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SPORADIC CRETINISM IN ONTARIO.*

BY ALEXANDER MACPHEDRAN, M.B.

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No disease or deformity causes more distress to parents than the grave forms of cretinism. While the subjects of it are carefully and lovingly cared for they are also jealously shielded from the public gaze. in the consciousness that a blight has fallen upon them. They may present a picture that is scarcely human; the mental condition is affected equally with the physical. However, of all the triumphs of medicine few equal and none surpass the brilliant results obtained in the treatment of cretinism. Had vivisection done nothing more for humanity than place in our hands the means to restore so many of these unfortunate creatures to vigor of mind and body, there would have been ample justification for all the sacrifice of animal life that has been made for the advancement of science.

The earlier the treatment is begun the better the prospect for a good recovery. It is important, therefore, that early diagnosis be made. The effects of the administration of thyroid are well illustrated in Dr. Stone's case (Case 5, Figs. 5 and 6). There is a loss of body weight due to disappearance of the myxœdematous deposit and of fat, the various parts of the body become more shapely, the belly and navel less prominent, the lips thinner and mouth less open, the tongue smaller and retracted into the mouth, there is great rapidity of growth, affecting especially the legs, so that the

* Read at the meeting of the Ontario Medical Association held at Toronto, June, 1898.

middle of the body is shifted from the umbilicus to the pubes, the skin becomes smooth and softer, and losing its dirty hue takes on a ruddy appearance, the hair grows soft and abundant, the appearance of the child becomes alert and active, the teeth develop rapidly, and the general appearance becomes intelligent.

The mental condition improves, though less rapidly than the physical. On account of the disappearance of the subcutaneous deposit the face becomes more comely and the muscles have more play, so that the apparent is greater than the real improvement in intelligence. The younger the child the greater the mental improvement usually, yet even up to thirty years of age the mental condition may improve very much.

FIG. 1.

FIG. 2.

It seems immaterial which preparation of thyroid is given. The fresh gland, the desiccated gland, and even the colloid substance have been found equally efficacious. It is important that the preparation used be free from decomposition products, as these probably cause the unpleasant effects frequently met with from its administration. The dose should be carefully graduated according to the age of the child. We may begin with half a grain of the desiccated gland two or three times a day, and, if no unpleasant effects result, increase the dose in a week or two to one grain, to be increased still further later if improvement be not satisfactory. If unpleasant effects result, such as a rapid pulse, a feeling of depression or fever, the dose should be lessened, or a fresh preparation tried. The necessity for continuance of adminis-

tration of thyroid is uncertain. Dr. Bury (*British Medical Journal*, Sept. 12, 1896, page 621) reported the case of a babe one year old that had "ceased to get on, became flabby, fat, lost his vivacity, and had begun to show protuberant abdomen, a lax skin and other cretinoid appearances." Small doses of thyroid speedily "picked him up," and treatment was discontinued at the end of six months without return of symptoms. In more marked cases it will probably be necessary to give thyroid once or twice a week to maintain a good condition. It may be that intermissions of a few weeks from time to time may be allowed without ill effects.

The diagnosis of cretinism in well-marked cases offers no difficulties. As early treatment results practically in perfect recovery, and the later that treatment is undertaken the less the effect produced, especially on the mental condition, it is of the utmost importance that an early diagnosis be made. Some cases have been supposed to be chronic Bright's disease. Other forms of idiocy, especially the so-called Mongol type, infantilism and fœtal rickets, have to be excluded. There may be difficulty in distinguishing in some cases the Mongol type of idiots from cretins.

Cretinism may be due to congenital absence of the thyroid gland, to atrophy of the gland following constitutional diseases, or to degeneration caused by goitre. In cases of congenital absence of the gland the symptoms begin in infancy and may show themselves at birth (Victor Horsley, *British Medical Journal*, Sept. 12, 1896, page 620). In cases due to atrophy and degeneration, the disease begins later in life, and often follows an acute disease, such as scarlatina, measles, etc.

While this disease is not prevalent in Ontario, a sufficient number of these unfortunate cases occur to merit the careful attention of the profession. So far, I have been able to secure reports of seventeen cases, and a few others are known to exist of which reports have not yet been obtained. Doubtless there are many other cases of which I have not as yet heard. Five years ago Osler could find only eleven cases in America, and last year, the profession having learned to recognize the condition better, he was able to report upon forty-nine other cases. The fact that in a collective investigation extending over less than two months I have been able to find seventeen cases in this Province indicates a wide recognition of the disease.

The following are brief notes of these cases:

1. Dr. R. M. Calder's case, Petrolia.—Charlie H., aged fifteen years. Height 3 feet 4 inches. (Fig. 1.) Appeared well until ten months old when he had scarlet fever. After this his growth seemed arrested. He did not walk until two years old; then he became subject to severe attacks of colic until the age of twelve years. He has a very large abdomen and walks with a waddling gait; mentally he is infantile. He would like to be large like his brother, and wonders if his father would give fifty cents to have him made that large. His face is usually grave.

CASE 2.—G. P., aged nine years (Fig. 2). A marked case of infantile myxœdema. Height 26 inches, measurement of head 21 inches, of chest 22½ inches, of abdomen 23 inches. He is unable to stand without support. He was healthy as a babe. From the age of eight months it was observed that he did not develop well either in body or mind. He is now of a very low grade of intelligence; he is not able to distinguish objects or one person from another. The myxœdematous condition is very marked, the lips being very thick, the tongue large and protruding, the nose flat and broad, the eyes very wide apart, the belly prominent and the umbilicus protruding. The vaso-motor tone is very low so that the mucous and cutaneous surfaces are livid, especially if cold. No

FIG. 3.

FIG. 4.

thyroid is to be felt. He cannot speak, but manifests satisfaction by a grunt. He is not difficult to care for. The skin is harsh and dry, especially on the body. He wears a babe's No. 2 shoe. He has cut no teeth—three sharp points of teeth can be felt in the lower jaw. He has not been treated.

3. Dr. Jerrold Ball's two cases, Toronto.—1, William T., aged thirty years (Fig. 3). Height 3 feet 9½ inches, circumference of he head 22 inches, chest measurement 31 inches, abdomen 33 inches, weight 87 pounds. The spine is markedly curved, backwards in the upper dorsal region and forwards in the lumbar, thus adding to the prominence of the large belly. As an infant he was dropsical and remained so for years. He walked and talked at 21 months. His legs are much bowed. His lips are very thick

and the lower one drops low, but can be brought up into contact with the upper one; the tongue is moderately thickened. He has all but six of his permanent teeth, but some of them are barely through the gums and all are poorly developed; he has still a few of his temporary incisor teeth. The hair is scanty and coarse; there are a few hairs on the pubes; he has no beard. The circulation is poor. The mucous membrane of the mouth is dark and turgid. No thyroid gland can be felt; the appetite is fair and the bowels regular. He is intelligent, understands what is said to him and answers well, but the voice is harsh and guttural and articulation indistinct. He remembers circumstances that have occurred, but cannot acquire abstract knowledge. He is unable to learn to read.

FIG. 5.

FIG. 6.

4. 2, Lilly T., aged seventeen years, sister of William T. (Fig. 4). Height 2 feet 8 inches, circumference of head 20⅔ inches, anterior fontanelle slightly open, chest 26 inches, abdomen 28 inches. Similar kyphosis to that of the brother, but less marked. She is able to walk about unassisted. The tongue is larger, though not protruded, and the lips thicker than in the brother's case. Her condition is similar but more marked in other respects. She still has many of the temporary teeth. There is a cyst 2 inches in diameter of the right lobe of the thyroid and the left lobe is firm as if fibrosed. The bowels require an enema daily.

The parents of the two are first cousins. The mother is healthy, but not robust; the father is strong. One sister, well developed, died at the age of eighteen of pulmonary tuberculosis.

5. Dr. John R. Stone's case, Parry Sound.—Male, aged twelve years. When treatment was begun he had grown practically nothing for eight years and seemed to become actually less intelligent. He has been treated with thyroid (desiccated) for eleven months. Before treatment his height was 2 feet 9¼ inches. (Fig. 5.) Now it is 3 feet 2⅝ inches. (Fig. 6.) Before treatment he would sit all day taking little notice of anything; was able to say few words and these but indistinctly. He could walk only with the aid of chairs. Now he runs about and takes as much interest in games as other children; talks a great deal and understands almost everything that is told him. His hair was scant, coarse and stunted, and the scalp covered with thick scurf; now the scalp is clean, the hair is soft and abundant. The neck, formerly short and thick, has become shapely. The joints of the hands and feet were ill-defined; they are now quite shapely. His weight was 42 pounds when treatment was begun. It gradually fell to 35½ pounds, and then began to increase, until now it is 43 pounds. His legs have become much straightened. His appetite was poor and capricious; his bowels were obstinately constipated. Now his appetite is good and bowels normal. A peculiar circumstance in his case was the fact he had the children's disease mildly and for a very short time.

FIG. 7.

6. Dr. A. E. Harvey's case, Wyoming.—(Fig. 7.) M. E. H., female, aged thirty-four years, but looks much older. An aunt and a cousin of her mother were dwarf, and resemble closely this case. M. is goitrous. She cut her first teeth when seven years old, and began to menstruate at age of twenty years. Her intellect is very infantile. She sits with feet drawn up under her most of the time.

7. Dr. A. Gordon Hodgin's case, Petrolia.—M. H., aged twenty-seven years (Fig. 8.) Was a healthy child until three years old although not walking much. Had scarlatina and showed signs of cretinism after recovery. She is 3 feet in height, the chest is 21 inches and the abdomen 29 inches. The arms and legs are very short and thick. The head is large, the face full, the neck short and thick. The thyroid gland can be felt. The lips are thick, the tongue large but not protruded usually. The gums are swollen and the teeth much decayed. The bowels are always constipated. She can say a few words. She is easily irritated and cries like an infant.

8. Dr. T. F. MacMahon's case, Toronto.—Reta L, aged thirteen years. Height 34 inches. Has grown 3 inches in four years. Marked kyphosis for past four years. Abdomen prominent Cheeks look heavy and face old. Tongue not protruded. Hair normal. Speech very imperfect but she can be understood by her friends. Fontanelles did not close until seventh year. Her skin is not puffy-looking or harsh. Lips are thick and heavy but mouth is not kept open. Walks with the support of a chair. No trace of thyroid gland can be found. Extremely quiet and inactive but not imbecile. Good-natured and happy. Cannot teach her the alphabet. Memory good for facts, faces, etc. Temporary teeth still present and but two permanent lower central incisors have as yet appeared. Apparently a normal baby at birth and was fed at breast. Her father, two years before her birth, met with an accident which caused complete paralysis for six weeks. He then slowly recovered, so much so as to resume work on a farm. Family history excellent on both sides. Is clean in her habits and affectionate. Has been taking thyroid tablets for past two months and is much improved in appetite and I think looks brighter.

FIG. 8.

9. Dr. McKay's case, Ingersoll.—Joseph B., aged twenty-five years; a typical cretin. Height 55 inches, weight 70 pounds, circumference of head 23 inches, of thorax 25 inches. He is not able to walk without some support. He is easily offended. His memory for objects poor, but remembers faces and names well. The bowels are obstinately constipated, never moving without a cathartic or an enema. Appetite poor. His father died of some form of pulmonary disease. He was passionately fond of playing the violin. The boy is equally fond of it but cannot play it, although holding it properly and knows when it is correctly played. He looks like a boy of ten years, and is about as intelligent as a boy of two years. He has not been treated on account of objection by the family.

The following seven cases are inmates of the Asylum for Idiots at Orillia, and for the notes of them I am indebted to Dr. William Laidlaw, Assistant Superintendent:

CASE 10.—Lizzie F., aged forty-one. Her mother was epileptic. Two sisters are feeble-minded and one brother idiotic. Her height is 38 inches, weight 56 pounds. The chest measures 33½ inches, the abdomen 32 inches. She is quiet and easily amused. Cannot walk. Cannot speak but understands some things. The head is large and the neck thick. The hair is coarse and thin. The nose

flat, the eyes far apart. The mouth is large, the lips thick, and the tongue large, rough and protruding.

CASE 11.—Mary J., aged forty-three years. Height 53 inches, chest measures 32 inches, the abdomen 35 inches, the head is 22 inches in circumference. She walks with a waddling gait. Cannot speak but understands a little. She is bright in the summer but dull and apathetic in the winter.

CASE 12.—E. B. L., male, aged nineteen years. Height 49½ inches, chest measurement 28 inches, abdomen 29 inches, head 21 inches. Speaks a little with the dumb alphabet. He is quick to understand what is said to him. His hands and feet are thick, small and always bluish from poor circulation. He was treated with thyroid grains five per day for three months without improvement. It was discontinued as he refused to take it longer.

CASE 13.—Janet L. J., aged twenty-four years. Height 47½ inches, chest measurement 32, and abdomen 33 inches. Head and face are smaller and more shapely than the foregoing cases. The hands and feet are short and thick. The body is thick, and skin dry and cold. She can walk with a side-to-side motion. She says a few words. Her mental condition is very poor.

CASE 14.—Vera M. L., female, aged eight years. Height 38 inches, chest measurement 25½ inches, and abdomen 29 inches. The hair is dry and skin rough. The hands and feet are thick. She walks with a swinging gait. The tongue large and the teeth poor. She cannot speak but understands fairly. She is making fair progress in the kindergarten class. Has been treated with thyroid with considerable improvement. She grew one-half inch in height and became much brighter.

CASE 15.—Fanny E. V., aged twenty-nine years. Height 53 inches, chest measurement 31½ inches, abdomen 30½ inches, and head 22 inches. Very slow in all her movements. She walks with a shuffling gait. She talks a little and comprehends fairly well what is said to her. Tongue is large; the teeth poor. The skin is hard and the hair coarse and dry.

CASE 16.—Charles H., aged forty-three years. Height 47 inches, chest measurement 26½ inches, abdomen 29 inches. Hands and feet thick and mishapen, and bluish. The skin is rough and harsh; the hair scanty and dry. He talks fairly well and imitates everybody.

17. Dr. F. N. G. Starr's case, Toronto.—L. M., male, aged ten years. Height 41½ inches, chest measurement 22 inches, umbilicus 24 inches. Head 21 inches in circumference; flat in upper surface and prominent in parietal regions. Face broad, especially wide across the nose. Slow and deliberate in his movements. The thyroid appears to be absent. The abdomen is prominent. The skin dry and harsh; he sweats but rarely. Constipation constantly present except after medication. The voice is deep, and his remarks are very deliberate. The mental capacity is fairly good. He developed as well as most children till the age of four. Since then he has not grown any.

EMPYEMA, OPERATION, RECOVERY.

BY B. R. HOPKINS, M.D.

ON December 2nd, 1897, I was called to see Georgie G., aged seven and a half years. His mother told me that he had been out playing football with a number of boys two days before, and she thought, became overheated, as the next day (the day previous to my first visit) he had complained of a slight pain in his chest "under the left arm" and had coughed a little during the night. He had also said to his mother that he had felt chilly during that afternoon, and that the pain was getting worse. When I reached the house, I found the little fellow lying upon his left side, with a pillow under that side of the chest, and every time he had coughed it made him cry with pain. I found his temperature 101⅘ and his pulse quite rapid. His skin was moist, tongue furred, breath disagreeable, and during my call he vomited some nasty green bilious fluid. On examination of the chest I made out a distinct pleuritic rub about the junction of the middle and lower thirds of the left lung, though it was a difficult matter to get the boy to take a sufficiently full inspiration to make out the pleuritic rub, except occasionally. I heard it most distinctly by turning the patient over and placing the stethoscope just below the angle of the scapula. As it was quite evident that there was an incipient pleurisy, I instructed the mother how to apply a 2 x 2 canthos plaster to a certain spot as marked by me, and I prescribed a mixture containing two minims to the dose of B.P. tincture of aconite, the same to be administered every two hours for four doses, and then every fou rhours.

On arriving next morning, I found that the nurse, who had since come, could report that the little chap was somewhat easier. The plaster had blistered freely, and I let out over a drachm of serous fluid, dressing with lanoline on lint. The skin was quite moist from the diaphoretic effect of the aconite, and on physical examination I found that, though the pleuritic rub was still there, it was to be heard less frequently. The temperature was 100⅕, and pulse 108. I ordered a full dose of magnesia sulph. to be given, which produced a good watery stool in about four hours.

For several days the temperature kept hovering in the region of 101, and showed very little tendency to defervesce. The pain in the chest disappeared in another day or two, but notwithstanding the use of the counter irritant, the disease advanced into the second stage in spite of all my efforts. On the morning of the fifth day, the percussion note was almost flat and respiratory movement on that side very much decreased, and consequently increased on the right. The pleural cavity became rapidly filled up and the cough increasing in severity, I prescribed an expectorant mixture of

senega, ammonia, squills, and codeia, and applied every four hours linseed meal poultices to the left chest. The temperature on the ninth day was as low as it had been, sinking to 99⅘. I was in hopes absorption would take place gradually and convalescence ensue in the regular way, but I was doomed to disappointment.

On the evening of the sixteenth day I was summoned to the house in a hurry and found my little patient just recovering from a severe chill, which was followed by profuse sweating. The temperature (as a hot-headed Irishman would say, "Bad luck to it") had risen to 104⅕ and the pulse very rapid and thready. Nurse told me that he had been quite comfortable all day, till three o'clock, when he vomited all the nourishment he had taken, and which was accompanied by a great deal of straining. The chill had lasted nearly half an hour. I administered 3 grs. of quinine and ordered ½ gr. of calomel to be given in an hour, followed by another ½ gr. in three hours. There was a free bilious stool shortly after. Next morning I found the temperature still very high, 103½, and a nasty-looking flush on the face. The nurse reported that there had been another chill in the night, only less severe, and the little chap had been very restless from coughing a good deal. Satisfied that the fluid in the pleura had become purulent, I, after applying a spray of ethyl chloride to the skin just below the angle of the scapula, inserted into the pleural cavity a trochar, when out flowed an unhealthy-looking semi-watery pus.

Seeing that there was nothing for it but operation, with assistance next day, I chloroformed Georgie, and after thoroughly aspirating I cut into the pleural cavity between the eighth and ninth ribs. The moment I made the incision a large quantity of unhealthy pus escaped. I allowed it to get free exit by inserting into the wound an ordinary pair of forceps and holding them open. With what pus I got out by the aspirator and what escaped by the wound, I am satisfied that we removed between fifty and sixty ounces from that boy's pleural cavity. I did not think it necessary to excise a piece of rib, so simply inserted a full-sized drainage tube and applied boracic dressings.

For several days after, in spite of the fact that there was free drainage, the temperature still kept in the region of 100⅘ and 101. I stopped the expectorant mixture and ordered syrup ferri iodide in drachm doses, and small doses of stimulants four times a day, with as a diet rich soup (strained), milk and eggs. I removed the dressings every morning and washed out the drainage tube, taking care that the latter did not become in any way occluded. The temperature still kept decidedly septic in character, up every night and down in the morning. I then prescribed viskolein powder in four-grain doses in water every four hours. That was kept up for several days, being administered in between each dose of the syrup of the iodide of iron.

On the sixth day after that, the temperature rose less at night, and in the beginning of the following week it came down to

99⅕. The discharge from the wound became less and less in quantity and granulation progressed, till I had, in the ordinary progress of the case, to shorten the drainage tube considerably. The temperature did not rise again over 100. I kept up the powders of viskolein for ten days, when the temperature had become normal. I put the boy then on cod liver oil four times a day. I was soon able to add to his diet a few oysters, with somatose, and then sent him a short way out into the country for six weeks. He soon began to put on flesh again and lose his emaciated appearance, the cough becoming very little trouble to him. What was the cause of the continued high temperature after draining the pleura I cannot say. Every antiseptic precaution was taken, though I did not follow the advice of the surgeon who assisted me and wash out with a mild antiseptic solution the whole pleural cavity, being content to let the pus escape through the wound and then look after free drainage. Perhaps a pocket of the pus lower down than my opening did not become freely emptied, though as to that I cannot answer. The viskolein had a very pleasing and effective antipyretic action, carrying out in this case just what I had read of it, by, I fancy, inoculating the blood with sufficient antiseptic to render the blood an infertile field for the further propagation of disease germs.

My patient rapidly progressed and the tube was removed in fourteen and a half weeks from the date of the operation. His chest on the affected side has now quite a resonant note, the respiratory movements being almost as complete on one as on the other side. Cough is all gone, and during the last four weeks little Georgie gained twenty-one pounds in weight. He is, in spite of all, once again playing football.

PULMONARY TUBERCULOSIS.

BY JOHN HUNTER, M.D.

By way of preface the following case is cited to help accentuate the necessity of reiterating everything that can be said about this disease in order to attract, if possible, such an amount of attention to it as will in some measure spur us up to get rid of our "*laisser-faire* methods of chest examination:

A young man recently consulted a physician, said to be held in repute by his brethren, and was told that there was nothing serious —simply suffering from effects of a cold, and would soon be well. He was not satisfied, consulted others who found extensive destruction of lung tissue, bacilli in sputum—in brief, a far advanced and rapidly progressing case of pulmonary tuberculosis. There can be no two opinions as to the demerits of the first diagnosis. It dis-

graced the physician, discredited the profession, injured the patient and permitted wide-spread infection.

It is absolutely true that the difficulties involved in making a correct diagnosis in many cases of incipient tuberculosis, baffle alike the highest skill and most assiduous efforts. However, after making full allowance for all these, the fact remains to the discredit of physicians, and as a menace to public health, that altogether too many cases like the above one pass undetected either through culpable ignorance, or more probably through careless and inefficient methods of examination. Why are ignorance and carelessness more permissible on the part of physicians than of surgeons? The latter have to suffer for their sins of omission, whilst the former get off on an apology of being overworked, or by claiming the inalienable right to differ from their confreres.

Etiology.

The etiology or cause of tuberculosis was definitely settled in 1882, when Koch by a masterly effort proved the inseparable relationship between a specific bacillus and tuberculosis; in other words, without the former under no condition can we have the latter.

Accepting Koch's theory as true an intensely interesting problem arises out of it, as to what constitutes immunity and what vulnerability. It is a fact that a large proportion of people are immune against all ordinary sources of infection, *e.g.*, widows remain healthy although having lived in most intimate relationship with, borne children to, and nursed their husbands through long periods of illness from tubercular trouble. Others again seem so susceptible as to acquire the disease from very slight exposure, hence the wide interval between the opinions of equally competent observers as to the degree of contagiousnes. Some claim that it is almost *nil*, others that it is as well marked, as, for instance, in diphtheria.

The following incidents, amongst others, may be assigned some value in establishing or maintaining immunity: Healthy and vigorous ancestry, pure air, an abundant supply of wholesome food, active out-door life, sanitary homes, invigorating climatic influences, well-regulated methods of living, *e.g.*, avoidance of too much worry, or of alcoholic, or venereal excesses.

An ominously long list of so-called predisposing causes has been handed down from "sire to son," all through the centuries, and anon augmenting with almost every new increment to civilization. Ancestral delinquencies and defects, impure air, poverty, overcrowding, unsanitary surroundings, unhealthy avocations, debilitating climatic influences, excesses of all kinds and degrees, sedentary indoor life and especially all diseases that have a tendency to impair the functions or irritate the tissues of any portion of the respiratory tract, *e.g.*, influenza, pleurisy, pneumonia, bronchitis, etc., in brief, anything and everything that militated against the health of progenitors, or interferes with the well-being of their progeny, may be incorporated in the list of predisposing causes.

However, a critical analysis of all these beneficent or maleficent incidents, conditions or influences only warrants us in stating that fewer persons under the former and more under the latter acquire tuberculosis. We are yet in a wilderness of speculation in regard to "predisposing causes," and will remain in it until we are able to decide what elements are necessary in our "make-up" to constitute immunity, and what is wanting that incurs vulnerability. That the dividing line between these two conditions is, in many cases, very narrow seems evident from the apparently slight influences that turn the scale either way.

Pathology and Morbid Anatomy.

The specific bacillus acquired its name from being rod-shaped. The rods may be straight or curved, and appear singly, in twos, or groups. The most suitable temperature range for their growth is between 90° and 105°, and they require the presence of oxygen. They stain readily, and when numerous may be recognized by the aid of a microscope with a magnifying power of 200 or 300, but if few in number a condenser and oil-immersion lens may be necessary. They can exist outside of the body in dust, dried sputum, milk or meat, hence the many sources of infection.

The invasion of the pulmonary tissues by the bacilli may take place in three ways, through the air, blood or lymphatic glands, and is followed by the production of minute bodies called tubercles. These are formed chiefly by three varieties of cells—epitheloid cells, giant cells and leucocytes. Bacilli may be found incorporated in the tubercles. It is claimed by some pathologists that there is a more or less persistent struggle for the mastery between the bacilli and certain cells. Until recently this phagocytosic action of these cells was supposed to be the only source of defence against attacks of the bacilli, but now a large amount of bactericidal and antitoxic action is assigned to the fluids of the body, *e.g.*, serum, gastric juice, saliva, etc

Tubercles, isolated or in nodules, usually undergo a softening process, known as caseation. However, other changes may take place, such as the formation of fibroid tissue or the deposit of mineral salts forming calcareous masses. The caseous mass may open into a bronchial tube, and thus give rise to a cavity, or sufficient inflammatory action may take place around the circumference of the nodule to imitate the formation of a fibrous capsule, which may be capable of inhibiting any further action of the bacilli. This latter condition probably accounts for the delusion that many physicians entertain, viz., that if a patient recover from a suspiciously protracted attack of lung trouble, it could not have been of a tubercular character. However, these capsules may break down at any time and allow their virulent contents to escape and produce reinfection. Ten or twenty years, or even half a century or more of good health may have intervened between the attack produced by the primary invasion of the bacilli and the one resulting from auto-infection.

Few surprises are more common in post-mortem examinations than the finding of tubercular foci in subjects who had never shown, during life, any evidence of the disease.

Clinically, three varieties may be pretty clearly differentiated: The *miliary* with the tubercles widely disseminated; the *caseous* in which the contents of the individual tubercles, or larger masses, change into caseous or purulent matter, and the *fibroid* where consolidation from tissue formation slowly takes place.

The apex of the lung, a little below and posteriorly, is the most frequent site of the initial lesion. Many reasons are assigned for this, such as more fixidity, less functional activity, wider tubes, feebler circulation, more moisture, etc. The apex of lower lobe, the septum between the lobes, and the apex of opposite lung, is the most usual order. The amount of lung tissue involved may be limited or very extensive.

The blood vessels traversing the tubercular nodules may present aneurysmal dilatation; a rupture of one or more of these gives rise to attacks of hæmoptysis.

The most frequent sequelæ found are, collapsed air cells or emphysematous patches from tubercle obstructing bronchi, empyema through escape of purulent matter from a cavity into pleura, perforations into trachea, ulceration of intestines, peritonitis, amyloid degeneration of liver, spleen, kidneys, stomach and intestines, involvement of lymphatic, bronchial and mesenteric glands, meninges and brain, circulatory and generative organs.

THE PREVENTION OF TUBERCULOSIS.*

BY W. J. WILSON, M.D.

MR. PRESIDENT AND GENTLEMEN,—The prevention of tuberculosis has been selected for your consideration this evening, not that the writer of the paper has anything new to present, but that the opinion of the society may be expressed on this very important subject. We all know how fatal this disease is, especially in congested districts, and how futile have been our efforts at cure in pulmonary cases that are at all well advanced.

We would note, in passing, how our ideas of cure have been modified since we have known the disease better and have detected it at an earlier stage than formerly we were able to do, thanks to an improved microscopical technique. We would also note how the word "scrofula" has been gradually dropped from our vocabulary and "tubercular" substituted. What we formerly called scrofulous glands or joints, we now call tubercular. The germ finds entrance to the system generaliy through the digestive tract,

* Read at Toronto Medical Society, October 13th, 1898.

in our food; or through the respiratory in the form of dust—milk and meat from diseased animals being the most prolific sources of contagion by the digestive tract, while dried sputum or floating particles expelled during violent acts of coughing cause the respiratory form. Each tubercular animal or man forms a source of infection.

It is not likely that meat will convey the disease unless the part eaten is actually tubercular. This, of course, might happen; but it is not likely that meat with tubercular deposits in it would be used; and again, if well cooked, the germ would be destroyed. However this may be, it is desirable that there should be better facilities for meat inspection. The small slaughter-houses should be closed, and all animals slaughtered at central points where inspection could be made efficient.

In the case of dairies, it is more difficult. Frequent inspections should be made and the tuberculin test used. It is especially difficult to make this inspection perfect, as farmers frequently change their cows, and when their milk is running short, get it supplemented from any neighbor who may have some to spare. Dairymen object to the cost of the tuberculin test, but if no milk were allowed for sale in a city where the test had not been used and inspectors appointed to look sharply after the matter, there would soon be an adjustment of affairs in the way of supply and price that would be satisfactory to all concerned. If it should be found here that over 50 per cent. of our cattle are affected, as is stated to be the case in England, the problem will prove a difficult one for a long time from the great loss the farmer would sustain; but if Government would make it compulsory to furnish a veterinary's certificate with each sale of a cow, stating that she had been subjected to the tuberculin test and was free from taint, a premium would be put on sound cattle, and the disease would in time be stamped out.

A city might be protected from diseased milk by establishing stations in which all milk brought into the corporation should be subjected to a thorough process of sterilization, and then handed over to the dealers for delivery. Money spent in preventing a disease is a better civic investment than the building of hospitals for its cure.

More attention should be paid to the housing and care of cattle. They are generally kept in low, dark stables, where the air space is far below what is necessary for the cows' health, and just in the most favorable condititions for inducing tuberculosis. If the farming community were educated on these lines, they would soon begin to make improvements. Matters of this kind could well be taught in our public schools as part of the hygiene.

Protection from the infected human subject is rather difficult to enforce, but a process of education is steadily going on which will soon bear fruit, and contagion from this source will be greatly

lessened. Public sentiment must be educated up to the point necessary to stop the spitting habit on our streets and in public places. A patient well advanced in consumption is said to expectorate from four to five billions of bacilli in twenty-four hours. The bacilli are scattered all over our streets, and among the poorer classes, especially around their houses and yards, and even on the floors of their houses. This sputum dries, and is inhaled as dust where it lodges on the tonsil or adenoid tissues of the throat, and travelling from thence to the cervical glands, or it is taken into the bronchi and finds a lodgment there, especially if the patient be debilitated from previous disease, or has a bronchitis, or a not quite cleared up pneumonia. Heredity comes in here by furnishing a good culture ground for the bacilli. Patients with this tendency should, where possible, be placed under conditions calculated to increase their powers of resistance and at the same time remove them from sources of infection.

Every case of pulmonary tuberculosis should be reported to the health boards as soon as the bacilli can be discovered in the sputum. This could be done without hardship to the parties concerned. Isolation should not be thought of, but on notification it should be the duty of the health officer to supply the patient and his friends with all the information necessary to protect the family from contagion. This information would cover such subjects as ventilation, condition of sleeping apartments and care of sputum.

After death of patient, the health authorities should look after the disinfection and cleaning of patient's late residence. This is rather an important matter that at present is entirely neglected. A patient dies, after a long illness, where billions of bacilli have been coughed up daily. No systematic or sufficient cleaning is practised, and other members of the family contract the disease after the patient is gone, if they have been fortunate enough to escape it thus long. It has long been noted that where one patient has had consumption in a house, sooner or later another case will follow.

The germ lodges on ledges and in dark corners, and is even said to grow on the paste of wall-paper. It is then, after a time, disturbed and inhaled by a susceptible subject, and tuberculosis results. A case has been reported to the writer where a family moved into a house, and in a few months the lady of the house was discovered to be tubercular. It was then found that eight others had contracted consumption in this house.

The tubercle bacilli is very hard to kill by disinfectants, but fortunately cannot live in direct sunlight for more than a few hours. This fact suggests that our municipal authorities should, at the time a building permit is asked, have the power and employ a competent person to confer with the builder and secure the best possible arrangements for heating, ventilating and lighting of the proposed structure.

THE PSYCHOLOGY OF NERVOUS DISORDERS, PECULIAR TO THE SEX.

BY J. J. MORRISSEY, A.M., M.D.

Professor Practice N. Y. School of Clinical Medicine, Visiting Physician to St. Joseph's Hospital.

AMONG the many valuable papers contributed to the different sections of the last meeting of the American Medical Association, there were some whose excellence must claim attention on account of their general interest, as well as the vast amount of technical information furnished. Notably among these are to be placed the papers which discussed the so-called relationship existing between the ailments peculiar to the sex and the development of nervous disorders.

There has been a feeling abroad among the profession that the operative procedures, whose object in many instances was to unsex the female, in order that some obscure complaint of a nervous character, far removed from the seat of the original disorder, might be alleviated, were entirely unwarranted. This sentiment found due expression in the utterances of men eminent in their profession, and yet sufficiently conservative to recognize that much might be done to alleviate conditions without resorting to drastic measures.

When the general practitioner failed to combine and transpose the various symptoms presented by his patient into a distinct disease entity, he sent her to the specialist, and it was not a difficult matter for the latter to find a cervical erosion, a perineal tear, or other solution of continuity in the genital tract that would account for the diversity of symptoms. An operation is performed, and frequently with no distinct advantage, except the profound psychical impression which changed the current of thought and directed the woman's mind, so long habituated to disease impressions, to other channels. In the minds of many specialists in women's diseases the orbit of her life revolves about her uterus. While this may be true in part, it cannot be affirmed as a whole. As Dr. Peterson well said in his able, but all too brief, paper, "Were sex determined anatomically by the pelvic organs alone, there might be some excuse for giving them that prominence in pathology for which certain gynæcologists, especially those afflicted with *manie opératoire*, contend. But femininity does not reside solely in the pelvic organs; it pervades the entire organism of woman, her bones, muscles, breasts, viscera and nervous system, and even her mind. The disorders of her pelvic organs have no more to do with her nervous and mental diseases than lesions elsewhere in her body: indeed, they have less to do with her psychoses and neuroses than most of her other organs, for, as in the male sex, the chief causes of their neuro-psychoses are to be sought in the intrinsic disorders of the nervous system itself, or in perverted nutrition of the

nervous system dependent upon affections of the gastro-intestinal tract, kidneys, liver, lungs, heart, etc., and upon pathological blood states. It is true that puberty, adolescence, the puerperum, menstruation and the menopause are often closely related to the outbreak or to the exacerbation of many nervous and mental disorders, but the pelvic organs themselves play but a small role in these physiological commotions. They have to do with the whole organism of woman. These commotions influence the entire biological unit. They disturb for a time the intricate and harmonious adjustments of that central nervous system which serves to correlate and govern the thousands of delicate functions performed within the body, so that during such periods of unstable equilibrium, the chief factors in the etiology of the neuroses and psychoses find the biological unit more vulnerable to attack."

I have intentionally quoted extensively from Dr. Peterson's paper because it expresses tersely, and yet definitely, the position of the general practitioner in these disorders. It is not with myopic observation that the female economy is to be considered when in a pathological condition; and yet this is the view taken by many able men. The uterus, its displacements, its affections, obtain a commanding importance, and every other consideration is relegated to a position of secondary consequence. Fortunately a happy change is taking place in the direction of conservatism. The operative wave which swept over the country a decade or so ago, which began in Germany, and increased with such force and rapidity as to make its influence felt on this side of the Atlantic, is fast receding. During the period when it was at its height, the generative organs of the female became the legitimate, or rather was it not the illegitimate, field of every tyro who wielded a scalpel, and whose surgical knowledge was in proportion to his scientific skill.

No uterus, whether virginal or parturient, was safe from his explorations, and it was with a sort of a ghoulish glee that the embryo operator boasted of his many operations upon the *sanctum sanctorum* of woman. No matter how far-fetched appeared the relationship between the symptoms given and the involvement of the uterus, the latter was the organ to be attacked. The desire for operating permeated every branch of gynæcology, and the example of men who, on account of their position as teachers, and their eminence in the profession, should have recognized the evil which they were propagating, was closely followed by students sent out from the large medical centres. Finally this Moloch was satiated, and exhausted from their arduous labors the gynæcologists who had so successfully carried on this warfare against the offending uterus, ceased their attacks, though the echoes of these past assaults are still heard.

The domain of nervous disorders offered a fruitful field for experimental observations, for a woman assuming to be afflicted with a nervous complaint can discover more fictitious symptoms in

the course of an examination than would fill a good-sized volume. And as the majority, if not all, of those symptoms are of a subjective character, and all the organs, except the womb, where there existed slight laceration, were perfectly normal, the latter *must* be the cause, and should be operated upon, and what is more to the point, and to the advantage of the gynæcologist, was operated upon. These assertions are not hypothetical, but borne out by ample evidence. Let us once more listen to Dr. Peterson's wise words: "I take the stand, therefore, that the field of the gynæcologist in the domain of nervous diseases is comparatively restricted and unimportant, and I, in common with the best men of their own specialty, raise my voice in strong protest against the still prevailing tendency to enlarge the field of operative gynæcology by *unjustifiable* and *unscientific* surgical interference (the italics are ours) in cases of nervous and mental disease. It is better to do too little than to do too much. It is better to err on the side of science than to give the patient the so-called 'benefit of the doubt,' which should be called the affliction of the doubt. Let the gynæcologist by all means treat any serious disease of the pelvic organs which may be present in any case of nervous or mental disorder just as he would a similar affection in an otherwise sound and sane woman, but let him not sacrifice upon the altars of strange gods those who trust to his knowledge, skill and broad judgment. The reflex neuroses and psychoses are will-o'-the-wisps that lead one into obscure places, into a maze, and then vanish, leaving him astray, bewildered, remote from any landmark."

What is the duty of the general practitioner in this and other affections of a similar character? It is to exhaust the resources of his skill, therapeutic and otherwise, until he feels that he has fulfilled his obligations to his patient. It is not his duty to send her to a specialist simply because he discovers some infinitesimal solution of continuity of the genital tract. The habit of introspection with which many women are unfortunately afflicted, the proneness to magnify the lesser evils of domestic life, the irritability associated with maternal cares have more to do with the creation of neuroses than all the ills connected with pathological conditions of the uterus.

Medicine has now been reduced to the exactitude of a scientific basis, and its principles should be applied scientifically and not in a hap-hazard or empirical manner. The evil of constipation in many women has produced temporary insanity. The generation of toxins in the alimentary tract, and their non-elimination through the proper channels, has produced discord in many otherwise happy homes. The application of suitable remedies to the uterus in various acute and subacute diseases will frequently make an operation unnecessary.

A change of environment will have a most salutary influence upon a woman whose nerves dominate her life. Each patient should be closely studied, and the more attention the general

practitioner gives to the individual peculiarities of those whom he is called to treat, the better results will he achieve. In the past there has been too much cutting, too much operating, too much amputating on the part of the gynæcologist whose success was often estimated by the number of alcohol-preserved ovaries he displayed. The surgeon, too, has sinned in this respect, but not to the same degree as the operative gynæcologist. The former more quickly responded to the advances of scientific medicine, and acknowledged the valuable discoveries made in the realms of pathology. He does not now cut down upon the important parts of the body without due forethought and consideration, and is apt to call the purely medical man to his aid before attacking the internal organs. The power of diagnosis is the most helpful aid the general practitioner can possess, and every energy should be concentrated in mastering the details that go to make up an accurate conception of the disease.

We are not among those who assert that the day of the general practitioner is passed, that the specialist now holds sway. On the contrary, we believe that the sphere of the general practitioner's influence is constantly widening. He has been in the past a most unfortunate advocate of his interests, and he himself has done more to undermine the position he once held in the eyes of the people than the combined influence of the specialists. Not that we wish to say one word in derogation of the specialist's position. On the contrary, all men who achieve the highest success must necessarily be specialists, and more. In this latter category may we place the general practitioner who keeps abreast with the best medical thought of the day, who closely follows the revelations which science is constantly making, who finds with the loss of his hair on the outside, the more gray matter on the inside of his cranial cavity. The majority of general practitioners move in an arc, instead of the whole circumference of the circle, and the sooner they realize the possibilities afforded in mastering the details of medicine, as well as its general principles, the more readily will they resume the position they once held.

DR. JAMES G. CAVEN, of Toronto, was married on the 19th of last month.

AMONG the home-comers who have been cordially welcomed after an absence in England, are Surgeon-Major Nattress and Mrs. Nattress, Dr. Gilbert Gordon and Mrs. Gordon.

DR. ROBERT J. DWYER, the popular superintendent of St. Michael's Hospital, was married in New York on Wednesday, October 12th, to Miss Teresa Lumage, of St. Louis. The ceremony, which was private, was performed by Rev. Father McMahon, of St. Patrick's Cathedral. After the ceremony breakfast was served at the Waldorf-Astoria. Dr. and Mrs. Dwyer arrived in Toronto on Saturday, October 15th.

Selected Articles.

IMPROVEMENTS IN THE IRRIGATION TREATMENT OF GONORRHŒA.

BY FRED C. VALENTINE, M.D.

Professor of Genito-urinary Diseases, New York School of Clinical Medicine; Genito-urinary Surgeon, West Side German Dispensary, etc.

GOLDBERG,* in summarizing the results obtained by all authors on the irrigation treatment of gonorrhœa, shows that sixty per cent. of the gonorrhœas so treated were cured within ten days, thirty per cent. within two weeks, five per cent. required a longer period, because of indulgence in sexual intercourse or alcohol, or both, and the remaining five per cent. stand recorded as failures.

When it is considered that his figures embrace those of authors who wrote condemning this method, the average results are simply surprising. It seems inconceivable, in view thereof, how any other mode of treating gonorrhœa can still have a foothold in the profession.

The objections this method had to combat were valid only to a degree. They were principally the large amount of work imposed upon the physician and uncleanliness. The apparatus having now been simplified, the work is reduced to a minimum, can be more thoroughly performed, and only gross carelessness or inexcusable awkwardness will cause the novice to soil the patient, himself, or the office, by irrigations.

The results obtained by some five hundred American physicians from irrigating in gonorrhœa and other genito-urinary affections wrest this method from the realm of the enthusiastic promoter: the personal equation has ceased to be an element in its advocacy. Those who but test it are at once assured of the following facts:

1. Every urethra, not too tightly strictured, and every bladder can be irrigated without a catheter.

2. Irrigations, properly employed, will cure gonorrhœa quicker than any other mode of treatment.

3. Internal medication is futile; hand injection are useless.

Other arguments in favor of this method would be fitting in an article not limited to technique. In its description, elegance of

* "Die Behandlung der Gonorrhöe mit Ausspülungen von übermangansaurem Kali." Centralblatt für die Krankheiten der Harn-und Sexual-Organe. Band vii., Hefte 3 und 4.

diction is not sought; clear, succinct exposition is the only object in view.

Most of the directions will appear self-evident to the majority of practitioners; some may seem unnecessarily complicated. In order to omit nothing, I emulate that "infinite capacity for taking pains" which Carlyle offers as a substitute for genius.

For Anterior Irrigations.—1. Have the patient drop his trousers and drawers to his knees and fold his shirt upward.

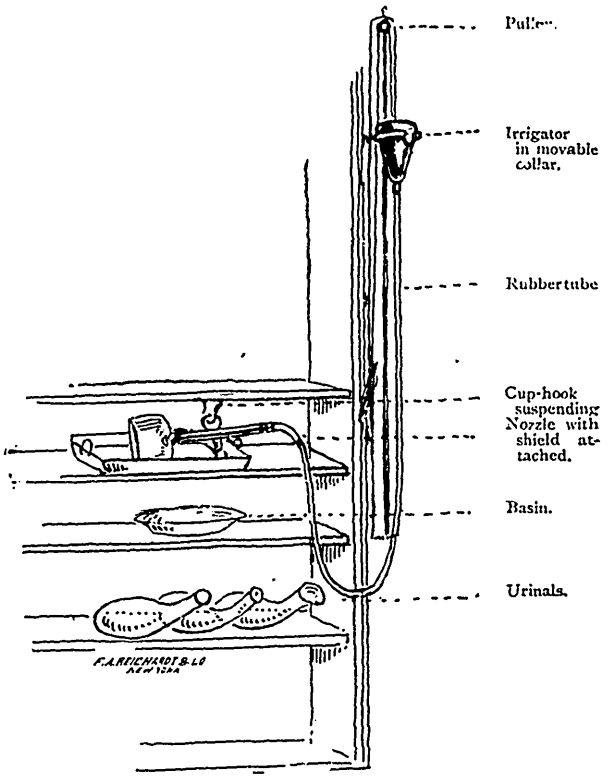


FIG. 1.—Convenient Arrangement for Author's Irrigating Apparatus.

2. Adjust a rubber apron twenty inches square, with a hole in its upper third, to allow the penis to pass through.

3. Close the stopcock of the apparatus and hang it on a convenient cuphook, or preferably place it in a basin containing mercuric bichloride, 1–6,000 (about one grain of bichloride of mercury in twelve fluid ounces of water).

4. Put the solution to be employed into the irrigator, at a temperature of 110° to 120° F.

5. Place the irrigator in the brass ring, which has been screwed to the wall nine feet from the floor. This suffices practitioners who

have not many irrigations to perform daily; but in an extensive genito-urinary practice it proves inconvenient. For those so engaged, an elevating slide is devised. By it the irrigator can be easily lowered for filling and rapidly raised for use. The illustration fully explains its employment.

6. When the irrigator is placed in its collar (or, if the elevator

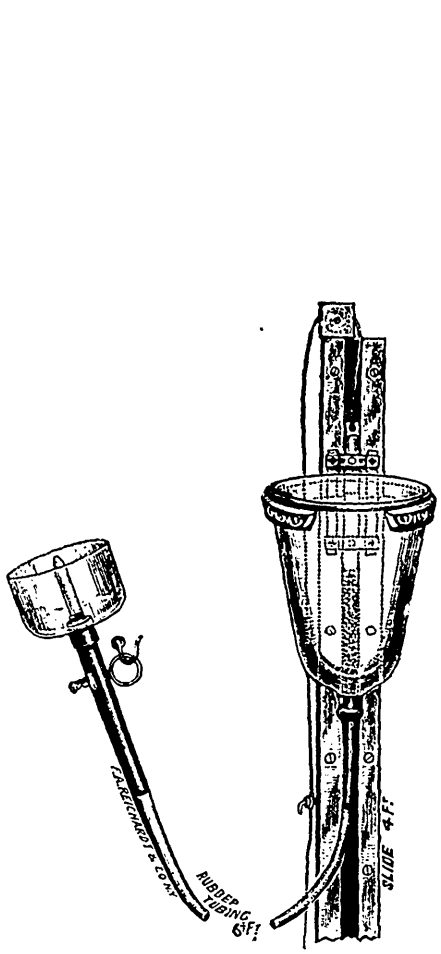
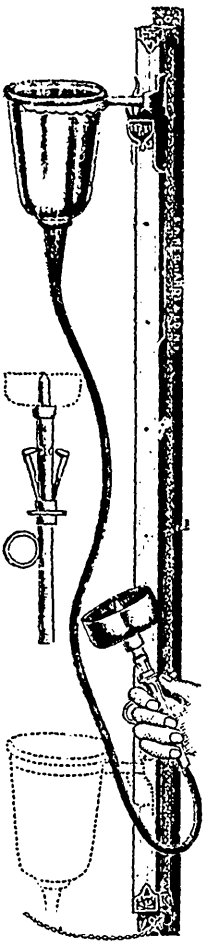


FIG. 2.—Showing Details of Mounting Irrigator and of Connecting Stopcock, Shield and Nozzle. Replaced.



Latest Irrigator and Stopcock.

is used, raised nine feet from the floor) attach the proper nozzle. This is easily accomplished by holding the stopcock in one hand and inserting the nozzle into the free end of the rubber tube until it is firmly held there, but not so far back as to press upon the ball of the stopcock.

The selection of the nozzle naturally depends upon the size of the meatus. Experience has led to three forms for the male urethra.

7. Order the patient to empty his bladder entirely, unless he has very much pain on urinating.

8. Place the patient on a wooden chair, as far forward as he can comfortably sit, his shoulders resting against the back of the

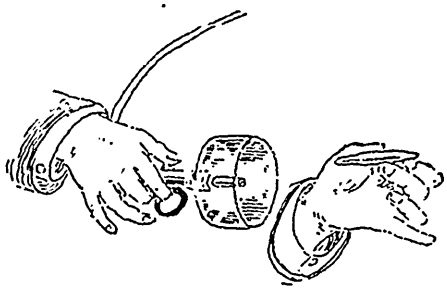


FIG. 3.—Inserting Nozzle.

NOTE.—On inserting nozzle into rubber tubing, see that neither tubing nor glass is wet; because, if are, the rubber will not hold the glass tightly and is apt to slip out.

chair. Place his feet at the outer sides of the front feet of the chair. It will be desirable to have the patient throw his head backward, projecting his expirations upward, instead of into the operator's face. Giving this direction as part of the proceeding in all cases prevents those who are unfortunate enough to have a malodorous breath from learning that an invidious distinction is made.

FIG. 4.—Nozzle A, for a Normal Meatus.

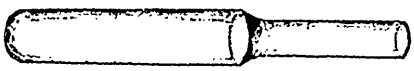


FIG. 5.—Nozzle C, for a very Small Meatus.

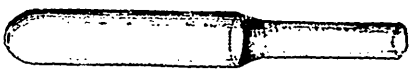


FIG. 6.—Nozzle B for a very Large Meatus.

NOTE.—Nozzle B is used only in posterior irrigations to be described farther on.

9. Hand the patient a tin wash-basin, twelve inches in diameter, or preferably one of enamelled or agate ware. Let him hold it with both hands, slightly tilted toward himself, his penis resting in the basin.

10. Stand at the patient's right side. Raise his penis by your third, fourth and fifth fingers of the left hand, and press it firmly

but gently against the ball of your left thumb. This leaves the thumb and index finger free to manipulate the foreskin and glans, as may be required.

11. Take the stopcock with its shield in the right hand, the thumb resting upon the top of the bar, the index finger passing through the ring.

12. Contract the thumb slightly, releasing the stopcock bar from its uppermost notch. Raise the thumb very slowly, allowing a very gentle flow of the solution to escape. Let this run upon the outer surface (skin) of the prepuce. Turn the penis until entirely clean exteriorly.

13. With the left thumb and index finger slowly retract the foreskin while the stream plays upon all its parts, until its mucous surface and the glans are thoroughly cleansed.

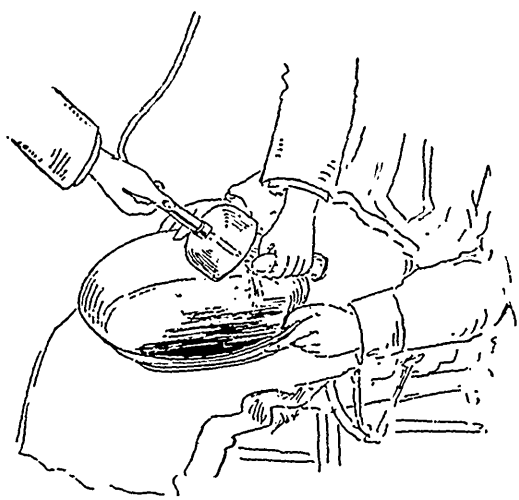


FIG. 7.—Cleansing Prepuce and Glans.

NOTE.—This illustration should show the patient seated on the front edge of the chair, his trousers dropped below his knees, his shoulders resting firmly against the back of the chair. The operator's left thumb and index finger should be contracted for manipulation of the prepuce and glands.

14. Hold the glans with the left thumb and index finger slightly bent, everting the lips of the meatus, while the stream plays upon them. Still more opening the meatus and increasing the force of the stream, it is directed into the meatus.

15. When every vestige of discharge is washed from all visible parts of the meatus, the nozzle is placed closely to it, and the force of the stream gradually increased until its impact is felt against the left middle finger. By this time about one-fifth of the contents of the irrigator has been used. The remaining four-fifths are consumed in the following steps;

16. When the second fifth of the solution has flown into the

basin, relax the grasp of the left middle finger upon the urethra. The force of the current being still further increased, it will strike the fourth finger of the hand holding the penis.

17 and 18. Relax the little finger, in the manner directed under 16.

After anterior irrigation it is well to cover the meatus with a layer of cotton soaked in mercuric bichloride, 1–6,000, and to direct the patient to renew this application after each urination.

For Posterior or Intravesical Irrigations.—Irrigation of the

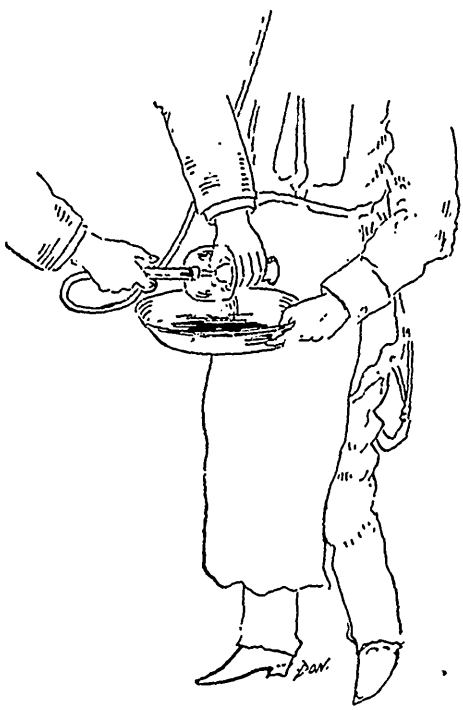


FIG. 8.—Anterior Irrigation in the Erect Posture.

NOTE.—Some patients prefer to have their urethras irrigated while standing; there is no objection to this. Oothers, who are very much afraid of pain, may be irrigated lying down. The details of irrigation in this posture will be discussed under "Posterior Irrigation"

posterior urethra premises overcoming the compressor urethræ (shut-off muscle). The force of fluid that can accomplish this must necessarily overcome the sphincter vesicæ as well, as soon as the posterior urethra is filled. The sphincter vesicæ being but a feeble bundle of muscular fibres, irrigation of the posterior urethra, which practically is a part of the bladder, cannot be dissociated from intravesical irrigation.

The detailed steps of a posterior or intravesical irrigation are:

(*a*) Irrigate the anterior urethra, before washing out the pos-

terior urethra, as laid down under rules 1 to 18 *supra*, using, however, only half the quantities of the fluid directed in rules 15, 16 and 17. The reason for this variation is in the copious double washing the urethra receives by the entrance of the fluid and its exit from the bladder.

(*b*) If the meatus is of average size, use nozzle A; if very small, nozzle C, while for a very large meatus, nozzle B should be employed.

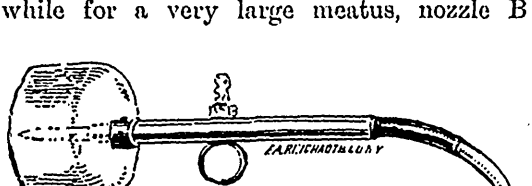


FIG. 9.—Improved Stopcock.[1]

NOTE.—The perpendicular bar should show two small notches anteriorly and one posteriorly.

(*c*) Seat the patient as for anterior irrigation (see Fig. 7), except that his sacrum (not the tuberosities of the ischium) must rest upon the extreme front edge of the chair.

(*d*) Irrigate the anterior urethra; have the patient either sitting as described under *c*, lying down, or standing.

(*e*) Then, occluding the meatus with the nozzle, order the patient to breathe deeply and endeavor to urinate, preferably as if trying to "squeeze out a last drop." The deep respirations release the bladder from the superimposed weight of the abdominal and pelvic contents; the efforts at urination relax the compressor; in many

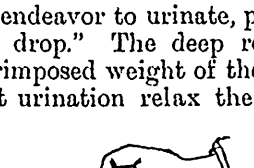


FIG. 10.

NOTE.—Ambidextrous surgeons may reverse 10 and 11 at their convenience.

cases, however, these aids become unnecessary after a first effort. Almost invariably the tips of the left fingers, resting upon the urethra, will at once detect a decided purling as the liquid passes into the bladder through the now relaxed sphincters.

(*f*) After performing a few irrigations the surgeon's left hand grows accustomed to the sensation of the bladder filling, and before the patient expresses a desire to void it he closes the stopcock.

(*g*) Hold the stopcock in the right palm, take the basin with the right thumb on its inner, the right fingers on its outer surface.

[1] I am indebted to Dr. Union Worthington, of Salt Lake City, for valuable suggestions in modifying the mechanism of the stopcock.

Extend the left hand, which has dropped the patient's penis into the basin, to the shelf on which the glass urinals are kept. Take one of them, and while removing the basin hand the patient the urinal. It requires but slight dexterity to do this so quickly as to prevent dribbling of the solution on to the apron or the patient's garments.

(*h*) Order the patient to stand up, as the majority can thus relieve their bladders more quickly.

(*i*) The quantity of the fluid used necessarily varies with the size of the bladder. The average bladder will hold about two hundred and fifty centigrams (about seven and a half ounces).

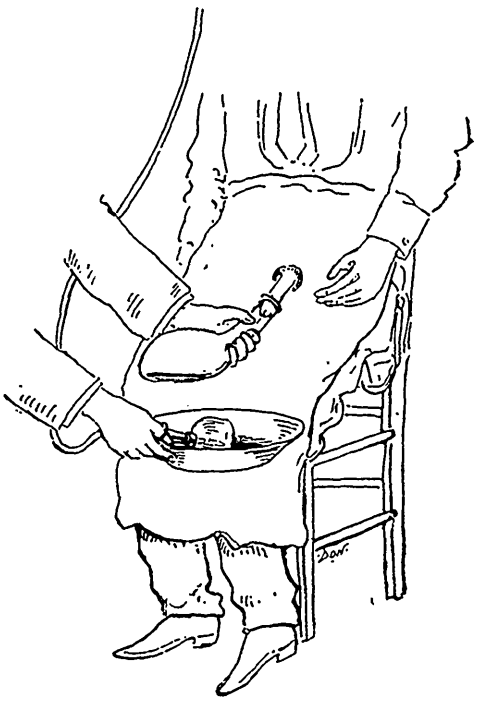


FIG. 11.—Removing Pan and Handing Patient Urinal.

(*j*) The first irrigation often yields quite a turbid and brownish fluid. This is due to the admixture of the vesical contents. If a very weak solution of potassic permanganate is used, it may come from the bladder almost colorless, as a small quantity of urine will decolorize this drug.

(*k*) Occasionally the liquid will balloon the urethra, give the patient pain, and refuse to enter the bladder, despite all efforts. Then desist at once, and order the patient to urinate. It is surprising how small a quantity of urine can arrest irrigation. This being voided, the second attempt at irrigation will be readily successful.

(*l*) In most cases turning on the full stream at once will produce urethrospasm, entirely preventing irrigation. In such instances interrupt the operation and let the contents of the penis escape into the pan. Then again occlude the meatus with the nozzle and

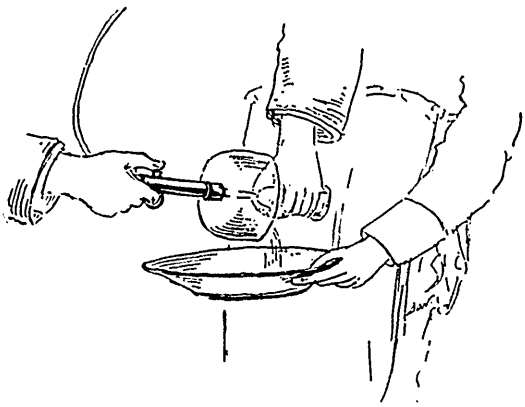


FIG. 12.—Intravesical Irrigation in the Standing Posture.

NOTE.—The drawing should show the operator's right thumb more elevated and the stopcock bar raised. The drops apparently spurting into the basin are supplied by the draughtman's imagination, as none escape during such injection into the bladder.

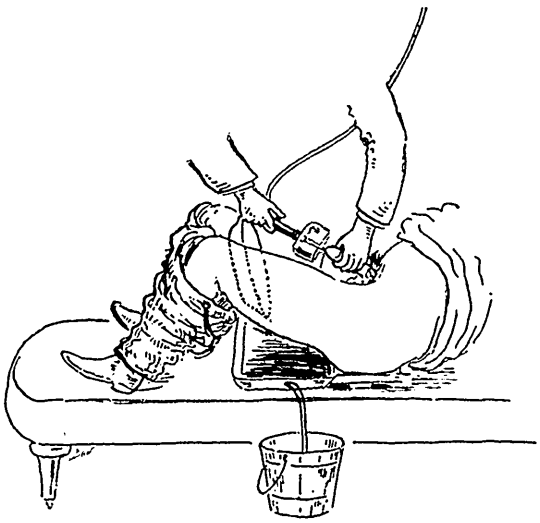


FIG. 13.—Intravesical Irrigation in the Recumbent Posture.

NOTE.—This cut should show the patient lying flat on his back, his buttocks higher than his shoulders.

allow the fluid to flow into the urethra very gently. As soon as the urethra begins to distend, again order the patient to breathe deeply and to strive to urinate. With each respiratory effort allow the button of the stopcock to rise, and almost to close it at each

inspiration. Every such movement will be accompanied by the entrance of some fluid into the bladder. As soon as this is begun, the remainder of the irrigation will be easy.

Variations in posture: Many patients' bladders can be irrigated quite easily while they stand. As some people, however, faint very readily, irrigation in the upright position should not be performed save as a last resort in those very rare instances when the other postures have failed.

A patient who cannot be irrigated in the sitting posture, or who is prone to faint, should be treated in the recumbent position.

FIG. 14.—Posture of Patient when Exposing the Meatus for Anterior Irrigation.

Then no apron is used. The trousers and drawers are dropped almost to the ankles; the shirt and undershirt are folded upward. He is then laid upon a sofa or operating-table, his buttocks projecting far forward from an irrigating bedpan. For additional safety a wash-basin may be placed between the thighs, inclined so as to divert any possible spluttering of the fluid into the bedpan's tin receptacle. The steps of anterior and posterior irrigation do not differ from those employed in the other positions.

Irrigating the Female Urethra and Bladder.—The nozzle used for this purpose is merely a nozzle A, of double length. Place

the patient in the ordinary dorsal gynæcological position upon a Kelly pad. Wash out the vulva and vagina as in an ordinary vaginal irrigation. Place the left palm before the mons veneris, separate the labia with the index and middle fingers, to expose the meatus. Direct the point of the nozzle to the meatus and send a gentle stream against it. Gradually increase the force of this stream until the meatus and entire introitus vaginæ are thoroughly clean. Wedge a triangular pus basin between the patient's thighs until one point of the basin firmly compresses the fourchette. Insert the nozzle into the meatus, but do not occlude it, so as to allow the fluid to escape into the glass shield and thence partly into the pus basin and partly on to the Kelly pad. Increase the force of

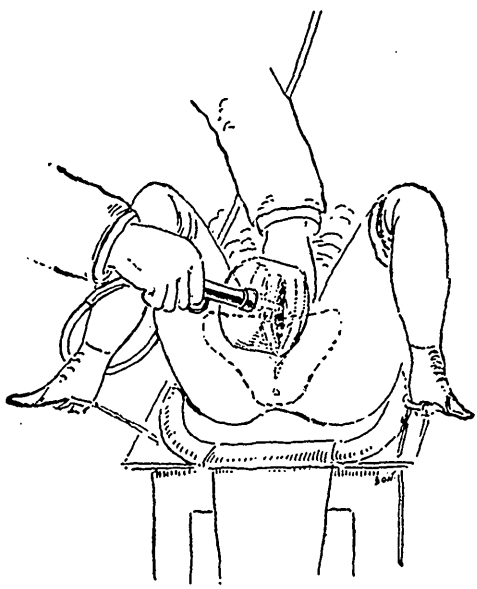


FIG. 15.—Irrigation of the Female Urethra.

NOTE.—The dotted lines represent the pus basin.

the stream while sinking the nozzle still farther into the meatus, until no more fluid escapes. The sphincter will quickly yield, and the fluid enter the bladder. Remove the pus basin; replace it by an inverted ordinary hand-basin. Order the patient to empty her bladder. The escaping fluid strikes the hand-basin and falls into the Kelly pad, and thereby is conducted into the bucket on the floor, into which its end has been inserted. Irrigation of the female urethra and bladder, conducted with all the above attention to detail, will be accomplished without soiling the patient's garments or even moistening her thighs. A heavy towel passed under the patient, immediately above the inflated rim of the Kelly pad, will serve to dry her buttocks after the pad is taken from beneath her.

Notes on Irrigation.—Very rarely is a patient found with such hyperæsthesia as to render irrigation impossible without a local anæsthetic. A drachm or two of a four per cent. solution of cocaine or eucaine will quickly arrest all sensation.

Anæsthetizing the Urethra.—Fill the syringe (preferably Kollmann's cocaine syringe, whose detachable tips can readily be sterilized). Inject a few drops slowly and the remainder with enough force to send it as far into the urethra as possible. Close the meatus with the left thumb and index finger and stroke the whole length of the urethra with the right index finger, from before backward. The fluid will soon pass beyond the peno-scrotal juncture. It then can be pressed toward the bladder along as much of the

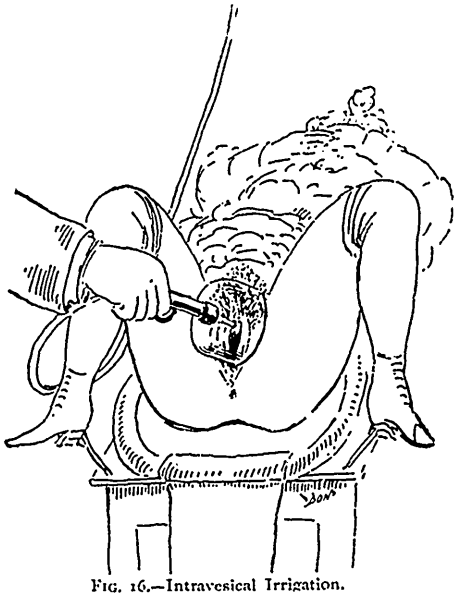


FIG. 16.—Intravesical Irrigation.

urethra as can be felt in the perineum. This procedure may be repeated once to insure absolute anæsthesia.

Painlessness of Irrigations.—Ordinarily anæsthesia is not required. A second irrigation is usually painless. In a large experience but one case (as the patient thought) required cocaine before each irrigation. The second alleged cocainization was with distilled water, which quite sufficed to calm the patient's mind.

Cleanliness of Irrigations.—Any irrigation, properly conducted, should not soil anything except the surgeon's left fingers. These can be quickly cleaned of the permanganate stain with a saturated solution of oxalic acid.

Care of the Apparatus.—After each irrigation fill the apparatus with clean water to carry off any small quantity of the solution that may remain.

Asepsis of the Nozzles.—1. Immediately after use, detach the nozzle, and place it in the basin.

2. Let hot water run over it.

3. Boil it in a solution of caustic soda for half an hour.

4. Take it from the solution with sterilized forceps, and place it in a solution of corrosive sublimate, 1–500 (sixteen grains to the pint).

5. Before use again rinse it in clean water.

The Solutions Used most frequently in anterior and intravesical irrigations are potassic permanganate, mercuric bichloride, silver nitrate, and cupric sulphate.

Potassic permanganate: In previous publications* I advocated the solutions proposed by Prof. Jules Janet, of Paris, to whom sufficient credit can never be given for popularizing the irrigation treatment. But the exigencies of business in our country, and perhaps greater urethral and vesical susceptibility here, have led me to change Janet's formularies in several regards. For the practitioner's convenience they are here tabulated, as changed:

In Acute Gonorrhœa.—

First	day, first visit:	Anterior irrigation	....	1–2,000
"	" 7 P.M.	Anterior irrigation	.....	1–4,000
Second	" 9 A.M.	" "	.....	1–3,000
"	" 7 P.M.	" "	.....	1–4,000
Third	" 9 A.M.	Intravesical "	.....	1–6,000
"	" 7 P.M.	Anterior "	.....	1–6,000
Fourth	" 9 A.M.	Intravesical "	.....	1–3,000
Fifth	" 9 A.M.	" "	.....	1–3,000
Sixth	" 9 A.M.	" "	.....	1–3,000
Seventh	" 9 A.M.	" "	.....	1–2,000
Eighth	" 9 A.M.	" "	.....	1–2,000
Ninth	" 9 A.M.	" "	.....	1–1,000
Tenth	" 9 A.M.	" "	.....	1–1,000

This last is followed, at the same hour, by an anterior irrigation of 1–5,000.

In Chronic Gonorrhœa.—The conditions, as revealed by the urethroscope, govern the treatment fully as much as does the microscopic examination of the discharge in acute urethritis. Of course, no one expects a chronic gonorrhœa to recover while the urethra is strictured or otherwise diseased.† But when no condition other than gonorrhœa affects the urethra the following

* Valentine: "The Technique of Urethral and Intravesical Irrigations." *Clinical Recorder*, February, 1896. "Chronic Urethritis," *New Albany Medical Herald*, 1896. "The Rapid Cure of Gonorrhœa," *International Journal of Surgery*, October, 1896.

† This is exhaustively discussed in a paper entitled "Chronic Gonorrhœa; Its Scientific Treatment," written for the second Pan-American Medical Congress, held at Mexico, in November, 1896.

formulary will apply, with such modifications as the individual cases may require:

First	day, first visit:		Anterior irrigation		1–3,000
"	"	7 P.M.	Anterior irrigation		1–6,000
Second	"	9 A.M.	Intravesical	"	1–4,000
"	"	7 P.M.	Anterior	"	1–4,000
Third	"	7 P.M.	"	"	1–2,000
Fourth	"	9 A.M.	Intravesical	"	1–3,000
"	"	7 P.M.	Anterior	"	1–2,000
Fifth		7 P.M.	Intravesical	"	1–3,000
			Anterior	"	1–1,000
Sixth	"	7 P.M.	"	"	1–1,000
Seventh	"	7 P.M.	"	"	1–1,000
Eighth	"	7 P.M.	Intravesical	"	1–3,000
			Anterior	"	1–1,000

If, after the above irrigations have checked the discharges it recurs, as occasionally happens, the whole course should be repeated. This failing to cure the case, the cause will soon be exposed by careful urethroscopy and then prove amenable to treatment.

In a large genito-urinary practice it is well to consult convenience in the preparation of these solutions. In neighborhoods where many physicians are using the irrigation method some druggists make fresh solutions of potassium permanganate, containing twenty grains to the ounce of water. The solution is convenient in quickly making the dilutions required. The irrigator holds a thousand grams (about fifteen thousand grains); consequently to make of the above solution a

dilution of	1	to	12,000,	fl. ℥	ss.	is	required.
" "	1	"	6,000,	fl. ℥	i.	"	"
" "	1	"	4,000,	fl. ℥	iss.	are	"
" "	1	"	3,000,	fl. ℥	ij.	"	"
" "	1	"	2,000,	fl. ℥	iij.	"	"
" "	1	"	1,500,	fl. ℥	iv.	"	"
" "	1	"	1,000,	fl. ℥	vi.	"	"
" "	1	"	500,	fl. ℥	iss.	"	"

The objection to this solution is its instability. It will, however, not decompose within three or four days after it is made.

Practitioners who do not have occasion to perform many irrigations daily will find the two-grain tablets of potassic permanganate sufficiently convenient,

Mercuric bichloride frequently proves useful in obdurate cases. It may be added to the above irrigating fluid in dilutions of from 1 to 50,000 to 1 to 20,000, as corrosive sublimate and potassium permanganate are not incompatible.

Silver nitrate in solutions of from 1 to 10,000 to 1 to 1,000 proves serviceable, especially after urethral dilatations.*

Cupric Sulphate: In persistent urethritis without gonococci an anterior irrigation of solutions of cupric sulphate, from 1 to 2,000 to 1 to 500, often exerts a desirable influence as an occasional alternant with potassic permanganate.

Argonin: My experience with this drug is as yet limited. Early trials proved unsuccessful, probably because of faulty technique in dissolving it. Harold L. Lesser, Ph.G., pharmacist of the West Side German Dispensary, and Paul F. Metze, Ph.G., came to my aid, the former furnishing me with a ten-per-cent. solution for dispensary use and the latter with the same for my private pratice. Only then did I begin to yield to the persuasions of Arthur Lewin, of Berlin, to test argonin, to which he attributes direct specific gonococcocidal action. The results in some instances seem satisfactory in diminishing the discharge. I have used it up to five per cent. intravesically without the slightest disagreeable reaction. Its gonococcocidal influence, however, does not appear to exceed that of potassium permanganate. But whatever the drug used, the urethral and intravesical irrigations without a catheter are certainly the essential to its successful employment.

A detailed description of the conditions in which they are indicated would be beyond the scope of this paper. Suffice it here to say that, in addition to acute and chronic gonorrhœa, irrigations without a catheter should be employed after any and every instrumentation of the urethra or bladder. In not a single case does catheter fever (urethral fever) supervene, no matter how susceptible thereto the patient may be.

Due credit must be given Messrs. F. Alfred Reichardt & Co., of 27 Barclay Street, New York, for placing the resources of their establishment and workshops at my disposal in perfecting this apparatus. The many mechanical problems required to be overcome were met by valuable suggestions to the end of providing practitioners an easily manageable, effective outfit at a very moderate price.

Recent Improvements in the Irrigation Treatment.

Very great improvements have been made in the instruments and appliances of the irrigation treatment. Many suggestions of physicians have been adopted wholly or in part, and although only a short time has elapsed since the presentation of this paper the apparatus as manufactured now may be called reasonably perfect.

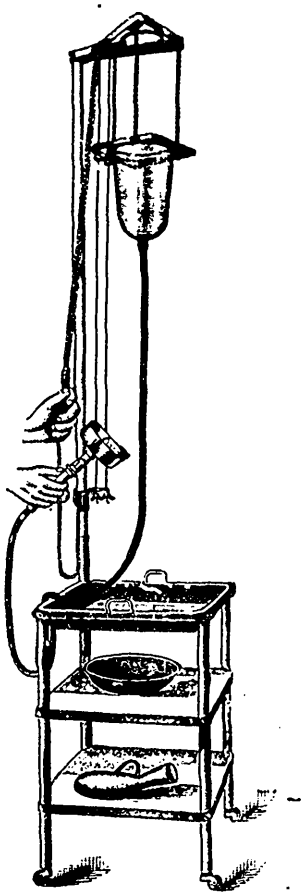
In the first place, all the parts which were originally made of cast iron, and liable to breakage, are made now of bronze, and, for instance, if it were necessary to improvise a percolator which

* Valentine: "The Non-Operative Treatment of Urethral Strictures," *Clinical Recorder*, July, 1896.

would be too large or too small, the bracket could be shaped by compressing or expanding it without any danger of breakage.

The stopcock, we think, is a matter of perfection. It closes absolutely when pushed together and remains so, or yields to the slightest touch when it is operated by anyone.

The ideal shield used is made of glass, as it allows a better view during treatment, but as glass is fragile a metal shield may be used instead, which, while less easily kept nice and clean, will last longer.



The running gear has been perfected to what it is now, after more than twenty different changes have been tried. It is now working smoothly, sliding easily and gives general satisfaction.

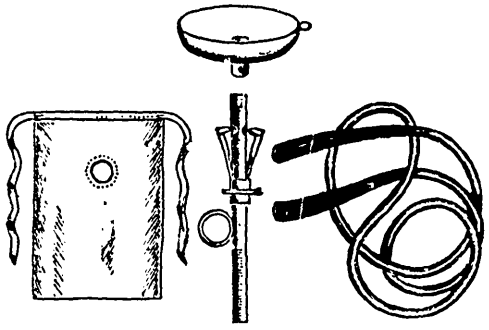
The funnel tube, made of the best rubber, is reinforced, at the ends where it has to stand the greatest pressure.

A new pattern of stand has also been devised, adapted especially for the use of hospitals, clinics, or for general use. The percolator is of over half a gallon capacity.

Of extraordinary advantage are the tablets of permanganate of potash. While a concentrated solution of permanganate of potash prepared in small quantities may be very well in large clinics or with specialists who give many irrigations a day, it is not as well when it is used up slowly. Therefore for preparing the solution devised by Dr. Valentine, the weakest of which is made of ½ drachm of fluid representing 1¼ grains, tablets each containing 1¼ grains (or ½ drachm) have been made.

The difference between an ordinary inflammation of the urethra and gonorrhœa can only be diagnosed with absolute certainty by showing the infected gonococci. A microscopical analysis cannot be too urgently recommended. Every practitioner nowadays is more or less familiar with the use of the microscope, but he may not be as familiar with recognizing the gonococci. For this reason the manufacturers of the instrument have, at considerable expense, had a chart prepared giving a picture of the gonococci in different ways just as they look under the microscope when stained. This is copied from Gerster's "Aseptic and Antiseptic Surgery" by permission of Messrs. D. Appleton & Co. and is copyrighted.

It contains directions for preparing and staining microscopic slides written for the purpose by Prof. Max Meyer, M.D., Biologist of the Board of Health of the city of New York. The whole is composed as if it were intended for students, and gives the *modus operandi* in a short and precise way.



Tablets as well as charts are supplied gratis to each purchaser of the apparatus as made by the original manufacturers, F. Alfred Reichardt & Co.

The use of a heavy rubber apron for the patient is also especially recommended to avoid staining the clothing. Illustration of this apron is given herewith.

UNIVERSITY OF TEXAS.—The Regents of the University of Texas have appropriated $46,000 for the medical college of Galveston.—*Railway Surgeon.*

DEGREES AT QUEEN'S.—Queen's University, as a result of the supplemental examinations, has granted the following degrees: Master of Arts—J. K. Johnston, West Lorne; P. M. Thompson, Allan's Mills. Bachelor of Arts—P. F. Munro, Lancaster; J. A. Supple, Pembroke; Miss Sophia Williams, Ottawa. M.D., C.M.—H. G. Ogilvie, Jamaica; H. F. Kilborn, Oso Station.

SPECIAL ANNOUNCEMENT TO THE PROFESSION.—Dr. Playter has now secured a few nice sunny rooms for patients in two localities: one near Toronto, with an elevation of over 500 feet, and one farther north, elevated over 1,000 feet (higher than Muskoka), both with dry, sandy soil and on the Metropolitan Electric Car Line, in which patients can receive nearly all the advantages of the best "sanitariums," and more than some of these, on reasonable terms. Patients so placed by physicians under Dr. Playter's care, may be still retained, practically, in a large measure, by their own regular physician; as in frequent consultations, personally in the case of Toronto physicians and by correspondence in the case of those in distant places. Address Edward Playter, M.D., 185 Carlton St., Toronto.

Proceedings of Societies.

EIGHTH ANNUAL MEETING OF THE AMERICAN ELECTRO-THERAPEUTIC ASSOCIATION, BUFFALO, N.Y.

THE eighth annual meeting of the American Electro-Therapeutic Association was held in the rooms of the Society of Natural Sciences, Library Building, Buffalo, N.Y., on September 13, 14 and 15, 1898, under the presidency of Dr. Charles Rea Dickson, of Toronto, Ont.

FIRST DAY.

After the meeting had been called to order by the President, at 10 a.m., an opening prayer was offered by Rev. Orin P. Gifford, after which a brief business session was held, the report of the Executive Council presented, and the privileges of the floor accorded to all members of the medical profession and guests.

Dr. Conrad Diehl, Mayor of Buffalo, welcomed the Association to the city. Dr. Francis B. Bishop, of Washington, D.C., responded to the address of welcome.

The President announced that delegates had been appointed from medical societies as follows: Medical Association of Central New York, Dr. Wm. C. Krauss, the president; Medical Society of the State of New York, also Medical Society of the County of Erie, Dr. Lucien Howe, president of the latter; Buffalo Academy of Medicine, Dr. Floyd S. Crego; Ontario Medical Association, Dr. G. Sterling Ryerson, of Toronto.

Brief remarks were made by Dr. Henry McClure, of Norwich, England, honorary fellow; Dr. Thomas E. Holland, of Hot Springs, Ark., a guest; Dr. A. D. Rockwell, of New York; Dr. Lucien Howe, of Buffalo, and others.

The President announced that many letters of regret had been received.

Dr. Ernest Wende, Buffalo, Chairman of Committee on Arrangements, reported the provisions made for the entertainment of the Association.

Reports of the standing committees on scientific questions were received: "Meters," by Dr. Margaret A. Cleaves, of New York; "Constant Current Generators and Controllers," by Dr. Robert Newman, of New York; "Electric Light Apparatus for Diagnosis and Therapy, and the Rœntgen X-Ray," by Mr. J. J. Carty, E.E., of New York. The following papers were read: "Phlebitis—a Clinical Study," by Dr. Margaret A. Cleaves, New York; "The

Diagnostic and Therapeutic Relations of Electricity to Diseases of the Central Nervous System," by Dr. A. D. Rockwell, New York.

The Association adjourned at 12.30, and was again called to order at 2 p.m. by President Dickson.

The first paper, by an honorary fellow of the Association, Dr. Georges Apostoli, of Paris, "New Uses of the Undulatory Current in Gynæcology," was read by Dr. G. Betton Massey, of Philadelphia.

"Electricity in the Treatment of Uterine Fibromata," by Dr. Felice La Torre, of Rome, Italy, honorary fellow, was read by Dr. John Gerin, of Auburn, Secretary of the Association. "Electro-Therapeutics in Gynæcology," by Drs. Georges Gautier and J. Larat, of Paris, France, honorary fellows, was read by Dr. Dickson, President of the Association.

A paper by Dr. William J. Herdman, of Ann Arbor, Mich., on "The Use of Electricity in Gynæcology," was read by title. "The Treatment of Uterine Fibroids by Small Currents, Administered Percutaneously," was the subject of a paper by Dr. Richard J. Nunn, of Savannah, Ga.

Dr. W. H. White, of Boston, read a paper by Dr. Adelstan de Martigny, of Montreal, on "Treatment of Menorrhagia by Weak Current and Silver Internal Electrode."

The Association adjourned at 4.30 p.m.

SECOND DAY.

An Executive session of the Association was held at 10 a.m., President Charles Rea Dickson, of Toronto, in the chair.

The report of the Executive Council on the revision of the constitution and by-laws was adopted, making some important changes in the governing rules of the Association.

When the Scientific session opened at 10 o'clock, the first paper was presented by Dr. Lucien Howe, of Buffalo. Dr. Howe's subject was "The Method for Using Cataphoresis in Certain Forms of Conjunctival Inflammation."

Dr. Howe illustrated his remarks by means of a number of his patients. His paper was received with great interest, and a lengthy discussion followed.

Dr. Robert Newman, of New York, presented an able paper on "Electricity in Deafness and Stricture of the Eustachian Tube." In his address Dr. Newman rehearsed the history of a peculiar case which came under his professional care. He also cited a number of other cases, which had been reported by other physicians.

The discussion which followed Dr. Newman's paper was led by Dr. Howe, followed by Dr. A. D. Rockwell, of New York.

Dr. Howe presented to the Association a message of regret from Dr. John O. Roe, of Rochester, N.Y., who was called out of the country on business and was therefore unable to present his paper on "The Use of Electricity in Diseases of the Nose and Throat."

Dr. Grover W. Wende, of Buffalo, read a paper on "Electricity in Acne Vulgaris and Acne Rosacea."

Dr. G. Betton Massey, of Philadelphia, led the discussion of Dr. Wende's paper, followed by Dr. Margaret A. Cleaves, of New York.

Dr. William C. Krauss, of Buffalo, being ill and under a physician's care, was unable to present the paper set down for him, "A Case of Lightning Stroke without Serious Consequences."

Dr. G. Sterling Ryerson, of Toronto, was introduced by President Dickson and spoke briefly on "Cases of Lightning Stroke Causing Diseases of the Eye," giving a number of instances of the effect of lightning, in which the results were not permanently serious.

Dr. Francis B. Bishop, of Washington, presented a paper on "High Tension Current in Neuritis," which gave rise to much discussion.

The final paper of the morning session was by Dr. Charles Rea Dickson on "Electricity in the Treatment of Goitre."

At one o'clock the Association adjourned until two p.m.

Upon reassembling President Dickson delivered his annual address, a part of which is as follows: "For many years past the thoughts of those who are interested in the various branches of this wondrous subject, electricity, have turned to Buffalo, and it has been the Mecca of the Electric Pilgrims. On its outskirts the wildest dreams of the Arabian Nights have been outdone. Science, ever triumphing over Nature, has harnessed that most beautiful of all Nature's handiwork, and as though by the subtle touch of the wand of the magician, the very country has been transformed and solitary fields have become veritable hives of human industry, the outcome of the mighty power of Niagara transformed and transmitted. Massive factories are seen on every side where but a few short years ago were found naught but vacant lots. To us, witnessing it for the first time, it is a milestone of progress, illustrating man's ingenuity, the triumph of his brain. Buffalo is truly the electrical city of the age."

"Surgery," said Dr. Dickson, further on in his address, "is being divided and subdivided until at one time we feared that we were to be confronted with an appendix surgeon. Our patients are reaping the benefit of all this."

After giving briefly a history of the Association, its growth, the reasons for its existence and the manner in which its work was carried on, Dr. Dickson concluded his exceedingly interesting address as follows: "A rock we must avoid is that on which many a stronger society than our own has come to grief—the clique. And the furtherance of personal ambition or personal designs must be shunned." Many suggestions embodied in the address were referred to the Executive Council of the Association.

Many Buffalo physicians attended the afternoon meeting. The programme was made up of a series of Ten-minute Talks on

Electro-therapy. In a brief introduction the President explained the purpose and scope of the talks which had been prepared for the special benefit of the busy practitioner, technicalities and details being avoided as far as possible, it being intended that the Talks should be suggestive rather than exhaustive.

"The Effect of Electricity upon Tissue Metabolism," by Dr. William J. Herdman, of Ann Arbor, Mich. Read by title.

The next paper was by Dr. J. H. Kellogg, of Battle Creek, Mich., on the same subject, but Dr. Kellogg also was absent. Read by title.

Dr. G. Betton Massey, of Philadelphia, presented a paper on "The Galvanic Current in Gynæcology."

The next paper was "Surgical Uses of Electricity," by Dr. Charles Rea Dickson, President of the Association.

Next on the programme was a paper by Dr. G. Herbert Burnham, of Toronto, on "Combined Use of Medicinal and Electrical Treatment in some Affections of the Eye." Read by title.

Dr. Robert Newman, of New York, presented a paper on "Electricity in Genito-Urinary Diseases."

Dr. G. Betton Massey spoke on "Treatment of Malignant Growths by Means of Electricity."

A paper by Dr. Louis A. Weigel, of Rochester, on "Orthopœdic Uses of Electricity," was followed by a paper by Dr. Rockwell on "The Functional Neuroses, with Special Reference to Neurasthenia, Their Pathology and Treatment."

"Electricity in Diseases of the Nervous System," by Dr. William J. Herdman, Ann Arbor, Mich., was read by title.

The Association adjourned at 4.30 p.m.

A short business session of the Association was held from 8 to 9 p.m., at which the following officers were elected:

President—Dr. Francis B. Bishop, of Washington.

First Vice-President—Dr. Ernest Wende, of Buffalo.

Second Vice-President—Dr. W. H. White, of Boston.

Secretary—Dr. John Gerin, of Auburn.

Treasurer—Dr. Richard J. Nunn, of Savannah, Ga.

Executive Council—Dr. Robert Newman, of New York, and Dr. G. Betton Massey, of Philadelphia, three years; Dr. A. D. Rockwell and Dr. William J. Morton, of New York, two years; Dr. Charles R. Dickson, of Toronto, Ont., and Dr. Frederick Schavoir, of Stamford, Conn., one year.

Washington was selected for the convention next year, to be held September 19-21, 1899.

THIRD DAY.

An Executive session was held at nine o'clock, President Dickson in the chair.

A resolution was passed urging upon colleges and medical schools the necessity of establishing chairs for the teaching of

electro-therapeutics; or if that is not at once practicable, that more time be devoted to the teaching of this very important branch, and that the matter be more fully urged upon the attention of the Association of Medical Colleges.

The congratulations of the American Electro-Therapeutic Association were extended to the University of Buffalo for its progression in establishing a chair of electro-therapeutics in the medical college.

Many new members were elected, and the customary votes of thanks passed.

A general vote of thanks was also adopted, expressing the Association's deep appreciation of the courtesy and hospitality extended to the members during the convention in Buffalo.

At 10 o'clock the Executive session adjourned and President Dickson called the Scientific session to order. The first two papers on the programme were read by title. They were by Drs. Georges Gautier and J. Larat, of Paris, France, the first on "The Hydro-Electric Bath with Sinusoidal Current in Disease," the second on "The Use of the Hot Air and Light Bath in Disease."

A paper was read by the newly-elected President of the Association, Dr. Francis B. Bishop, of Washington, on "Alternating Dynamo Currents."

Dr. Margaret A. Cleaves, of New York, read a paper on "The Electric Arc Bath."

A paper by Dr. J. H. Kellogg, of Battle Creek, Mich., on "The Electric Light Bath," was read by title. The next paper was read by John J. Carty, of New York, a well-known electrical engineer, on "Some Suggestions on the Possibilities of Cataphoresis." Mr. Carty gave a short, practical talk, which was very interesting.

Then came a paper by Nikola Tesla. The paper was read by Dr. White, of Boston. The subject was "A High Frequency Oscillator for Electro-Therapeutic Purposes." It was received with the closest attention and was one of the most interesting papers presented during the convention. Mr. Tesla's paper was the last read before the Association, the remainder of those on the programme being read by title, as follows:

"The Effect of High Tension Discharges upon Micro-organisms," Drs. J. Inglis Parsons and C. Slater, London, England.

"The Action of X-Rays upon Tuberculosis," Drs. J. Bergonie, of Bordeaux, and Teissier, of Paris, France.

"Two Years of Practice in Radio-therapy," Drs. Georges Gautier and J. Larat, Paris, France.

Dr. Newman, of New York, and Dr. Nunn, of Savannah, Ga., were appointed a committee by the President to conduct the president-elect, Dr. Bishop, of Washington, to the chair. Before turning over to his successor the gavel and other insignia of office, Dr. Dickson took occasion to thank the Association for its kindness and courtesy to him during his term of office. His little speech was very graceful and sincere, and was received with hearty demonstrations of approval.

Dr. Bishop spoke of the pleasure it afforded him to take the first place in the Association, at the head of the governing body. He said that he deeply appreciated the honor that had been shown him and asked for the hearty co-operation and help of all the members.

Shortly after noon the new President of the Association declared the eighth annual convention of the American Electro-Therapeutic Association closed.

The social side of the meeting was by no means neglected. Dr. Ernest Wende, Health Commissioner of Buffalo, had charge of the local arrangements for the comfort, convenience and entertainment of the visitors, and too much praise cannot be accorded for the manner in which his plans were carried out.

A public reception in honor of the members was held on Tuesday evening, 13th, in Alumni Hall, University of Buffalo building, which was largely attended, many medical men of Buffalo being present.

The duties of chairman were performed by the President of the Association, Dr. Charles Rea Dickson, of Toronto, who made a few remarks, in which he spoke of the fraternal feeling existing between the two great English-speaking nations at the present time.

Dr. Henry R. Hopkins, of Buffalo, a member of the local Committee on Arrangements, spoke of the earnest work of the medical men in this country.

Dr. Robert Newman, of New York, made a brief address, as did Dr. G. Sterling Ryerson, of Toronto.

Rev. O. P. Gifford, D.D., pastor of the Delaware Avenue Baptist Church, in the course of a most amusing address, said that he knew of no other two professions so closely allied as the ministry and medicine. "When you succeed," said he, 'we profit by your success. When you fail, we bury your errors."

On Wednesday afternoon, on adjournment, a special car was in waiting at the door of the place of meeting, and accompanied by Mayor Diehl, a visit was paid to the power-house of the Buffalo Railway Company. Great interest was manifested in the plant, and in the storage batteries, which are the largest in the world. On completion of the visit the members returned to headquarters at Hotel Iroquois by special car and tally-ho coach.

Dr. Lucien Howe entertained the men of the Association in the evening, at the conclusion of the business meeting. A smoker was given at Dr. Howe's home, corner of Delaware Avenue and Huron Street, which was largely attended.

Thursday afternoon was devoted to an excursion and reception, under the direction of the local Committee of Arrangements. The *Huntress* left the foot of Ferry Street at 2.30 o'clock, taking the members of the Association down Niagara River to Navy and Buckhorn Islands, the site of the Pan-American Exhibition, then to the Island Club, where a reception was held, followed by a dinner. The return trip was arranged to get the members back to Buffalo before nine o'clock.

On reaching the city the majority of the members proceeded to Niagara Falls, N.Y., direct, the International Hotel being headquarters.

On Friday morning the view was obtained from the celebrated Steel Observation Tower; the party next took the Niagara Falls Park and River Railroad, crossing by the new steel arch trolley bridge—the greatest steel arch bridge in the world—going first to Chippewa then to Queenston, crossing by ferry to Lewiston, N.Y., and returning to Niagara Falls by Niagara and Lewiston Railroad.

After lunch the members were conducted over the power-house of the Niagara Falls Power Company, by Coleman Sellers, E.D., President and Chief Engineer, who made the visit most interesting and instructive. On returning to the hotel a meeting was held, and Dr. C. R. Dickson was requested to convey to Dr. Sellers the thanks of the Association for his courtesy. A very enjoyable trip was next taken on the *Maid of the Mist*, after which most of the members left for their respective homes. Those who remained visited on Saturday morning Power Station No. 2 of the Niagara Falls Hydraulic Power and Manufacturing Company, and were conducted over it by the chief electrician, who fully explained all the wonderful appliances.

In addition to th many other provisions for the entertainment of their visitors, the Committee on Arrangements provided tally-ho coaches which made tours of Buffalo on Tuesday afternoon and Wednesday morning and afternoon, leaving from the Library building. Members were also invited to enjoy bird's-eye views of the city from the roof of the Guarantee Building, Church Street. the tallest building in Buffalo, and to visit the collections of the Society of the Natural Sciences, Historical Society, and the Gallery of Fine Arts, in the Library Building, in which the meetings were held.

Very handsome badges were prepared for the members and officers by the local committee. For members the badges were of bronze, and for officers, of gold. A buffalo formed the pin, from which depended by a ribbon a triangular pendant, bearing the name of the Association, the date, and the name of the convention city. The ribbon for officers was yellow, that of members red.

A most interesting exhibition of electrical apparatus for diagnostic, therapeutic and radiographic purposes was held in the room adjoining the meeting hall, and was a very popular feature of the meeting. The following manufacturers exhibited: Van Houten & Ten Broeck, New York; Chloride of Silver Dry Cell Battery Company, Baltimore, Md.; Jerome Kidder Manufacturing Company, New York; Edison Manufacturing Company, New York; Waite & Bartlett Company, New York; Dow Electric Assistant Company, Boston, Mass.; American Electro-Neurotone Company, Niagara Falls, N.Y.; Standard Cold Electric Lamp Company, Washington, D.C.; Spencer Lens Company, Buffalo, N.Y.; Detwiler, Biddle

Company, Buffalo, N.Y.; W. J. Shields & Company, New Wilmington, Pa.; Rochester Fluorometer Company, Rochester, N.Y.

The eighth annual meeting was universally conceded the most successful and enjoyable that has been held, and the prospects for the Association were never brighter or more encouraging. Arrangements are already in progress for the Washington meeting.

EXECUTIVE HEALTH OFFICERS' ASSOCIATION MEETING.

THE thirteenth annual meeting of the Association of Executive Health Officers of Ontario commenced in the Railway Committee Room of the House of Commons, Ottawa, 10.30 a.m., September 26th. Amongst those present were the following: Dr. M. McCrimmon, Palermo; Dr. P. H. Bryce, Toronto; Dr. J. J. Cassidy, Toronto; Dr. Hall, Chatham; Dr. W. J. Anderson, Smith's Falls; ex-Ald. Wallace, Ald. Black, Dr. Kitchen, St. George; Prof. Shutt, Ottawa; Dr. Wardlaw, Galt; Mr. Van Buskirk, Stratford; Mr. A. W. Campbell, Toronto; Dr. Fee, Kingston; Dr. Hutchinson, London; Mr. Taylor, Chairman L.B.H., London; Mr. A. McGill, Ottawa; Mr. Mackenzie, Toronto; Dr. Lindsley, President of the American Health Association; Dr. Durgin, Boston. An address of welcome from the city of Ottawa was extended by ex-Ald. Wallace and Dr. Robillard, and was replied to by the President.

The President read his address, which contained amongst other things the following references: "It has come within the experience of every rural practitioner and health officer to deal with outbreaks of disease in some old log cabin, where some poor people with the poor man's blessing, a numerous family, have become infected with contagious disease, such, for instance, as diphtheria or typhoid fever. Remembering the limited air space, the small windows, the absence of means for ventilation, the superstitious fear of the olden time of fresh air in the sick-room, and add to this a dairy cellar, often with decaying organic matter and the decaying logs of rotten foundations, and it is difficult to conceive of any urban conditions more likely to promote severe cases or more fatal results than those described." He also drew attention to the overcrowding in schools of the rural districts, in which contagious diseases were most readily and unknowingly disseminated by school children. He noticed with pleasure the evidence of a great decrease of typhoid deaths in the Province during the past fifteen years. This was due a great deal, he said, to the abolition of town pumps and the substitution of waterworks systems. In reference to hygiene on the farm, which naturally leads up to the problem of healthy cattle, he said that, speaking generally, Canadian cattle are healthy, and probably nowhere on this continent is cattle-breeding so much studied or so generally understood. He thought that the increased wealth of the

country should make it expedient that the farmers should be taught the necessity and how easy and cheap it was to have the sanitary conveniences, such as the introduction of water to the house by windmill or by pumps placed in the kitchen, and for the carrying off of organic matter automatically, to the great comfort and health of all. In some interesting statistics read by Dr. P. H. Bryce at a meeting of the Provincial Board of Health in May last it would appear that local Boards of Health exist in most rural localities; yet their medical health officers are permitted to do sanitary work only when directed by the local Board of Health. Besides the remuneration is low and but few health officers receive a regular salary. But though we have not travelled far in scientific public health work in rural districts, yet we have made a start. I think the trouble is that as an association we have been too modest. Every other association applies to the Government for grants to establish experimental stations, to publish extensive literature, to pay travelling teachers of agriculture and cheesemaking. We ask for nothing and get it. It seems to me that it is high time the attention of the public and the Government should be directed to the need of funds, not only for disseminating a knowledge of sanitation, but for making experiments in discovering the causes of disease."

In the discussion which followed the address Prof. Shutt of the Experimental Farm made reference to the statements in the President's address referring to the poor condition of the wells. He said that the Government were at the present time doing a good work in this matter. A circular had been sent out asking for samples of the water for analysis, and he had received returns from as far as British Columbia.

Dr. Bryce spoke on the necessity of concentrating public work by expert officers.

Dr. Anderson, of Smith's Falls, said the question of wells was a most important one, and in reference to the matter he told how in his district the work had been neglected. Wells had been put down in low, marshy ground for the use of cattle, and packed with manure, which ultimately polluted the water.

Mr. Mackenzie read a report of the Committee upon Disinfection. Dr. Robillard, of Ottawa, Dr. Bryce, of Toronto, and several others took part in the short discussion which followed.

Dr. J. J. Cassidy, of Toronto, read a paper on the "Inspection of Meat for the Local Market," *vide* p. 253 October issue of this journal. A general discussion followed, in which almost every medical man and health officer present took part. The consensus of opinion was in favor of establishing abattoirs in towns so that proper inspection might be carried out.

The afternoon session of the Association commenced in the Railway Committee rooms at half-past 2 o'clock, Dr. M. McCrimmon in the chair. All the medical men and health officers who were present at the opening session were in their places.

The first business of the session was the reading of a paper by Mr. C. Horetzky, Public Works Department of Ontario, on "Treatment of Sewage." He presented the subject in a very masterly way and discussed the straining of sewage by coke filters as used at Reading, Pa. In the discussion which followed Mr. Horetzky answered a number of questions bearing on the matter, and said that he considered this system far superior to that which he recommended to London three years ago. He did not recommend filtration through coal, which is used at Hamilton, and said that nothing better than coke could be utilized for the removal of sludge.

Mr. Van Buskirk, of Stratford, said that he considered the land system could not be beaten for the work, provided that suitable land could be obtained. He did not think that any set rule could be applied, as the different cities required different systems. There was another method of filtration which has not been mentioned, but which has been in use in England for two years. By this system the sewage is run into a filter and kept there for a few hours before being run off.

Ald. Taylor, of London, spoke of the matter as applied to London, and said that he was sorry to see that Mr. Horetzky had changed his opinion in his recommendation of three years ago. A number of systems had been spoken of to-day, but all were put forward by rivals. He believed the McDougall system was an excellent one, but owing to the representations of a number of engineers they were now in a quandary as to the best to use. Mr. Mackenzie and Dr. Bryce also spoke.

Mr. A. McGill, M.A., B.Sc., Inland Revenue Department Laboratory, Ottawa, read a paper on "Local Standards for the Chlorine in Well Waters." The paper was accompanied by maps illustrating the ground formations, and on which Mr. McGill illustrated how chlorine passed from the surface to the ground water. He said that artesian wells were the best undoubtedly, but the cost is a hindrance. There are in Canada half a million wells, and these are mostly all surface wells which are generally found to contain organic impurities. Of course, it would be impossible for the Government to analyze samples from all these wells, but if the different townships were to take the matter up the same end might be arrived at. In the discussion which followed, Prof. Shutt, Mr. Mackenzie and Dr. Bryce spoke. Each of these gentlemen went into the matter thoroughly, as they have found it, and the conclusion was arrived at that almost every locality had its own characteristics, and no rule can be set forth to enable the farmer to decide the quality of the water in his well.

Mr. A. W. Campbell, C.E., Good Roads Department of Ontario, read an interesting paper on "What Influence have Pavements on Public Health?" The paper dealt with pavements from a sanitary point of view. Amongst other things, he said: "Ontario has so recently developed from a wilderness into the home of civilization and culture; our villages have grown so quickly into towns, out of

towns into cities, and the advance of the various sciences has been so rapid, that our people scarcely realize the changed circumstances and the need of carefully directing their energies in meeting the demands of the times. I find that in very small villages even inefficient drainage, cesspools, piggeries, slaughter-houses and impure water supplies are not now tolerated. There is no paving material which possesses every quality desired in a pavement to meet all conditions and uses. The ideal pavement remains to be discovered, but the features, which belong to such an ideal pavement are so numerous and of such varying character as to render the search apparently a hopeless one. The ideal pavement should be cheap, durable, suit all classes of traffic, offer little resistance to traction, give a good footing for horses, be adapted to all grades, have a good appearance, not be pervious to water, be sanitary (that is, non-absorbent), not subject to decay, easily cleaned, not dusty and not noisy. It is the purpose of this paper to deal with the healthfulness of paving in general, and of the sanitary conditions of asphalt, stone blocks, vitrified bricks, cedar blocks and macadam, with respect to absorption, decay, ease of cleaning, dustiness and noise."

Mr. Campbell discussed first the use of cedar blocks, which proved to be not favorable. Macadam and other systems were discussed and their bad points brought out. With regard to absorption, there can be no objection to asphalt, vitrified bricks or stone blocks. Asphalt is impervious to water, while brick and stone pavements are practically perfect so far as absorption is concerned. To be sanitary a pavement should not be dusty, as it carries with it the bacteria of disease, which are part of street filth. To prevent dust, the pavement must be so perfectly cleaned that a practically harmless amount is taken up by the wind, or if perfect cleaning is not possible, dust must be subdued by sprinkling.

Toronto has a reputation of being a clean city, with a well-organized street department, yet even under these favorable conditions a walk or drive down Yonge Street is a very trying experience. Business men in offices are not safe from the attack of the dust, and it embeds itself in clothing and other articles of goods exposed. He spoke of one case where patients were ordered to leave Jarvis Street because of the dust. The streets are swept by hand and machines, and not flushed as in Ottawa and Montreal. Flushing is the only method whereby asphalt can be freed from this insanitary dustiness. Asphalt, however, is hot, and is objectionable in close business streets. Vitrified brick and stone block pavements are not so dusty in hot weather, as the surfaces are less smooth, and assist in retaining in the joints the finer particles of dust. In support of wood blocks as not the worst kind of pavement, he said that if it was considered such an illness-breeder, portions of Toronto should be hotbeds of disease.

Dr. J. J. Cassidy, in the absence of Mr. E. B. Shuttleworth, read his report on "The Influence of Street Pavements on the Occurrence

of Diphtheria." He said that an investigation had recently been held in Toronto, and in the comparison which was made no difference to any extent was shown between block pavements and macadam in causing outbreaks of diphtheria. Observations are being continued, and will be made the subject of a paper later.

The last two papers elicited a short discussion, City Engineer Surtees, of Ottawa, Mr. Mackenzie, Dr. Bryce and Dr. Cassidy taking part.

An evening session was held at the Russell House, at which Dr. P. H. Bryce, Secretary of the Provincial Board of Health, read a paper on "The Duty of the Public in Dealing with Tuberculosis." Dr. Bryce, in opening, gave the expenditure which was made annually on Government and civic charities. If, then, we are to look, he said, to the enlarging of expenditures for further charitable works in the Province, such as we believe to be necessary; if we are going to effectually deal with tuberculosis as we do with other contagious diseases, it will be apparent that the people, as residents of our municipalities, must realize that the work must principally be undertaken directly by themselves, either as individuals or as citizens upon municipal committees. "I feel," he said, "the people feel, that the tuberculized poor can be treated in a sanitarium, located favorably, conducted and managed by the Government, as are the public institutions for the cure of the insane. They must be prepared to supply largely the funds therefor, as was done long ago, when the Legislature authorized an assessment for the maintenance of lunatics. In the meantime, however, there is the fact that the present situation demands from the public, whether in city or country, the undertaking of actual effort for limiting the ravages of tuberculosis. The education of the public is the first step, to realize the true nature of the disease as regards curability.

"The subject," he said "had become a matter of general discussion amongst the people of Ontario. Hundreds of people had been sent to Muskoka this summer with tuberculosis, by their physicians, with no place there for treatment, and they were looked upon almost as lepers. The public can assist in the work of relieving these people in two ways: first, by people being honest with their physician; and, second, by granting money for the establishment of homes of recovery, or sanitariums for consumptives. In every sanitarium I have visited the same remark has been made by the staff, 'Oh! if the doctor would only send the patient early enough we could hope for the best results.' In Toronto hospitals, in 1896, 473 consumptives were treated at an average of fifty days each, or 21,850 days of medical service. In the maintenance of these the public of the city paid some $5,000. As 257 of these died, it is plain most were in the latest stages of the disease. They must be dealt with in a different fashion 'How?' you say. By air cure, or life in the pure country air. The death-rate of Toronto is one consumptive for every two

hundred of the population, or one in every forty families. This means that each church congregation has several consumptives amongst them. It is not meant that churches should establish homes, but they should, with all philanthropic workers, assist in establishing these homes, and thereafter urge all who are in need of assistance to go where they will receive proper care. As health officers and boards of health we may be expected to see that schools and workshops in certain trades be maintained and maintain themselves so that, in a degree, foul air may be lessened. Clearly, then, if in the work to be done in lessening the prevalence of consumption, we, as the supposed skilled exponents of medicine in Ontario (that is, the body politic) are willing to push forward the work, the community must supply the sinews of war." Dr. Bryce, in closing, dealt with the necessity for the Association to interest philanthropic people in the project of homes. He said the people may cry for legislative reforms, and if they cry loud they will get them. And even more important is the exercise of every home agency by which wholesome surroundings, good food and clear air shall be maintained in every dwelling; and amongst our people we need not fear that financial aid will fail us in our efforts to supply homes to which those who, in spite of every effort, have been affected with the disease, may go for rest and final recovery.

An animated discussion followed, in which Dean Carey (Kingston), Dr. Lee (Philadelphia), Dr. J. J. Cassidy, Mr. Mackenzie, and Dr. Probst (Ohio) took part.

The fourth session was held in the Parliament Buildings at 10.30 a.m., September 27th, Dr. M. McCrimmon, President, in the chair. On account of the similarity of the remaining papers to those already read, it was resolved that they be read by title. The papers referred to were, "The Resistance of the Diphtheria Bacillus to Throat Disinfection," by E. B. Shuttleworth, Ph.D., Toronto, and "Some Recent Investigations into Air Infection," by John J. Mackenzie, B.A., Toronto.

The election of officers resulted as follows: President, Dr. J. J. Cassidy, Toronto; Vice-President, Dr. Hutchinson, London; Council—Mr Van Buskirk, Stratford; Dr. Fee, Kingston; Dr. Robillard, Ottawa; Dr. Wardlaw, Galt; Dr. Hall, Chatham; Dr. McCrimmon, Palermo; Dr. Sheard, Toronto; Secretary-Treasurer, Mr. J. J. Mackenzie, Toronto.

At a previous meeting it was decided to investigate the sanitary condition of pavements, and the President appointed Dr. McGill, Mr. Van Buskirk, Mr. E. B. Shuttleworth, Mr. Mackenzie, Dr. Bryce and Mr. A. W. Campbell to look into the matter and report later.

Dr. J. J. Cassidy, the President-elect, in accepting the office for the ensuing year, complimented the past president, Dr. McCrimmon, on his excellent work while in office, and closed by moving a vote of thanks, which was carried unanimously.

Dr. McCrimmon, in reply, said that the meeting in Ottawa had been the most successful and most instructive in years, and he

expressed the hope that next year the attendance and quality of the business would be equally as good. He paid a high compliment to Mr. J. J. Mackenzie, of Toronto, the hard-working Secretary, and said it was due to him largely that the meeting was such a success.

London and Kingston were suggested as the next places of meeting, but the matter was left with the Executive. J. J. C.

RESOLUTION OF THE CANADIAN MEDICAL ASSOCIATION.

WHEREAS a revised edition of the "British Pharmacopœia" has been issued containing numerous and important changes, and whereas uncertainty exists as to the date when the "British Pharmacopœia, 1898," is to be considered in force;

Resolved,—That the Canadian Medical Association in annual meeting assembled recommend that October 1st, 1898, be taken as the date, on and after which, in the absence of instructions otherwise, physicians' prescriptions should be compounded with the preparations of the "British Pharmacopœia" of 1898.

WE are pleased to see that Dr. John Caven has sufficiently recuperated to resume his lectures and work at the University.

DR. GEORGE ACHESON, of Galt, Major of the 29th Battalion, has just received orders from Lieut.-Col. D. H. Holmes, D.O.C., of London, to take over from Lieut.-Col. Cowan, retired, the command of the 29th Battalion. Dr. Acheson has been connected with Canadian military life for twenty-two years. He joined the Toronto University company of the Queen's Own Rifles in 1876, and served in the ranks for five years. He then took commission in command of the University company, and held it till 1887, when he retired. In March, 1895, he was appointed Major in the 29th Battalion, and has held that position to the present.

DR. W. E. HAMILL who for some years has conducted a medical brokerage business under the name of The Canadian Medical Practice and Partnership Office, has changed the name to that of The Canadian Medical Exchange Office. The doctor wishes us to state that he always has fifteen to thirty buyers ready to investigate any practice offered and purchase the same if it suit them. Every prospective buyer is bound in writing as to secrecy and honorable dealings and to not offer opposition if they do not buy. Every safeguard possible is thrown around a vendor to prevent any piracy whatever, and physicians who contemplate selling out should make use of his Office to prevent publicity and secure a successor in the quickest and quietest manner possible.

REPORT OF DEATHS FROM CONTAGIOUS DISEASES IN ONTARIO FOR THE MONTHS OF AUGUST AND SEPTEMBER, 1898.

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

AUGUST, 1898.

Total Population Reporting.	Total Municipalities Reporting.	Total Deaths Reported.	Scarlatina.	Rate per 1,000 per Annum.	Diphtheria.	Rate per 1,000 per Annum.	Measles.	Rate per 1,000 per Annum.	Whooping Cough.	Rate per 1,000 per Annum.	Typhoid.	Rate per 1,000 per Annum.	Tuberculosis.	Rate per 1,000 per Annum.
2,183,168	694	230	10	0.05	16	0.09	6	0.03	12	0.06	34	0.2	152	0.8
97%	93%													

SEPTEMBER, 1898.

2,163,151	677	250	11	0.06	33	0.18	2	0.01	13	0.07	41	0.2	147	0.8
95%	93%													

Population of Province 2,263,402

Municipalities of Province 745

The Canadian Journal of Medicine and Surgery

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Doctors will confer a favor by sending news, reports and papers of interest from any section of the country. Individual experience and theories are also solicited.

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

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Editorials.

PHOTOTHERAPY.

IN describing the treatment of small-pox, Watson, by way of a comment on the methods in vogue a few centuries ago, mentions that "John, of Gaddesden, who flourished in the fourteenth century surrounded the small-pox patient with red curtains, red walls, red furniture of all kinds; everything he saw was to be red, for in that color there was, John pretended, a peculiar virtue."

Dr. Finsen, of Copenhagen, who has devoted special attention to the treatment of small-pox after the manner followed by John of Gaddesden, observes in *La Presse Medicale* that by excluding

certain rays of light a small-pox patient is placed in a condition to more powerfully resist the disease. He is careful to remark, however, that his method is not a full treatment of small-pox, but only a topical treatment of the variolous eruption. He claims that the pitting and scarring of the patient's face and hands can be prevented if red curtains are used in the sick-chamber. The knowledge of the hurtful influence of light in the evolution of the variolous pustules was known, he says, in ancient times. Fouquet, of Montpellier, relates that in the eighteenth century small-pox patients were covered with scarlet cloth, and were put in beds surrounded with red curtains, just the same as they are now treated in Japan. Dr. Capitanowitz, of Alexandria, mentions that this custom was practised very anciently in Roumania, and Dr. Cassabatie, of the French naval service, three years ago saw small-pox patients in Tonkin, treated by means of the exclusion of light. Among the numerous methods of treatment used to prevent pitting in small-pox, the exclusion of solar light passed unnoticed by many observers, and may appear as useless as the rest. One fact, however, makes it at least probable that certain rays of light do exert an influence in the evolution of the pustules, and it is, that the hands and the face, which are uncovered, show the deepest and most confluent scars. Besides the greater number of methods of treatment used to prevent pitting, act by covering the skin from the light, whether one uses tincture of iodine, nitrate of silver or compresses. Dr. Finsen gives the clinical results of his theory. In July, 1893, he proposed to treat small-pox patients in rooms into which light would not enter, except after passing through red curtains. This method was tried at Bergen, Norway, by Drs. Lindholm and Swendsen, who treated eight patients, four of whom had not been vaccinated. "The clinical histories of the patients treated by this method," said Dr. Swendsen, "showed the following anomalies: the suppurative stage, the most painful and most dangerous in small-pox, did not appear; no elevation of temperature and no œdema were produced; the patients passed into convalescence immediately after the vesicular stage, which seemed somewhat prolonged; the hideous scars also were absent." Two of Dr. Swendsen's patients were exposed to the light of day after the complete desiccation of the vesicles on the face. Some pustules, still active, which remained on the backs of the hands, became irritated by this influence, began to suppurate and left deep scars; the epidermis was intact in all other parts of the body.

In January, 1894, Dr. Feilberg, chief physician of the small-pox hospital, Copenhagen, treated by red light eleven patients, eight of whom had the disease in so bad a form that a lengthy suppurative stage might have been expected. In none of the cases did the suppurative fever appear, and all these patients left the hospital unscarred. One of the patients was exposed to the light while some of the vesicles, which were not yet dry, remained on his ear; these vesicles immediately began to suppurate. A child in whom this treatment was begun at an advanced period of the disease had a severe suppuration, but all the late-appearing pustules were arrested in their evolution and dried up. Similar results are reported by Dr. Beackert, of Gottenburg, Sweden; Drs. Krohn and Myzius, Denmark; Dr. J. W. Moore, Dublin; Dr. Perronet, Paris, and Dr. Abel, Bergen. The last-mentioned observer says: "Dr. Finsen's treatment, if carefully observed from the first appearance of small-pox, so powerfully modifies the course of the disease that suppuration and its sequels may be prevented."

To put this treatment into practice is relatively an easy task. It is unnecessary that the glasses and the curtains should be of a dark red tint. A light red color will be more agreeable to the patients, and will facilitate the work of the nurses. However, all lamps brought near the patients ought to be provided with red globes. Patients should never be exposed, even for an instant, to the light of day until the vesicles are completely dried. In this expression of his opinions, Dr. Finsen confines himself to clinical results. In an article to be brought out later on, he will give the reasons which have led him to seek the influence of light in treating certain diseases, as well as the biological experiments which have enabled him to determine the specific action of certain rays of the spectrum on organisms. Phototherapy has also been used in the treatment of measles by Dr. Chatiniere, of Saint Mandé, France, who reports three cases treated by this method last July. The first patient recovered, took a bath and went out on the eighth day. The second patient was able to go out on the sixth day, as was also the third patient. Dr. Chatiniere thinks that his cases demonstrate the effect of suppressing normal rays of light by the interposition of red curtains. He considers that the explanation of the cutaneous phenomena observed in measles when so treated, is similar to what has been observed in variola, and he thinks that diseases with cutaneous phenomena may be modified in their duration and form by this harmless intervention. He prevents

access of light by the use of red curtains over any opening in the room through which a ray of light might pass. He also gives orders that no artificial light is to be employed in the sick-room, a photographic lantern being used when necessary.

In Ontario, variola, owing to the far-reaching effects of hygiene, is now an extremely rare disease, so much so, indeed, that to obtain a clinical knowledge of it, the younger physicians of this province will have to go abroad. Owing to chance, however, it may be introduced unexpectedly into some of our towns. Should such be the case, it would be interesting to learn that Dr. Finsen's treatment has been employed with results beneficial to the facial expression of the sufferers.

On the list of causes of death in Ontario in 1896, measles stood fifteenth with thirty-six deaths. It is considered a rather trivial disease among the people, and often receives very little medical treatment. Many practitioners advise that draughts of air be excluded from the sick-room for fear of aggravating the accompanying bronchitis, and the windows in the sick-room are generally darkened to relieve irritability of the conjunctiva. If by advising the use of red curtains, we so shorten an attack of measles that the patient can be sent out in from six to eight days, we certainly deserve the gratitude of the family. We may help also by establishing a speedy convalescence, to lessen the remote results of measles, which sometimes leaves dangerous sequels in its wake, and even prepares the tissues of the body for the ultimate development of tuberculosis. J. J. C.

PROFESSOR PETERS AND HIS CRITIC.

PROFESSOR PETERS, of Toronto, gave a demonstration of a "New and Original Method of Making Casts" before the Surgical section of the British Medical Association at Edinburgh, July, 1898. The working of the apparatus was also shown, by request of the London surgeons, in Dr. Sims Woodhead's laboratory, London, and all who witnessed these performances were unanimous in pronouncing this method both original in design and effective in the results obtained. His article descriptive of the process also appears in the *British Medical Journal*, September 3rd, 1898. Professor Peters states that after considerable experimenting he elaborated the apparatus, which he describes. It consists of (1) a jacketed tin pail to hold melted paraffin, hot water being placed

in the outer pail to prevent the paraffin from cooling and solidifying, the paraffin being delivered, when required, through a rubber tube, also jacketed with hot water and fitted with an adjustable brass nozzle; (2) a pail to hold iced water, also provided with rubber tubing and a brass nozzle; (3) an air-pump to deliver air by a Y rubber connection to either the paraffin delivery tube or the iced-water tube, or both of them, thereby causing a spray. The air-pump may be driven by a small electric motor.

Briefly, it may be stated that the process consists in spraying melted paraffin over the whole surface, cooling it by spraying ice-cold water at the same time, and finally strengthening the mould with plaster-of-paris and removing it in as many sections as the nature of the subject calls for. Two illustrations are given with the article, in order to show the perfection of the work. One is a cast of a guinea-pig with intestines exposed and partially distended with air in which there is an entire absence of evidence of compression. The second is a cast of a hand, showing an unusual minuteness of detail. In these two subjects, Professor Peters contends that one may see the delicacy of the molten paraffin in adapting itself to minute variations and the absolute absence of the compressing effects, which are so noticeable when plaster or heavy materials are used in immediate contact with the subject.

In the next number of the *British Medical Journal*, September 10th, 1898, Mr. Lawson Tait, in a letter which bristles with egotism from the initial "I am sorry," to the final "I am, etc.," proceeds to disabuse the mind of Professor Peters of the idea that his process of making casts by means of paraffin is either new or original. Mr. Tait explains that he "invented the process about the year 1864; that he did all that Dr. Peters has done and more, taking life-sized casts of the living head and bust." His "apparatus consisted of melted paraffin, a rough painter's brush, a sponge and some iced water."

It does not appear from a perusal of Professor Peters' article that he claims originality in using paraffin for making casts. Perhaps, if all were known, it would be difficult for Mr. Tait to prove priority in that matter. Had Mr. Tait fully read the article he criticises, he should have seen that Dr. Peters mentions his method of dividing the mould in taking a cast of the living head. As a matter of fact, during the meeting in Edinburgh the inventor of the process demonstrated its use by casting, among other subjects,

the "living" heads of four well-known members of the Association. We publish as an illustration of the capabilities of Prof. Peters' process a reproduction of a cast of the head and bust of a well-known member of the medical profession in this city. The head was cast separately, the eyes of course being "carved" in afterwards Then the clothing was cast, and the head "fitted" to the bust at the neck. Prof. Peters makes no claims whatever to being a sculptor, but it will probably be admitted by all, that the "likeness" at

least in this case is such as no sculptor would need to be ashamed of. Dr. Peters' claim to novelty and originality in the process of taking casts with paraffin rests on his method of using "a spray of melted paraffin, kept liquid by an encircling hot-water tube, in order to produce a thin layer one-sixteenth of an inch in thickness on the surface of the subject, following this up with a cold-water spray; or, after the preliminary layer of paraffin has been put on, the two sprays of melted paraffin and cold water may be thrown on at the same time and at the same point. The convergence of the two

sprays produces a most surprising effect. The instant a particle of paraffin touches a particle of cold water, the former, of course, becomes solid, and a sort of spongy tissue is formed with startling rapidity from droplets of water which have become imprisoned in the cancellous spaces of the paraffin. The result is that not only does the cold water applied as a spray greatly facilitate the solidifying of the paraffin, but it enormously increases the speed with which the mould is thickened. This process is continued until the mould, over its whole surface, has attained a thickness of three-eighths to half an inch, when the paraffin spray is stopped and the iced water continued for a few moments until the whole surface is quite firm."

The mould is then strengthened with a liberal coating of plaster-of-paris and the threads cut out, so as to divide the mould into sections. As soon as the plaster has set the moulds are removed. In making the cast the different sections are fitted together, the line of junction smeared with plaster cream, and without any preparation of the surface of the moulds, such as oiling, the plaster cream is poured into the hollow mould in the ordinary way.

It is quite true that, as Mr. Tait says, casts can be made by using melted paraffin with a painter's brush, a sponge, and some iced water. The process of taking casts has, however, been improved since 1864, the simpler being discarded for the more complex apparatus, in an effort to obtain greater artistic perfection of detail. Professor Peters, who has devoted a good deal of time to this branch of art during the past six or seven years, has frequently had occasion to observe the great delicacy, truth and beauty of casts obtained by the use of the apparatus invented and described by him, and naturally prefers it to the somewhat crude method eulogized by Mr. Tait. J. J. C.

THE PREVENTION OF TUBERCULOSIS.

WE hope the idea of to-day (a hospital for consumptives in the immediate vicinity of Toronto) will become speedily a reality. Surely such a hospital would prove a wondrous blessing, especially to the poor. We notice that old Edinburgh has awakened to its need of a similar institution, several articles having recently appeared in *The Scotsman* advocating the scheme, and we believe some of the preliminary arrangements for its advancement have been completed. But while we dream of plans for the future, the

dread disease is prevalent in our midst, and it has been proven to be capable of being conveyed from person to person, so the immediate protection of the public health demands that measures should be taken to prevent, if possible, the further spread of this disease. It gives us pleasure to learn that at a recent meeting of the Toronto Medical Society, after a paper had been read by Dr. W. J. Wilson, and which we report in this number, a committee was appointed to look into the question and see what measures had better be taken "as a means of protection to the public." We urge upon this committee to act quickly, and, if necessary, to get the required legislation to have tuberculosis put upon the list of contagious diseases which must be reported by the attendant physician to the local medical health officer.

If the patient cannot be removed to a hospital or place of isolation, at least some form of medical inspection could be arranged, and such means as disinfection and cremation of the sputa, clothing and bed linen insisted upon. Many medical men know of instances where tuberculosis has manifested itself in a member of a family, otherwise absolutely free from tubercular taint or heredity, which case could not be attributed to other causes than sleeping in a room which it was found had sheltered a similar case of perhaps fatal termination. Another way of spreading this disease, is by allowing work such as garment making or ladies' tailoring to be done by the sufferers, or, as in cities like New York where the "sweat-shop" system prevails, the garments are made in rooms crowded to suffocation and reeking with disease.

It has been tersely said, "Consumption follows the cow." While we believe that an inspection of the dairies is carried on in this city, would it not be wise to go a step backward, so to speak, and have the cows themselves thoroughly examined, so that the medical inspector could satisfy himself that the animals were free from tuberculosis ere they are allowed to contribute any milk to the general supply. The tuberculin test, as enacted by our Local Legislature, was indeed a step in advance. Why was the law so soon annulled? Are the "lowing herds" to be let "wind slowly o'er the lea," affording poetic thoughts to the rhymer, putting money in the pocket of the dairyman, and spreading disease to those who drink their milk? By all means let the "tuberculin test" be put into force again.

We believe that milk should be examined (as it is), not only to ascertain the amount of butter fat, but also to find if any bacilli

tuberculosis be present. We think that all persons in purchasing a cow should first insist upon receiving from the seller a certificate showing that the animal had been subjected to the tuberculin test. A very good suggestion made in this connection by Dr. Wilson was, that the Government enact a measure whereby every veterinary surgeon when called to attend a cow found to be tuberculous shall have at once to notify the medical health officer for that municipality of the fact. We await with great interest the work of the committee above referred to. The medical fraternity of Toronto have awakened to the dangers and necessities of the hour, and, let us hope, soon an organized campaign may wage warfare against the "white plague"—Tuberculosis. W. A. Y.

TORONTO UNIVERSITY SENATE ELECTIONS.

THE results of the recent elections, as far as the Medical Faculty is concerned, are that Drs. J. E. Graham, A. H. Wright, W H. B. Aikins and I. H. Cameron are again elected, the actual number of ballots cast in favor of each being as follows:

Dr. J. E. Graham, 740.

Dr. I. H. Cameron, 505.

Dr. A. H. Wright, 699.

Dr. W. H. B. Aikins, 528.

Dr. James M. MacCallum followed with 481 supporters. It might better be stated for the information of quite a large number, who labored under a misapprehension previous to signing their ballot papers, that the MacCallum who was defeated by a small number of votes, was not A. B. Macallum, Professor of Physiology (and who was elected in Arts), but Jas. M. MacCallum, Professor of Therapeutics; and also that the Aikins who was elected was not Dr. Henry Wilberforce Aikins, associate Professor of Anatomy in the Medical Faculty, and son of the late Dean, W. T. Aikins, but his cousin, W. H. B. Aikins, editor of the *Canadian Medical Review*, and who is not identified at all with the Faculty in Medicine.

We take pleasure in reprinting verbatim an editorial from the October *Canadian Practitioner*—Dr. Adam H. Wright, editor—an expression of "loyalty to colleagues" (?) and desire for "harmony in the Faculty" (?); and *the first and only* "bickering in public" in this Senate election:

"We publish in this issue the results of the recent elections for the Senate of the University of Toronto. While we are pleased with the returns in medicine, we have to regret that the unfortunate split in the medical faculty should again have been exposed to public view. Extreme partyism in a medical faculty is generally conceded to be bad. The question naturally arises—who are responsible for this deplorable family fight? We can answer the question somewhat briefly. The friends of Drs. Reeve, Cameron, and A. B. Macallum, who framed a ticket in 1892 for the purpose of defeating Drs. McFarlane and Wright in the Senate election at that time, and with the expressed intention of injuring in divers ways others of their colleagues, are directly responsible for the most lamentable contest that has ever occurred in connection with this faculty.

"We had hoped that the extreme bitterness was dying out, and that the expressions of 'loyalty to colleagues' and 'harmony in the faculty,' which have greeted us in recent years, were not a hollow mockery. We had supposed that there was a general feeling that our bickering in public should cease, and had expected that the old members, Drs. Graham, Cameron, Aikins and Wright, would be unopposed. Such, in fact, appeared to be the general opinion. Some of the extremists of a certain party, however, were determined not to allow this, and secretly organized, with the result that the nomination of Dr. Jas. M. MacCallum was put in at the last moment, and at the same time letters were sent broadcast among the graduates asking them to 'plump' for Drs Cameron and MacCallum. The friends of Drs. Graham and Wright promptly accepted this challenge, and at the same time worked for Dr. Aikins, who has always been a steadfast supporter of their party in the Senate.

"We do not propose, now, to offer any opinions as to the merits of the two parties; we wish simply to state facts. In the two wretched contests of '92 and '98 one party was aggressive, while the other acted in self-defence, having at the same time a fixed conviction that its views in relation to University matters were correct. We are very glad to learn that many men belonging to both parties—probably a large majority—are heartily tired of this internecine warfare; and we sincerely hope that, in the near future, peace and harmony will exist in a faculty which should show no divisions in connection with the general policy which should prevail among the governors of our Provincial University."

W. A. Y.

"A METHOD OF INTRODUCING AND HASTENING PROFESSIONAL DEGRADATION."

ONE must thank the *Philadelphia Medical Journal* for suggesting such an appropriate title with which to designate the sin of paying commissions for patients. It appears that in the United States this is a growing evil; in this country, too, from time to time, one hears of some professional (?) brother who pays a commission to some general practitioner because the one has sent the other a patient from whom he has been able to collect a fat fee. Truly, this is bringing down our professional standing to the lowest possible business basis. For is it not this very thing that we condemn when it secures a franchise for a large corporation, or gets a paving contract for the worst kind of pavement? The result in municipal business has been to make in the public mind the term "alderman" synonymous almost with "corruptionist." There is such an undercurrent of feeling in this direction that many of our best business men refuse to seek municipal honors because of the associations. If this sort of thing which is creeping into our profession ever gets its legs and is allowed to walk, our standing as a profession is gone, and in the public mind the term "specialist" will become a synonym for "quack." Naturally, under such circumstances, the specialist who will pay the largest commissions will get the most patients, irrespective of merit. We may then expect to see, when the would-be brilliant surgeon sends out his annual circular, a foot-note to the effect that on patients sent during the first three months a commission of fifty per cent. will be allowed, the amount of the commission gradually reducing according to the delay upon the part of the general practitioner in sending his grist to the mill. Truly such would be a sad state of affairs, and one could look with certainty for an increased mortality.

F. N. G. S.

TYPEWRITTEN PRESCRIPTIONS.

WE notice in our French and English exchanges that some attention is being paid to the use of typewriting machines by physicians in Europe. Mr. Labouchere, editor of *Truth*, has, in fact, organized quite a press campaign in favor of the view that physicians should be obliged to typograph their prescriptions. For one reason or

another the use of the typograph has become popular with physicians in this country in preparing their ordinary correspondence, and among some it may be also used when writing prescriptions.

A prominent American firm has manufactured a special typograph suitable for prescription writing, with all the special signs, figures, etc., which are required. Encouraged by the demand for this machine in America, this firm has also turned out typographs suitable for physicians in the different countries of the world. By the aid of a typograph a physician can write his prescription in a neat, legible manner, without fear of being misunderstood and with the certainty that his own responsibility will be protected. It is also a matter of some little importance to gain time while increasing safety. J. J. C.

UNIVERSITY MEDICAL FACULTY.

THE introductory lecture of the Medical Faculty of the University of Toronto was delivered on October 3rd by Prof. J. M. MacCallum. The subject chosen was "The Doctor in Literature and Art," and the theatre of the Biological Department was crowded to its utmost capacity by an appreciative audience. Appropriate reference was made to the "Religio Medici" of Sir Thomas Browne, to Burton's "Anatomy of Melancholy," to Smollett, Goldsmith, Keats, the two Hunters, Oliver Wendell Holmes, and the medical creations of Dickens and Ian Maclaren. The lecture was interspersed with lantern-slides illustrative of these authors, and reproducing some of the famous medical scenes of Cruickshanks, Dickens, Hogarth, Rembrandt and the younger Teniers. The object which the lecturer of the evening kept in view throughout was to impress the students with the fact that a too exclusive attention to professional subjects was not desirable, and that the adjacent fields of literature and art were appropriate recreation grounds conducive to their full development as citizens and members of society. W. A. Y.

OUR DECEMBER NUMBER.

ILLUSTRATED magazines are numberless, they are the fashion of the time and a source of unending pleasure to the reader.

So far THE CANADIAN JOURNAL OF MEDICINE AND SURGERY is the only medical journal in Canada that has devoted much attention to illustration.

Feeling our way at first we soon reaped a rich reward in the many letters of thanks from our subscribers.

Ever eager to retain the good opinion of our readers, we have decided to add to our December number a bit of brightness to celebrate the Yule-tide—not a garland of gay holly berries entwined with coquettish mistletoe, but a quiet sober tribute as becometh a grave medical journal; only a few pictures, perhaps a dozen and six, of the beauty spots in and around Toronto—just a small digression from our usual beaten path, a moment's pause here and there in our medical lore, a moment in which we may forget to scan the "second-hand," count the pulse and take the temperature of mankind. We hope our efforts to please the eye will be appreciated by our many subscribers, foreign, Canadian and medical men now scattered far and near, who claim as their birth-place, or the home of their *Alma Mater* this "Queen City of the West," the fairest flower in the garden of cities that bloom in "Our Lady of the Sunshine."

W. A. Y.

ONTARIO MEDICAL LIBRARY.

THE following incomplete list will give the profession some idea of of the works to be found in the library:

Weekly journals regularly received: British and Foreign—*La Semaine Medicale, Deutsche Medical Wochenschrift, British Medical Journal, Lancet.* United States—*Medical Record,* New York; *Medical News,* New York; *New York Medical Journal*; *Boston Medical and Surgical Journal.*

Monthly and semi-monthly: British—*Edinburgh Medical Journal.* United States—*American Journal of Obstetrics, Archives of Pediatrics, American Journal Medical Sciences, Alienist and Neurologist, American Journal of Insanity, American Journal of Physiology, Annals of Surgery, Charlotte Medical and Surgical Journal, Northwestern Lancet, Index Medicus.*

Besides fairly complete files of *Birmingham Medical Review, Glasgow Medical Journal, International Magazine, International Journal of Surgery, Brooklyn Medical Journal,* and others.

Reports and transactions, such as "Johns Hopkins Bulletins and Reports"; "Transactions of Association American Physicians"; "Transactions of American Orthopœdic Association"; "Transactions of Obstetrical Society, Edinburgh"; "Guy's Hospital Reports"; "Transactions of London Pathological Society."

Reference handbooks, as "Sajous' Medical Annual"; "Medical Annual"; "International Clinics," etc.

Systems of medicine and surgery, like Treves, Wyeth, Gross Holmes, Ericson, Ashurst, Pepper, Fagge, Loomis-Thompson, Albutt, Osler and "Twentieth Century Practice of Medicine."

Up-to-date editions of works on special subjects, as Kelly's "Operative Gynæcology"; Hermann's "Diseases of Women"; Albutt and Playfair's "Gynæcology"; Pozzi's "Gynæcology"; Holt's "Diseases of Children"; "Rotch's "Pediatrics"; Bosworth on "Nose and Throat"; Thompson's "Dietetics"; Foster's "Therapeutics"; Phelps on "Traumatic Injuries to the Brain"; Fowler and Godlee on "Diseases of the Lungs"; Maylard's "Surgery of Alimentary Canal"; Lawson Tait's "Perineal Operations"; Creig-Smith's "Abdominal Surgery"; Jacobson's "Surgical Operations"; Allingham on "Diseases of the Rectum"; Deaver on "Appendicitis"; Hawkins on "Diseases of Vermiform Appendix"; Osler on "Angina Pectoris"; Osler on "Diagnosis of Abdominal Tumors"; Nsunyn on "Cholelithiasis"; Zeigler on "Pathological Anatomy"; Thoma on "General Pathology"; Balfour on "Senile Heart"; and Keating on "Diseases of Children."

HE HAS RETURNED TO HIS FIRST LOVE.

DR. W. H. B. AIKINS has sold out the *Canadian Medical Review* to Drs. Adam Wright and E. E. King, the publishers of the *Canadian Practitioner*. Hereafter the amalgamated journals will bear the name of the *Canadian Practitioner and Review*.

GIVE US YER MIT, SWIPSEY.

THE average politician is not "in it" with at least one of the members of the late triune ticket. How his hand must be *a-i-k-i-n* after its frequent applications of the Masonic grip. A grip for a vote. Don't blush, dear little man, there is no "money in it."

DR. RODDICK, Montreal, at a meeting of physicians held at Toronto, October 22nd, explained his method of obtaining Dominion registration for Canadian practitioners. His opinions received the favorable consideration of the meeting. The subject will be discussed in a later issue.

The Physician's Library.

BOOK REVIEWS.

A Manual of Legal Medicine, for the use of Practitioners and Students of Medicine and Law. By JUSTIN HEROLD, A.M., M.D., formerly Coroners' Physician of New York City and County; late House Physician and Surgeon of St. Vincent's Hospital, New York City; member of the New York County Medical Association, County Medical Society, Medico-Legal Society, Society of Medical Jurisprudence, New York Academy of Medicine and German Medical Society of the City of New York. Philadelphia: J. B. Lippincott Co. London: 6 Henrietta Street, Covent Garden. Canada: Chas. Roberts, 593A Cadieux Street, Montreal. 1898.

That the large majority of the works already published on medical jurisprudence are too bulky and lengthy to be practical is a fact, so that Dr. Herold, in presenting to the profession what he modestly calls his "Manual of Legal Medicine," has compiled a book which will be found, not only useful to all who take an interest in matters of legal medicine, but full of interest and instruction to medical and law students. Herold's "Legal Medicine" comprises not only the actual practice of the medical jurists of the day, but is full of cases of interest met with personally by the writer. In the latter point the book excels, as there are too many books for sale which are in every instance simply a reflection, and to a large extent a copy, of a former one by a different author. It must be admitted that the practitioner of the present day is woefully ignorant on matters of medical jurisprudence, and very often is placed in a most disagreeable predicament on that account. A work of this kind will be the means of presenting to the physician, who has had this important branch of his medical education perhaps neglected, the means of conveying to him in a short, terse and simple manner, the principal cases which may crop up in practice and in which he may be able to serve his country or Government in a manner which will reflect credit upon both him and his Alma Mater, instead of, as in too many instances, the reverse. Part I. of this work takes up Toxicology, and treats of the administration, effects, elimination and antagonism of most of those drugs known as poisons. Chapter ii. treats of evidences of poisoning in the living, and chapters iii. and iv. take up the rules to be observed in poison cases, and a classification of poisons. From chapters v. to xvi. the different poisons are treated separately. In each one the symptoms, treatment and *post-mortem* appearances are dealt with in a clear, concise manner. Part II. deals with Forensic Medicine proper, treating first with signs of death, medico-legal autopsies, presumption of death and survivorship, personal identity, examination of blood stains, the medico-legal consideration of wounds, gunshot wounds, burns and scalds, etc., etc., finishing up with such matters of interest to the medical jurist as rape, impotence, legitimacy and life insurance. The chapter on Medico-Legal Autopsies is most complete. That part treating on personal identity includes a synopsis of the Bertillon system of identifying criminals and is thoroughly interesting. The largest chapter in the book is that which considers blood stains and their medico-legal importance in cases of homicide. The book is replete with information in every branch of legal medicine.

Sajous' Annual and Analytical Cyclopædia of Practical Medicine. Volume II. "Bromide of Ethyl of Diphtheria." The F. A. Davis Company, Phila., Pa.

We notice in this volume several important articles by well-known specialists. Among others, the article on "Cholelithiasis," by Professor Graham, Toronto; that on "Cirrhosis of the Liver," by Professor Adami, Montreal, and an

article on "Cholera Infantum," by Dr. Blackader, Montreal, will be peculiarly interesting to Canadian readers.

Professor Graham's article is admirable in its completeness, and is rendered yet more instructive by some appropriate illustrations. In the treatment of biliary colic he states that "The most effective remedy is a hypodermic of ¼ or ⅓ grain of morphine with $\frac{1}{100}$ grain of atropine. Hot applications applied locally afford some relief." Immersion of the patient in a hot bath has in our experience caused the passage of the calculus and the sudden disappearance of pain.

Professor Adami's article is particularly full when the pathological anatomy of the liver is described. Under the head of "Portal Cirrhosis," ascites and œdema of the feet are given as symptoms, but œdema of the scrotum and penis is not mentioned. Under the head of treatment, avoidance of alcohol is indicated. In view of the futility of ordinary medical treatment this seems insufficient. The patient should be told that abstinence from alcohol is the important feature in the treatment of his disease. Calomel and salines cannot do much good. Repeated tapping occasionally proves curative, or, at least, adds to the patient's comfort.

In the article on "Cholera Infantum," by Professor Blackader, Montreal, a good point is made in the description of the pathology of this disease, when he says that "There are few changes found after death, either in the intestinal canal or in any of the organs. The only lesion present may often be a desquamative catarrh of the gastro-intestinal tract." Fatal cases are sometimes called enteritis or gastro-enteritis. The indiscriminate use of the terms "cholera infantum" and "enteritis" often renders it impossible to determine the form of disease to which a physician refers.

The article on "Diphtheria" by Drs. Northrup and Bovaird shows the extreme simplification achieved in the treatment of that disease. With the advent of antitoxin, most of the remedies for diphtheria have been discarded. The tincture of the chloride of iron, however, still deserves attention in the treatment of pharyngeal diphtheria. As these writers cogently put it: "At the present time, apart from the general treatment, diet, rest, etc., after giving antitoxin, we confine our efforts to the careful cleansing of the nose and throat and the use of stimulants." Similar views were expressed in the CANADIAN JOURNAL OF MEDICINE AND SURGERY, September, 1898, p. 136 and p. 197.

In the article on "Cimicifuga," no mention is made of the use of the fluid extract of cimicifuga in doses of thirty drops a day in the treatment of tinnitus aurium. This medicine clears the voice, which has become husky by relaxation of the faucial or lingual tonsil or the glands in the vicinity of the larynx. It removes congestion of these parts and the voice becomes clear again. Its action may also extend to the Eustachian tubes, removing congestion of these parts and proving curative in recent cases of tinnitus aurium. Model and Robin (*La Medicine Moderne*). J. J. C.

An American Text-book of Gynecology—Medical and Surgical. For Practitioners and Students. By HENRY T. BYFORD, M.D., J. M. BALDY, M.D. EDWIN B. CRAGIN, M.D., J. H. ETHERIDGE, M.D., WM. GOODELL, M.D., HOWARD KELLY, M.D., FLORIAN KING, M.D., E. E. MONTGOMERY, M.D., WM. R. PRYOR, M.D., G. M. TUTTLE, M.D. Edited by J. M. Baldy, M.D. Second edition, revised. With 341 illustrations in the text and 38 colored and half-tone plates. Philadelphia: W. B. Saunders; Toronto: J. A. Carveth & Co. 1898.

Though received a few weeks ago, it was impossible for us to pretend for a moment to review earlier in anything approaching an analytical manner works of such magnitude as either this, "The Text-book of Gynecology," or that of "Diseases of Children." We cannot say that we have read this work through yet, but we have had the pleasure and satisfaction of reading the greater part of it. Since the first edition of Dr. Baldy's work was published some years ago, there has taken place a considerable number of changes in the methods of treatment adopted by the modern gynecologist, necessitating the rewriting

of many parts of the book, and in order to further elucidate the text and its meaning quite a number of illustrations have been added to those already used in the original volume. The author has been especially careful not to in any way repeat himself, relegating each subject to a specific chapter. We noticed, in comparing the two editions, that the chapter on hysterectomy has been rearranged through almost its entirety, and the part of the book dealing with the bladder and ureter considerably changed as well as added to. This book, all the way through, may be said to be a complete presentation of gynecological work as practised by American gynecologists, and without being too lengthy and, consequently, wearisome, it forms a very fine working text-book for the profession in every way. We are pleased to find so much attention given to the question of the after treatment of patients, as too many surgeons exist who are well acquainted with every minutia as to the operation itself, but do not know the all-importance of the successful after treatment of an "operative" case. We have rarely come across any work where the illustrations have been so beautifully executed as to give the reader, the moment he looks at them, the idea desired to be conveyed by the author and thus save going into too much detail in the text itself.

A Text-book of Materia Medica, Therapeutics and Pharmacology. By GEO. F. BUTLER, Ph.D., M.D., Professor of Materia Medica and Clinical Medicine in the College of Physicians and Surgeons, Medical Department of the University of Illinois; Professor of General Medicine and Diseases of the Digestive System, Chicago Clinical School, etc., etc. Second edition, revised. Philadelphia: W. B. Saunders, 925 Walnut Street; Toronto: J. A. Carveth & Co. 1898.

It must be a matter of great satisfaction to any author to find that, ere sufficient time has elapsed to allow of his pen drying from his labors in connection with his first edition, he is called upon, owing to the large sale and favorable reception of his book to write a second and generally more lengthened volume. It is but a very short time since Dr. Butler completed the first edition, and we find that, just as we prognosticated, it has received an exceptionally large sale, and he has been forced to undertake the labor of a second. We find that since the publication of the first edition, pharmacology as a science has made considerable strides, not so much in revealing the action of new remedies as in clearing away the obscurity which had existed as to older ones. Dr. Butler has gone more fully into the action of some of the newer classes of remedies, especially those of antiseptics and antipyretics. He has, in considering cathartics and diuretics, made considerable changes, and also enlarged the chapters on both aconite and strychnine. During the years which have elapsed between the two volumes a good deal of talk has arisen as to nuclein and its therapeutics, as also regarding serum therapy, so that we find considerable space, and, we think, justly so, devoted to those newer methods of treatment. A chapter on "The Untoward Effects of Drugs," has been introduced as a new feature. One of the most interesting—though simplest—parts of the book is that portion at the end devoted to prescriptions. It will repay everyone who wishes to keep in advance of this part of science to purchase the work, as it is full of recent facts on therapeutics presented in a most attractive manner.

A System of Medicine by Many Writers. Edited by THOMAS CLIFFORD ALLBUTT, M.A., M.D., LL.D., F.R.C.P., F.R.S., F.L.S., F.S.A., Regius Professor of Physic in the University of Cambridge; Fellow of Gonville and Caius College. Vol. IV. London: Macmillan & Co., Limited. New York: Macmillan & Co., 1897. Toronto: A. P. Watts & Co., College Street.

This volume of Allbutt consists of "Diseases of the Liver and other Glands," and "Diseases of the Throat." Under "Diseases of the Liver," the principal and most frequent contributor is Dr. William Hunter, who writes chapters on the

Anatomy of the Liver, Functions of the Liver and their Disorders, Congestion of the Liver, Jaundice, Toxæmic Jaundice, Weil's Disease and Acute Yellow Atrophy of the Liver; Dr. W. Hale White has articles on Perihepatitis and Tumors of the Liver; Dr. Andrew Davidson, one on Suppurative Hepatitis; Dr. Laflœur, on Amœbic Abscess of the Liver; Dr. Hawkins, on Cirrhosis of the Liver; Mr. Mayo Robson, on Diseases of the Gall Bladder and Bile Ducts and Cholangitis; and Dr. John Thomson, on Congenital Obliteration of the Bile Ducts and Icterus Neonatorum. Diseases of the Pancreas are dealt with by Dr. Fitz.

Under "Diseases of the Kidneys" Mr. Henry Norris is the principal writer. He takes up such subjects as perinephric extravasations, renal fistulæ, traumatic nephritis, suppurative nephritis, perinephric abscess, renal abscess, pyonephrosis, cysts and hydatids of the kidneys, etc., etc. Diseases of Lymphatic and Ductless Glands are contributed to by Dr. Wm. Ord, who writes on myxœdema, sporadic cretinism and Graves' disease; Dr. H. D. Rolleston contributes an article on Diseases of the Spleen and Addison's Disease; Sir Dyce Duckworth has a very able and original article on Obesity. Under "Diseases of the Respiratory Organs," Dr. Ransome contributes an article on the General Pathology of Respiratory Diseases and one on the Treatment of Asphyxia. Under "Diseases of the Nose, Pharynx and Larynx," Drs. de Havilland Hall, Greville McDonald, Watson Williams and Sir Felix Lemon are the writers. Vol. IV. has most brilliantly kept up the record in giving to the profession through so many well-known writers material which is not only fully up to-date, but presented in a most attractive and readable manner.

An American Text-book of the Diseases of Children, including Special Chapters on Essential Surgical Subjects, Orthopedics, Diseases of the Eye, Ear, Nose and Throat, Diseases of the Skin, and on the Diet, Hygiene and General Management of Children. By American teachers. Edited by LOUIS STARR, M.D., Consulting Pædiatrist to the Maternity Hospital, Philadelphia; late Clinical Professor of Diseases of Children in the Hospital of the University of Pennsylvania; Member of the Association of American Physicians and of the American Pædiatric Society; Fellow of the College of Physicians of Philadelphia, etc. Assisted by THOMPSON S. WESTCOTT, M.D., Instructor of Diseases of Children, University of Pennsylvania, etc., etc. Second edition, revised. Philadelphia: W. B. Saunders; Toronto: J. A. Carveth & Co. 1898.

That there are to-day several good works written on the subject of diseases of children is unquestioned, so that it is a most difficult task for an author, no matter who he is and what standing in his specialty he occupies, to sit down and compile a text-book which will have about it an air of newness and completeness which cannot be found elsewhere. A task of this kind is no small one, and yet, in order to secure a good sale and not have his work remaining as "dead stock" on the publisher's hands, he must accomplish something after this style. We can safely say after conning about a half of Dr. Starr's text-book, that he has, in his second edition, presented to the profession something exceedingly comprehensive in value, complete and finished in method of presentation, and racy in style. The author has embraced in the book almost every branch of pædiatrics, not confining himself to the diseases common to infants and children, but extending into diseases of the eye, ear, nose and throat, orthopedic surgery, not neglecting such (what some might style as minor details, but which on the other hand are most important) subjects as diet, hygiene and general management. We find that not only have a large number of chapters been rewritten and brought right up to date, but several new ones have been added. We find that both tuberculosis and malaria have been included in the chapters on "Infectious Diseases." A new article has been added, written by Dr. Westcott himself, on "Modified Milk and Percentage Milk Mixtures," also one on "Lithæmia," by Dr. B. K. Rachford, of Cincinnati. Dr. Jas. E. Moore, of Minneapolis, contributes the department on orthopedics.

A Clinical Text-book of Medical Diagnosis for Physicians and Students Based on the most Recent Methods of Examination. By OSWALD VIERORDT, M.D., Professor of Medicine at the University of Heidelberg; formerly Privatdocent at the University of Leipzig; late Professor of Medicine and Director of the Medical Polyclinic at the University of Jena. Authorized translation with additions by FRANCIS H. STUART, M.D., Member of the Medical Society of the County of Kings, New York; Fellow of the New York Academy of Medicine; Member of the British Medical Association, etc. Fourth American edition from the fifth German, revised and enlarged. With 194 illustrations. Philadelphia: W. B. Saunders, 925 Walnut Street; Toronto: J. A. Carveth & Co. 1898.

At the outset Dr. Vierordt, who for many years occupied the position of Teacher of Diagnosis in the Medical Clinic at the University of Leipzig, thought of publishing a much more extensive work, going into a detailed explanation of normal and pathological anatomy and physiology as being the necessary foundation for diagnosis. He later abandoned this idea, as leading to a work of too great scope. The author has made it plain all through his writings that in going into the subject it is but wise to make particular use of our senses, especially that of the unaided eye, besides availing ourselves of the finer methods of diagnosis. It is not, Dr. Vierordt points out, right to think of depending upon a chemical reaction for a diagnosis, or upon research in the laboratory by means of the microscope. Each case, he says, must be individualized in order to be correct. We find in this new edition of the work that the author has made the most revision in the part devoted to gastric digestion, and many changes also in that referring to examinations of the nervous system. We must express a little surprise that the application of the X-rays has been entirely omitted from this edition, though, perhaps, many will agree that in its infantile and undeveloped stage this was but wise. We feel, after a careful perusal, that with this work at hand any physician of even moderate ability can become a diagnostician of no mean ability.

Psychopathia Sexualis: A Medico-Legal Study. By DR. R. VON KRAFFT-EBING. Philadelphia: The F. A. Davis Company.

This notorious work has attracted a great deal of attention from the medical profession both in Europe and America; and as a study of some of the phenomena of degeneration may be considered a very valuable addition to the literature of the subject. Especially in large centres of population, where the various forms of perversion are most common, will such a book as this be a most needed acquisition to the physician who, in his professional life, is forced to face fairly the revolting facts here treated of. But no more to the physician than to the criminal lawyer will this work be useful, throwing as it does a scientific light upon certain phases of emotion which would altogether puzzle the casual observer. We look forward with keen interest to the appearance of the erudite Austrian professor's work upon mental diseases. E. H. S.

A Text-book upon Pathogenic Bacteria for Students of Medicine and Physicians. By JOS MCFARLAND, M.D., Professor of Pathology in the Medico-Chirurgical College, Philadelphia; Pathologist to the Medico-Chirurgical Hospital and to the Rush Hospital for Consumption and allied diseases, Philadelphia; Fellow of the College of Physicians of Philadelphia. 134 illustrations. Second edition, revised and enlarged. Philadelphia: W. B. Saunders, 925 Walnut Street; Toronto: J. A. Carveth & Co. 1898.

The author in this work has closely adhered to pathogenic bacteria and their consideration, and has not attempted to cover the entire subject of parasites, those of higher order all having been omitted. He has not even touched upon the consideration of the higher fungi, or of malaria, or amœbic dysentery, simply owing to their not being bacteria, and because a proper consideration would involve too much work and the publication of too lengthy a volume. Dr. McFarland has adhered closely to his subject, though we do

find that he has gone into, somewhat at length, the consideration of a number of spirilla, outside of that of cholera Asiatica, such as spirillum aquatilis found by Gunther in '92 in the water of the River Spree (now pathogenic); spirillum terugenus, discovered by Gunther in earth; spirillum berolinensis, discovered by Neisser in the summer of '93, and very similar in morphology to that of cholera spirillum, as well as others, which cannot be said to be pathogenic or to be the cause of any particular diseased condition. Dr. McFarland, in considering the bacteria which can be proven to be pathogenic, has wisely discussed those with which they are most easily confounded. Practitioners will find this edition to be of the greatest value to them, especially to those who graduated before science had thrown its light upon the great and comprehensive subject of disease and its etiology.

An Epitome of Mental Diseases with the Present Methods of Certification of the Insane. By JAMES SHAW, M.D. New York: E. B. Treat.

In this compact treatise the author has produced what he has indicated in the title, "an epitome of mental diseases"—a *multum in parvo* hand-book which thoroughly covers the entire ground. Among the very large number of books of the sort, there are none really better than the present and very few as good. The writer explains the meaning of a large number of psychiatrical terms, now obsolete, but which often puzzle the general reader when occurring in the writings of those whose knowledge of the subject is obsolete also.

E. H. S.

MAGAZINES RECEIVED.

The Sanitarian. October, 1898. A. N. Bell, A.M., M.D., 337 Clinton Street, Brooklyn, N.Y. $4.00 per year; 35 cents per copy. Contents: "Relation of Public Schools to Public Health," C. S. Caverly, M.D.; "Value of Health," Johnson; "Gymnasiums and Play Grounds," Major Quincy, of Boston; "Formaldehyde as a Disinfectant;" "Laboratory of New York Health Department;" "Consumption an Indoor Disease," S. H. Abbott, M.D.; "Mistakes of Small Towns," Harvey B. Bashore, M.D.; "Reorganization of the Public Health Service of Louisiana;" "American Dermatological Association," etc., etc.

The *Medical Herald*, published at St. Joseph, Mo., is a journal whose managing editor deserves great credit for work done. The pages of this journal are full of snappy, up-to-date "copy," and it is little wonder that the circulation is as large as it is.

PAMPHLETS, REPRINTS, ETC., RECEIVED.

"A Contribution to the Study of the Symptoms of Chronic Urethritis." By Ferd. C. Valentine, M.D.

"Orthoform and Extract Supra-renal Capsules." By W. Cheatham, M.D.

"Glaucoma with Detachment of Retina." By W. Cheatham, M.D.

Report of the State Board of Health of Connecticut for 1897, with the Registration Report for 1896, relating to births, marriages, deaths and divorces.

AFTER spending over a year in important service in the Women's Hospital in Philadelphia, Dr. Katherine Bradshaw has returned to the city and taken up the practice of her profession at 494 Spadina Avenue.