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Original Contributions.

CLUB-FOOT IN THE ADULT.*

BY B. E. MCKENZIE, B.A., M.D.,

Surgeon to the Toronto Orthopedic Hospital; Orthopedic Surgeon to Grace General Hospital;
Associate Professor of Clinical Surgery at the Ontario Medical College for Women;
Vice-President of the American Orthopedic Association.

THOUGH club-foot is seen not very infrequently in persons who have attained to adult years, yet so general is the impression among the laity and in the profession that the condition is incurable that the surgeon's advice is seldom sought. Having had experience, especially in the last two years, with several cases, in persons varying in age between the sixteenth and forty-third years, and believing that the treatment of these cases is eminently feasible, and that the results obtainable are such as to improve in a marked degree the patients' appearance, comfort and general well-being, I have felt justified in bringing this subject to the notice of the Association.

In all, I have treated seventeen cases between the ages named; seven of these cases were thirty years or older. The average age was twenty-six years. Eleven of the cases had both feet deformed.

I shall give particulars of only a few cases:

CASE 1. T. S. D., aged 29, tinsmith, had strongly marked deformity of both feet at birth. He is a healthy, stout man of about 150 pounds. No systematic attempt had been made to correct the deformity, which is now typical (Figs. 1 and 2).

First operation with anesthesia, December 8th, 1898, the plantar fascia, tibialis posticus tendon, and the anterior portion of the

* Read by title at the meeting of the American Orthopedic Association, in Washington, May, 1900.

internal lateral ligament cut subcutaneously, the anterior portion of the foot strongly abducted and retained in position by plaster-of-Paris casing.

January 10th, 1899. Further cutting of restricting bands of fascia subcutaneously, further abduction of the feet and retention by plaster-of-Paris.

February 1st. The varus having been overcome, the tendo-

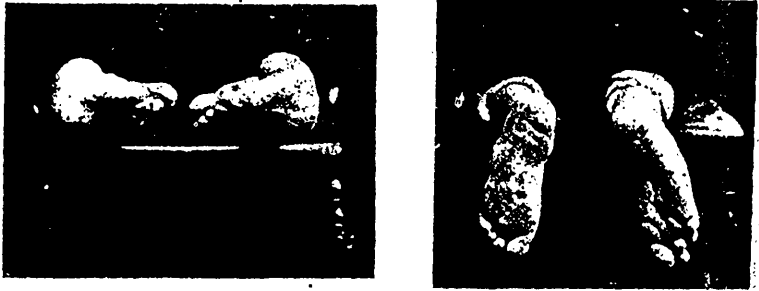


Fig. 1, Case 1.



Fig. 2, Case 1.

Achillis was cut subcutaneously and the feet brought to an angle of 100 degrees and retained as before.

February 17th. Further correction made by subcutaneous cutting and manual force.

March 10th. Dismissed from hospital wearing boots and using crutches. Dorsiflexion to 80 degrees.

April, 1900. Patient walks remarkably well, remains upon his feet at business in the store all day, has, in pursuance of his occu-

pation, the putting up of cave-troughs, climbed ladders, and moved about upon the roofs of buildings. The range of motion at the astragalo-crural joint is about 25 degrees.

CASE 2. F. B., aged 16, double club-foot, congenital and strongly marked, fasciotomy and tenotomy much as in the former case.

August 6th. Further correction made.



Fig. 3, Case 2.

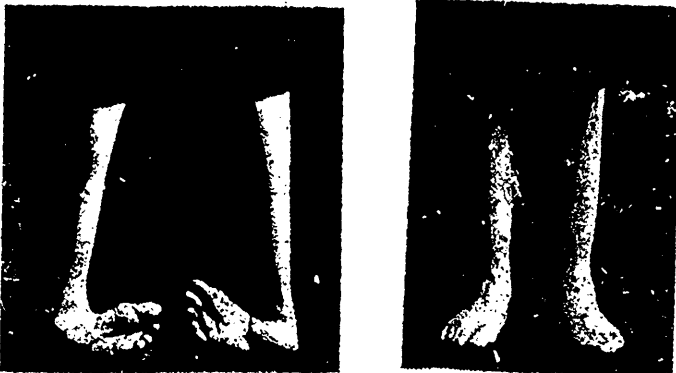


Fig. 4, Case 2.

September 1st. Further correction made.

October 6th. Tendo-Achillis cut, and both feet brought to an angle of 90 degrees dorsiflexion. One dressing subsequently, without anesthesia, brought the feet to 80 degrees of dorsiflexion.

November 19th. Began walking, using boots and a cane. This latter thrown aside in two weeks.

April, 1900. At the present time, walks well and suffers no

inconvenience through remaining on his feet, as much as demanded by his ordinary work as an office hand (Figs. 3 and 4).

CASE 3. O. S., aged 18, a large, healthy man of 180 pounds, right club-foot, congenital. Subcutaneous replacement and retention as in other cases.

December 21st. Further cutting and replacement.

January 25th, 1900. Tendo-Achillis cut and equinus corrected.

February 13th. Further correction of equinus by manual replacement.

March 4th. Dismissed from hospital, walking with a cane.

December, 1899. This patient walks remarkably well, with scarcely a perceptible limp.



Fig. 5, Case 3.

CASE 4. F. S., aged 16, right club-foot, congenital.

June 6th, 1899. By subcutaneous fasciotomy and tenotomy and manual replacement, the varus was fully overcome.

June 20th. Tendo-Achillis was cut, and dorsiflexion to an angle of 80 degrees secured.

July 13th. Dismissed cured.

April, 1900. The foot is unduly pronated, and I have found it necessary to have his boot built as in a moderate case of flat-foot.

CASE 5. J. C., aged 27, right club-foot, congenital.

August 23rd, 1899. Subcutaneous fasciotomy and tenotomy: Partial replacement of the varus and retention by plaster-of-Paris.

September 19th. Repeated.

October 10th. Repeated.

October 31st. Tendo-Achillis cut and equinus so far corrected as to bring the foot to an angle of 90 degrees with the leg.

November 28th. Dorsiflexion to 80 degrees secured.

December 2nd. Dismissed from the hospital.

April, 1900. This patient walks with a very slightly noticeable limp. There is good movement in the foot through an angle of 30 degrees. Extreme flexion is shown in Fig. 6.

CASE 6. E. R. F., aged 30, double club-foot, congenital. Considerable difficulty was met with in correcting the varus. Anesthesia given four times at intervals of about four weeks, and feet strongly abducted by manual force. The skin at the inner border of the foot having torn through, the opportunity was taken to cut obstructing bands of fascia. In this manner three months were



Fig. 6, Case 5.

occupied in fully correcting the varus, a much longer time than in any other case. A few days ago the tendo-Achillis was cut, and the feet brought to an angle of 100 degrees with the leg. Still under treatment.

There are a few points in connection with the history of these cases, to which I wish to call your attention.

1st. They are cases from the sixteenth to the forty-third year of age.

2nd. In none was there any operative intervention other than subcutaneous cutting. It is true that in three feet, one in Case 1, and in both feet in Case 6, the skin gave way, making an open wound.

3rd. The average time from the first operation until the patient was able to walk with a cane, was about three months.

4th. In Case 1, T. S. D., in whose foot an open wound resulted through the employment of manual force, the result is less satisfactory than in the other foot. There is a more marked disposition

to contraction and less mobility. The same difference is shown in Figure 7, another patient upon whom I operated in 1890, making the regular open incision recommended by Phelps, in one foot (the right), and employing subcutaneous tenotomy and manual force with more frequent dressings in the other (the left). The foot in which the open incision was made is not as good as its fellow.

5th. Based upon my experience of about 400 cases of club-foot, of which 28 feet were in persons over 15 years of age, I would say that neither operation on bone, nor the open incision is called for, except in a very small proportion of cases; in less, say, than 5 per cent.

6th. The result, other things being equal, is better where there has been no cutting, other than that done subcutaneously.

7th. The time occupied in treatment is no longer than when the open incision is made.



Fig. 7.

8th. Whatever method of treatment be adopted, the deformity of the foot *per se* should be fully corrected before the relationship of the foot to the leg be interfered with.

9th. In all of the 28 feet here referred to, the result is most gratifying, with two exceptions. One of these is a young woman, twenty years of age, who weighs about 200 pounds. The deformity in her case was doubtless due to anterior poliomyelitis which came on at a very early age. In this case the foot became displaced too far outward, and her present condition is little better than her former one. A similar result in a slight degree followed in a young man of seventeen years, although the case was doubtless congenital.

10th. The age of some of these patients, several of them ranging between 30 and 43 years, and the eminently satisfactory results obtained at this age render it comparatively certain that age is not a serious barrier in the way of correcting this deformity.

CASE OF MALIGNANT (?) DISEASE OF GALL BLADDER,
SIMULATING HYDRO-NEPHROSIS.—FEEDING THROUGH
THE GALL BLADDER FOR THREE DAYS.*

BY F. N. S. STARR, M.B.(TOR.)

Associate Professor of Clinical Surgery, University of Toronto; Surgeon to Western Hospital and On
Door Department of Toronto General Hospital and Hospital for Sick Children.

UPON several occasions I have reported cases to this Society that have terminated fatally; for a change I thought I would report one that still lives. To me it is one of peculiar interest, and I trust it will seem to you to be worthy of your notice.

The patient, a female aged 51 years, consulted me at my house on March 22nd, 1899, complaining of a pain which began in the right renal region, shooting down the right side of the abdomen to about the middle of Poupart's ligament, and then across to the left. Upon examination of the abdomen I found a mass about the size of a duck's egg three finger-breadths below the costal margin, apparently not continuous with the liver. It moved with deep respiration, was freely movable on palpation, but would not retract entirely into the renal region. There was resonance on percussion between the mass and the liver margin, as well as over the prominence of the mass. It was tender to pressure, and had to be manipulated very gently. She told me that at times when she would sit up she would have a sensation as if something would slip up under the ribs. There was no history of gall-stones or of discolored stools, but there was a history, extending over months, of pain in the side, associated with a diminution in the quantity of urine which would last for a day or two, then a large quantity would be evacuated and the pain relieved.

There was also a history of gas on the stomach, accompanied by distress and nausea coming on suddenly. The urine, upon examination, was amber-colored, with a sp. gr. of 1022, acid, but contained neither albumen nor sugar. Under the microscope there were a few dumb-bell crystals.

An offensive discharge from the vagina had been in existence for some time, but an examination of the uterus and appendages revealed no growth or malposition of the organs. There had been no menstruation since October, 1898.

I made a provisional diagnosis of floating kidney.

On April the 9th, nearly three weeks later, I was called to see her, and learned that three days before, after suffering great pain, she passed a large quantity of urine—more than half a chamber-pot—after which she was comfortable for a time. The pain re-

*Read before the Toronto Medical Society, May, 1900.

curred, and she was suffering greatly when I saw her. Very little urine had passed each day. I passed a catheter and drew off eight ounces. From 9 p.m. on the 9th till noon on the 10th she passed just four ounces. The mass had increased greatly in size, and now extended to the left as far as the umbilicus. It was less freely movable. The patient was vomiting a great deal. I administered the usual remedies for the relief of vomiting, and resorted to lavage without success. I now came to the conclusion that the floating kidney had in some way produced a kinking of the ureter, and that I had to deal with a hydro-nephrosis. I teaporized for two days, but finding there was no improvement in her condition, I advised operation for the relief of symptoms.

Accordingly, on April 12th, I cut down in the loin over the right kidney, and to my surprise found the kidney normal in size and appearance. The ureter was, however, greatly distended because of pressure upon it by some intra-peritoneal tumor. I closed this wound and opened the abdomen over the prominence of the mass, which now extended more than an inch to the left of the umbilicus; this I discovered to be a greatly-distended gall bladder. Putting an aspirating needle into this a considerable quantity of dark brown grumous material was drawn off, which under the microscope proved to be made up of cholesterine crystals and disintegrated blood. After carefully protecting the general peritoneal cavity by means of gauze-pads and sponges, I freely opened the gall bladder, finding that it had a very thick wall varying from a quarter to half an inch. Passing my finger in, and afterwards a long probe I was able to determine the patency of the common bile duct. Believing the case to be one of malignant disease, I sutured the margins of the opening into the gall bladder to the margins of the abdominal incision, put in a drainage-tube, and then closed the remainder of the wound. For several days the tube drained away a considerable amount of this dark brown fluid, but the discharge gradually became more and more like bile until finally clear bile was discharged. The stools throughout had been of a natural color. A few hours after operation a large quantity of urine was drawn off.

As soon as the patient began to come out of the anesthetic the vomiting recurred, and the stomach would retain nothing. I resorted to nutrient enemata for about thirty-six hours, keeping her in fairly good condition by this means, but at the end of that time the bowel refused to retain these. On the evening of the third day after the operation I saw the patient and found her sinking rapidly, stomach contents were regurgitating from the mouth, she was very restless, the face was drawn and pinched and the eyes sunken, the temperature was subnormal, the pulse irregular, running at 140 to the minute and barely perceptible at the wrist—the end seemed near at hand. Mr. Irving H. Cameron came in at this time, and

we were discussing the advisability of giving a subcutaneous injection of normal saline solution, when it occurred to us that through the gall bladder we had a direct opening into the duodenum, and we might possibly succeed in introducing normal saline into the small intestine in this way. I put about Oiii into the irrigator, inserted nozzle into drainage tube, packed around tube to prevent as much as possible any leakage, and then commenced the injection with the irrigator at an elevation of about eighteen inches and afterwards raised it to about three feet. Of course there was some leakage, but I am sure the patient got about a quart of the solution. Inside of half an hour the effect was marvellous—the patient became restful, the pulse full, the temperature slightly elevated; the vomiting ceased and she had her first undisturbed sleep. These normal saline injections were repeated twice during the night, and the improvement continued, though at times there was nausea and some vomiting. In the morning the success of our experiment was so apparent that I ordered three ounces of peptonized milk to be injected through the drainage-tube every two hours. This method of feeding was continued for three days, when, as there had been no more vomiting, I ventured to nourish the patient in the usual way. She was moved home at the end of six weeks, and though she was very weak for some time, yet at the end of four months she had improved sufficiently to be able to do a little housework, and at the end of six months she was able to do all her own housework. At this time she weighed more than she had ever weighed in her life. She continues in good health, though she still wears her drainage-tube, and for this reason: On one or two occasions the tube has become blocked with mucus, when she would complain of the old pain under the ribs, hence fearing lest the closing up of the opening would lead to a recurrence of her old symptoms, I have advised her to put up with the inconvenience of the tube.

My object in reporting this much mis-diagnosed case is to call attention to this unusual method of feeding a patient when the condition has become hopeless. I have so far been unable to discover that this method of feeding has been tried before, and until some responsible and reliable surgeon proves beyond a doubt that I am mistaken, I shall claim that my patient was the first to clearly demonstrate the usefulness of this novel but rational method of feeding.

I am unable to account for the mistake I made as regards resonance unless it was transmitted resonance from a greatly distended colon.

As to the diagnosis of the case I am still in doubt, and hope that her health will continue so good that I shall remain in doubt for a long time to come.

471 College Street, Toronto.

THE RELATION OF THE PROFESSION TO SANATORIA
FOR CONSUMPTIVES.*

BY P. H. BRYCE, M.D., TORONTO.

As might be expected of an Association having the status of the Ontario Medical Association, I find that amongst its objects, as set forth in the constitution, Clause 4, has "The Promotion of the Public Health," and that one of its standing committees deals with "Public Health, Vital Statistics and Climatology."

I further recall to the recollection of the Association the fact that in 1899, the treatment of consumption in sanatoria was quite fully discussed, and that the Association has cordially adopted the method as having great value as a therapeutic measure in dealing with this prevalent disease.

Owing to the interest exerted by this representative Association to the ever-increasing knowledge of the exciting causes of this disease, and to a more accurate study of its immediate cause, and of the protean phases under which the disease presents itself, scientific medicine has arrived at the conclusion that any effective warfare against it must depend upon the promotion of the nutrition of the body, and its gradual restoration to a condition of physiological health. To-day we find the same principles accepted for the treatment of other diseases, as typhoid, acute mania, the management of surgical cases, etc.—indeed, of all disease.

In view, however, of the insidious and usually chronic character of tuberculosis, physicians are confronted with the most serious obstacles in supplying such "home" conditions, especially in the houses of the wage-earning classes, as will promote a return to that physiological condition which we denominate health.

In view of the confessed failure of the profession to establish cures by the routine therapeutic measures, it has been forced to turn for help to the study of that chapter of Hippocrates, neglected for centuries, entitled "*De aeribus, aquis et locis*," "On Airs, Waters and Localities."

Recognizing, however, that its application in a practical manner must be largely dependent upon house conditions largely beyond their control, the profession as represented in this and other associations, has endeavored to educate the public and our legislators regarding the need for organized effort to supply conditions under which this trinity of forces can operate so continuously and systematically that the *vis medicatrix naturae* can operate under the most favorable circumstances.

*Read at the Ontario Medical Association, Toronto, June, 1900.

So general has been the education on this point, and so unanswerable its logic, that at the last session of the Ontario Legislature a Bill was introduced, and after full consideration was unanimously passed, providing for the systematic establishment of sanatoria for consumptives in every county in the Province. The comprehensive and practical character of the Bill is such that I believe it can be said that it is the most comprehensive and advanced legislation on the subject which has been adopted in any country, and reflects credit equally upon the people, their legislators and the profession. Briefly it provides:

1. That counties or cities, or a union of municipalities can establish a sanatorium after a by-law has been passed providing money for the purchase of land and the erection of a building.

2. That its management and maintenance must be vested by the Councils in a Board of Trustees.

3. That its location, and the fitness of the building for the purpose, must be satisfactory to the Government.

4. That the Government may then grant a sum not exceeding \$4,000 toward its construction.

5. That a weekly payment of \$1.50 must be made by any municipality from which a resident is sent with the consent of its Health Board, and a similar sum will be given by the Legislature.

6. That the further expense of maintenance must be supplied by the patients, public charity, and the county municipality establishing it.

The Bill has some of the provisions which apply to county Industrial Homes, but in view of the scientific and medical character of the work, has provided for the appointment to the management of physicians and citizens most likely to fully realize the aims of such an institution.

In view of the fact that some twenty counties have instituted Industrial Homes for the aged poor, who can only be looked upon as an unavoidable burden, it does not seem unreasonable to expect that we may see the institution in many counties of sanatoria for consumptives, when we remember that it has been found here, as in Germany, that some 50 per cent. of all sick work-people between 20 and 30 years of age, are suffering from tuberculosis, and that some 37 per cent. of all deaths between 15 and 60 are due to this disease.

As the members of this Association are aware, it has been my duty to study the statistics of the Province for many years, and hence it is natural that I may have become especially impressed with the relatively enormous mortality from this disease, not in one but in every part of the Province; but every physician is unfortunately too well aware of its ravages. The problem of how we shall be able to bring this new addition to our armamentarium into operation must seriously engage our attention.

In England, Broadbent, Playfair, McCormack, and indeed all the leading members of the profession, have taken the matter up, and under the patronage of the Prince of Wales and Lord Salisbury, have banded themselves into an association or League for the Prevention of Tuberculosis. Such a similar association the situation demands in Ontario. There the Association has taken up the work of popular education on the subject. Here a similar work is demanded to set in motion the splendid machinery provided under the Act.

What is especially demanded of such an association is, that the work shall be controlled in the highest interests of science; and to this end it becomes the duty of the profession to become the leaders in the work in every county.

To them we look for guidance in the selection of sites, the planning and construction of buildings, and the chief voice in the management. It will not do for the profession to take a merely passive or advisory part in the work.

We are aware of not a few instances where an undue prominence of the lay element has worked disastrously in the interests of science in the construction and management of our hospitals. In this work in which the supervision of the consumptive demands, as Walther and others have shown in Germany, the most thorough scientific knowledge of medicine, of hygiene and climatology, associated with the highest executive capacity for obtaining the best results, this point of medical supervision must be especially recognized.

Already the physicians of Toronto have taken steps to organize a Toronto Branch of the proposed Provincial Association, and have carefully considered the details of such an association. It is expected that steps will be taken while this Association is in session to organize a Provincial Association, under which may be formed many local associations, and which in its turn will become one of eight in a yet larger Dominion Association. Such association has been promised the distinguished patronage of the representative of Her Majesty in the Province, Sir Oliver Mowat, whose name is so intimately associated with that wonderful aggregation of charities which has made Ontario the admiration of countries across the sea.

The work is national, touching as it does the life of the individual, the happiness of the family, the vigor of the people, and the welfare of the state. Its scope is the investigation of the social influences which tend to deterioration, whether physically, intellectually or morally; and which it is the proud privilege of medical science especially to prosecute. To the profession, who are the "eyes and ears" of the people in all which affects them most personally, society looks for guidance as implicitly as

in ancient times the people looked to the auspex who searched in the entrails of his victim for the fate of the army or the recovery of a potentate. The century has seen pass its little systems from Thomsonianism and Joanna Southcott's visions, only to be followed by others of their kind in rapid succession.

Only what is true remains, and to the true men of science alone is it given to say, as Sir Humphrey Day said a hundred years ago, "That we reason by analogy from simple facts; we consult only a state of human progression arising out of its present condition; we look for a time that we may reasonably expect—for a *bright day*, of which we already beheld the dawn."

**EXPLORATORY INCISION IN OBSCURE BRAIN LESIONS.—
SOME POINTS IN THE SURGICAL TREATMENT
OF MENINGOCELE.***

BY L. W. COCKBURN, M.D., M.R.C.S. ENG., HAMILTON.

WHEN requested to read a paper at this meeting I selected these subjects, not because I feel specially qualified to speak upon them, but rather with the object of drawing forth expressions of opinion upon two subjects which, in comparison with the advances made in other departments of surgery, appear to me to be in a somewhat backward state.

The brain is still one of the "darkest continents" of the body, and it is perhaps too much to hope that exploratory incision, which in abdominal surgery is so useful, will ever find its counterpart in the surgery of the brain. I have, however, sometimes thought it might be more frequently resorted to than it is, and in support of this view I will briefly cite and make a few comments upon two cases that have come under my care. I will give the histories in the briefest skeleton form in order to economize time.

April 5th, 1894, H. L. consulted me about his son, C. L., aged 13. Family history, nothing special. Past history of patient nothing special. Sickness commenced about two years previously. Complained of pain on the left side of the head, which became severe and incessant. Localized in a spot over the ascending frontal convolution close to the longitudinal fissure. Had lost all power of speech for some time prior to date of my first visit. Cross examination could elicit nothing that threw any light on the cause of the boy's condition. Was told that he had been seen by seven or eight doctors before he came under my care, and that many different opinions had been expressed as to the nature of the case. The boy was pale and anemic looking; he lay huddled up

* Read at the Ontario Medical Association, Toronto, June, 1900

in bed in a darkened room, perfectly silent, with an expression of pain in his face, some photophobia, and his hand constantly applied to the left side of his head.

I went carefully over the boy, but could find nothing in his nervous system or elsewhere to account for his condition. I examined him several times during a period of two weeks, but always with a negative result.

I told the parents I did not feel certain as to what the trouble was, but that the evidence pointed towards neurasthenia.

He was taken to Toronto, and I lost sight of him. Early in August the parents again brought the boy to me. I was informed that the doctor in Toronto had found a very tight and irritable prepuce and had advised circumcision, which was done. No improvement followed, and the parents were in despair. I advised an exploratory incision, explaining, of course, the experimental nature of the operation. The parents consented. He entered St. Joseph's Hospital on August 13th. Operation August 15th. Horseshoe skin incision and hole in skull to correspond, dura mater also laid back by a horseshoe flap. Hole in skull rather larger than a 50c. piece. Brain pulsated and appeared normal. Brain gently pressed back and little finger inserted under edge of bone, exploring cortex for about 3-4 inch beyond edge of bone. Nothing found. Dura bone and scalp all replaced. Stitches removed eighth day. Discharged August 25th, and I again lost sight of him. A few weeks ago a prosperous-looking young man walked into my office and asked for his bill. I told him I thought he had made a mistake. "Oh no, doctor," he said, "do you remember my head?"

He told me that after the operation the pain began to get easier, that it gradually died away, his power of speech returned, that he got quite well and had remained so ever since.

F. H., aged 22, consulted me in the early part of January, 1899. Family history: Father healthy; mother neurotic. Seven brothers and sisters, all healthy. Past history nothing special. Present illness: When about seven years of age received a wound on the left temple. Wound healed; no ill effects for a year or more. Then began to have pain on left side of head, localized in a spot about three inches above the external angular process, behind the site of the old wound. Pain accompanied by vomiting. Attacks of pain and vomiting would recur about once a week. This has been going on for years, and the attacks of pain and vomiting are sufficiently severe to incapacitate him for work.

I went over the whole case, but could find nothing except some exaggeration of the superficial reflexes. General health intact. The constant pain and vomiting being practically the only symptoms present.

On January 28th, I admitted him to the City Hospital for

observation. On the supposition of the case being one of neurasthenia he was placed upon large doses of bromide, but without much benefit. He was discharged February 19. Since then his condition has remained much the same. In this case I have advised exploratory incision, but so far the patient has declined.

Comments. I believe the first case was cerebral neurasthenia. That he began to improve after the operation is undoubted. What share the operation may have had in the improvement, or whether any powerful impression produced on the nervous system would have caused a like satisfactory result are debatable points. I think the second case is also neurasthenic, though the history of traumatism might form an additional argument in favor of operation.

It is in cases of suspected tumors that exploratory incision would find its principal use. Now, brain tumors, with the possible exception of syphilitic and tubercular cases, are mortal lesions; and therefore anything which holds out a hope of saving the patient is justifiable. For clinical purposes tumors of the brain may be roughly divided into those producing no symptoms; those producing slight symptoms; those producing marked symptoms, but of such a character that localization cannot be inferred therefrom; those producing definite localizing symptoms. Operation has usually been confined to the last class of cases. I think in all cases of suspected tumor exploratory incision should be undertaken.

I should like to propound this question: Given a case pointing to brain trouble of some kind, if after careful watching, if after excluding all constitutional conditions, if after all milder remedies have been faithfully tried, and, finally, if the patient clearly understand the experimental nature of the procedure, is an exploratory incision justifiable? I think it is.

My remarks on meningocele will be very short.

On April 5th, I operated on a fair-sized meningocele. The skin and subcutaneous tissues were peeled down to the neck of the tumor. All bleeding stopped. Tumor then opened and interior of sac examined. No nerves were found in the sac; the neck of the tumor was therefore tied tightly with fine silk, and cut away about one-half inch beyond ligature. The deeper parts were undermined, drawn together over the stump with buried kangaroo tendons, and the skin united with silk. Usual aseptic dressing applied. The case did well until April 10th, when cerebro-spinal fluid was found escaping. The wound was opened and the neck of the sac was re-tied. The next day the leaking continued, and another attempt was made to render the sac water-tight, but without success. Leakage of cerebro-spinal fluid continued, and the child died April 18th, thirteen days after the operation, with symptoms of meningitis.

No formal autopsy was made, but the wound was examined, when it was found that the ligature had cut through the pedicle.

Comments. According to most of the standard text-books, the surgical treatment of spina bifida has settled down into a state of quiet immobility, in which the treatment by the injection of Morton's fluid is copied from book to book through successive editions with monotonous regularity. In spite of the weight of authority against me, and in spite of the fatal issue of the case just mentioned, I believe excision is the treatment of the future. Injection is unsound in principle. The condition is one of congenital hernia, and I think should be treated in accordance with the principles governing the radical treatment of hernia in other parts of the body. What man in these days would dream of injecting an irritant fluid into an ordinary hernial sac, which communicated freely with the abdominal cavity, in order to produce its obliteration?

The fatal issue in this case was due, in my opinion, not to faulty principles, but to faulty technique. Such occurrences are unavoidable in pioneer operations, but if the lessons they teach are taken to heart they will not be thrown away.

In any future case I would peel the skin off the neck of the sac, leaving as much as possible of the soft parts around the neck *in situ*, then place a temporary ligature round the neck and open the sac. If no nerves were present, I would then cut away the tumor about two inches away from the temporary ligature and then peel the dura mater away from the interior of the sac down to the bite of the temporary ligature. I would then clamp the mouth of the dura mater, remove the temporary ligature, and then tie the dura mater with tendon, cut away the redundant dura, and turn the remaining soft parts constituting the neck of the sac in over the stump of the dura mater. I would then deeply undermine the sides of the incision and draw them together over the hernial opening with the buried tendon ligatures, unite the skin with fine silk and apply a thick collodion dressing. A meningocele becomes very tense when a child cries, and this tension is the measure of the pressure the ligature of the sac will have to stand; under these circumstances the importance of getting the wound quickly united over the hernial opening is obvious. Another important point noticed was the effect on the patient of opening the sac. Immediately on opening it evidences of collapse appeared, and the anesthetist becomes anxious. Such a state of affairs is not conducive to deliberate operating. Temporary ligature would, I think, obviate this difficulty, as I have no doubt that the symptoms of collapse were due to the sudden change in the intra-cranial pressure consequent on opening the sac.

SOME PROOFS THAT SMALL-POX IS PREVENTED BY VACCINATION.*

BY W. F. ELGIN, M.D., GLENOLDEN, PA.

In order to study this question in a systematic manner, I will divide the subject into three parts, though begging you to remember that they are so intimately associated that in the following facts and figures it will be impossible to discuss them separately.

My first proposition is one that may be considered as the most important and the other two simply corollary, and must follow as a matter of course.

1. Vaccination always protects against small-pox in recently vaccinated cases where positive proof exists that the vaccination was genuine and not spurious.

2. Where immunity is partially lost by lapse of time, an attack of small-pox is usually milder and followed by a lower death rate by reason of partial immunity still existing.

3. Statistics show a smaller death-rate from small-pox where vaccination is general than where it is not.

Now we know that small-pox is not a respecter of persons, and that there are very few, if any, naturally immune to small-pox; so that when a person, after having been vaccinated, refuses to have small-pox, even though inoculated with virus from a variolous vesicle, we are justified in assuming that the vaccine had protected him; and when such an instance is multiplied innumerable, the assumption becomes a scientific certainty. Jenner records nineteen cases in persons who had naturally contracted cow-pox and appeared incapable of taking the disease either through abundant exposure on one hand, such as nursing and sleeping with patients, or by actual inoculation of small-pox, known as the "variolous test." Again, he vaccinated a healthy boy, of eight years of age, with matter from the hand of an accidentally acquired cow-pox vesicle, and six weeks later inoculated small-pox, and again some months later, with no results. Crookshank speaks of this experiment, and does not deny it. Jenner reports still further five other cases of like importance. This same experiment was performed by Mr. McPherson, at Moorshedabad, India, and he reported it in Duncan Stewart's report on "Small-pox in Calcutta, 1884."

Inoculation of small-pox on the human subject being prohibited by law, we cannot use the variolous test. But Copeman (Gilroy lectures) shows that the monkey (*Rhæsus*) reacts to vaccine and

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

small-pox just in the same way; he also found that after the animal had gone through a course of vaccinia, it was impossible to successfully inoculate it with small-pox. So much for experimental work proving my first statement, and where is any anti-vaccination literature proving to the contrary?

We will now consider proposition No. 2.

Should small-pox be contracted after successful vaccination, the disease is milder and with a consequent lower death-rate, by being modified by the partial immunity still existing. As to this let us examine statistics of the Sheffield epidemic of 1887-88, as reported by Barry to the Local Government Board.

The attack-rate of vaccinated children under 10 years was 5.0 per 1,000.
 The death-rate of vaccinated children under 10 years was 0.09 per 1,000.
 The attack-rate of unvaccinated children under 10 years was 101.0 per 1,000.
 The death-rate of unvaccinated children under 10 years was 44.0 per 1,000.

Among persons over ten years of age, living under common conditions of infection,

The attack-rate in persons twice vaccinated was 3.0 per 1,000.
 The attack-rate in persons once vaccinated was 19.0 per 1,000.
 The attack-rate in persons not vaccinated was 94.0 per 1,000.
 Death-rate among twice vaccinated people was 0.08 per 1,000.
 Death-rate among persons once vaccinated was 1.0 per 1,000.
 Death-rate among unvaccinated persons was 51.0 per 1,000.

From Leicester, in the epidemic of 1892 and 1893, and officially reported by the Health Officer, we quote the following:

UNDER TEN YEARS OF AGE.			
	Cases.	Deaths.	Death-rate per cent.
Vaccinated.....	2	0	0.00
Unvaccinated.....	105	15	14.30

OVER TEN YEARS OF AGE.			
	Cases.	Deaths.	Death-rate per cent.
Once vaccinated.....	176	1	0.57
Unvaccinated.....	48	4	8.30
Revaccinated.....	14	0	0.00
Doubtful as to vaccination (no marks visible)!	2	1	50.00

Whittington in Derbyshire, in 1893 and 1894, had 135 cases, with 13 deaths. The following is from the local Medical Health Officer:

Of 459 persons vaccinated in infancy, and living in houses invaded with small-pox, 25 per cent. were attacked, and 1.5 per cent. died; while of 23 unvaccinated persons so exposed, 82.7 per

cent. were attacked, with a death-rate of 26 per cent. No vaccinated person under twenty years of age died.

Gayton, before the Vaccination Commission (2nd report, p. 245), found that 40 per cent of vaccinated children could be revaccinated at the ages of from 6 to 10 years. Of children under similar conditions, exposed to small-pox, less than 10 per cent. were attacked, though under the same exposure no less than 92 per cent. of unvaccinated children of the same age contracted the disease. These points are well brought out in the following table by Gayton, in his analysis of 10,403 cases in the Metropolitan Small-pox Hospitals:

Ages.	Vaccinated, Good Marks.			Vaccinated, Imperfect Marks.			Said to be Vaccinated, no Marks.			Unvaccinated.		
	Cases	Deaths	Mortality	Cases	Deaths	Mortality	Cases	Deaths	Mortality	Cases	Deaths	Mortality
0 to 5.....	51	0	0	182	21	11.5	128	47	36.7	677	383	66.6
5 to 10.....	267	2	0.7	714	48	6.7	325	87	26.8	1187	563	47.4
10 to 20.....	1015	17	1.6	1976	98	5.0	419	81	19.3	521	160	30.7
20 to 40.....	725	37	5.1	1898	258	13.6	420	110	33.5	382	181	47.
Over 40.....	48	6	12.5	266	51	19.2	131	44	33.8	70	34	43.6
All ages.....	2085	62	3.0	4851	455	9.0	1295	352	27.0	2169	938	43.0

Along the same line, quoting from Barry's report on the Sheffield epidemic, we gather the following figures:

Of 8,198 persons re-vaccinated prior to the epidemic, thus renewing a partially lost immunity, only 25 were attacked, being an attack-rate of less than 3 per one thousand and a death-rate of 0.1 per cent.; while of 56,233 persons who were not re-vaccinated during the epidemic, two were doubtfully attacked and none died.

Again, I wish to introduce a table prepared by Dr. Cory, which will illustrate the ages at which deaths occurred from small-pox in prevaccination times as compared with the present:

	Ages 0 to 5	5 to 10	10 to 20	20 to 40	40 to 60	60 to 80	80 upwards.
Prevaccination times ..	83.15	15.79	15.79	1.16	0	0	0
Since vaccination	3.07	16.34	16.34	58.41	18.16	3.24	0.32

Thus it will be seen that small-pox was formerly a children's disease, occurring under the age of five years. Now, however, where vaccination has become generally practised, the highest death-rate is between the ages of twenty and forty years. What but vaccination could have caused this change? Some of our

opponents, while admitting this fact, say all this is due to sanitary reform and modern methods of dealing with contagious diseases. Let us look at the measles, then. From 1760 to 1770, the death-rate from measles was 12 per 1,000 from all causes. This gradually rose until 1830, when it reached 45 per 1,000; in the decade 1880-90 it was 36 per 1,000. This does not look encouraging from the standpoint of sanitation alone.

Now let us take up the third proposition, which we have partially proven. I will first call your attention to Dr. Bizzozzi's now celebrated lecture, delivered in Rome. He says, "Germany stands alone in fulfilling, in a great measure, the demands of hygiene. Having, in consequence of the calamities of the small-pox epidemic of 1870 and 1871, enacted the law of 1874, which makes vaccination compulsory in the first year of life, and revaccination obligatory at the tenth year, what was the result? With a population of 50,000,000, having lost 143,000 lives by small-pox, she found by her law of 1874 the mortality diminished so rapidly that to-day the disease numbers only 116 victims yearly; and these cases occur almost exclusively in towns on her frontier. If it were true that a good vaccination does not protect against small-pox, we ought to find in small-pox epidemics that the disease diffuses itself in the well-vaccinated as well as the non-vaccinated countries. But it is not so. In 1870-71, during the Franco-German war, the people inter-penetrated each other. The German having its civil population vaccinated optionally, but its army completely vaccinated, while the French (population and army alike) were vaccinated perfunctionally. Both were attacked by small-pox. The French army lost 23,000 soldiers by it, while the German, 278; and in the tent, breathing the same air, the French wounded were heavily attacked by it, while the German wounded having been vaccinated, had not a single case."

Note the following:—These died annually from small-pox per every million of inhabitants:

Locality.	Before Vaccination.	After Vaccination.
Sweden.....	2,050	158
Austria.....	3,095	841
Torest.....	14,046	182
Moravia.....	5,402	255
Silesia (Austria).....	5,812	198
Prussia (Eastern).....	3,321	56
Berlin.....	3,422	176
Copenhagen.....	3,128	236

In other words, the mortality of Copenhagen, after the introduction of vaccination, was only one-eleventh of what it was before. In Berlin one-twentieth, and in Sweden one-thirteenth.

The remarkable diminution in the small-pox death-rate, especi-

ally within the last fifty years, is shown in the following table with regard to the London death-rate:

Years.	Average annual deaths per 1,000,000 from all causes.	Average annual deaths per 1,000,000 from small-pox.
1660-79	80,000	4,170
1728-57	52,000	4,260
1771-80	50,000	5,020
1801-10	29,200	2,040
1831-35	32,000	830
1838-53	24,900	513
1854-71	24,200	388
1872-82	22,100	262
1883-92	19,800	73

During 1855-64, when vaccination was optional in Scotland, the annual death-rate from small-pox was 340 per million inhabitants; but when vaccination was made compulsory the death-rate dropped to 80 per million for the years 1865-90. Upon the same point Edwardes gives some interesting figures from Sweden, where the small-pox statistics go back to 1774. From that date to the beginning of this century the average annual death-rate was 2,008 per million people. From 1801 to 1815 vaccination was optional, and the death-rate fell to 631. In 1816 vaccination became compulsory in Sweden, and during the period 1816 to 1885 the death-rate has been 173 per million; while the last eight years of that period it has been but 41 per million."

In Boston, in 1721, with a population of 11,000, there were 5,989 cases of small-pox, with 850 deaths. In 1730, with a population of 15,000, there were 4,000 cases of small-pox with 500 deaths. While after the introduction of vaccination there were in Boston, from 1811 to 1830, with greatly increased population, only 14 deaths from this disease, and from 1881 to 1887 only 18 deaths.

From the 29th annual report of the State Board of Health of Massachusetts, we take the following: "From 1888 to 1897, 330 cases of small-pox occurred in the State; of these cases 143 had been vaccinated, while 149 had not, and 38 were returned as doubtful. Among the vaccinated, the death-rate was 6.3 per cent.; among the unvaccinated it was 25.5 per cent. No child under one year was attacked, while 18 infants (unvaccinated) were attacked. Among the vaccinated children under 15 years of age were 20 attacks, no deaths; among unvaccinated children under 15 years of age, 77 were attacked and 15 died, or 19.5 per cent.; among vaccinated adults or persons over 15 years of age were 120 cases, with 9 deaths, 7.5 per cent.; while among unvaccinated adults there were 71 cases, with 23 deaths, or 32.4 per cent.

Here are some of the Baltimore, Md., statistics. Ruhrah, of the Quarantine Hospital, reports 1,106 cases; 441 of these had

been vaccinated at some time previous; 645 had not; twenty had, but unsuccessfully. Of the 441 cases previously vaccinated, there were 63 deaths, mortality 14.3 per cent.; of the 645 not previously vaccinated, there were 315 deaths, or 48.8 per cent. mortality. Most of the previously vaccinated cases had a discrete or mild form of the disease, while most of the previously unvaccinated had the confluent or dangerous form.

Again let me quote from Dr. W. M. Welch, in charge of the Municipal Hospital of Philadelphia:

"From a study of 5,000 cases, it is apparent that there were good cicatrices (as evidence of previous vaccination), only 8 per cent. died; with fair cicatrices, 14 per cent. died; with poor cicatrices, 27 per cent. died, while the death-rate of the unvaccinated was 58 per cent.

In New York City, prior to 1876, the death-rate per 100,000 was 59.57. After that time vaccination was encouraged and done free, though not compulsory, and the death-rate fell to 8.38 per 100,000.

I quote from a letter written to the *Philadelphia Medical Journal*, by Dr. Geo. Groff, Sec. Superior of Health Board, Porto Rico, under date of October 23rd, 1899.

"Sirs: I have the honor to inform you that the existence of a single case of small-pox is at this moment unknown on this island. Nine months ago a serious epidemic threatened, and the disease pervaded the island; since then 800,000 vaccinations have been performed." It is possible to stamp out small-pox in Spanish-American countries; and yet one of our anti-vaccinationists claimed that the credit of this work belonged to improved sanitation and isolation, when any one at all conversant with the situation will tell you that the low-class native is one of the most unsanitary objects in existence, and that the whole U. S. army would scarcely be effectual as a quarantine agent. Again, it seems so peculiar, to say the least, that they should grant the Health Board sufficient intelligence to stamp out small-pox and yet be wanting in ability to determine the relative usefulness of the means which they employ. In other words, they would grant that Dr. Groff can stamp out small-pox, but have not sense enough to tell how he does it; but must be informed by men who stay at home.

In closing I will call your attention to Leicester experiment, or system, of "quarantining" for small-pox. In the health officer's report, 1892, he explains that by "Quarantines" are meant practically persons who are in small-pox infected houses, for it is clear inmates must, more or less, have been exposed to contagion. He goes on further to say: "Such persons may be quarantined separately in hospital wards and reception houses especially provided (a method, by the way, I do not recommend), or at their own homes."

Further on he says: "I have been able with comparative ease, by means of my inspectors, to quarantine hundreds of persons at their own homes, with success that has been gratifying both financially and otherwise; 1,261 persons were quarantined, of whom 123 sickened, 9 per cent. Each infected house was visited daily by one or the other of the inspectors for 14 to 16 days." Let us examine this for a moment. Who is to act as inspector? We know that fully 95 per cent. of persons not artificially protected are subject to small-pox. Suppose that none of your force of inspectors are protected, and in from 12 to 14 days 90 per cent. of them are attacked with the disease, and are themselves walking pest-houses. Again, what an inhuman thing to quarantine a well man in contagious surroundings, with only one chance in ten of escaping the dread disease, and withhold from him what has been proven to change this proposition for better to nine chances in ten, because a few fanatics so decree! Even here, where many were protected by previous vaccination, 9.7 per cent. sickened in the quarantine.

Now turn to another picture as reported by Dr. E. P. Oden'hal, Physician in charge of the Craney Island Hospital, Norfolk, April 11, 1900: "I have had under my care 82 cases of small-pox and 34 suspects, who were vaccinated when admitted, and in not a single instance has small-pox suspect developed the disease, though 26 of the suspects have lived in the same wards with the patients. The cases being of such a nature that separation was impossible.

"In many instances mothers have nursed their own children during the course of the disease, and where I vaccinated them with glycerinated lymph during the first three or four days after exposure, I felt perfectly safe in allowing mother and child together, and have not as yet seen small-pox develop in these cases."

In conclusion, I would say it is possible to produce proof on proof in support of the three propositions which I present for your consideration, but where is the necessity? When people close their eyes no amount of light can illumine their understanding, and where a person is looking for truth surely enough facts have been presented, and only one of three conclusions is tenable:

(1) That all those who testify are wilful and malicious liars and unworthy of credit, and yet they are some of the best citizens.

(2) They are not of sufficient intelligence to interpret facts as they find them; yet they are in charge of the public health and are so selected on account of especial skill.

(3) That they do tell the truth, and that facts overwhelming establish claims that they make in favor of vaccination as a protection against small-pox.

Glenolden, July 31st, 1900.

Medical Jurisprudence and
... IN CHARGE OF ...
 N. A. POWELL, M.D., AND W. A. YOUNG, M.D. *Toxicology.*

CORPORAL PUNISHMENT AND CRIME.*

BY W. H. S. MONCK, ESQ., OF THE DUBLIN BAR.

THE corporal punishment of criminals is a very wide subject, and I shall not attempt a full discussion of it or examine in detail what other members of the Medico-Legal Society have said or written on it. Indeed, a full discussion of the question of whipping alone would occupy too much time and space. I shall, therefore, confine myself to some remarks on the subject which, I hope, may not prove entirely unconnected.

Commencing with the Mosaic Law, to which reference is often made, it contains no provision for imprisonment, which is at present our most ordinary punishment for criminals. Moses, in fact, had no prisons, and prisons, throughout the Bible, seem to have been used as places of detention or safe custody, not of punishment—the inmates being untried prisoners, not convicts. Other early legal systems present the same feature. With the exception of restitution and fines, all punishments were thus corporal, and they were chiefly reducible to three: death, whipping, and mutilation, in accordance with the *lex talionis*. Very few persons would, I think, now desire to revive the Mosaic Criminal Code and to abandon our imprisonment system, while the *lex talionis* has been expressly condemned in the New Testament. This being so, I think no argument in favor of capital punishment, whipping, or of any other kind of corporal punishment, can be drawn from the fact that it was included in the Mosaic Code.

The disgrace involved in whipping is supposed by some to have a deterrent effect on criminals and intending criminals, though perhaps the persons who use this argument tell us that they would apply the punishment only to hardened brutes who do not mind the disgrace and do not feel degraded by the infliction. Here let me remark that the disgrace attached to any punishment depends to a large extent on its infrequency. No punishment which is in

* Read at the December meeting, Medico-Legal Society of New York, 1899.

use every day on persons of all ranks, will be regarded as very disgraceful, and this actually occurs with whipping in some Oriental countries, where statesmen are not exempt from that punishment. And there are also public schools in which, owing to its frequency, whipping is not regarded as any disgrace. It is one thing to be the only boy (or girl) out of one hundred who is considered bad enough to be whipped, and whose whipping will, therefore, be long recollected by the others as a remarkable incident in their school life, and it is quite a different thing to be one of a large number of whipped persons whose individual chastisement will soon be forgotten, owing to the constant recurrence of similar incidents. In religious houses, too, whipping was not regarded as disgraceful and was often self-inflicted, and I am not sure that this practice (as well as its use in penitential discipline) has quite died out. If whipping is made an ordinary punishment, the element of disgrace will soon sink to very narrow proportions. The chief reason why it is considered more disgraceful in the case of girls, than of boys, is that it is more unusual.

But then it is painful, and pain has a strong deterrent effect. Pain has a deterrent effect, but its efficiency in this respect may be easily overrated. The foot-baller or cricketer often suffers a great deal of pain but he does not give up the game on that account. The pugilist expects to suffer pain every time that he fights. The element of danger is indeed often rather an incitement to sports than the reverse, yet the danger almost always includes the risk of tedious and painful injuries, as well as of death. What would become of our armies if the soldiers feared pain, or of persons suffering from infectious diseases if the nurses feared it? I have already referred to persons voluntarily undergoing pain from religious motives, and I could give many other examples. It is a fact, I believe, that school-boys have sometimes asked to be whipped instead of being kept in-doors and forbidden to engage in their usual amusements, and if some letters on the subject can be trusted, girls have sometimes made a similar choice. Again, pain derives much of its terrors from being unusual and unknown to the offender. The anticipation is worse than the "corporal sufferance." A person who has never undergone or witnessed a whipping, or been intimate with one who underwent it, may look forward to it as something very dreadful, but if it becomes a common punishment it will soon assume a different aspect. The prisoner reflects that what others have borne, he can bear; that shortly afterwards they did not seem much the worse for it, and that when asked about it they made light of it. And there can be no doubt that a man's power of bearing pain increases as he becomes used to it. As a rule, long and painful illnesses are borne patiently.

But we are told that the man who is convicted of a crime for which he is liable to be whipped, first begs the judge to let him off that penalty and then petitions the executive for remission of it, and finally roars loudly when he is being whipped. Be it so. What does it prove? The very same thing often occurs in the case of a naughty child, but is it not a fact that it is usually the very same boys who are whipped again and again? I am not now referring to "juvenile offenders," but to whipping in schools and families. A reformation effected by a single whipping is here the exception, not the rule. The most ordinary cases are those of no whipping and repeated whipping. Yet the child who has been repeatedly whipped probably exhibited all these symptoms of terror and pain on the first occasion. I read, not long ago, of the case of a girl whipped for pilfering (at school) who screamed loudly at the time and was detected committing the same offence the next day. Some persons feel very strongly at the moment, but their feelings are very transient. A great exhibition of terror and loud cries of pain afford no guarantee of permanent amendment. If we take any school in which the rod is in use, the chances are that the child who has got most of it in the past, will get most of it in the future. It is a great mistake to estimate the deterrent effect of any punishment by the feelings of the culprit at the time of infliction or shortly before it. Capital punishment would have an enormous deterrent effect if we were to measure that effect by the feelings of the doomed man when the day of execution is close at hand. But when he committed the crime (supposing that it is not committed under the influence of some passion which prevented him from reflecting at all) he probably expected to escape even suspicion and arrest. Then he had his chance of acquittal or disagreement of the jury, or of mercy after conviction. The chances that he will be hanged are, in his own opinion, very small, and he is as ready to risk a good deal on the throw of a dice as a gambler is. In cases where no crime is concerned, a man may risk his life recklessly, yet feel terrified when brought face to face with death, while on the other hand he may behave with calmness and presence of mind when in danger, and yet resolve not to act so recklessly again.

But I am told that criminals who are whipped very seldom incur the penalty a second time. Be it so. That is a natural consequence of the unusualness of the punishment as long as it continues to be unusual. A man may be an habitual offender and yet not incur an unusual sentence a second time. Speaking of the English practice, whipping is never compulsory. In cases where the law permits it, the infliction is left optional with the judge or presiding magistrate. Many judges and magistrates decline to pass sentence of whipping at all. Others confine it to

cases of unusual aggravation, and the number of crimes for which it can be inflicted is small. In the case of juvenile offenders, there is also an age-limit, and a boy cannot be whipped if he is over that age. It is not then surprising that criminals who have undergone two or more whippings are not very numerous. But can we suppose that juvenile offenders are unlike other juveniles and become reformed characters after one whipping when other boys rarely escape with a single infliction? I believe nothing of the kind.

I have no belief in the alleged results of experience when merely stated in general terms. An ounce of statistics is often worth more than a ton of opinion. When a man has imbibed, in early life, a predilection for any punishment or any criminal system, he will usually see everything in experience that tends to confirm his previous opinions and nothing that conflicts with them. The opinion of a man who has changed his mind in consequence of experience is indeed usually entitled to some weight, because the change affords some evidence of close observation, independence and impartiality. But the man whose opinions have never been changed or modified by his experience, but who, nevertheless, confidently appeals to experience in support of them, is seldom worth attending to. We have a controversy going on, as I write, with respect to the creation of a Court of Criminal Appeal in England. Barristers and solicitors of long standing write to say that their experience has satisfied them that the Home Office is a better appellate tribunal than a Court of Criminal Appeal would be. Now, as to what a Court of Criminal Appeal would do in any given case, they can have no experience whatever, and as to what percentage of the decisions of the Home Office are right, they have really no real experience either; for, as a rule, they can have no knowledge of the innocence or guilt of the appellants, except that a secret tribunal, which assigns no reasons for its decisions, has allowed or rejected the appeal. But the very question at issue is, what percentage of these allowances or rejections are right?

There is, I think, no satisfactory evidence that whipping is a peculiarly efficacious punishment, while there is a good deal of evidence to the contrary. In almost all civilized countries it is falling into disuse in every department—not merely in the punishment of criminals, but in the army and navy, in the correction of children, in the maintenance of discipline in public institutions and asylums, and in fact in all cases where it was formerly resorted to. I do not think the young people of the present age are worse than their predecessors, though they get much less whipping. I do not think that girls are worse than boys, though they get much less whipping. I do not think that children who have been whipped are, as a rule, any better conducted than those

who have not; and if I were going to employ a discharged convict, I would give the preference to one who had not been whipped.

I have no belief in punishing any man *because* he deserves it. The object of state punishment is, I apprehend, to protect the citizens and to prevent crime. Anything more than is required for these purposes, is unjustifiable cruelty. A man may deserve to be torn in pieces by wild horses, yet if nobody would gain anything by punishing him, no punishment ought to be inflicted by the state. But further, there is no reliable measure of what any man deserves. Describe a crime to a dozen different persons and you will perhaps have a dozen different opinions as to what the perpetrator deserves; and, moreover, nobody can estimate the criminal's real demerits without knowing his previous history, his motives and his surroundings. If we have to punish a thief according to his deserts, we have to compare personal property with physical suffering, and there is no standard by which we can decide how much of the latter is equivalent to a given amount of the former. The only mode of measuring ill-desert, that I know of, is *lex talionis*; and this is inapplicable to the thief whenever he has not the means of making restitution. We cannot take valuable property from him if he has no valuable property to be taken. If we whip him, how many strokes does he deserve? I know of no means of arriving at a satisfactory answer. There can be no equivalent in quantity between two things that are dissimilar in kind. Even the *lex talionis* is really unequal in its application. "An eye for an eye and a tooth for a tooth" is a very rough rule for adjusting crime and punishment. One man may have a bad eye or a loose tooth which were not of much value, while with another both are perfect, and perhaps his whole means of livelihood depends on his sight. Then there is a difference between a hasty blow which, aided perhaps by negligence, or unskilful treatment, results in the loss and the deliberate destruction of the organ—to say nothing of the element of provocation. But our criminal system introduces a further element of difference between the crime and the punishment. The offender is seized and carried off to prison, to the injury of his trade or occupation. He has to bear all the costs of his own defence. His crime and his punishment are published to the world, and finally he has probably to remain for some time in prison in order to enable the punishment to be carried out. There are thus a number of elements which make the punishment worse than the injury for which it is inflicted, even when the *lex talionis* is adhered to as closely as the circumstances will permit. In England, in the case of adults, the sentence is always one of combined whipping and imprisonment. Assuming that the prisoner is whipped in accordance with the *lex talionis*, why is a term of imprisonment, quite

outside of that old-fashioned rule, superadded? Or why is one act of violence punished by two or three whippings? The Mosaic Law does not provide either for the combination of whipping with imprisonment or for repeated whippings, inflicted for the same offence. And if whipping is so effectual a punishment, why should more than one whipping be required in any case? Then there is a general objection to almost every kind of corporal punishment, viz.: that it tends to brutalize the people, especially when the sentence is carried out in public. That a public whipping is a brutal exhibition and calculated to do harm to the spectators (especially to the young) will, I think, be conceded in case the victim is innocent; but how is the case really altered on the assumption of his guilt? The spectacle is the same in both instances, and it has a demoralizing effect similar to that of a bull-fight or a dog-fight. Public hangings and public floggings have been abolished long ago in England. But has this abolition got rid of the evil? Graphic descriptions, with illustrations, appear in low-class newspapers, which figure largely in the windows of print-shops and can be purchased for a penny or two-pence; and I may add that while such public exhibitions are demoralizing, privacy often deprives the punishment of much of its deterrent effect. Those who constantly inflict the punishment are most likely to be injuriously affected by it; but they are often policemen or warders who ought to discharge (and are expected to discharge) their other duties with as much humanity as is consistent with firmness. A brutal policeman or a brutal warder is even more undesirable than a brutal judge. Whatever the prisoner's demerits may be, the constant dealing out of brutal punishments will harden and coarsen the minds of all who are engaged in it.

There is, moreover, a practical objection of another kind. Some judges, if allowed discretion, would use the lash on every possible occasion, while others would never employ it unless compelled to do so. A punishment which is unequal in its nature is thus rendered more unequal in its administration by the divergent views of different judges in relation to it. If made compulsory, a similar question would arise as to the number of strokes, some adopting the maximum and others the minimum number for the same offence. It is true that in every case in which the sentence is left largely in the discretion of the judge, a diversity of practice will spring up, unless corrected by an appellate tribunal, because some judges will always be severe and others lenient. But there is a difference between a lenient judge and a judge who objects on principle to the employment of a particular punishment. The men who escape whipping under one judge may be much worse than those who undergo it under another judge. Hanging may be made a compulsory sentence, because it admits of no degrees,

but in whipping the number of strokes and the instrument makes a very material difference, and these particulars can hardly be fixed by law in such a manner as to exclude the discretion which different judges will exercise in a different manner. Anything like a uniform practice and a fitting of the punishment to the crime seems, in the case of this punishment, to be unattainable. I may add that any punishment from which offenders of one sex are exempt, are liable to become unequal in application. Of two joint offenders the female may be the worse, but the male has incurred a penalty from which she is exempted. Now there is nothing more calculated to render the public dissatisfied with our penal system than gross inequalities in its application, and in the case of whipping I do not see how such inequalities can be avoided. This evil attains its maximum in England, where there is no court of criminal appeal, and both whipping and non-whipping judges carry out their respective views without any interference on the part of the Home Secretary.

That the prison system has its drawbacks must of course be admitted, but I think those of the corporal punishment system are greater. At all events the latter system does not admit of much improvement. Electrocution does not seem to possess many advantages over hanging, and I do not know that many improvements in the mode of inflicting whippings have been made during this progressive century. On the other hand, the prison system has been improved and is susceptible of much further improvement. It can be rendered at once more reformatory and more productive than at present. Every able-bodied prisoner should earn his own bread while in prison, and should, in the great majority of cases, be a better man when he left than when he entered. The improvement of our prison systems is one which has attracted much attention, of late, at both sides of the Atlantic, and there is every reason to hope that it will be carried on until really good results are attained. The substitution of corporal punishments for imprisonment, at such a juncture as this, would, I think, be a very unfortunate step. It would be the substitution of an unimprovable system of punishment for one which is at present in a state of rapid progress. A perfect system of punishment is indeed impossible. All systems have so many defects that humanity is not the only reason why we should desire to see punishments constantly standing at the irreducible *minimum*. The smallest amount of punishment which will adequately protect the lives, liberties and properties of the people, is the amount which should be aimed at by the statesman no less than by the philanthropist. The statesman, like the general, should aim at attaining his ends with the least possible loss to those who are under his orders. He may have to sacrifice a large number of lives in order

to gain his object, but he should never sacrifice them unnecessarily. He should keep his object steadily before him and sacrifice nothing that does not contribute to its attainment. Malice and revenge are as much out of place in the court house as in the battle field.—
Medico-Legal Journal. W. A. Y.

DYING DECLARATIONS.

A FEW SUGGESTIONS BY ANDREW J. HIRSCILL, ESQ., OF
 CHICAGO.

It is passing strange that, upon a topic of this importance, so little has been done in our system of jurisprudence.

Before considering what improvement could be attempted, it may be well to recall the present status of dying declarations.

They are limited not only to criminal cases, but narrowly to one branch, and that is homicide. In this case, and only in this case, are they admissible, and even there are to be rejected unless the declaration was made at the time when the declarant must have been actually *in extremis*, and further under a sense of impending death, and without hope (or as some say, the slightest hope) of recovery.

What under these conditions is said may, in case death actually ensue, be by the bystanders repeated upon the trial.

The theory upon which they are admitted is first, that the declarant, under the solemn circumstances requisite, must have felt fully impressed with the responsibilities of the future life, and hence prompted to speak the truth, just as if an oath had actually been administered, and secondly, through the necessity of the case, it being homicide, and the victim being often the only witness, the assertions made by the victim would be the sole testimony connecting the accused with the offence, and if it were not admitted murder would inevitably go unpunished.

The purpose of this paper is not to criticise the very salutary principles above referred to, but on the contrary, to suggest making them more efficient, more practical, and of greater extent.

As stated, the rule is applied only in criminal cases, but no adequate reason (except that the custom has thus been established) exists why it should not also be used in civil cases.

The general principle is that a party accused in a criminal litigation is more leniently dealt with, in every respect, than is a party accused in a civil litigation. In this we see the dying decla-

* Read before the Medico-Legal Society of New York, November Session, 1899.

ration to be a marked exception, as it is admissible against a defendant in a criminal complaint, and not against a party in a civil litigation.

A person injured in a railroad accident or other disaster, and conscious of immediate dissolution, is surely under as great a solemnity of ultimate responsibility as any one, and his expressions thus made should be allowed as evidence in subsequent litigation, though of a civil nature. True, it may be said that even there he might wilfully lie, with a purpose of fixing the blame upon some one else, and with the expectation of enabling his dependants thus to obtain compensation through the courts, but the same reasoning should exclude, from a criminal trial, the declaration made by the victim of the assassin, because, while indeed it may not have been made with a purpose of aiding the dependants to recover pecuniary compensation, it still may have been made under motives even more powerful, namely, hatred or revenge. "Revenge is sweet" may be in the mind of the declarant.

"Heaven hath no hate like love to anger turned,
And Hell no fury like a woman scorned."

Under these circumstances, the oath in the court room has frequently been violated, and no doubt the awful moment, at the brink of eternity, has frequently failed to force absolute truth upon the lips.

But in whatever way, and for whatever purpose, dying declarations be used, there should properly be a modification of the conditions under which they are accepted.

As noted above, the declarant must be essentially without hope, or, as some say, without the slightest hope, of recovery when uttering the declaration. In the majority of instances, quite naturally, and even necessarily, the physician is a witness and probably the sole witness to the dying declaration.

The first duty of the physician is to encourage the patient. Even laymen know that words of cheer (though the speaker himself lack confidence in them) are better than words of discouragement. Patients often rally from the most critical condition when brightened up and aided by strengthening words of the physician or friends, and again, patients often in a fair way of recovery have been thrown into despair and death by the doleful utterances of those surrounding them.

It is, therefore, quite difficult and strangely inconsistent for the medical man, upon the one hand, to exert himself by way of stimulating, encouraging and strengthening the patient with cheerful words provocative of hope of recovery, and at the same time, for the purposes of the law, to treasure up the assertions of one

who must, of his own comprehension and that of the physician's, be at the time without any hope of recovery.


Premitting all reference to the various constitutional or statutory provisions and safeguards, such as trial by jury, and the confronting of witnesses, and the presence of witnesses in court (because, if necessary, all these could be changed or modified), and not undertaking, for the present, to point out in detail the execution of any reform, let it suffice to suggest that physicians, by virtue of their office, should have power to administer oaths, and hence could place the patient under the responsibility of an oath while arousing in him the hope of recovery.

Provision might be made that the physician thus take the statement of the patient, and if time and circumstance permit, that the party to be affected be notified of the same, and have afforded him an opportunity, either before the same physician, or before some one else authorized to administer oaths, to cross-examine the declarant. If the party to be affected be not known or not accessible, some public official, as for instance the State's Attorney, or perhaps some justice of the peace, or judge of a Court of Record, or perhaps some commissioner to be appointed by such judge, should be charged with the duty of such cross-examination, and the same should be put at the disposal of all parties who may be found in interest.

Or yet again, the physician himself might, by force of law, if no other plans be practicable, be authorized to conduct somewhat of a cross-examination, at least to the extent of testing the mental capacity, the motive, the memory, the perceptive powers, and in general the truthfulness and accuracy of the declarant.—

Medico-Legal Journal.

W. A. Y.

Pharmacology and 

IN CHARGE OF
A. J. HARRINGTON, M.D., M.R.C.S.(Eng.)

Therapeutics.

ANUSOL AS A THERAPEUTIC AGENT.—CLINICAL NOTES.

Mrs. R. L. consulted me some months ago in reference to a condition of severe constipation, so severe as to cause her a great deal of physical suffering, not to speak of annoyance. On going into the history of her case, I found that my patient was a multipara, having given birth to five living children. Her last baby was then seven months of age, and was a big strapping girl, the heaviest baby, the mother said, she ever carried. At the time of labor she lived away quite a distance from any assistance, and was attended by a neighbor, but had no physician at all. She was in labor for about 20 hours, the pains being very severe, but seemingly for a time quite ineffective. She complained of having had very profuse lochia, lasting for nine or ten weeks after confinement, and added that she had ever since been very tender around "the back passage," so much so that even her underclothing would scald her. Mrs. L. said that it was only since her last confinement that the constipation had been so severe, though for years she had been "in the habit of taking salts and senna a couple of times a week." She said that she had asked her old doctor, some years before, as to what medicine she should take "for opening purposes," and he told her that all she was advised to do was to eat plenty of vegetables, take an occasional cathartic, and once in a while a rectal injection. As her symptoms called my attention probably to a perineal tear, I made an examination and found, first of all, her abdominal muscles were abnormally relaxed. There was an extensive tear in the perineum extending back to the margin of the sphincter ani, but did not involve that muscle except to the extent of a few fibres. As it was quite patent that, owing to this injury, received no doubt when her last baby was born, her levator ani muscle had no longer its proper power, and that, apart from the condition of local tenderness present, such a condition would at least aggravate her constipation, I recommended her to allow an operation to be done to restore the parts. She consented, and the following day I did a

simple perineorrhaphy, using salmon-gut sutures. I had a certain amount of difficulty in repairing the edges of the wound ere drawing them together, the parts being in a state of unhealthy granulation. After denuding the two surfaces to be apposed, they came together nicely, and in seven days had healed without any difficulty whatever, restoring the perineum to its original condition, and with every prospect of giving as good support as before the laceration occurred. As to continuing the treatment already recommended, I instructed my patient to stop carrying out the directions given her until after the operation anyway.

The advice as to eating of vegetables was certainly all right, but possibly in her case a little stereotyped. I felt (1) that the plentiful residue of vegetables might fall down and to some extent permanently displace the intestines, unsupported as they were by the abdominal muscles; (2) that the constant taking of cathartics would irritate the bowels, set up a state of hyperemia, and lead to chronic catarrhal conditions, and (3) that the injections would still further distend the rectal ampulla and make matters worse than they were by distending the space for the further collection of fecal matter. I felt that what was needed, possibly more than anything else at that particular stage, was not treatment of the constipation in itself, but the repair of the muscles of the pelvic floor and the toning of the muscles of the abdominal wall by massage and electricity. After my patient was able to be up, I applied the faradic current to the abdominal muscles every day for about fifteen minutes, and also instructed her to massage with her own warm hands, oiled, her abdomen each morning before rising. I have no reason to think that she did not carry out my instructions. On making my last visit, I told Mrs. L. to eat whole wheat bread, a certain amount of fruit and vegetables, but not to resort to the use of cathartics till she reported herself to me a month or so after. I hoped that she would be able to give a favorable report of her case, but such was not so. She had meanwhile been on a visit to the country, where for six weeks she had had plenty of exercise and been as judicious about her diet as she could be. She said she thought that she was now, if anything, a little better, but could not say that the improvement amounted to much. She complained of a good deal of pain on the right side, and when I examined her there, I found a condition of perityphlitis present, with considerable tenderness on palpation. On further palpation all along the course of the colon, I found irregular masses of feces here and there, one of considerable size at the junction of the ascending and transverse colon. The tenderness over the cecum I put down to the same cause. Fearing any inflammatory action in the appendix, I determined to give no drastic purgatives whatever, but temporize somewhat. I kept up the electric current, and had a nurse admin-

ister gentle but persistent massage along the course of the transverse and descending colon, with a rectal injection, administered by means of a long hard-rubber tube. I gave internally 8 minim doses of nepoche, which in twenty-four hours had removed all the tenderness, without the accompanying danger, as with other preparations of opium, of increasing the constipating effect. After the condition of perityphlitis had subsided, I put her on some of the ordinary laxative preparations, cascara, rhubarb, small doses of elaterium, an occasional tablet of hydrarg. submur, and latterly Waugh's prescription, composed as follows:

R Aloes purificat.	grs. xx.
Ext. belladonna	grs. iv.
Ext. nucis vom.	grs. v.
Olei resinæ caps.	grs. iv.

Misce. Fiat pilule, No. xx. One pill daily at bedtime.

This caused a good deal of relief, and my patient kept up this prescription, without my knowledge, for two months. She came back to me however, complaining that it had lost its effect, and wanted some "new medicine." I prescribed some anusal suppositories, and instructed her to insert one in the rectum each night before retiring, stooping well over in order to do so. I also advised her to sip Hunyadi water every morning. I told her in passing to avoid strong coffee and alcoholic drinks, if she took any. She reported herself to me in ten days time, and was evidently satisfied with her change of treatment. She said that for the first time in years she had received relief, and that she had had a healthy motion three and four days a week. I found her tongue had lost the fur, present any other time I had seen her, and that she had had fewer headaches and been able to eat her food with a certain amount of relish, also a new thing for her. I instructed her to replenish her stock of suppositories, and to use one every third night instead of as frequently as before. When I last saw her she was improving steadily, and declared that she was taking a great deal more enjoyment out of life than ever before, so much so that she expected to be again confined in five months' time.

Robert G., bank messenger, aged 41 years, consulted me not long ago for what he termed "bleeding piles." He said that not less frequently than once a month he had severe attacks of hemorrhage from the rectum, being sometimes attacked down town, rendering his condition exceedingly awkward and disagreeable. His duties, he said, necessitated a great deal of walking, and this he blamed for all his trouble. I asked him how long he had been a sufferer from this complaint, and he said that he first noticed that he passed blood with a very constipated motion nearly a year ago.

I found that he, in spite of the constant exercise he had to take, was constipated more or less all the time. To relieve this, he had simply made a habit of eating brown bread and taking porridge every morning. He had never taken any medicine, not caring to see any physician about a matter of the kind, he said. I made an examination of the rectum, and found a condition of subacute proctitis present, a small-sized rectal speculum causing him a good deal of pain when opened. I found several sessile internal hemorrhoids, some almost as high up as the sigmoid flexure. They were quite small and spongy, with soft, dark red, easily-bleeding surfaces, so much so that when I touched them with a probe they oozed blood. The mucous lining of the rectum was in a condition of chronic catarrh. The tissues surrounding were very vascular, and the surface covered with a thick coating of mucus. Mr. G. complained of severe stabbing pains around the anus all the time, making him almost ashamed of himself when on the public streets. There was a continued feeling of heat or burning in the part, with the sensation as if there were a foreign body present inside the anus all the time. These symptoms would be worse after any hygienic or dietetic error, and he had to use great care in such matters. As a result of these continued sensations of irritation, nervous phenomena commenced to appear. He complained of anorexia, sluggishness of the bowels, dulness of the intellect, ringing in the ears, vertigo, etc. The act of defecation was latterly quite painful, so much so that he had even resorted to using a warm douche afterwards to relieve the stinging present. The amount of blood he passed varied from time to time, sometimes slight, sometimes quite profuse. He told me that the only reason he welcomed a bleeding attack was because afterwards for a day or so he would experience quite a relief of the nervous symptoms above alluded to. Owing, however, to the repeated attacks of hemorrhage the last month or two, he noticed that he was less able for his work, and was much more easily tired. I told him that there was no use of his taking any medicines for the relief of his trouble, but that he had better lay off work for a week and have the internal piles cauterized, when he would at once get well and strong again. He was one of the nervous individuals, and would not consent to any operation, and in fact almost insisted upon my adopting some less severe measure, he all the while assuring me that he was quite certain he would get well under my treatment, at the same time being honest enough to vouchsafe the fact that one other doctor, whom he had called in, had advised him to "have an operation performed, and be done with it"—as "a bird in the hand is worth," etc. I decided to do the best I could and trust to luck. I recommended exercise in the open air, regulation of the diet, the avoidance of all kinds of excesses, careful attention to a daily stool, and the performing of

light gymnastic exercises, which might be adopted to antagonize hyperemia and congestion of the abdominal vessels. I tried to so regulate the diet that it would leave behind the least possible solid residue, and would not contain irritating substances, such as strong spices, very acid articles, strong alcoholic drinks, or very strong tea and coffee. I advised the use of meat once a day, and lettuce, cabbage, fruit, and preserves in small quantities. I impressed upon him the necessity and importance of having regular passages of a soft, mushy consistence, and that he should be careful to sponge off the anus after each movement with a weak solution of lysol, which I prescribed.

I told him to take cool sitz-baths from time to time, with the object of hardening the piles and preventing inflammatory processes. I touched the small spongy bodies with a solution of iodine and potassium iodide (potassium iodide 2.0; iodine 0.2; glycerine 40.0) so as to render them more tough and resisting, and if possible cause their absorption. I kept up that treatment for some little time, but still hemorrhages occurred, one so profuse as to saturate every piece of clothing he was wearing. I decided then that cauterization must be done, and advised my patient accordingly. But I received "no" for a reply a second time. As he, evidently disappointed with his second medical adviser, said he would go to the country for a while, and see whether that would assist in his recovery, I gave him a prescription for 25 suppositories of anosol, one to be used each night, and sent him away, asking him to write me in two or three weeks as to his condition. I had almost forgotten the case, when in a fortnight's time I had a letter from Mr. G., saying that he was better, had had but three "bleedings" since leaving the city, and that the tenderness on defecation was considerably improved. I wrote him, advising that he keep up the suppositories every night, paying the same attention to the regulation of his diet, his exercise, etc., as before. At the expiry of a six weeks' vacation he returned to resume his work, and incidentally called upon me.

He said that he had had no further hemorrhage since writing me, four weeks before, and that his bowels moved regularly and without any discomfort. He looked very much improved in appearance, having lost the haggard countenance he had when he left the city. On examination of the rectal lining, the chronic inflammatory appearance had largely gone, and the small vascular sessile bodies had become considerably hardened, showing no tendency whatever to bleed when touched. I attribute the change for the better to action of the bismuth compound in the anosol suppositories, acting as a disinfectant, and deodorant, but more especially as an astringent and a granulation-promoting agent.

ICHTHYOL IN TUBERCULOSIS.

THE internal use of ichthyol in tuberculosis of the urinary organs is recommended by Dr. Richter,* of Glatz, who gives the clinical history of a girl of nineteen, which serves to illustrate the beneficial results obtainable by the administration of ichthyol. The patient took sick with cystitis in the middle of March, 1898. For more than a year she was treated in the usual way with diet, medicaments, mineral waters, and irrigations, without attaining any improvement. The diagnosis was made of tuberculous disease of the bladder, and at the date of the report the doctor was satisfied that the case was one of tuberculosis of the kidney, because all the diagnostic symptoms which Dr. König states to be characteristic of the affection were present. The urine was turbid, contained albumin, epithelium in various amounts, pus corpuscles, at times also blood and blood corpuscles; never any casts. The painful vesical tenesmus, which steadily got worse as the disease progressed, made life a torture. The patient had to abandon her position early in the disease, lost appetite, became bed-ridden, had fever, and progressively got paler and thinner. Then even cough and muco-purulent expectoration set in.

The injections of iodoformized oil, which had been prescribed by a specialist, were discontinued on the solicitation of the patient and her relatives, who decided henceforth not to have anything more done in the case, inasmuch as the disease steadily grew worse in spite of the most painstaking treatment. The condition was regarded by all as a hopeless one. Dr. Richter, at this juncture, pleaded for at least one further trial, and that with ichthyol. This drug was then employed. It was at first given in doses of 25 drops and gradually increased to 70 drops, three times daily, well diluted. This enormous quantity was taken every day uninterruptedly for months, without repugnance and without any by-effects. At the date of the report, the patient had consumed more than 5 kilos (11 lbs.); she had resumed her occupation, looked healthy, and had no feeling at all of illness. The urine was still slightly cloudy, and contained traces of albumin.

The author, at the end of his report, states that the good effects obtained induce him to continue the use of the ichthyol, and expresses the belief that there is a possibility of complete recovery.

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Public Health and Hygiene.

... IN CHARGE OF ...

J. J. CASSIDY, M.D., AND E. H. ADAMS, M.D.

ANNUAL MEETING OF THE ASSOCIATION OF EXECUTIVE HEALTH OFFICERS OF ONTARIO.

THE fifteenth annual meeting of the Association of Executive Health Officers of Ontario was opened in the University Hall, Kingston, at 10.30 a.m., August 14th. The following gentlemen were present: Dr. W. Oldwright, Toronto; Mr. A. McGill, B.A., Assistant Analyst of the Department of Inland Revenue, Ottawa; Dr. Walkem, Q.C., Dr. A. P. Knight, Dr. Herald, Dr. W. Connell, Dr. Chas. Sheard, Toronto; Dr. Cassidy, Toronto; Dr. Bryce, Toronto; Dr. Vaux, Hamilton; Dr. Kitchen, St. George; Dr. Hall, Chatham; Mr. Dunlop, Chatham; Dr. Fee, Kingston; Rev. Jas. Cumberland, Stella; Dr. Kilborn, Oso, Ont.; Dr. Acland Oronhyatekha, Deseronto; Mr. Taylor and Mr. Steerly, London; Dr. Third, Dr. W. T. Connell, Mr. C. Y. Ford, Dr. Anglin, W. B. Crow, Treuton; Dr. McCrimmon, Palermo, and Dr. McCullough, Owen Sound. In the absence of the President, Dr. T. V. Hutchinson, Dr. Oldwright, Toronto, took the chair. Mayor Minnes delivered the address of welcome and extended a cordial invitation to the visitors to a complimentary trip among the Thousand Islands that evening. Dr. Oldwright thanked the Mayor on behalf of the Association. It gave the members great pleasure to meet in Kingston, which was well known as an historic city, a city of education and of military fame. On account of the limited time of Mr. Gill, Ottawa, his paper came first. It was a brief paper on the effects of food preservatives on public health. The speaker took the stand that the use of chemicals to destroy the germs in milk was dangerous to human life. Dr. Sheard, Toronto, said that he had had several cases come under his notice where persons, especially young children, were poisoned by the re-freezing of ice-cream. The second freezing of ice-cream, when it stood in the freezer, formed an acid which was dangerous to health. Dr. Bryce, Toronto, said that according to Hon. Mr. Ballantyne, the importance of cleanliness in the dairy had not made the advances it should have in the last 25 years. Dr. Connell said that milk in which extracts had been put to preserve it, was refused in the dairy school. The paper was also discussed by Drs. Hutchinson, of London, and

Cassidy, of Toronto. Dr. Sheard read a paper on his experience in recent vaccination work. He said in Toronto there was little opposition to vaccination. Reports from many physicians came under his notice, and the result was highly successful. It was the duty of the health officers to see that people were thoroughly vaccinated. Dr. Bryce, Dr. Cassidy, Dr. Oldwright, Dr. Hall and Dr. Hutchinson took part in the discussion.

At the second session, 2 p.m., Dr. Cassidy, Toronto, read an interesting paper on tuberculosis and means for its cure. After going thoroughly into the statistics of the fatal results from the disease in this country, as well as in Europe, the doctor gave the results of *post mortem* investigations, showing that many persons at some period of their lives infected with tuberculosis, had recovered, ultimately dying of other diseases. Dr. Cassidy quoted Professor Richet, of Paris, who had recently reported experiments made in connection with this disease, by feeding raw meat to dogs. Professor Richet stated that dogs inoculated with tuberculosis and fed on raw meat did not die; but dogs, similarly infected, and fed on their ordinary food, died of tuberculosis. Dr. Osler, Baltimore, believed that the cure for tuberculosis was nutritious food and fresh air. The patient should sleep in a room with a window open. Raw eggs was a good diet and would cure severe cases of tuberculosis.

Dr. Bryce, in discussing the paper, told of the treatment of tuberculosis among the working people in Germany. These people had a system of insurance which provided that persons who became disabled were put into a sanitarium, and the percentage of those cured was so high that the movement resulted in the erection of sanitarium in the country. In these sanitarium nutrition was carefully attended to. The cities in the Province of Ontario have mostly doubled during the last ten years. Industries were springing up, competition was keen, and people had to work overtime. The scarcity of food and long hours caused the spread of tuberculosis. It was time for the members of the Association to look carefully into the matter.

The President, Dr. Hutchinson, London, delivered the annual address. He thought that the members of the Health Association were fortunate in choosing the beautiful City of Kingston, whose history from the time of New France and Jacques Cartier was replete with startling events. In the latter end of the eighteenth century the death-rate of Great Britain and Europe was 88 deaths out of every 1,000 of population. Just one hundred years later it was only a fraction of that. He then said that up to the last century Jenner, Howard and Captain Cook were the only three sanitary reformers of note. Up to Captain Cook's time, 1773, scurvy decimated the British army and navy. Capt. Cook inaugu-

rated such sanitary and hygienic systems that in a three years' voyage around the world he lost but four men. These deaths were not due to scurvy; while Anson, in his famous voyage thirty years before, lost by scurvy alone in three years 600 out of 900 men. The most difficult task for a health officer was to convince the public that they cannot escape disease without absolute cleanliness and pure water. The subject of greatest importance was that the milk supply for the use of the public should be pure. In order to get this, pure water would have to be supplied the animals. The milk should be boiled before using. There were a large number of streams in Ontario which were polluted on account of people living near them.

The authorities should pay more attention to the prevention of the pollution of the streams, the furnishing of good water to herds, and force the use of proper sanitary arrangements in connection with dairies. There would then be less need for a continual begging of funds to build sanitarium for consumptives and for the accommodation of other sufferers from kindred disease.

He referred to the low death-rate in London, Ont., which was due to the vigilance of the Board of Health. He strongly condemned the use of bread tickets and old paper money. Last year there were 3,000 more deaths in Ontario from consumption than from all other infectious diseases. In Ontario, one person in every 1,000 of the population died annually from consumption. Last year the Province lost 2,500 wage-earners from this disease, which meant a direct loss of \$2,500,000, and an indirect loss of an almost incalculable sum. Besides, consumption was contagious, and therefore many deaths from this disease might be prevented if proper precautions were taken. The hygienic remedies for consumption were pure air and pure food. The managers of the free libraries and public and Sunday-school libraries should not issue books to those affected by consumption or infectious diseases. Spitting in conveyances, streets or public buildings should not be allowed. There were too many studies in the public schools. Military drills and exercises were beneficial for children in public schools.

Dr. Bryce read a well-prepared paper on the education problem, viewed from a public health standpoint. He said, among other things, that the pupils were kept in rooms which had not sufficient air-space, and the children were sent to school too young. He believed that children should have larger play-grounds, and should have military exercises.

Dr. E. E. Kitchen, St. George, Ont., delivered an address on "The Sanitary Needs of Cheese Factories and Creameries." He referred to the shipment of butter and cheese to Great Britain, and alluded to the losses in curing the cheese. A great deal of Cana-

dian butter only sold as second quality butter in the old country. In the City of London he saw in stores Danish butter and butter from other countries, and he was sorry to say Canadian butter brought the lowest price. Cleanliness in making butter was the greatest necessity. First-class cattle were needed. Several farmers kept cattle which were not fit to milk. In Denmark pure water runs through the cow-sheds. The milker should be clean. In Holland the milkman, while doing his work, wears clothes fresh from the laundry. A good tin pail should be used, and the milk should run through a filter. Good, solid brick cheese factories should be built, with concrete floors. The walls should be finished hard, so that hot water could be turned on. The curing-room is more important than the factory. It was not necessary to build this of brick. Two thicknesses of boards would do. The floor need not be concrete, but a hard floor was necessary. The temperature of the factory should be right. It should be kept down to about 65 degrees. Air ducts of 150 feet do well enough. Two layers of earth tiles were needed. At the entrance a well should be built. Above should be galvanized iron pipe, and a wheel to generate currents of fresh air. In the curing-room, there should be ducts to remove heated air. Last week, when the temperature was 94, he visited a factory and found it only 68 by means of the air ducts. The butter should be packed in nice tasty packages.

In answer to a question, Dr. Kitchen said the practice of putting whey from the factory in the same can in which the milk is brought to the factory was damaging, and could not be too strongly condemned.

In the evening the members of the Association were entertained at a search-light excursion among the islands of the St. Lawrence. The outing was of a very pleasant character, and was thoroughly enjoyed by all.

At 9 a.m., August 15th, prior to the beginning of the third session, the gentlemen of the Association visited the Penitentiary. They were courteously received and showed through the institution by the warden, Dr. Platt, and the surgeon, Dr. Phelan. After their return, Dr. Cassidy took the chair.

Dr. Herald gave a brief outline of the sewer system of the City of Kingston.

Dr. Bryce read a paper by Mr. Willis Chipman, C.E., Toronto, on "Septic Tank Method of Sewage Precipitation."

Dr. W. T. Connell read a paper on "Vitality of Typhoid and Diphtheria Bacilli in Milk."

A paper on the "Use of Anti-Toxin in Toronto Contagious Disease Hospitals," by E. B. Shuttleworth, Ph.D., Toronto, was read by Dr. Bryce.

Dr. Herald moved, seconded by Dr. McCrimmon: "That while

increasing the staff of the mechanical laboratories in connection with Boards of Health, branch laboratories be established at Kingston and London, as there are competent men to do the work at these places." Carried.

A motion by the Rev. Mr. Cumberland, seconded by Dr. Knight: "That this Association approves of the Act respecting municipal sanitararia for consumptives; that thanks are due to the Legislature of Ontario for the same, and we strongly urge upon members of this Association the necessity of forming local associations to co-operate with local boards of health in carrying out the terms of this Act," was carried.

The election of officers resulted as follows: President, Dr. W. T. Connell, Kingston; Vice-President, M. Davis, Berlin; Secretary, Dr. Bryce, Toronto; Committee, Dr. Ki'chen, St. George; Dr. H. M. Cowan, Galt; Dr. Vaux, Hamilton; Dr. Oldwright, Toronto; Dr. McCrimmon, Palermo; Dr. McCullough, Owen Sound; Dr. Herald, Kingston.

Brantford was chosen as the next place of meeting.

APPOINTMENT OF DENTISTS TO STATE INSTITUTIONS.*

THE teeth play so important a part in the animal economy their salvation is a matter of great importance for the welfare and health of every individual, and attention should be given the teeth, especially those diseased, as well as to other physical infirmities.

Physicians are appointed by the State for State institutions. Why should not dentists also be appointed to them?

I understand that steps in this direction have already been taken in Georgia, and that a dentist has been appointed to the Georgia Insane Asylum at Macon.

Dental and oral hygiene should be taught in our public schools, especially in the primary grades.

A year ago the Superintendent of the Cleveland city schools became interested in this matter, and a course of instruction in oral hygiene was instituted. From reports, it seems to have been a successful effort. The schools of Toledo are about to adopt something of this sort, and smaller places are becoming interested.

It might be well for this society to appoint a standing committee on hygiene, and let them prepare a scheme for instruction, and recommend its adoption by teachers in the public schools of the State.

* Extract from President's Address by Dr. L. P. Bethel, at thirty-third annual meeting of Ohio State Dental Society, December 5th, 1899.

The Canadian Journal of Medicine and Surgery

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Clinical Surgery—ALEX. PRYORSE, M.B., C.M., Edinburgh University; Professor of Anatomy and Director of the Anatomical Department, Toronto University; Associate Professor of Clinical Surgery, Toronto University; Secretary Medical Faculty, Toronto University.

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

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

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

Gynecology and Obstetrics—Geo. T. McKEOUGH, M.D., M.R.C.S. Eng., Chatham, Ont.; and J. H. LOWE, M.D., Newmarket, Ont.

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

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

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

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

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

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

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Address all Communications, Correspondence, Books, Matter Regarding Advertising, and make all Cheques, Drafts and Post-office Orders payable to "The Canadian Journal of Medicine and Surgery," 145 College St., Toronto, Canada.

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. Contributors must kindly remember that all papers, reports, correspondence, etc., must be in our hands by the fifteenth of the month previous to publication.

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

VOL. VIII.

TORONTO, SEPTEMBER, 1900.

NO. 3.

Editorials.

ALCOHOL AND EPILEPSY.

THE occurrence of epilepsy in individuals who consume considerable quantities of alcoholic liquors, especially of the stronger kinds, is occasionally noted; but, according to Dr. Bratz, whose observations were made at the Welshgarten Asylum, the epileptic seizure shows itself in alcoholists in two quite different forms.

Alcoholic epilepsy is not an autonomous disease, like essential epilepsy, which, whatever its etiology may be, continues during the lifetime of the individual attacked. It is only a nervous symptom of chronic alcoholism, which frequently appears at the same time as delirium tremens, and like that disease disappears as the result of abstinence from alcohol. Such attacks show a strong tendency to reappear when the alcoholic indulges in fresh excesses, so much so that the disease may last during the lifetime of the individual attacked, thus meriting the appellation of alcoholic epilepsy.

Alcoholic convulsions occasionally appear in persons of a perfectly sound constitution, and may thus be considered as exclusively the outcome of the chronic use of alcoholic intoxicants. In the majority of such cases, however, alcoholism exercises its convulsifying action on nervous tissues, which are predisposed by heredity or by other precocious alterations in the brain. This predisposition to alcoholic epilepsy often shows itself by nervous disorders in childhood, and also by the short period of time intervening between the beginning of alcoholic excesses and the appearance of convulsions.

All the cases observed by Dr. Bratz, in addition to the epileptic seizures, showed other symptoms of alcoholic poisoning, *viz.*: almost constant trembling, contractions of the muscles, disorders of the sensory nerves, changes in the optic nerves, headache and insomnia. There was a change in the mental state of the patients, an exaggerated irritability being the condition most frequently observed. Two weeks after their entry into the asylum epileptic seizures ceased entirely to appear in these patients.

All the different forms of idiopathic epilepsy were observed, *petit mal* rarely, *grand mal* frequently, the hysterical form frequently, the latter appearing in patients who did not exhibit the stigmata of hysteria. Alcoholic epilepsy does not affect the two sexes to the same extent, as Dr. Bratz made observations on 32 alcoholic men out of 400 male epileptics, but on only five alcoholic women out of 250 female epileptics. This remarkable difference he explains by the fact that German women do not often drink "schnaps."

These patients had committed different crimes, which had been provoked by alcohol, and were not due to epilepsy. Abstinence from alcohol sufficed to cause the rapid disappearance of the

seizures, but as the patients began drinking again, after leaving the hospital, they were again attacked by the epileptic seizures.

Dr. Bratz explains the pathogenesis of alcoholic epilepsy as due to an excitement of the nervous elements of the brain by intoxicants, an excitement which may disappear rapidly. This theory also takes note of the effects of other factors (heredity, rickets, etc.), the predominance of *haut mal*, the appearance of co-ordinate movements (hysterical), in some of the attacks, the simultaneous appearance of epilepsy and delirium tremens, and many other particulars.

The second and more uncommon form of this disease is the habitual epilepsy of alcoholists, and is only observed in persons who have for many years been accustomed to consume large quantities of strong liquors. This disease rarely appears before the fortieth year, unless other causes hasten its development. Its anatomo-pathologic basis consists of organic changes in the brain and particularly arterio-sclerosis, the first epileptic seizures only disclosing these irreparable changes of structure. It is not, therefore, surprising that the suppression of alcohol does not prevent the re-appearance of fresh epileptic attacks. In such cases, the seizures are accompanied with variable symptoms, according to the extent and intensity of the lesions—vertigo and convulsive attacks, coma and mental confusion, progressive mental breakdown, and chronic psychoses. These attacks are quite similar to *petit mal* and *haut mal*, and do not assume the hysterical character. Delirium tremens is never observed after the appearance of the symptoms. The first form of alcoholic epilepsy hardly ever changes to the second form. In the latter disease, the habitual epilepsy of alcoholists, heredity exercises very little influence. J. J. C.

DR. PLAYTER'S SANITARIUM.

AFTER a full trial, P. Ellis, Police Magistrate for the Town of Toronto Junction, York, Ontario, sentenced Dr. Playter to pay a fine of \$200, and the costs, \$24.50, for unlawfully establishing an offensive trade or business (free Sanitarium for Consumptives at Moore Park) without the consent of the Municipal Council of the Township of York.

Moore Park, which is situated close to the reservoir of the city

water-works, contains several villas, one of which was occupied by Dr. Playter and used as a sanitarium for the treatment of consumptive patients. The neighbors were displeased and alarmed at the proximity of the dreaded bacillus to their dwellings, and Dr. Playter was notified by the York Township local Board of Health to cease carrying on the business of a sanitarium in the dwelling he occupied. He refused to comply, hence the action of law. It appeared from the medical evidence that, *inter alia*, the sputa of the patients were caught on rags, which were afterwards buried in a pit; that the rooms were kept neat and clean, and that the patients were skilfully treated. The neighbors thought that their property would depreciate in value, and that they would be infected with tuberculosis owing to their proximity to Dr. Playter's dwelling, the nearest house being about one hundred feet from the Sanitarium. No medical evidence was offered to show that infection of a neighbor had taken place, and the assumption of the prosecution, that the bacilli tuberculosis contained in the sputa of the patients, who might expectorate on the grass-plot surrounding the house, would mingle with the dust and subsequently attack the respiratory passages of the neighbors or wayfarers, must be regarded as problematical, when one considers that the house is surrounded by a clean lawn, exposed to sunlight and open to every wind that blows. Even if one were willing to grant that Dr. Playter's neighbors might be exposed to some risk of infection, it would be small, in comparison with that of the people of Toronto, if the consumptive patients were allowed to reside at their own homes in the city, or roam at will, expectorating through the public parks.

Then again, when one remembers that there is no hospital for consumptives in Toronto, that in fact the management of the only sanitarium in the Province for the treatment of that disease (the Gravenhurst Sanitarium) requires a weekly payment of \$6.00 per capita; that there is a tuberculosis mortality of 1.0 per 1,000 living persons in Ontario, one would suppose that a serious effort to start a sanitarium for the benefit of the tuberculous poor would have been received with more favor. As an indication of popular feeling, the fright evinced by the Moore Park residents shows the alarm experienced by the people of the Province at the proximity of cases of consumption. The doctrine that tuberculosis is contagious, which even in 1890 was received with almost general incredulity by the assembled medical health officers of Ontario, at

the Lindsay Convention, has, since then, taken firm root even among the laity, and the action at law, *Regina vs. Playter*, may be taken as proof of that belief, and also of a determination that sanitariums shall be so built and located as not to be a menace to the public health.

The results obtained from sanitarium treatment abroad so far appear to be highly satisfactory, and it is earnestly to be hoped that no means will be taken to make the establishment of such institutions in Ontario unnecessarily difficult or expensive.

Sanitariums, if well conducted, are not a source of danger to the occupants of the surrounding houses any more than are hospitals for consumption under the same conditions as to general management—a statement that has been officially made by the British National Association recently, in answer to a wide-spread apprehension entertained to the contrary by the public at large.

Certainly, if real progress is to be made in the successful treatment of consumption in Canada, correct ideas on the dangers arising from this disease, the exact nature of the contagion, and the true methods of its spread, should be clearly put before the public. In the meantime the latter cannot be blamed for accepting the dictum of medical science in its ordinary sense, and treating consumptive persons as the carriers of a very dangerous contagion, with all the exclusion which that term implies. Unfortunately, however, for the consumptive poor, whatever interpretation may be put on the doctrine of the contagiousness of consumption, until sufficient sanitariums can be constructed, their lot will not be a happy one.

One bright spot in the picture is that the treatment of consumption is gaining ground. Strangely enough, also, the destruction of the bacilli and the neutralization of their products, so far unsuccessfully attempted from the outside by germicides and antitoxins, may be accomplished from within by the living tissues. Hygienic treatment consists in strengthening the organism to effect its own cure. The consideration of this view and all that it implies will doubtless be most instructive to uninfected persons, as well as for the stricken victims of consumption, showing to the latter that the road to victory over their disease lies in submitting with implicit obedience to the regulations of sanitarium treatment; and to the former, that the prime features of that treatment, viz.: Continuous living in the fresh air, whether sleeping, lying on verandahs, or

walking, great attention paid to nourishment, regular exercise and the use of the bath, will so strengthen the human organism that the omnipresent bacillus, even though it attack the body, will, in many instances, not inflict a lethal injury. J. J. C.

POISONING BY ANILIN.

OCCASIONALLY one sees in the medical press allusions to the poisonous effects of anilin. Thus workmen, exposed to the vapors evolved in the manufacture of anilin, acquire a cyanotic hue of the face, lips, and mouth, suffer from giddiness, headache and chilliness, and weakness of the lower limbs. They are subject, also, to bronchial irritation, nausea, constipation, diarrhea, and cutaneous eruptions. In most of the cases reported the poison would appear to have been absorbed through the respiratory tract, although when taken by the mouth the cyanotic symptoms mentioned have been present in a high degree. In a reported case (the *National Dispensatory*, p. 180), the pulse was thready and frequent, the inspirations shallow, 30 in a minute; muscular tremor and twitching pervaded the body, the head ached and there was some drowsiness, but the mind was otherwise clear; the patient was restless and his breathing oppressed as if by a weight. Vomiting was provoked by an emetic, and on the third day he had entirely recovered. The skin continued bluish for more than forty-eight hours. Stockings, cravats, gloves, etc., dyed with anilin have occasioned eczematous eruptions on the skin in contact with them.

In *La Presse Medicale*, July 18th, 1900, Professor Landouzy and Dr. Brouardel report a series of cases in which poisoning by anilin was observed, and the patients treated by them. They stated that ten children were attacked, at different times, with symptoms of poisoning, the cause being at first obscure. In every instance, however, the affected child had worn shoes of yellow leather, which had been subsequently blackened with a shoe dressing of a penetrating and rather disagreeable odor. No cramps, trembling or vomiting were observed in these cases. The symptoms noted were: Loss of consciousness, passing, in some instances, into deep torpor, sensations of cold and a bad color of the skin of the face: in some of the children being simply a pale color, in

others a greyish hue, passing into a slate color, or even a cyanotic blue color:

The younger children, who were attacked suddenly with symptoms of great depression, passed into a state of torpor and remained in that condition for several days. The older children, from nine



THOMAS H. MANLEY, M.D.,

New York City.

to fourteen years of age, exhibited similar symptoms, but of a less severe type. They had headache, sneezed frequently, and complained of severe sensations of cold in the body, which persisted in spite of the use of bottles of hot water. Their faces were extremely pale, the hands and lips being bluish in color. On analysis, the

shoe-dressing was found to contain fixed anilin dyes, a volatile product being also present in large quantity (90 per cent.), and acting as a vehicle for the dye.

In the opinions of the observers, the anilin poison penetrated into the systems of the patients by the cutaneous route, the anilin vapors being disengaged from the dye in the leather by means of the moist heat of the feet of the children, and afterwards absorbed into the circulation by the blood-vessels of the skin. J. J. C.

TURN OUT IN FORCE!

THE Canadian Medical Association, which convenes in Ottawa on the 12th of this month, will last from that day to the 14th. Everything points to the meeting being a huge success. It will be noticed from the list of papers herewith appended that a perfect feast of scientific food can be looked forward to, so that no visitor ought to be disappointed. Such men as Mr. Edmund Owen, of London, Eng., Dr. F. Shattuck, of Boston; Dr. Orford Gerster, of New York; Dr. Nicholas Senn, of Chicago; Dr. Allen McLane Hamilton, of New York; Dr. J. Clarence Webster, of Chicago; Dr. L. H. Warner, of Brooklyn; as well as a large number of our best men from the principal cities of Canada, will be present, and take an active part in the meeting. Let us make this the very best meeting to date. This can only be accomplished by every man registering, and not necessarily waiting upon others to lead the way. The papers so far promised include:

1. Address in Surgery—Edmund Owen, London, Eng.
2. Address in Medicine—F. Shattuck, Harvard Univ.
3. Address in Gynecology—Wm. Gardner, Montreal.
4. Gall Stone Cases—Orford Gerster, New York.
5. Title to be announced—N. Senn, Chicago.
6. Recognition and Management of Tabes Dorsalis—Allen McLane Hamilton, New York.
7. Case of Endothelioma of the Omentum, Operation, etc.; Meningocele, Operation, etc.—W. H. Klock, Ottawa.
8. The Proposed Ontario Bill for the Treatment of Inebriates—A. M. Rosebrugh, Toronto.
9. The Modern Treatment of Retroversion and Prolapse of the Uterus—A. Laphorn Smith, Montreal.

10. Treatment in Typhoid Fever—W. B. Thistle, Toronto.
11. Gastric Hemorrhage—G. E. Armstrong, Montreal.
12. Some Cases in Stomach Surgery: Gastrostomies, two cases; Gastro-enterostomies, two cases; Pylorotomy—A. E. Garrow, Montreal.
13. Gangrene of the Leg, following Typhoid Fever—H. H. Chown, Winnipeg.
14. Title to be announced—N. A. Powell, Toronto.
15. Notes on the Therapeutic Value of Hot Air—C. F. Martin and B. D. Gillies, Montreal.
16. Title to be announced—J. Clarence Webster, Chicago.
17. Title to be announced—H. H. Beemer, Mimico.
18. Notes on Atropine—R. D. Rudolf, Toronto.
19. Gasoline as a Surgical Detergent—Bruce L. Riordan, Toronto.
20. The Successful Treatment of Two Important Cases of Disease of the Eyes by the Combined Methods of Mercury and Iodide of Potash Internally, and Pilocarpine Hypodermically—Geo. H. Burnham, Toronto.
21. Our Race and Consumption—Sir James Grant, Ottawa.
22. The Physicians' "Vaster Empire"—John Hunter, Toronto.
23. Some Experiences in the Treatment of Hernias—F. J. Sheppard, Montreal.
24. Notes of a Case of Tubercular Disease of the Tubes, with Acute Peritoneal Infection—H. A. Bruce, Toronto.
25. The Summer Health Resorts of the River and Gulf of St. Lawrence—E. H. Adams, Toronto.
26. Empyema, with a Study of Thirty Cases from the Clinical and Bacteriological Standpoints—W. F. Hamilton, Montreal.
27. Physical Training: its Range and Usefulness in Therapeutics—B. E. McKenzie, Toronto.
28. A Case of Traumatic Neurasthenia—D. Campbell Meyers, Toronto.
29. Adenoids in Private Practice: a Report of One Hundred Cases—P. G. Goldsmith, Belleville.
30. Recent Pathological Studies of the Blood, with Lantern Demonstration—L. H. Warner, Brooklyn, N.Y.
31. A Case of Syphilitic Gummata of the Spinal Cord, successfully treated by enormous doses of Iodide of Potassium—Francis W. Campbell, Montreal.

32. Dilatation and Prolapse of the Stomach—A. McPhedran, Toronto.

33. Tendon-Transplanting in Paralytic Deformities—Clarence L. Starr, Toronto.

34. A Case of Congenital Ptosis, with Associated Movement of Affected Eyelid during the Action of Certain Muscles—J. M. MacCallum, Toronto.

Programmes will be sent to each member. The General Secretary, F. N. G. Starr, Biological Department, Toronto, will be glad to hear from non-members intending to be at meeting, so that he can send programmes, etc. Dr. Powell, the President, will



DR. WM. BRITTON,
President of the Ontario College of Physicians and Surgeons.

accept it as a favor if all intending to be in Ottawa at the time of the meeting will kindly notify him at once, so that he will know what accommodation will have to be provided. W. A. Y.

EDITORIAL NOTES.

The Responsibility for a Late Operation in Appendicitis.—During the present era of surgical asepsis, the claim of the surgeon to be allowed to do a surgical operation at an early stage of an

acute disease, such as appendicitis, would seem to be incontestible. This claim is founded upon observations which show that an early operation prevents serious subsequent disease, and when it is done aseptically on a patient of a sound constitution is, of itself, quite innocuous. Unless a physician is prepared to assume the responsibility of treating a case of appendicitis by medicinal means, he should consult with a surgeon as soon as possible after he has made the diagnosis of appendicitis. It is manifestly unfair to the surgeon to call him in at a late stage and to expect him to achieve favorable results under unfavorable conditions. Although from a professional consideration for the reputation of the attending physician, a consulting surgeon may not speak of the inimical influences of delay in operating, it does not follow that he should place himself and his art in a false position by counselling an operation in a case where failure is almost certain to result. Yet when the proper time for doing an operation for acute appendicitis has passed by, a surgeon who advises an intervention assumes a responsibility which rightfully belongs to the physician, who had the first opportunity of making a diagnosis of appendicitis in the given case. Besides, without reference to the loss of reputation sustained by a particular surgeon, if an operation for appendicitis, though done at an advanced stage of the disease, fails to cure the patient, discredit is thrown by the public on surgical art, instead of on the delay, which made the tardy exercise of that art unavailing.

International Congress of Medicine.—The committee on papers of the Thirteenth International Congress of Medicine, held at Paris, August 2nd to August 9th, have issued advance copies of reports in several of the departments, viz.: Laryngology and Rhinology, Surgery of the Young, General Surgery, Internal Pathology, Surgery of the Urinary Organs and Diseases of Children. The languages used in these papers are French, English and German. We wish to express our cordial thanks for the favor conferred, and we shall have great pleasure in publishing some of the reports in future numbers of this monthly.

Hot Weather Increases the Mortality.—The hot weather during the month of August caused a large mortality among the aged and the very young at Toronto. On August 8th, 27 deaths were reported at the Toronto City Hall, making a total of 75 since noon on August 4th. Of the 27 deaths on August 8th, 14 were

children under twelve months old. There were also six very aged women, from 72 to 76 years of age. The highest temperatures registered at Toronto were 97 degrees F. August 7th, and 96 degrees F. August 8th.

An Improved Registration Shows a Fair Birth-Rate.—The recent regulation of the Provincial Secretary's Department, ordering doctors to report the births which they attend, has had its effect in the increased number of births reported to the City Clerk, Toronto. No less than 502 births were registered in July, a figure greatly in excess of any single month in many years. There were 306 deaths and 143 marriages registered.

Alum in Baking Powders.—Alum baking powders are condemned in Bulletin No. 68, issued from the laboratory of the Inland Revenue Department, Ottawa, Canada. Physicians and others who feel interested in the study of this subject should read Professor McGill's able presentation of the effects of alum baking powders on digestion.

PERSONALS.

DR. G. S. RYERSON returned from South Africa two weeks ago.

DR. FRED. FENTON commenced to assume the awful responsibilities of married life a week ago.

DRS. N. A. Powell, J. D. Thorburn, Murray Macfarlane, F. N. G. Starr and A. J. Johnson have returned from their vacations.

WE heartily congratulate Mr. Irving Cameron, of this city, on the honor bestowed upon him recently by the Royal College of Surgeons, England.

DR. LESLIE M. SWEETNAM, of Toronto, one evening last month entertained some of his medical friends by exhibiting lantern slides made from photographs which the doctor took while in California and New Mexico. The slides are the finest ever shown in Toronto.

Dr. J. N. E. Brown's Promotion.—"The mills of the gods grind slowly, but they grind fine." Our friend Dr. J. N. E. Brown, Secretary to the Commissioner and the Yukon Council, has received the announcement that he has been made Secretary of the Yukon Territory. Never did promotion fall on more deserving and more capable shoulders, and we heartily congratulate Dr. Brown and the people of the Yukon.

Selected Articles.

THE PHYSICIAN.*

BY S. WEIR MITCHELL, M.D., LL.D., PHILADELPHIA.

THE hunt is o'er ;—the stone-armed spears have won ;
 Dead on the hillside lies the mastodon.
 Unmoved the warriors their wounded leave ;
 The world is young and has not learned to grieve.
 But one, a gentler sharer of the fray,
 Waits in the twilight of the westering day,
 Where 'neath his gaze a cave-man, hairy, grim,
 Groans out the anguish of his mangled limb.
 Caught in the net of thought the watcher kneels,
 With tender doubt the tortured member feels,
 And, first of men a healing thought to know,
 He finds his hand can check the life-blood's flow.

What sense of pleasure won that helping hand
 You best can tell, you best can understand,
 Who, looking back across your busy years,
 Know what your hands have spared of pain and tears.
 First of your guild ! Before me sit to-day
 His latest offspring, while the Century gray,
 Proud of your past, and of your future sure,
 Knows that what else may perish you endure.
 What need to tell your story ? Brief the task.
 You are the wondrous history you ask !
 A living record ! They who first in vain
 Thrubb'd with desire to see a brother's pain
 More largely live in you ; and yours the joy,
 The priceless happiness without alloy
 Of him, the first, who saw his infant art
 Bring back the life-blood to the failing heart.

Heirs of the ages ! Heiritors of thought
 By Galen gathered, or by Celsus taught,
 Greek, Arab, Roman breathe in you to-day,
 And the great captains of that long array,
 Who through dark centuries led your slow advance
 To the proud sunburst of the Renaissance.
 A splendid lineage ! Who may hope to trace
 The dateless legend of your ancient race ?
 Lo ! through the mist of years I see them rise,
 The great, the good, the witty and the wise
 The poet's laurel crowns your blazoned shield.
 Sage, scholar, statesman reap your ample field.
 Your names are many on the fearless roll
 Of those who signed a nation's birthday scroll.

*Read before the Congress of American Physicians and Surgeons, held at Washington, D.C. May 3rd, 1900.

Too oft our changeful story seems to show
 That what men knew they only seemed to know.
 They lived, they toiled, they joined the silent dead.
 On dusty shelves their books repose, unread.
 The scholar wandering o'er this vast domain
 Once rich with living thought, may think how vain
 Our work will seem to those who hither come
 To sum our gains when we, in turn, are dumb.
 Yet that which wins to-morrow's grateful praise
 Is the sure child of faltering yesterdays,
 And countless hands must till the stubborn soil
 That one may reap the harvest of their toil.
 To know, alas ! but feeds the crave to know ;
 Upon our hands life's endless riddles grow,
 Until we learn that every hard-won hill
 But sets the far horizon farther still :
 Yet ah, how keen the mind-thrill of delight
 When some new sun illumines our lessening night,
 And problems, dark for many a weary year,
 Shine, simply answered,—luminous and clear.

With conscience calm you see the century go,
 And know how much to you its glories owe.
 It saw grow safe beneath the surgeon's knife—
 Almost too safe—the sacred human life.
 It saw forever stilled the cry of pain.
 Which shall we dare to count the higher gain ?
 Two older victories we gladly place
 In the proud annals of our English race ;
 When some glad seraph gave to Jenner's ear
 The whispered spell that slew a giant fear,
 And, strangely killed despite his guard of lies,
 Touched with a needle's point the monster dies.
 When, too, as one amid some deepest night,
 Sees the quick lightning fill the world with light,
 Our patient, modest Harvey saw revealed
 The wonder-secret life so long concealed.
 Who would not envy those who share alone
 With God the secrets only He had known :
 Who win the joy of soaring unconfined
 High o'er the levels of the common mind,
 Or, humbly searching some well-trodden ground,
 Find the rare jewel no one else had found.

Such were the sires with whom your art began,
 For you, who, thoughtful, that proud record scan,
 Know the true children of the mighty dead
 Are they alone who in their footsteps tread,
 And that a man's true ancestors are they
 Who, dying, left him all that genius may.
 You wield new arms, are 'neath new flags arrayed,
 Yet you are still what these our fathers made.
 What they have given it needs not me to find,
 Nor what high masters schooled the growing mind ;
 Great was the sire who gave to you and these
 The stately oath of stern Hippocrates.
 The creed was old before the Christ was born
 To give it heavenly light and larger morn
 Of ampler meaning, when a white-robed man
 Taught—as those wonder-years in sadness ran—

Taught as he practised our divinest art.
Who heals the body best can heal the heart.

Your guild is old and no historic page
Records its birth or dares to set its age.
A score of codes the lawyer's learning needs ;
The priest is servant of an hundred creeds
That sow dissension and that stir debate,
And in their turn have fed the fires of hate :
But you, o'er all the earth, in every land,
Find the warm greeting of a brother hand.
One creed is yours, and till all time has ceased
Still you are doctor, and are somewhat priest.
The colder man may vainly try to live
Free from confession such as sorrows give :
The priest hears part of life—you hear the whole,
When fear or anguish racks the tortured soul.
'Tis we who know, and haply we alone,
What grandsire's sin a life has overthrown,
What inborn taint has been the fatal source
That gave temptation such resistless force.
How can we lack the charity that wins
From God-like knowledge large excuse for sins ?
Not yours to pass upon the other side,
Or giving part, to leave the rest denied.
Our best have owned the rare dramatic power
Which gives to sympathy its lifting hour ;
Go learn of them, the masters of our art.
To trust that wise consultant called the heart.
There are among us those who haply please
To think our business is to treat disease,
And all unknowing lack this lesson still,
'Tis not the body but the man is ill.
God's ways are dark, and in their gloom we walk ;
Not ours to know why life's grim spectres stalk.
We tread mysterious paths in touch with pain,
Birth, death, disease, strange phantoms of the brain.
Perplexed we recognize the doubtful hour
When indecision paralyzes power.
No intuition leads with certain hand—
Tuition rather—and the sure command
Of reason competent to read with ease
The dim and half-seen signals of disease :
So doth the poet question Nature's soul,
And knowing part, infer the larger whole.

Would I might call these grave consultants here
To trace the coming century year by year,
To learn what crippled theories she flings
On the dust-heap of forgotten things,
What blazing head-lights shrink to tallow-dips,
What well-known names must suffer time's eclipse.
Yet hope shines ever in her maiden eyes.
Her silent lips are treasuries of surprise.
What ghastly shapes her stately presence fly !
What ancient plagues beneath her footfall die !

Fair heritress of every human hope,
Rich with the marvels of time's widening scope,

However high may rise thy soaring wing,
 Whatever change thy fuller days may bring,
 Our ancient lesson will be ever new ;
 That priceless lesson will be ever true ;
 Time did not teach it ; time will change it not.
 This, this shall last through all our lore's forgot,
 To give what none can measure, none can weigh,
 Simply to go where duty points the way ;
 To face unquestioning the fever's breath,
 The hundred shadows of the vale of death ;
 To bear Christ's message through the battle's rage,
 The yellow plague, the leper's island cage,
 And with our noblest " well to understand
 The poor man's call as only God's command."
 Ay, under every century's changing sky
 Shall the Greek master's triple signal fly,—
 Faith, Honor, Duty,—Duty calmly done,
 That shouts no self-praise o'er a victory won ;
 One bugle note our battle call,
 One single watchword, Duty.—That is all.

Where are your honors ? Ribbons, titles, place,
 In other lands reward the winner's race.
 But here, to-day, beneath our equal sun,
 The simple guerdon of some victory won
 Is but to hear your Ave ! Hail ! Well done !
 Alas ! not always even this is sure
 For him who lessens that which men endure.
 We are but mortal, and, with blinded eyes,
 May fail to see who surely won the prize,
 Or see too late, as once we saw in vain
 The fate of him who wrought the death of pain.
 Guard well that memory, lest again we flout
 Some hero-victim with our torturing doubt.
 How thanked we Morton ? Ah ! " No joy-bells rang,
 No peans greeted, and no poet sang.
 No cannon thundered from a peaceful strand
 That bloodless victory to a grateful land.
 We took the gift, so humbly, simply given,
 And, coldly doubting, left the rest to Heaven."

Swift pass the days. Our century slowly dies,—
 Quick beats her pulse and filmy are her eyes.
 Her flowing robes are red with countless wars,
 Her tender breasts are sad with many scars ;
 Yet in her dying eyes prophetic glows
 Some sweet prediction of a world's repose.
 Lo, at her side the coming sister stands,
 And bends to hear, and folds those wasted hands.
 " What shall I bring which thou hast failed to find ?
 What nobler hope have I to give mankind ?"
 Hark ! From the lips where life had seemed to cease
 Comes the low murmur : " Thou shalt give them Peace."

—*Phila. Med. Journal.*

RELATIVE EARNINGS OF THE PROFESSIONS THROUGH-
OUT THE WORLD.

THE law is probably the most profitable of the so-called learned professions. There are more and larger prizes to be gained by an acute and eloquent disciple of the legal art than are open to the medical man or the minister. In this country and in Great Britain the incomes of the foremost advocates and of attorneys in lucrative practice for the most part overshadow the yearly earnings of the best-known physicians and surgeons, and to a still greater extent those of our spiritual advisers. Occasionally one hears of very large fortunes being left by prominent doctors—Sir William Gull, Sir Andrew Clarke, Dr. Pepper, and Sir William Jenner are cases in point; but these are exceptions, and sums accumulated by medical men cannot be compared either in number or magnitude to the colossal amounts amassed by members of the legal fraternity. When, however, the average incomes of these three classes of the community are considered, their relative position in the United States and in Great Britain will be found to differ. Viewed thus in the United Kingdom, the clergyman is at the top of the list, the lawyer second, and the doctor last; while here the lawyer or doctor gets a larger share of the "loaves and fishes," and the minister has to be content with the crumbs.

An article in *Medicine* for April refers to a recent editorial in the *Chicago Times-Herald*, discussing the relative incomes of Chicago doctors and lawyers, which says: "It is doubtful if the average income of lawyers in Chicago is \$1,500, but that is because the average is reduced by the large number of failures and of lawyers who scarcely make their board during the early days at the bar. There are a few law firms in Chicago which make from \$50,000 to \$100,000 a year; perhaps twice as many from \$25,000 to \$50,000; many more from \$5,000 to \$25,000; perhaps five hundred from \$2,000 to \$5,000, and the multitude from \$2,000 down to nothing. Of physicians the same is true on a reduced scale. We doubt very much if the average income of doctors in Chicago is \$2,000. The city is full of young M.D.'s without enough practice to give them a personal atmosphere of disinfectants. One or two successful specialists may make as high as \$50,000; but the fingers of one hand would probably keep track of the regular practitioners who can count on \$25,000 a year."

The average income of a physician in large cities on this continent may be placed at \$2,000, in the smaller towns at \$1,500, and in the rural districts at \$1,200. Two or three New York physicians are said to make over \$100,000 a year, five or six about

\$50,000, but the average income, although rather higher than in Chicago and in other American large cities, does not greatly exceed \$2,000 yearly. The minister averages in the city perhaps \$1,200, and in the country certainly not more than \$800 yearly. As regards living expenses, both the lawyer and minister have an advantage over their professional brother. In New York, for example, office accommodation suitable to a physician is very dear, in a good neighborhood costing not less than \$70 or \$80 a month, which with board and lodging and other necessary disbursements, will represent a sum of \$120 monthly, a sufficiently weighty burden for a struggling youthful practitioner to bear. The young minister has no rent to pay, while the legal neophyte can regulate his outlay in this respect according to the length of his purse. Nevertheless, the lot of the medical beginner compared with that of a pastor in a like situation has its compensations. He is at least more or less independent. The minister, on the contrary, is as a rule permitted to exercise his own will but to a limited degree, and often is doomed to go through a lifetime of toil, subservient to the caprices of censorious elders and deacons. An excellent description of the trials of an American country minister and the various unpleasantnesses with which he has to contend at the hands of his congregation, is given in the "Damnation of Theron Ware," the best novel written by the late Harold Frederic.

When all is said that can be said, the first few years of medical practice are years of arduous effort, full of disillusionment and disappointment. The late Sir Andrew Clarke told Dr. Osler: "From the vantage ground of more than forty years of hard work he could say that he had striven ten years for bread, ten years for bread and butter, and twenty years for cake and ale." The truth undoubtedly is, and especially in large centres of population in America, that the opportunities for a physician to obtain adequate compensation for his services are yearly becoming less. This is not due to any deterioration in the quality of the present-day practitioner or an evidence of falling off in medical or surgical skill. The fact is irrefutable that the medical profession in this and in all civilized countries stands on a higher plane in the matter of training and knowledge than ever before. The reason for the decrease in medical incomes is indubitably almost wholly owing to the more eager competition among regular practitioners, to hospital and dispensary abuse, and to the lamentable increase in quackery. The supply of medical men is greater than the demand; the market is flooded, and the most potent remedy we can suggest for this evil is that, as has been many times advised in the *Medical Record*, a uniform high standard of medical education should be established in every state.—*Medical Record*.

The Physician's Library.

BOOK REVIEWS.

Osteopathic Treatment in the Hypnotic State; or, Suggestion Massage the Cure for Incurables. The most wonderful treatment of the age. By PROF. THOMAS BASSETT KEYES, M.D., of Chicago, formerly Professor in the Harvey Medical College, etc.; Formerly President American Psychological, Medical and Surgical Society; Fellow of the American Association of Physicians and Surgeons, and Chairman of its Section of Psychological Medical Science; Member of the Medico-Legal Society of New York, and one of the Vice-Chairmen of its Legal and Scientific Section; Member of the American Association for the Study and Care of Inebriates, etc., etc. Chicago: *Surgery, Medicine and Psychology*, Publishers.

According to the learned author of this book, "Osteopathy" seems to have little or nothing to do with the bones, but is "the science of treating disease by manipulating different parts of the body, particularly the nerves." He designates a good osteopath as a "bone-puller and kneader," and in order to give him a good knowledge of anatomy, presents him with a number of "special cuts," which may be a success as "cuts," but assuredly precious little knowledge of anatomy will be acquired from them. However, as the science of osteopathy was successfully practised by the "disciples" (sic) of Chong Fow, in China, over 3,000 years B.C., we may presume that a good knowledge, or any knowledge whatever, is not an essential qualification in an accomplished "bone-puller and kneader."

One chapter describes "my easy method of hypnotization, a very important part of which is to persuade the patient to 'tune his body to the air, tune his body to the operator's voice,' etc."

Another chapter treats of massage, and describes the various "grips," such as "massage up, down, and spiral; kneading, rolling, stroking, slapping, percussion, heating, pressing, shaking, vibration, chapping, pointing, clapping, knocking, percussion," etc., all of which may be compressed into one word—quacking.

These, along with "suggestive hypnotism," and "appropriate music," will cure all the ills of body and mind, even "cure the incurable."

Special instruction is given for curing "dysentery or bloody flux," by "deep pressure on the nerves as they emerge from their openings, and so on up the spinal column," which no doubt would be an easy procedure to an accomplished "bone-puller and kneader." Difficult parturition is relieved by "pressing on the pubes just on each side of the clitoris," or "on the second sacral foramina."

Various methods have been employed to expedite delivery. Hartman says "he has often witnessed difficult labor accelerated by a draught of the husband's urine," and "horse dung infused in wine is efficacious in expelling the placenta" ("Paris' Pharmacologia, p. 20"). No doubt can be entertained that the author's method is more agreeable, while it is probably equally successful.

The author's teaching as to psychology is admirably simple, and profoundly scientific. He settles conclusively the question, "What is Life?" which has so long perplexed the scientific world. "The body is made up of the sur-

rounding elements. Its vital principle depends upon the life (electricity) generated from the food we eat, the liquids which we drink, and principally from the atmospheric air, which contains more electricity than any other substance known, save iron, cobalt and nickel. When the system becomes exhausted, germs of disease find an easy access to the body; when this system is active the body remains healthy."

There is only one theory which will compare with this, viz.: that of Thompson, the founder of the Eclectic School. He maintained that "the body is composed of four elements: earth, air, fire and water; that heat is life, and cold is death. Our life depends on heat—food is the fuel that kindles and continues that heat."

In the last chapter the author gives us his views as to the cause and treatment of cancer. His first statement is that "carcinoma is simply a return to the 'foetal state,' but afterwards he adopts the theory of "Aesclepiades of Prussia" (Aesclepiades of Prusa, in Bithynia, Asia Minor), "who in the first century, B.C., taught that the body was composed of atoms and corpuscles, and that disease was the result of a lack of harmony, or discord between the atoms and corpuscles."

As to the treatment, after first asserting that "everyone knows that cancer cannot be cured either by medical treatment or surgical operation," he declares that it can be cured by means of Suggestive Hypnotism, aided by suitable music, by which parts of the body of the hypnotized patient are harmonized, and the patient made to tune himself to the music. The success attending this wonderful treatment depends, however, upon the fact that there has been, previously, a total extirpation of the part with the surrounding glands.

Scattered through the book are numerous errors in spelling, such as "desciples," "diabetis" "hœmorrhoids," "plethera," "spincter," "calesthenics," and while some allowance should be made in such little matters to profound thinkers, such errors should have been corrected by a competent proofreader. J. H. R.

Fractures. By CARL BECK, M.D., Visiting Surgeon to St. Mark's Hospital, and to the New York German Polyclinic; formerly Professor of Surgery New York School of Clinical Medicine; Consulting Surgeon Sheltering Guardian Society, Orphan Asylum, etc. With an appendix on the practical use of the Röntgen Rays. 178 illustrations. Philadelphia: W. B. Saunders & Co. 1900. Canadian Agents: J. A. Carveth & Co. Price, \$3.50 net.

There are none who will doubt the fact that, since the X-ray came to be as generally adapted to surgical usages as it is nowadays, the treatment of fractured bone has come to be a very much simpler matter indeed than before it was possible, as it is to-day, to actually see in life the exact amount of displacement between the fractured ends, as also the extent of the break itself. Books on the subject of fractures written within the past few years, have had to depend for illustrative purposes upon what was afterwards found upon the cadaver, whereas the work by Dr. Beck, now under review, is freely illustrated with what he found before, as well as during treatment, a record which could not be gainsaid or in the least doubted. The book is splendidly illustrated, the half-tones of what was found by means of the Röntgen Rays being particularly clear, and adding immensely to the value of the book as a work of reference for the surgeon. What a common matter it has been in the past for the surgeon to be in considerable doubt as to whether he had to deal with a case of dislocation or one of fracture or both. Since the employment of the X-ray, however, it has been clearly shown that fractures occur at least ten times more frequently than luxations, a discovery which alone lends considerable aid in a correct diagnosis. How important it is to be able to say which it is, the after-treatment of one being so different from the other!

The author has divided the book into two parts, one dealing with fractures in general, the other with fractures of special regions. Under Part I., Dr. Beck

goes into signs, diagnosis, process of repairs, disturbances in the process of repair and treatment. Part II. takes up the various forms of fracture, shoulder and upper extremity, the pelvis and lower extremity, fractures of the bones of the trunk, and lastly, fractures of the skull. He adds a most interesting appendix on the practical use of the Röntgen Ray, a chapter which alone is worth the price of the book. The publishers are to be congratulated upon the splendid typographical finish of the book as a whole. W. A. Y.

A Systematic Treatise on Materia Medica and Therapeutics, with Reference to the Most Direct of Drugs. By FINLEY ELLINGWOOD, M.D., Professor of Materia Medica in Bennett Medical College, Chicago; late Professor of Chemistry in Bennett Medical College. Author of "A Synopsis of Medical Chemistry," "Manual of Urinalysis," Editor *Chicago Medical Times*. With a condensed consideration of Pharmacy and Pharmacognosy, by PROF. JOHN URI LLOYD, PH. D., late President American Pharmaceutical Association; Professor of Chemistry and Pharmacy in the Eclectic Medical Institute of Cincinnati; author of "Etidorhpa." Chicago: Chicago Medical Press Co., 103 State Street. 1900.

The large majority of books reviewed in the columns of a medical journal are the works of members of, what is ordinarily termed, the regular school. Why, however, should it be that works written by eclectic physicians must necessarily be, or usually are, excluded from the pages of many medical journals? We answer: "No reason in the world," provided, of course, the books have merit, and are not written in the usual one-sided manner, which is too frequently the case in such instances. Dr. Ellingwood has in his *Treatise on Materia Medica and Therapeutics*, given the general profession a book which has considerable merit, and we feel that he ought to receive generous support from all sides. What the Doctor claims in his preface, "to present the more recent observations of the actions of drugs," has been fully carried out in subsequent pages, his work as a whole being well written and a great improvement upon many of the books on materia medica and therapeutics already published. It is not often that one finds in books so confident and exact an opinion held by the author, as in this case, in reference to the action of various drugs, and at first the reader might feel that such a degree of confidence was misplaced, but on reading the text more closely will find that such idea is erroneous, and that the writer but proves his facts as he goes along. The book is divided into ten sections: Agents Acting Upon (1) The Nervous System; (2) Heart; (3) Respiratory Tract; (4) Stomach; (5) the Intestinal Canal; (6) Agents influencing the character of the blood; (7) Agents acting upon the Genito-Urinary Organs; (8) Upon the Female Reproductive Organs; (9) Agents Used in the Control of Hemorrhage, and (10) Agents acting upon Micro-Organisms and Parasites. The book will prove an addition of no mean value to those on the subject already procurable, and we trust that the author will not be disappointed in the result of his efforts.

A Manual of Surgical Treatment. By W. WATSON CHEYNE, M.B., F.R.C.S., F.R.S., Prof. of Surgery in King's College, London; Surgeon to King's College Hospital and the Children's Hospital, Paddington Green, etc., and F. F. BURGHEAD, M.D., M.S., London, F.R.C.S., Teacher of Practical Surgery in King's College, London; Surgeon to King's College Hospital and the Children's Hospital, Paddington Green, etc. In six parts. Part I. The treatment of General Surgical Diseases, including inflammation, suppuration, ulceration, gangrene, wounds and their complications, infective diseases and tumors. The administration of anesthetics, by Dr. PILK. Longmans, Green & Co., 29 Paternoster Row, London and Bombay, 1899. Toronto: The Copp, Clark Co., Limited, 9 Front Street, W. Price, \$3.70 net.

The authors of this book have very wisely, we think, realised how lacking many of even the most extensive works on surgery are in the space devoted to Treatment. Too many are much too verbose upon the subject of patho-

logy, symptoms, diagnosis and prognosis, ending up with a few cursory and altogether much too brief paragraphs upon how to treat the case. How often does it occur that a surgeon will turn up, perhaps, one of the latest works to see what treatment he had better adopt in a particular case, and come away disgusted with the short account given of the very subject he was most anxious to read in detail. Cheyne and Burghard, on the other hand, have realised this defect, and have devoted the first part of their "Manual of Surgical Treatment" to the best methods of treating general surgical diseases, and have done it in a most readable and satisfactory manner. The best criticism one could give of the book would be to say that they have described in full those methods which experience taught them were the best, and which they themselves would adopt under similar circumstances. We commend the book as one worth buying.

Atlas and Epitome of Special Pathologic Histology. By DOCENT DR. HERMANN DÜROCK, Assistant in the Pathologic Institute; Prosector to the Municipal Hospital, L.I., in Munich. Authorized translation from the German. Edited by LUDWIG HEKROEN, M.D., Professor of Pathology in Rush Medical College, Chicago. Circulatory organs, respiratory organs, gastro-intestinal tract, with 62 colored plates. Philadelphia: W. B. Saunders, 925 Walnut St. 1900. \$3.00 net. Canadian Agents, J. A. Carveth & Co., Toronto.

That direct microscopic study must necessarily form the basis of an accurate knowledge of disease, and is the only true means of mastering pathologic histology is unquestioned. Such a work as this, with its many beautifully executed plates, showing staining in every stage, will prove nothing less than a perfect boon to any student of the subject, be he in his third year in medicine, or a practitioner of many years standing. The work takes up the circulatory, respiratory and gastro-intestinal organs. One of the most interesting and instructive chapters is that under the head of the respiratory organs, entitled, "Infarction." One plate, No. 35, shows very clearly (1) lung tissue in which the alveoli are normal; (2) compressed and airless lung tissue; (3) infarcted lung tissue infiltrated throughout with red blood corpuscles, showing where necrosis has occurred in several places. Another plate which calls for notice is No. 49, showing diphtheria of the pharynx, and diphtheria of the tonsil, exhibiting the exudation of fibrin in the pharynx between the necrotic epithelial cells, with dilated blood vessels, some of which are filled with fibrinous thrombi, and in the tonsil the large number of disintegrated epithelial cells and lymphocytes of tonsillar origin. This atlas will be followed by two more; one completing special pathologic histology, and the other general pathologic histology.

Coplin-Manual of Pathology, including Bacteriology. The Technique of Post-Mortems, and Methods of Pathologic Research. By W. M. LATE COPLIN, M.D., Professor of Pathology and Bacteriology Jefferson Medical College, Philadelphia; Pathologist to Jefferson Medical College Hospital, and to the Philadelphia (Blockley) Hospital; Bacteriologist to the Pennsylvania State Board of Health. Third edition revised and enlarged. 330 illustrations and seven colored plates. Octavo, 846 pages. \$3.50 net. Philadelphia, Pa.: P. Blakiston's, Son & Co.

It is, to say the least of it, somewhat unusual, even in these days of advanced literary taste, for an author to find not only that his first edition is rapidly exhausted, but that he is called upon to write a second ere any time has elapsed. Still more unusual is it for a writer to have to again completely rewrite his work in about twelve months after edition number two is placed upon the market. Such, however, fell to the lot of Dr. W. M. Late Coplin; the third edition of whose Manual of Pathology we have pleasure in looking over once more. His idea as to freely illustrating his work coincides exactly with ours in this respect, and has in this edition increased largely his illustrations,

rendering the book of still greater value. Some of them are colored, but, best of all, the majority are original. We have read over carefully and with wonderful pleasure the chapter upon Post-Mortems, and can but say that anyone desirous of knowing exactly how to open properly the cadaver, so as to learn the various pathological conditions present, should read the section devoted to that subject in Dr. Coplin's work just published. Part of the increase of the size of the book is due to new chapters added, dealing with the nervous system, and also with the muscles and joints. The author has all through his book evidently desired to make it useful to those desirous of securing clinical results, having paid special attention all through to correct technique in bacteriological work.

Medical Electricity. A practical hand-book for students and practitioners. By H. LEWIS JONES, M.A., M.D., Fellow of the Royal College of Physicians, Medical Officer in charge of the Electrical Department in St. Bartholomew's Hospital, being the third edition of "Medical Electricity," by W. E. STEVENSON, M.D., and H. LEWIS JONES, M.D., with illustrations. London: H. K. Lewis, 136 Gower St., W.C. 1900. Price 10/6.

This work has been rewritten almost in its entirety. It has had added to it several new points, enhancing its value very considerably. We refer principally to the section devoted to discussing the utilization of the current from electrical light mains for medical purposes, and most interesting reading it forms. The author discusses the precautions which have to be taken with both the alternate as well as the direct current. The converting of the electric light current for use in physicians' offices in Canada is becoming so common that this chapter alone makes the book very saleable in this country, and we only regret that the section devoted to this particular subject is so short. A short chapter on X-ray work has been also added to the book, and is very interesting indeed. What is referred to, however, in the appendix, does not interest Canadian physicians, giving a list of the different towns in the United Kingdom where the public electric light supply has been installed, with details as to the character of the current furnished. The book will be found fully up to date, and is written, not in the dry style characteristic of medical works, but is quite racy and attractive to any student of medicine.

Operative and Practical Surgery. For the use of students and practitioners. By THOS. CARWARDINE, M.S. (London), F.R.C.S., Assistant Surgeon Bristol Royal Infirmary. With 550 illustrations, most of which are original drawings by the author. Bristol: John Wright & Co. London: Simpkin, Marshall, Hamilton, Kent & Co., Limited. 1900.

There are a great many works on surgery at present on the market; some are systems dealing with the subject in its entirety, and many even of which are largely a rehash of those preceding them, but of course more up-to-date. Others are only manuals, suited better for the use of students who wish to get a digested account of those points on which most stress is laid at examinations. There are not a great many, however, whose authors depart sufficiently from the beaten path and give, as a result of their labors, something sufficiently new and practical as to merit their publication. Mr. Carwardine's book is eminently practical, and, as he says, "deals with the art of surgery in its everyday applications. From looking over his volume, we should say that he has certainly carried out his original ideas in that regard, as in every chapter he has aimed to make the work one which will be most appreciated by the surgeon who desires to get, perhaps in a hurry, most practical information in the shortest space of time. We bespeak the very heartiest support of the medical profession for this new addition to the surgeon's armamentarium. W.A.Y.

The Care of the Child in Health. By NATHAN OPPENHEIM. New York: The Macmillan Co.

Though this book evidently is not written for the instruction of physicians,

but for that of parents, yet it contains much that would be new, useful and practicable for the busy practitioner. It is truly refreshing to find a book written so fearlessly. In his attacks upon the cherished but hurtful dogmas of the past, the author proves himself a veritable iconoclast. The parent who reads carefully this little book, will have intelligent scientific views instead of superstition with which to regard such subjects as maternal impressions and heredity. Almost without exception the various topics discussed are handled in a manner which must disarm hostile criticism. It would be interesting, however, to ask the author to advance a good reason for advising that a child be trained to turn its toes out when walking (p. 153). A slur which is uncalled for in its severity, and undignified, is cast upon the somewhat narrow and perhaps uncharitable views of some of the religious teachers of the time (p. 224). The book evinces a virility, a candor, and a truly scientific knowledge of the subject in hand, which make it a really valuable contribution to the literature of childhood.

B. E. M.

London to Ladysmith via Pretoria. By WINSTON SPENCER CHURCHILL, author of "The Story of the Malakand Field Force, 1897;" "The River War," an historical account of the Re-conquest of the Soudan; "Savrola, a Romance." Toronto: The Copp, Clark Company, Limited. Paper, price 75 cents; cloth, \$1.25.

To anyone who is a Britisher at heart, and has, in consequence, taken a keen interest in following the British-Boer war in its different phases, a book such as "London to Ladysmith," written, as it is, in so rattling a style, will prove a great attraction. To follow Winston Churchill in his wanderings from London to Southampton, thence on board the "Dunottar Castle" for Cape Town, his arrival at Table Bay, his movements till captured by the Boers with the armored train, his involuntary removal to Pretoria, and, most of all, his wonderfully planned escape from his military confinement and arrival back at Lorenzo Marquez, and thence on to Ladysmith, altogether forms a narrative of unusual interest, and we can prognosticate that anyone starting it, as the writer was wicked enough to do, even on a Sunday, will run big chances of completing it ere he sleeps that night.

Diseases of the Chest, Throat and Nasal Cavities. By E. FLETCHER INGALLS, A.M., M.D., Professor of Diseases of the Chest, Throat and Nose, Rush Medical College, Chicago. 4th edition, with 256 illustrations. New York: William Wood & Company, 1900.

The author has succeeded admirably in his avowed endeavor to make his work as clear and concise as possible. It impresses one as the production of a busy practical physician whose views are crystallized by personal experience, in which failure has but led to success. The reader is invariably drawn to an author who, without too much show of egotism, speaks in the first person. It begets a feeling of confidence in him. Such is the feeling with which one rises from a perusal of this book, that he feels that the author is candid and straightforward. While the most important changes and additions are found in the articles on pleurisy, pneumonia, pulmonary phthisis, diphtheria and empyema of the antrum, yet the whole work has been made to include the results of experience and research up to June of this year. Such are the advances in medical science, that authors are ever busy in keeping their books up to date, and practitioners ever poor in keeping their book-shelves in the same desirable state.

J. M. M.

The Reign of Law. By JAMES LANE ALLEN. Toronto: The Copp, Clark Co. Cloth, \$1.25; paper, 75 cents.

A tale of the South, not before the war, but after the land had been baptized in blood and tears. This story is a picture, and to those who look closely the color-blending is exquisite; here and there the strong phases of character as though the colors were dashed in with a palate-knife, then the few glazes of

humor and the high lights of childish and darky drollery, and then the pains-taking bit of work in the foreground, the declaration of love, so lightly sketched in, just to keep the perspective, proves the delicacy of the touch of the artist story-maker. To have once been in "ole Kentucky" and inhaled the balsamic odor of the hemp fields is a pleasure; but one deep, lung-filling breath of the fragrance of the woodlands and hemp fields inhaled through the media of the pages of James Lane Allen's book, is a joy forever. As a fitting setting for the language used, surely it may be termed good English, the typography is clear and large, a balm for weary eyes, and the book a something worth possessing.

W. A. Y.

Original Contributions Concerning the Glandular Structures appertaining to the Human Eye and its Appendages. With 71 original illustrations. By ADOLF ATT. M.D., Professor of Ophthalmology in Beaumont Hospital Medical College, St. Louis, Mo. *American Journal of Ophthalmology*, Publishers. 1909. Price, \$1.50.

This subject, to which the ordinary text-books devote but a few lines, is carefully and fully dealt with in this beautifully illustrated little hook. The illustrations are all from the author's own specimens—the opinions advanced are his own also, and frequently differ from those generally received. A more accomplished histologist than the reviewer might have criticisms to offer—he has none.

J. M. M.

Hilda Wade. By GRANT ALLEN. Toronto: The Copp, Clark Co., Limited. Paper, 75 cents; cloth, \$1.25. Illustrated.

By those who read and enjoyed, a while ago, "The Tents of Shem," this last novel, "Hilda Wade," of Grant Allen's, will no doubt be welcomed, especially should it interest physicians, as it dips and dimples the surface of the stream of things medical in a way to amuse, or at least give the doctors what they enjoy—a chance to "differ." The story has too much action to ever prove wearisome, and the numerous exciting incidents perhaps might be best summed up in Newsboy Jerry's language as he endeavors to sell his evening papers: "A shipwreck, a murder, a fire alarm—whichever you like—have a paper, sir?"

The Preparation of Ryerson Embury. By ALBERT M. CARMAN. Toronto: The Publishers' Syndicate, Limited. Paper, 75 cents.

A "purpose" novel, by a young Canadian, of especial interest perhaps to the members of the Methodist Church, as from among their number the author has selected his characters, drawn his parable, but evidently not his satisfactory conclusions. A note of wider interest is sounded toward the end of the story in the discussion and views expressed on the capital and labor problem, and an almost photographic representation of a "strike," shows the fine descriptive power possessed by the young writer.

REPORTS, PAMPHLETS, ETC., RECEIVED.

THE Twenty-third Annual Report of the State Board of Health of New Jersey, 1899, is a well-bound and carefully compiled report. It is well illustrated with half-tone photogravures, some of which speak volumes in themselves. Those submitted with the milk inspector's report from actual photographs of places inspected, are worthy of wide circulation, and our own milk inspectors could, well in the public interest, follow the New Jersey inspector's example by taking a camera along. Some of the subjects chosen were as follows: "showing where the milk bottles are washed," "Manure pile, privy, bottle-washing outfit and milk-house." In the former, an old pair of trousers

are hanging out to dry over the milk bottles, which are in old boxes on a dilapidated bench near an outhouse looking suspiciously like a privy. In the latter case a very suggestive board marked "privato," on a little house tells that it is certainly a privy, and on one side of this is a manure pile and stable, and on the other the bottle-washing outfit and milk-house, and all in close conjunction. What would the camera reveal among our own milk dealers? A patient in my office told me the other day that he became suspicious that his milk bottles were not properly cleaned by the milk dealer. Being somewhat of an amateur detective, he followed up his milkman on his route, and found while he had one or two hundred customers taking milk in bottles, that the milkman only had five or six bottles in his wagon. Milk is one of the great carriers of disease, and inspection as to cleanliness of method cannot be too rigid.

E. H. A.

THE State Board of Health for Michigan has for distribution a dozen "Teachers' Sanitary Bulletin Reports." Some of the subjects chosen are: "The restriction and prevention of tuberculosis," "Histology and bacteriology as a basis for sanitary instruction in high-grade schools," "Fresh air in schools," "Restriction of small-pox," "Discussion of dangerous communicable diseases," etc.

HOMEOPATHIC OPPOSITION TO SCIENCE.

It is with genuine regret that we notice homeopathic journals, one by one, and with increasing violence, ally themselves against the great scientific truths upon which inductive medicine is based. We do not speak of the details of treatment or methods of medication, but of the very ground-work of common-sense and induction upon which rationality in medication and prophylaxis is based. The reason we say we sincerely regret this is that in going over absolutely to this standpoint scientific medicine is deprived of a desirable buffer or intermediate between the ravings of popular hatred of science and the experimental school of medicine itself. As a result we have the portentous, literally terrifying, recrudescence of the blind diabolisms of quackery which we are now witnessing. Just as the bitterness of the homeopaths increases against vivisection, experimentalism, vaccination, measured physiologic tests of drugs, etc., just so fast we behold the appalling growth of the lunacies of demagogic quackery. We wish our homeopathic friends (who try so hard to be enemies) could recognize that it is no longer "allopathy" alone which supports the germ-theory of disease, the prophylactic nature of serotherapy, the validity of experimentation, etc., but that such things, in all essentials, are accepted and have been forever passed upon by the scientific minds of the world who care as little for "allopathy" as they do for "homeopathy." The saddest proof of this reactionism of homeopathy against sane common-sense consists in a virulent denunciation in one of their journals of the medical inspection of schools. The plan is cursed with all the malignity of hatred, as interfering with education, insulting to the medical profession, and as spreading disease. To such results does the underseeded logic lead!—*Philadelphia Medical Journal*.