morphine hypodermically, but frequently these very cases take kindly to codeia, and when assisted by antikamnia its action is all that could be desired. In the grinding pains which precede and follow labor, and the uterine contractions which often lead to abortion, in tic douloureux, brachialgia, cardialgia, gastralgia, hepatalgia, nephralgia, and dysmenorrhœa, immediate relief is afforded by the use of this combination, and the relief is not merely temporary and palliative, but in very many cases curative. The most available form in which to exhibit these remedies is in antikamnia and codeine tablets.

The physician cannot be too careful in the selection of the kind of codeia he administers. The manufacturers of antikamnia and codeine tablets guarantee the purity of every grain of codeia which enters into their tablets. This not only prevents habit and the consequent irritation which follows the use of impure codeia, but it does away with constipation or any other untoward effect.