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ORIGINAL ARTICLES.

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THE ANTITOXIN TREATMENT OF DIPHTHERIA.*

By J. J. CASSIDY, M.D., Member of the Provincial Board of Health of Ontario.

GENTLEMEN,-In view of the fact, that there has been, for many years, a large mortality from diphtheria in Ontario, and that this Board is frequently appealed to by municipal health authorities to apply the latest remedies of science to its prevention. it is very satisfactory to find, that a new remedy has begun to dawn on the medical horizon, which promises to be not only a prophylactic, in the sense of securing immunity from diphtheria, but also curative after the attack has begun. This remedy is an antitoxin, or antidote, prepared from cultivations of the diphtheria bacillus.

With regard to the extent and ravages of diphtheria in this province, it is indeed pleasing to know, that, according to the report of the Registrar-General for 1892, the deaths in that year were less than in 1891, viz., 890 in 1892, and 952 in 1891. From a perusal of the report of the Medical Health Officer of Toronto, for 1893, I observe, that fewer cases are reported in Toronto than formerly. For instance, during a period of one year, ranging from May 1st, 1891, to April 30th, 1892, 1,566 cases of diphtheria were reported in Toronto, whils: during a similar period, ranging from May 1st. 1862. to April 30th, 1893, 1,339 cases were reported, showing a reduction of 227 cases in one year.

To the public generally, and sanitarians in particular, these are gratifying indications that methods of quarantine, isolation and disinfection, such as have been recom-

*Read at Meeting of Provincial Board of Health, October 18th.

mended by this Board, have, when intelligently and zealously carried out in practice, a powerfully restraining influence in the spread of diphtheria. But this is not enough. The brilliant cures, which have been obtained by practitioners in Germany, France, and England, who have used antitoxin in treating their cases of diphtheria, make us feel anxious to imitate them, and we now confidently look forward to therapeutic results in the treatment of this disease, quite different to any with which we are, so far, acquainted.

In the Section of Bacteriology of the International Congress of Hygiene, which met last month at Buda-Pesth, Dr. Roux, of Paris, read a very valuable paper on the prophylaxis and treatment of diphtheria. I shall not endeavour to present his views on the principles of serum-therapy, except to mention that he distinguishes two kinds of antitoxin serum; one which preserves against the toxine, and the other against the living virus. He thinks, that the immunization of animals should be effected by means of small quantities of vaccines frequently repeated. The serum, obtained at the spot in the body where the bacteria are injected, is much more active than normal serum.

Referring to the clinical side of the question, Dr. Roux proceeded to state, that, on the rst of February, 1894, he began the serum treatment, in the diphtheria pavilion of the Sick Children's Hospital, Paris. This was the only new feature of the treatment adopted, the nursing of the patients and the local treatment, (glycerine and salicylic acid, lotions of boric acid, etc.), being continued as before. Each day, at his visit to the pavilion, he treated all the children: there, no matter what their condition might be, so that the rough general result of each month's treatment may be compared with those of similar months in preceding years. There is also another hospital for sick children at Paris, the Trousseau Hospital, at which serum is not used, with which comparisons may be made.

The percentages of mortality from diphtheria in preceding years were :

1890 5	5.38
1891 5	
1892 4	
1893 4	8.47
Mean mortality 5	1.71

From February 1st to July 24th, the serum treatment was applied. Out of 448 children admitted to the pavilion, for diphthetia, there were 109 deaths, showing a mortality of about 24.5 per cent. During the same months of March, April, May and June, 3894, 520 children were treated for diphtheria at the Trousseau Hospital, without serum, and 316 died, showing a mortality of 60 per cent. It will thus be seen, that the epidemic of this year in Paris was severe.

Dr. Roux distinguishes between cases of angina and tracheotomized croup, of which the latter are much more grave. At his hospital the angina cases in 1890, 1891, 1892 and 1893 gave a mean mortality of 33.94 per cent. From February to July, 1894, the mortality was 12 per cent. During the same period at the Trousseau, without serum treatment, it was 32 per cent. The croup patients, who were operated upon, used to give a mean mortality of 73.19 per cent. From February to July the total mortality of that class was 46.2 per cent. During the same period at the Trousseau, without serum treatment, it was 86 per cent.

Dr. Roux remarked, that about a quarter of the children treated at the diphtheria pavilion, did not have real diphtheria, although they had sore throats, and sometimes

even croup. From the 448 total patients, 128 patients of this class must be deducted leaving 320, and of these, twenty succumbed shortly after reaching the hospital, and received no serum. Dr. Roux's statistical report, therefore, applies to 300 patients with diphtheria, all treated with serum; of these seventy-eight died, giving a mortality of 26 per cent. The previous work, done by Messrs. Roux and Yersin, and by Messrs. Martin and Chaillou, in the same hospital, had demonstrated, that the mortality of children attacked with true diphtheria, as shown by bacteriological examination, was 50 per cent.

All the patients received, systematically, a hypodermic injection of 20 cc. of serum, at one dose, administered under the skin of the flank. If the bacteriological examination showed, that the patients did not have diphtheria, the injection was not repeated. One hundred and twenty-eight patients of this class remained, a few days, in the pavilion, exposed to the contagion of diphtheria. The fact, that they did not develop diphtheria, speaks well for the prophylactic value of the serum. Twenty-four hours after the first injection, the diphtheria patients received a second one of from 10 to 20 cc., which in general sufficed to effect a cure. "The pulse and temperature were our guides," says Dr Roux; "if the latte, remained high, we repeated the injection. The minimum quantity of serum used it, the treatment of a diphtheria case was 20 cc., and the maximum 125 cc. In a really exceptional case, we injected 205 cc., in thirty days. The children, generally, received more than a thousandth part of their weight of serum, and, in some exceptional cases, about a hundredth part. During convalescence, some days after the injection of serum, eruptions on the skin resembling urticaria make their appearance. These eruptions, which are not accompanied by fever, are due to the serum. Side by side, however, with these are other eruptions, accompanied by fever. The latter are, particularly, marked in diphtheria associated with other disorders, and, in my opinion, ought to be classed with the infectious erythemas, which frequently occur after angina.

"Sequels rarely appear in patients treated with serum. We have had a few cases of paralysis of the velum palati of short duration, one case of paralysis of the leg, and another of generalized paralysis in a child of nine years, brought in on the sixth day of the disease, with angina, jactitation, and pallor of the face. The paralysis developed three weeks after convalescence had begun, and the patient choked, while eating a biscuit, some pieces of which found their way into the trachea. Three children died of syncope, one less than twenty four, and the other less than twenty-six hours after their entry. The third one, who had had measles, died a few days after treatment was begun."

Dr. Roux afterwards describes the modifications effected, by the serum, in the course of the disease, treating of angina and croup separately.

"(a) Pure anginas. These are cases of angina in which the false membrane, taken from the throat of the patient and sowed on coagulated serum, gives diphtheritic colonies, and few or no other foreign colonies. The quantities of antitoxin injected varied from 20 t0 85-cc.

"The general condition of the children treated with serum changed rapidly for the better, unless brought in at a very advanced stage of the disease. Most of the patients, receiving the serum treatment, look very differently from patients, who do not receive it. We scarcely ever see in our wards pale, livid faces; quite on the contrary most of the faces of the patients are rosy in hue, and their attitudes are expressive of life and gaiety. Appetite returns soon and loss of flesh is not very noticeable. The

duration of the detention in the hospital is notably diminished. The effect of the serum on the local lesion is most striking. The false membranes stop growing twenty-four hours after the first injection; they become detached in general in from thirty-six to forty-eight hours, at the latest on the third day. The diphtheritic bacillus disappears from the throat at the same time, sowings refusing to give colonies (with a few exceptions) from the third to the fifth day. The glands of the neck are always swollen, but the surrounding cellular tissue is never thickened. The glands remain appreciable to the touch a long time. The temperature falls promptly in the milder anginas, the fall takes place on the next day after the first injection, and it is rarely delayed longer than the second day. The defervescence is quite sudden, and on the temperature charts is marked by a descending vertical-line, just as if the disease had stopped all at once by crisis. A first injection of serum will not, however, lower the temperature in severe anginas; in them defervescence begins after the second or third. dose and occurs in the form of lysis. As long as the temperature is above 1003, the cure cannot be considered complete, and it is prudent to hasten the descent of the febrile temperature to the normal by a supplementary injection of the serum.

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"The pulse beats about 120 times a minute in severe cases. The serum acts on the pulse more slowly than on the temperature, and the pulse continues frequent, for two or three days after the temperature has fallen. The pulse never becomes normal before the temperature. Since beginning the use of serum, we no longer observe, during convalescence, those irregularities of the pulse, which were formerly the rule. At the beginning of diphtheria the respiration is not modified except in very young children, in whom it is accelerated; fifty-six of our patients had laryngeal troubles which made us apprehensive of croup; thirty-one had hoarse cough; twenty-five in addition had aphonia and difficult inspiration. Many of them escaped tracheotomy owing to the use of serum.

"Messrs. Martin and Chaillou found that only a third of the children attacked with diphtheria escaped albuminuria; two-thirds of the number had it sooner or later. Of 120 children treated with serum, fifty-four did not have albuminuria; twelve had it for a single day; fifty-four had albuminous urine.

"Complications. Eight children had nasal diphtheria with jactitation. They had entered at a late period of the disease; two died.

"Measles accompanied diphtheritic angina in eight cases. Of these, one died. Achild of five years had, at home, measles and broncho-pneumonia. He entered the hospital with scarlatina and diphtheritic sore-throat. He recovered in spite of all these diseases coming on one after another.

"Diphtheria was complicated with scarlatina in five cases, of whom all recovered.

"Mortality. Messrs. Martin and Chaillou, out of 120 patients with pure diphtheria, had nine deaths, or a mortality of 7.50 per cent. Of the nine who died, seven had been less than twenty-four hours at the hospital. They can scarcely be counted as failures, as they only lived a few hours after the injection. If they are deducted, the figures would be: 113 anginas, two deaths, 1.7 per cent. mortality. One of the patients, who died in spite of the serum, was brought in on the fourth day after the disease, with a livid countenance, jactitation, nose-bleed, hæmorrhage from the conjunctiva and purpura. He remained six days in the ward, got 70 cc. of serum, and expired after a fall of temperature and a sudden drop of the pulse from 170 to 80. At the autopsy we found tubercular peritonitis, amyloid degeneration of the kidneys and liver, Pott's disease, with an abscess on the sheath of the left psoas muscle. The

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lungs were sound. The other child had a benign angina. On the second day after his entry, measles appeared, and his temperature kept up to $102\frac{1}{2}$ - 104° . On the eighth day, an abscess formed in the neck, which sloughed. The child died with nose-bleed, hæmorrhagic diarrhæa and broncho-pneumonia. From what precedes, therefore, we think we are justified in concluding, that every pure diphtheritic angina can be cured if treated in time."

"(b) Associated anginas. These are recognized when the sowings of false membranes on coagulated serum give, along with the specific bacillus, numerous colonies of other bacteria. The principal kinds are associations of diphtheria with micrococci, staphylococci, and streptococci.

"I. Association with the micrococcus, nine patients, no deaths. The association of this coccus with diphtheria is always benign. The serum was injected in doses ranging from 20 to 40 cc.; once only we gave 60 cc. Six times the little patients had hoarse cough, with difficult respiration, for the anginas in which this coccus is present tend to extend to the larynx.

"Albuminuria was noticed twice. As complications, we noted a measles, which appeared the sixteenth day after the patient arrived at the hospital, and two scarlatinaform eruptions, without fever, appearing during convalescence."

2. ¹⁴ Association with the staphylococcus pyogenes : These anginas are severer than the preceding ones. We had five patients, all of whom recovered. This form of diphtheria lasted longer than the pure anginas; the quantities of serum employed ranged from 30 to 50 cc. The temperature in these cases was always high; three times it exceeded 1033; the serum caused a rapid fall. The pulse, which at first is very frequent, soon drops to the ordinary figure. When the staphylococcus is present in diphtheritic false membranes, respiratory troubles, with a tendency to bronchopneumonia, are common. In our patients these all cleared up. Three children had hoarse cough; two, difficult respiration. Albumen was noticed in four cases out of five. As complications, we noticed a scarlatina concomitant with diphtheria, and a rebellious rhinitis, which took one month to cure.

"3. Association with the streptococcus. These cases are the gravest of all. We treated thirty-five patients of this class with serum, and had twelve deaths, a mortality of 34.2 per cent. Four children died in less than twenty-four hours after entering the hospital. Deducting these, there remain thirty-one cases, with eight deaths, a mortality of 25.8 per cent. In diphtherias complicated with the streptococcus, larger doses of serum must be given, particularly at the beginning, and the injections should be prolonged; the quantities used vary from 20 to 75 cc.

"The duration of the disease is longer; the children who recover remain at least fifteen days at the hospital. By using the serum, the general symptoms, which are always grave in these cases, have been notably improved—the pallor of the face was less frequent and less marked.

"The false membranes separate more easily. The glands cease to enlarge if the injections are sufficient. In nine cases the glands were thickened and of enormous size. The temperature is high; twenty-six times above $102\frac{1}{2}$, nine times above $100\frac{2}{5}$. The serum did not produce the rapid fall we had noticed in cases of the other classes; rapid defervescences were rare—only three cases. The temperature fell by lysis. The pulse ranged from 120 to 140 per minute. During the first two days of treatment, if the disease is going to terminate favourably, the pulse drops to 120, and keeps at that rate a good while.

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"Albuminuria was noticed in eighteen cases ; it was absent in seven others, and could not be proved to be present in ten children, who were so young, that their urine could not be obtained.

"Respiration was rapid (over 40) in severe cases; in two patients in whom it exceeded 50 per minute we feared broncho-pneumonia.

"Among the complications were marked : Anasarca, once ; jactitation, five times ; suppurative adenitis, twice ; conjunctivitis, twice ; polymorphous skin eruptions, four times ; measles, seven times, and scarlatina, twice. Ten autopsies were made. We found broncho-pneumonia, four times ; pseudo-membranous bronchitis, once ; multiple suppurations, consecutive to scarlatina, once ; generalized infection, with streptococci in the spleen, once. In two cases death resulted in less than twenty-four hours from infectious angina, and in one case there was sudden death.

"Summary: Out of 169 diphtheritic anginas treated by serum there was a mortality of 21, or 12.4 per cent.

			Deaths.	Mor	tality.
Pure diphtheritic anginas		120	9	7.5 pe	er cent.
Deduction	made for seven children who remained less				
than ty	venty-four hours in the hospital	113	2	1.7	n
Associated a	anginas	49	12	24.5	u 1
Deduction	made for four children who remained less				
than tw	venty-four hours in the hospital	45	8	17.7	U
Anginas ass	ociated with micrococci	9	••	••	
n	" staphylococci	5	••	••	
11	n streptococci	35	12	34.2	н
Deduction	made for four children who remained less				
than tw	enty-four hours in the hospital	31	8	25.8	н

These statistics are particularly valuable, as Dr. Roux has been careful to avoid the error of confounding real diphtheria with simple pharyngitis. This was done by microscopically examining false membrane from the throat of each patient for diphtheria bacilli immediately after admission to the hospital. When membranes were absent, a culture from the throats of such patients was sowed in coagulated blood serum, placed in an oven heated to 95%° F., and examined for diptheria bacilli in twenty-four hours. Out of 448 patients, 128 were proved to be non-diphtheritic. They, however, received the serum treatment like the others, and, as a proof of its preventive value, they did not contract true diphtheria, though certainly exposed to the contagion. Of the other 320 patients, twenty succumbed before the serum Dr. Roux's statistics, therefore, apply to 300 cases of treatment was begun. diphtheria treated by serum : Total patients, 300; deaths, 78; mortality, 26 per cent. -divided into two categories, pure diphtheritic anginas, and cases of diphtheritic croup. Diphtheritic angina without laryngitis: Patients, 169; deaths, 21; mortality, 12.4 per cent. Eliminating eleven deaths occurring in patients who were less than twenty-four hours in the hospital, the statistics would be: Patients, 158; deaths, 10; mortality, 6.32 per cent. Patients with diphtheritic croup not operated on, 10; deaths, 1; Mortality, 10 per cent. Tracheotomized cases of croup, 121; deaths, 56; mortality, 46.2 per cent.

Dr. Louis Fischer, of New York, writing in the October 6th number of the New York Medical Record, describes Aronson's serum as "a clear, colourless liquid of thick consistence, quite sticky and with a slight carbolic odour." In order to preserve it, it is mixed with 0.2% trikresol as some of the organic matter might otherwise decom-

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pose. It is known in Germany as "Aronson Heilserum." Another preparation is sold under the name of "Behring Ehrlich Heilserum." It is injected between the scapulæ or in the tissue of the leg or arm with a clean hypodermic syringe.

In an original article appearing in the October 6th number of the New York Medical Record, Dr. Baginsky, Professor of Pediatrics, University of Berlin, says: "Behring is credited with giving us a new remedy for diphtheria." In an elaborate book published by Behring, he details the subject and treats of it exhaustively. Behring uses the blood serum of animals immune against diphtheria as a specific remedy for the treatment of diphtheria or for the prophylaxis of cases which have been exposed to diphtheritic infection. Associated with Behring have been Ehrlich, Wassermann, Wernicke and a great many others. Hans Aronson has followed the directions of Behring and has made a serum which appears to be equally as good, if not better than that made by Behring."

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Dr. Baginsky considers that Behring's system of blood-serum therapeutics is one of the greatest triumphs in the annals of medicine.

Dr. Roux prepares his own serum at the Pasteur Institute, Paris. He first sows diphtheritic bacilli in alkaline peptonized bouillon, which is exposed in flat pans to the action of damp air, but kept at a temperature of 983. After three or four weeks the culture is rich enough in toxine to be used. It is then filtered and kept in darkness in well-filled vessels at the ordinary temperature. An injection of I to IO cc. of this toxine kills a guinea-pig of 500 grammes weight in forty-eight hours. Dr. Roux prefers to immunize the horse, which is more indifferent to diphtheria than the sheep or goat. He selects cab horses, sound in the internal parts such as the liver and kidneys, but unfit for active work owing to damaged legs or hoofs. During eighty days one of these horses received, from day to day, quantities of toxine, aggregating in all over 800 cc., without being injured. On the eighty-seventh day, he was bled in the jugular vein with a cannula and trocar, a considerable quantity of blood being removed and a further dose of 200 cc. of toxine introduced into the vein through the cannula. The serum collected from his blood had a preventive value of over 50,000; this means, that a guinea-pig resists a hypodermic injection of $\frac{1}{2}$ cc. of fresh, virulent diphtheria culture, if twelve hours previously a quantity of this antitoxin, equal to the fifty-thousand part of its own weight, has been injected. The serum of a horse's blood separates from its other constituents with great clearness. This serum taken from the blood of the horse is the immunizing agent employed by Dr. Roux.

In order to enable this Board to assist in placing so meritorious a discovery, within the reach of the Ontario profession, I would suggest that a committee, consisting of Drs. Covernton, Cassidy and Bryce, be appointed to consider the matter; and that they be empowered to purchase a limited amount of serum, the same to be distributed to the diphtheria hospitals in the Province, and to physicians, who may desire to use the same in their practice.

N.B.-An order was subsequently sent to Dr. Roux for a supply of antitoxin.

F.ECAL INTOXICATION.

BY WILLIAM GRAHAM, M.D., BRUSSELS.*

During my now somewhat long professional career, I have been frequently struck with the very large proportion of cases which may be reasonably attributed to fæcal or intestinal poisoning. So much had this observation been forced upon me, that when Dr. Wickham Legg, of St. Bartholomew's Hospital, London, asked the question, "What is the most frequent cause of headaches?" I answered, "Absorption of poisons into the blood, which should be eliminated by the excretory organs." He made me the very insulting reply which I will never forget, and, I must confess, can scarcely forgive, and I had an inward consciousness that I did not deserve, "Oh, you have been nurtured in the school of humoral pathology," equivalent to saying, "You are an antiquated old fogy; you have not been reading up." Of course, I spoke from a Huron standpoint. He wanted for an answer, "Meniere's disease and errors of refraction." Certainly I was aware that headaches are frequently produced from these causes; but, in my time, I have only been able to diagnose two cases of Menierc's disease. I am sure I have a hundred cases removed by the prevention of fæcal poisoning, to one that is remedied by spectacles; but, perhaps, a London physician might have a different experience. I think if Wickham Legg has not allowed himself to become an antiquated old fossil, he will see to-day through increased light thrown on disease by advance in the knowledge of bacterial products, that blood poisoning by absorption of putrefactive toxines is quite an admissible term.

I am not so sure that Galen was very far wrong with his humoral pathology, if you will grant the blood as one of the humors, for our modern medical lexicography abounds in words such as toxæmia, sapræmia, anæmia, septicæmia, pyæmia and uræmia, nearly all denoting a poisoning of the blood of some kind or anotner; and, as the science of bacteriology advances, with a knowledge of the alkaloidal products of bacteria, ptomaines, leucomaines and other toxines, the more will the term blood-poisoning be applicable to many pathological conditions.

In order to adhere to my text of "Fæcal Intoxication," and the importance of elimination of poisons through the intestinal tract, let us see what we find in that canal. I once heard a lecture on diseases of the rectum by the celebrated surgeon, James R. Wood, of New York. Amongst other things, he stated that some men and women, especially women, made privies of their recta; that he had scooped out pecks of scybala, and had often found cherry-stones that were eaten the previous summer. Although his language was, perhaps, more pithy and truthful than elegant, it shows how frequently that part of the intestine is used for other than the legitimate purpose, and what was true at that time still holds good tto-day, as far as my observation goes. But we must be a little more specific than Dr. Wood in defining the contents of the intestinal canal; hence, we find bile from the liver, residue of undigested food, the products of disa similation, mineral salts such as potash, and the toxic substances produced by putrefaction, butyric and acetic acids, ammonia and its compounds, leucin, tyrosin, cresol, phenol and hydrocarbons, bacteria and alkaloidal toxines, the products of bacteria.

* Read at meeting of Huron Medical Association.

That bile is poisonous is sufficiently well known, especially the colouring matters. Putrefaction in the alimentary canal also engenders poisons. Fæcal matter itself has been proved to be poisonous, and when we look at the alimentary canal with its contents, to which is added moisture and heat, it strikes us as being a very favourable medium in which to cultivate bacteria of any kind that may gain an entrance, a perfect breeding ground for them to multiply and generate their products, be they poisonous or otherwise.

That every part of the intestinal tract is capable of absorbing from its contents is not likely to be denied by anyone. The absorbed particles are thrown into the blood, reaching every part of the body, and what is unassimilated is thrown off by the kidneys and other excretory organs. Is it any wonder, then, that in cases of habitual constipation, or where the intestinal poisons are absorbed in too large a quantity, you have a train of symptoms innumerable? You have depression, sense of fatigue, headache, buzzing in the ear, disturbance of sight, vertigo, loss of appetite and sallow complexion, all of which are removed by removing the faecal accumulations. And I do not think I am far from the truth when I say that at least two-thirds of all the cases that go to our offices, especially these of the female sex, are those complaining of just such symptoms as I have mentioned.

What are the severe cases of diarrhœa in infants but cases of intestinal poisoning? Almost no modern physician would treat such cases now by astringents alone, but would treat them by a purgative, followed by intestinal antiseptics such as salicylate of bismuth, hydrarg. bichlor., arsenite of copper, etc.

Low-spirited hypochondriacs are always improved by counteracting the constipation, which is an invariable accompaniment of the disease.

I am firmly convinced that many cases of so-called neuralgias are nothing more or less than intestinal poisoning. Some years ago I remember a patient who well exemplified this. The patient was a woman of middle age. She remarked one day that Dr. Gardner, of Lucknow, and I were the only two physicians who seemed to give her prompt relief for the tic douloureux. I met the Doctor soon after and asked him what he gave her. He replied, oleum tiglii, and that was exactly what I had always given her to commence with. And many a case of sciatica, supraorbital and occipital neuralgia have I quickly removed by the same means, although I do not wish to say that fæcal poisoning is the cause in every instance.

The late Sir Andrew Clark wrote, a few years ago, a very original paper, which I remember reading, but am sorry I could not lay my hands on it to refer to. It was headed, "Fæcal Anæmia." In that paper he stated that a great many cases of chloroanæmia and anæmia in young girls were really caused by retention of fæcal matter beyond the normal time; in other words, they were instances of fæcal intoxication, and since then I have always been very careful to prevent fæcal accumulation in the treatment of anæmias, and by so doing have observed a more rapid improvement in combination with the usual remedies. This theory of Sir Andrew Clark may seem at variance with the recently advanced theory of Alex. Haig, who claims the retention of uric acid in the system as the principal factor in producing chlorosis. They may both be right, masmuch as if the bowels did their work efficiently, the uric acid might not have a chance to accumulate.

I am somewhat inclined to believe that eclampsia is more often caused by absorption of alkaloidal poisons from the intestines or retention of them in the blood, which should be eliminated by the bowels and kidneys. The etiology of this disease has changed many times since I entered the profession. It used to be uræmia, then again, albuminuria, but these and many other theories must give way to that of excrementitious intoxication from perverted nutrition or abnormal metabolism.

I had a case last spring of primipara at seven months' gestation, who had an attack. I tried chloral, morphia, etc., with only temporary benefit, and was looking forward to a case of premature labour. I then gave elaterium in repeated doses until the intestinal canal was completely emptied, which was followed by complete cessation of convulsions and went on to full time, the case ending favourably.

A few weeks ago I was called in consultation on another case of eclampsia post partum. The attending physician was treating her for epilepsy, and had been so doing for nine or ten hours. I found no albumen in the urme on examination. The bowels had been constipated for many days. But notwithstanding the use of chloral, morphine and elaterium, she succumbed in a few hours. It is, of course, difficult to say, but I felt that the result might have been different had she been treated on this theory, by expelling the toxines from the alimentary canal along with the usual remedies to control the convulsions.

Urticaria is another condition that is more frequently relieved by purgatives in my hands than any other method of treatment. We often find urticaria following the use of shell fish and stale fish of any kind, and we have known for a long time that alkaloidal poisons or ptomaines are very readily formed during the decomposition of fish, so I think it is a very reasonable conclusion to call these cases of intestinal poisoning, and from the fact that they are so readily relieved by purgatives warrants that assumption.

Dilatation of the stomach is a condition very favourable to the formation of toxines in the alimentary canal, the absorption of which is responsible for the train of ills that accompany that disease—the sleeplessness, dizziness, dimness of sight, sensibility to cold and cramps of the muscles.

The patient I presented to this association two years ago, with dilatation of the stomach, was frequently subject to tonic spasms of the muscles, especially when the stomach became foul and contained the results of fermentation. In his case they were invariably relieved by washing out the stomach and taking internally antiseptics, justifying the conclusion that the symptoms were produced by putrefactive toxines.

Were I to propose one method of treatment to place in the hands of a quack who was entirely unskilled in diagnosis, symptoms of disease, or therapeutic application of medicines to be used invariably in every case of just such patients as come to our offices for advice, I would say to him to give an active purgative to commence with, followed by laxatives and tonics, and I think in a large proportion he would be successful.

I must confess I cannot claim originality in this scheme, as there was an itinerant, a Dr. Dallenbaugh, who visited this county very frequently from Buffalo, about twenty or twenty-five years ago, who treated all his patients after the same fashion. He first gave very large powders containing chiefly jalap, and followed up by a decoction of vegetable bitters. The crowds who usually greeted him on each periodical round testified to the success of his scheme, whether he knew anything or nothing ot "fæcal intoxication."

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A MEDICO-LEGAL ROMANCE.*

By J. N. Steeves, M.D., St. John.

GENTLEMEN,—I need offer no apology for the title of this paper, an unpretending one I may say, for the subject has distinct and important medical as well as legal aspects, which you will admit when you have listened to the story—though it has the full characteristics of romance, inasmuch as it tells of love and war, no less extravagantly than did the old romances of the eleventh century, which called forth from Prior the couplet—

> " A staple of romance lies, False tears and real perjuries."

Near the close of the year 1792 the usually staid people of St. Jude were startled by reports freely circulated, that an unpleasantness of an eroto-defamatory character had happened between Mr. A., the Rector of St. Bartholomew's, and one of his parishioners, a Mrs. B.

It was alleged that for the space of three months or upwards a flirtation had been going on between the above named persons of a clandestine and shady character, and also that many letters of a flowery and criminating nature had passed between them.

To such an extent did this subject engage the local public mind, that it was the chief topic of conversation and debate among all classes of the people—the more so because Mr. A. was a clergyman, and because he was a gentleman of distinction, and also one whose character was without the suspicion of a stain. And perhaps too because the lady in question had also gained a measure of distinction.

Early in the first month of the succeeding year, through the activity of the reporters and interviewers, the newspapers were daily serving up fresh morsels upon this engaging topi, for the delectation of thirsty seekers after knowledge. And there soon followed the publication of extracts from the letters of Mr. A. of a highly felicitous, classic and poetic style. The whole number of the letters written by Mr. A. and in the possession of Mrs. B. is twenty-two, many of which are of great length, occupying more than twenty pages; and it is stated that on some days two and three long letters were written. The letters written by Mrs. B. were far less voluminous and many less in number, not exceeding three or four, and, unfortunately for Mr. A., they were immediately burned after being read.

Just previous to this matter being laid before the public a sudden halt was called between the parties, and instead of a felicitous flirtation, war was declared, and active hostilities begun.

How this great and sudden change came about is a question of paramount moment to both the parties concerned, each of whom offers a solution, but differing essentially in character. Mr. A. avers that as by an inspiration he became alive, as it were, and fully conscious of having done something monstrous which was entirely alien to his whole life and being, a something which out of his consciousness he had striven in vain

*Read at Meeting of Canadian Medical Association, St. John, N.B.

to evolve an explanation. He does not deny that he wrote the letters shown, but why he wrote such stuff, so foreign to his nature, mind and volition, is beyond his comprehension. Having, as he puts it, come to his senses in relation to affairs with Mrs. B., he set to work at once to repair as far as he was able any damage which he had consciously or unconsciously done.

It may be observed that Mr. A. and family had been boarding for six months, and being tired of that way of living, had, in one of the autumn months, moved into the house adjoining that occupied by Mr. and Mrs. B. Between these houses a private door existed, and the two families occasionally used this in visiting, instead of going into the street.

One of the first acts of Mr. A. after his change of mind was to nail up the private door; directly after this came the demand for money and redress.

Mrs. B.'s explanation, which, it has already been stated, differs essentially from that of Mr. A.'s, is to the effect that Mr. A. moved to the house adjoining in the middle of a term for the sole purpose (at considerable pecuniary loss) of carrying out a sinister and wicked design, viz., that of illicit intercourse and seduction, as proven by his letters. It may not be quite fair and correct to state that this is the explanation of Mrs. B., wholly, for it is rather that of Mr. B., who is the spokesman for his wife, and who is conducting the prosecution against Mr. A. It is noteworthy that Mrs. B. has shown a disposition to reticence, and that she, so far as we know, has not given any excuse or reason for allowing this illicit business to go on over a considerable period without consulting with her husband on the subject.

It would seem that Mrs. B., up to the time of fastening up the door and the demand that followed, enjoyed the flirtation equally with her seeming lover, o, may be victim, and that her husband was in total ignorance and without suspicion of what was going on just about his feet. In the absence of an explanation on that point by Mrs. B., to the contrary, the conclusion appears almost inevitable that hubby did know all that was going on, and abetted the thing for a purpose.

Having now cursorily glanced at the history of this singular case, and at some of its peculiar features, we may study the letters, and endeavour, if possible, to reach some likely conclusions as to the probable rationale of the affair.

For the purpose of this theme it is not necessary at the present time to search up the antecedents of the lady in question; suffice it to say that she is young, attractive, the mother of three children, and living apparently pleasantly with her husband. But in the case of Mr. A., an important philosophical question of a most delicate character presents itself for solution; and in order to deal intelligently with it, a careful scrutiny into his past life is of vital importance.

Mr. A. was born in the United States, near a large city. Whilst he himself was but a child his father moved into town. In the schools of that city he obtained his primary education, and at seventeen he matriculated at a university, where he remained four years. He then entered an Episcopal theological seminary, with which he was connected four years, one year of which was spent abroad, mostly in Germany, continuing his theological studies at the same time. His diaconate covered one year under the Bishop of N. Then he was elected rector at St. B. N., where he preached for three years acceptably, when he was called to St. P. and elected its rector; and there he laboured for fourteen years—up to the time of the foregoing disruption.

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Fancy, if you can, a sane man and a Christian minister, past forty years of age, possessing a well-disciplined mind, of more than average capacity, well acquainted with the affairs, the laws and responsibilities of mankind, writing such words and sentences as abound in the letters referred to. Up to the end of the epoch before mentioned, Mr. A.'s life and character stood without a suspicion of blemish of any kind, and, moreover, in his ministerial work he was so diligent and painstaking and able, that he was looked up to as a pattern, not only by the members of the church over which he had charge, but by all the churches and people who had knowledge of his career. And during his residence in St. P. he married an estimable lady, the daughter of a distinguished professional gentleman, with whom he lived in the most pleasant marital relations, and by whom he had several children.

To emphasize how strange it is that a man leading the life and possessing the character of Mr. A. should be deflected from an honourable course to one of sin and disaster, in the prime of mature manhood (as his letters indicate), may we not say that neither a good nor a bad man, with a fair knowledge of the world, and of the ordinary responsibilities of life, would pen such self-criminating letters, much less allow them to go out of his hands. Then how are we to account for conduct so unphilosophical, so incoherent, and so puerile.

Some men, outwardly bearing good characters, have travelled the same road that Mr. A's letters point to, but only men of extremely low grades of intellect and morals would be so utterly regardless of the track that they were leaving along their paths. Some sense of decency, and some manifestation of common sense, would otherwise mark their procedure.

No point of view from which we have so far been able to look at Mr. A.'s case is satisfying, or in harmony with the concepts and conduct of a man in the exercise of a wholly sane mind, not even that of a bad man.

Now, what was the matter with Mr. A. when he wrote those letters? His normal condition is that of an able man, possessing far more than an ordinary knowledge of the ways of the world. He either knew the nature, quality and consequence of his acts and had moral inhibition—a will not perverted or paralyzed by disease; or he did not know what he was about, *i.e.*, his mind was not a disposing one in relation to the subject compassed by his letters, and it was perverted or paralyzed by disease.

But admitting that the letters seem to have been written by one who "was daft," or who was moved by some fascination, or by some irresistible impulse, the consequence of a neurosis, and, maybe, of an injured or traumatic brain, how does it come to pass that Mr. A. could conduct his ministerial work with apparent exercise of a same mind?

If we should adopt the view that Mr. A. wrote those letters and comported himself toward Mrs. B. in a matter utterly alien to his ordinary life and character, under an irresistible impulse caused by disease, covering a well-marked period of his life, some explanation of the fact would have to be given that he was during that time able to manage other affairs in a sane manner.

The reconciling of such an anomaly as this might at first sight seem contrary to reason—irreconcilable—especially to those not conversant with the mental obliquities of persons having hereditary tendency to insanity, and who have suffered brain disease, or even spinal reflex vagaries. Perhaps one of the most familiar examples of sanity and insanity side by side in the same person is observed in the case of epileptics, though

not by any means confined to this class; here we may have at one hour the mind wholly intact; in the next the subject utterly mad and ready for a homicide, as by an irresistible morbid impulse; and after a short period of mental confusion the equilibrium is restored.

There is no lunatic asylum in which one cannot find a score of persons who are apparently sane, and some who do not for weeks have a break from this seeming . mental soundness, but who are diseased in their minds, manifesting at times—or indeed almost at any time if the right responsive chord is touched—positive marked delusions and other mental bends, proving beyond a doubt their mental unsoundness. It is freely admitted here that to differentiate between madness and crime is no easy task, and that between the two there is an intimate relation, especially in border cases, where it is often very difficult to draw the line of distinction.

There is nothing new, however, in the proposition that persons undoubtedly insane in reference to certain subjects, may without apparent difficulty escape suspicion of unsoundness on every other topic of social life.

Some years ago there was under care in the P. L. Asylum, a patient, a distinguished clergyman, suffering from mental aberration caused by brain disease, and notwithstanding this condition of mind he from time to time could without a fault conduct the rengious service in the chapel here, always presenting his subject with the same old-time order and fluency that characterized him in his earlier life, when he was in the exercise of a mind unimpaired by disease.

There are few persons now living in St. John who do not remember well the history of a young man who was a few years ago found guilty of homicide, but was adjudged insane. He was committed to the asylum, where he still remains. For many months both before and after his trial there was no act of his upon which he could be pronounced insane, except that he wantonly sent out through the mail some four small parcels of poisoned candy, one of which killed a lady. Had it not been for the incident that he was insane—a year previously—for a short time, he would doubtless have been punished as a homicide—*i.e.*, gone to the gallows.

The supposition that Mr. A. acted the part of a monomaniac under an irresistible impulse in the case under consideration, seems the most rational conclusion in the premises—considering all the facts of the case; and this conclusion is mightily strengthened by some new facts additional which we shall now adduce, and which were purposely omitted until suitable attention and weight had been given to the arguments *pro* and *con*.

The facts alluded to are these: First, that Mr. A.'s father is and has been for a number of years a patient in a lunatic hospital. Second, that his mother had an attack of melancholia followed by mild dementia at the age of fifty-five years, from which she has not recovered. She has not been an inmate of a lunatic asylum, but has been under the care chiefly of a daughter. These facts prove pretty certainly a constitutional tendency to neurosis, *i.e.*, to disease indicated by disordered sensation, volition, or mental manifestation.

And in addition to these is the fact, which we regard of great moment, that Mr. A. eleven years ago, fell from the roof of a building, striking upon his head, and seriously injuring his brain and upper part of the spine. He sustained a severe concussion of the brain, was unconscious for a short time; afterwards suffered continuous severe pain; was confined to his bed for a period, and was unable to perform the duties of his calling for about three months. He has since that fall always complained more or less of its effects.

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It may be observed that a considerable time elapsed since the brain traumatism occurred, and that damage from that source, had it been of a serious nature, would have manifested itself at an earlier period. Such an observation has plausibility and might seem to have weight, but experience has proved that such a conclusion or contention has little or no weight in fact, because brain injuries may remain apparently harmless for years and afterwards develop into serious trouble both physical and mental. Many cases might be cited in proof of this statement. I will content myself with referring to one. It is that of a girl ten years old, who received a scalp wound, and a circumscribed fracture of the parietal bone, near the crown of the head. There was depression of the bone but the party who dressed the wound did not discover it. The child soon recovered from the scalp wound, and nothing more was thought of the matter for years. We first saw the girl when fifteen years old, and were asked to prescribe for sick headache attended with occasional nausea and vomiting. This proved obstinate, and a careful survey of the cranium was made and the depression discovered. which brought to light the brain traumatism. No treatment gave more than temporary relief; in fact the migraine increased in severity, and following this vertigo and semiunconsciousness; then slight epileptic seizures, and later severe seizures, and finally insanity, recurrent at first, but becoming continuous.

In the meantime we trephined at the point of injury, removing the depressed bone, with only temporary relief. Finally the patient died in the asylum from persistent epileptic seizures. A post mortem revealed simply a fibrous thickening of the dura mater extending over a circular space of about two inches in diameter.

The conclusion may not be inevitable but in view of all the facts in our possession connected with this case, and in view of the many strange and inexplicable mental obliquities that brain traumatism develops in persons who have a tendency to the production of a neurosis, and on account of the unsatisfying and irrational explanation on any other grounds, may we not legitimately reach the conclusion that Mr. A.'s inhibitive powers were, in respect to these overt acts of his, in a state of suspense or paralysis ; and that he was impelled by an impulse which was for the time irresistible, and over which he had just the same control that he might have over an epileptic seizure, or as he might have to restrain from an insane impulse to commit suicide or a homicide.

OCULAR HEADACHES.*

BY G. STERLING RYERSON, M.D., L.R.C.S. EDIN. President Teronto Clinical Society.

It has been the custom of some presidents of medical societies to review the history of medicine from Hippocrates to the present day, and of others, to furnish a digest of the progress of medical science during the past year. Each course of procedure has its respective merits. I prefer, however, to conform to the idea of this society, and discuss briefly some clinical facts of interest in connection with *headaches*.

For our purposes, I will ask your attention to the headaches caused by (1) refractive errors, (2) anomalies of the muscular apparatus, (3) functional nervous disturbances of the eye. I will not at this time attempt to discuss headache in its general relation to other disorders, but will limit myself to these three classes.

* Abstract of President's address at meeting of Toronto Clinical Society.

A few months ago an editorial appeared in an American medical journal, entitled "Superfluous Glasses." The object of the writer was to prove that weak +, -, or cylindrical glasses, were unnecessary, and that oculists had carried the prescription of glasses beyond the limits of reason. This much may be admitted, that there is a tendency to overlook general causes of headache when there is some refractive error present, but that low degrees of refractive error cause severe and persistently recurring headache is absolutely true. Time and again I have had patients present themselves suffering from headache, which has been relieved by the use of very weak - or +cylinders—as weak as .50 or even .25, plus or minus. I know of nothing which is a greater cause of annoyance than a small degree of astigmatism. Such a patient complains of fatigue in using the eyes, frontal headache, sharp pain in the eye or forehead. The symptoms are aggravated by digestive disorder or worry. The ophthalmoscope reveals the cause and suggests the treatment.

The condition known as heterophoria owes its name and much of its significance to the labours of Dr. Geo. T. Stevens, of New York. The hope and belief expressed by him that in partial tenotomy of the extrinsic ocular muscles, or in the proper adjustment of prismatic glasses was to be found a remedy for many nervous diseases, notably epilepsy and chorea, has not been borne out by subsequent experience. That many patients have been benefited is undoubtedly true, but announcements of cure are received with some skepticism. He has divided the cases of heterophoria into those of esophonia, exophoria and hyperphoria, according as the deviation of the eye is inward, outward or upward. The first is the most common, but hyperphoria is the condition giving rise to the most pronounced and persistent symptoms.

Headache is of the most annoying character; follows the use of the eyes both for distance, such as looking at landscape, and for near vision, reading. The pain is principally occipital; is persistent and severe. A reflex symptom generally present is pain under the angle of the scapula. Tenotomy of the superior rectus, or the use of prismatic glasses, gives pretty prompt relief. Functional nervous disturbances of the organ of vision, or in the visual tract, are much more common than is generally supposed. The most common is a sudden temporary loss of vision, succeeded or preceded by dull headache. The sight suddenly becomes blurred, as though covered by a white mist-usually affecting both eyes, though the whole field of vision does not become obscured. These attacks come on at varying intervals, once a day, several times a day, or at longer intervals. They sometimes continue for many years without seriously affecting the sight. But the accommodation generally becomes impaired, rendering continuous use of the eyes difficult and troublesome. It occurs in men as well as women. The most marked case I ever saw was that of a young doctor.

Other symptoms are colored lights before the eye, principally blue, red or yellow bright floating spots. One patient described them as very like a St. Catharines wheel, partial contraction of the field of vision. The headache is dull and general. It would seem to be a sort of ophthalmic epilepsy. The best treatment is the regulation of the digestive system, and attention to any disorder of the generative organs in women. Bromide of potassium or sodium (grs. xxx. at bed-time) given for a considerable time appears to be curative. In conclusion, I would urge that, in all cases of headache, the refraction and the state of the ocular muscles should be investigated where it is possible, and that these very frequent causes of headaches must be eliminated before a positive diagnosis can be given.

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Reports of Societies.

THE ANNUAL MEETING OF THE AMERICAN ASSOCIATION OF OBSTETRICIANS AND GYNÆCOLOGISTS?

(Continued from our October number.)

Pathological Specimens.-Dr. J. F. W. Ross presented an adenoma sarcoma he had removed from the uterus by vaginal hysterectomy. Dr. Macdonald showed an ink bottle he had made an abdominal section for. The patient had been in the habit of applying the neck of such a bottle inside the anus for the relief of piles, and it had accidentally slipped in. He tried in every possible way to get it out. Dr. Hartwig, of Buffalo, showed a clinical thermometer a patient had, while the temperature was being taken by the vagina, shoved into the bladder. By dilating the urethra he removed it.

Dr. Ross said he had removed the tumour he presented after he had submitted a small portion of it to be examined by a pathologist, who had reported it to be malignant in character.

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Out of this grew a breezy little discussion in which Dr. Maclean said : "I have removed tumours and had them reported on by pathologists, who told me they were very malignant growths and that they would return. I have found that they did not return. And when the pathologist has reported that the disease was not malignant, I have found that the tumour often returned and killed the patient."

Dr. Macdonald said that if the specimen was an adenoma sarcoma from the uterus, stomach or rectum, it was always malignant. He maintained that the pathologist had a right to the clinical history of the case. Too much was expected of the pathologist. The microscope was only an aid to diagnosis.

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Dr. Price said they had a right to ask for more care on the part of pathologists; in the past they had been too careless. In regard to tumours he believed the clinical history was a sufficient guide to the clinician. The watery discharges, like meat washings, were always indicative enough for the surgeon.

Dr. Glasgow pointed out that pathology was but one means of diagnosis. If the surgeon was confined to the sense of sight he would know little. If the pathologist finds the tissue presented to him to be epitheliomatous, he may depend that it is malignant. It was difficult, he admitted, to distinguish between inflammatory growths and sarcomatous.

Dr. Ross pointed out that it was impossuble from the discharge to diagnose an. inflamed myoma from an adenoma of the uterus. Here the microscope would differentiate the conditions.

Dr. Cordier presented a stone of the kidney weighing three ounces. There was an absence of the symptoms of stone. The kidney retained its functions, which it is still doing. It was removed by the ordinary lumbar incision. The next specimen was also presented by Dr. Cor-It was that of a specimen from a dier. case of ectopic gestation. Rupture had taken place at the end of six or eight weeks. The abdomen was full of blood. The only trace of the foetus was the presence of the placenta in the tube.

A Question of Priority as to Ligation of the Uterine Arteries for the cure of Fibroids. This paper was read by Dr. W. B. Dorsett (St. Louis). He pointed out that he was the first to introduce the method of tying the uterine artery for the cure of fibroids. He told how he came to try this plan, and showed how those who claimed priority for his operation were mistaken.

Remarks on the Surgical Treat-

ment of Intussusception in Infants. based on two successful cases. Read by Dr. Howitt (Guelph).

Dr. Morris then chloroformed a rabbit, made an abdominal incision to expose the intestine, touched it at one point with a little piece of sod. bicarb., and an intussusception was beautifully demonstrated; which Dr. Murphy reduced.

Dr. Morris said some such irritant in the form of a ptomaine might be an element in the causation of such a condition in the human economy.

Cure of Peritoneal Tuberculosis after simple incision. Dr. Morris gave an explanation of the cure of peritoneal tuberculosis after simple incision. He had taken some of the fluid collected at an operation for this condition, and placed it in an incubator for forty-eight hours. A crystallizable ptomaine was With this product bacilli of isolated. tuberculosis in culture tubes were killed. His deduction was that after an operation certain saprophytes entered in the abdominal cavity, and in the medium of the fluid left after the operation (and it was such cases, when a little fluid was left, which were most amenable to cure), fermentation took place, and this crystallizable ptomaine or tox-albumen was generated that proved inimical to the tubercle bacillus. On account of the free lymph supply of the peritoneum, the tox-albumen would be rapidly diffused to every part. These remarks were listened to with profound interest, and were the subject of a most interesting discussion.

Treatment of Distension of the Fallopian Tubes without Laparotomy and Removal. Dr. Frank A. Glasgow (St. Louis) read a paper containing a plea for the treatment of tubal disease by dilating the uterine orifice by means of slippery elm bark tents introduced into the uterine cavity; this would also stimulate peristalsis in the tube; these two points being attended to, many cases of hydrosalpinx and pyosalpinx would be permanently relieved. There was too much of a tendency toward operative means for the relief of these conditions.

Inflammatory Diseases of the Uterus and Appendages and of the Pelvic Peritoneum. Dr. Wm. W. Potter (Buffalo) introduced the subject by recalling the well-known fact that the pathology of pelvic discase has been entirely reconstructed since 1860, and that now we had come to regard inflammation of the pelvic peritoneum as generally symptomatic of disease of the ovaries or Fallopian tubes or both. Mr. Tait within the last ten or twelve years, together with men who have worked abreast of him-some of whom are members of this association-have driven out the theory of pelvic cellulitis that for so long held sway, and now peri- and parametritis have been dropped from the gynæcologic vocabulary. The struggle has been a long one, but abdominal surgeons have demonstrated the truth of this proposition, viz., that pus originating outside of the tubes or ovaries in the nonpuerperal state is a very rare condition, and that, speaking generally, pelvic abscesses are pus tubes. The largest number of women in the consulting rooms of gynæcologists are those suffering from pelvic inflammation or its residues ; hence the importance of the subject under discussion cannot be overestimated. But, he asserted, it is only within the past seven or eight years that anything like uniformity of opinion as to the causes and proper treatment of pelvic inflammation have been adopted.

Dr. Reed (Cincinnati) outlined the clinical history of these cases.

Dr. McMurtry (Louisville, Ky.) read a paper dealing with the causation and pathology of the condition. He said puerperal infection exceeded all others as a causative element; surgical operations on 「日本は、「「「「「「「」」」」」

the uterus, the sponge tents, and steel dilators were other factors in bringing about inflammation of those organs. Gonorrhœa, tuberculosis, neoplasms, and malformations lead to a similar condition.

'The different inflammations were accompanied by a single pathological process, congestion with effusion. On the rapidity of this depended the extent and virulence of the condition.

Dr. Rosenwaser (Cleveland) discussed the treatment. First, as to the treatment of an acute peivic peritonitis medically, all decomposition should be removed from the interior of the uterus. Hot douches were helpful, saline laxatives would often be followed by the relief of pain. He did not believe in the use of the iodides and mercury. The principle of dissolving the exudate was wrong.

As to the surgical treatment, he advised curetting if the tubes were not affected; abdominal section if abscess formation had developed.

In the chronic pelvic peritonitis rest in bed was essential; the bowels should be attended to; boro-glyceride tampons were useful in some cases; gentle pelvic massage; tonics; local electricity was also helpful. Curetting where not contraindicated, abscess opening, removal of the ovaries and tubes, would include most of the surgical measures.

Dr. Carstens advocated preventative measures. He thought if the men who had the gonorrhœa cases to treat did their work properly, the gynæcic surgeon would not have so much to do.

Dr. Price said that suppurative disease must be encouraged to evacuate itself. In these cases concurrent inflammations and adhesions were always present, and adhesions must be broken down completely in order to do a complete operation. Many ovaries had been unnecessarily sacrificed.

The Present Status of Pelvic Inflammation, Read by Dr. Dorsett. Surgery of the pelvic viscera had made enormous strides during the past ten years. Electricity had made a feeble light, but would soon die a natural death. Often a foul uterine cavity was the seat of the trouble, and when cleaned symptoms were relieved. Total ablation was necessary when the pus was found hemmed in in the tube or ovary. Pus deep in the pelvic cavity was hard to deal with. Pus sacs near the uterine end of the tube could be evacuated by packing the uterus.

The Relations of Renal Insufficiency to Surgical Operations. Dr. C. C. Fredrick (Buffalo) characterized renal insufficiency to be any state of the urine showing deficient elimination of the waste products, whether from functional inactivity or lesion of the kidney. In such cases it was necessary to consider the amount and nature of the urine, the character of the lesion for which the operation was necessary, and the causal relation the disease bears to the insuffi-Minor degrees of insufficiency ciency. were not a contraindication to operation. The graver forms were contraindications, except for growths that had a causal relation to the kidney lesion. Patients with kidney disease were more liable to shock and complications. There was little choice between ether and chloroform in these cases of renal insufficiency.

Some results of Ether Anæsthesia in Abdominal Operations. Dr. I. S. Stone (Washington) took the ground that ether was not the safe anæsthetic it was generally believed to be; that albumen was often harmless, at least its presence was not always a contraindication to operation; that our methods for detecting nephritis were at fault. He proved the position he took from the citation of illustrative cases.

The Cause of Thirst following Abdominal Section. Dr. E. Boise (Grand Rapids, Michigan), after stating the generally accepted proposition 'that

thirst is a sensation indicating that the i tissues of the body are in want of more water, argued that the sensation as felt in the mouth and throat is reflex, and that the real point from which the sensation arises is in the abdominal viscera; that from these the sensation is conveyed to the consciousness by fibres of the sympathetic system of nerves; that while ordinary thirst is caused by the withdrawal of water from the tissues to refill the veins depleted by excessive perspiration or otherwise, the thirst following abdominal section is caused by the withdrawal of water from the abdominal viscera to fill veins partially collapsed by reason of diminished blood supply because of contraction of the arteries of the viscera.

Post-operative Intestinal Obstruction and its Treatment. This was the subject of an address by the president, Dr. George H. Rohé.

A Synopsis of Results in 145 Operations done upon the Uterus and Appendages. Dr. Vander Veer (Albany) gave a careful review of the subject of the preparation of the patient, embodying all the strong points pertaining to the technique of such work, placing great stress upon the importance of the room in which the operation was to be cone being put in a thoroughly aseptic condition, and thorough cleanliness of the patient herself.

Nephrectomy. Dr. L. H. Dunning (Indianapolis, Ind.) reported four cases of this operation.

Progressive Cutaneous Atrophy of the Vulva (Kraurosis Vulvæ). Dr. C. A. L. Reed (Cincinnati) read a paper with this caption.

Dr. Hurlbut followed with "The Element of Habit in Gynæcic Disease."

Intestinal Anastomosis with the Murphy Button. By Dr. Murphy (Chicago). In order to get proper adhesion of the ends of gut, it was necessary to get uniform aseptic approximation: of their

ends; and at the same time it was necessary that there should be sufficient space in the lumen for the transmission of the contents during the time adhesion was taking place. There must be as little irritation of the peritoneum about the bowel as possible. Every operation inthe peritoneal cavity should be performed in the shortest possible time consistent with good work. The scar resulting from an intestinal approximation should be one that would not contract. The doctor presented a specimen sent him in which approximation was made by means of the suture, and in another place in the gur where approximation had been made by means of the button. The approximations were in the same dog, done on the same day. In the part sutured there was a contracted cicatrix ; where the button had been inserted was very difficult to find, as the scar was almost invisible, and there was no contraction. Under the pressure of the button, the first tissue to be cut off and become approximated was the peritoneum; the next that gives way is the muscular coat, and this adheres to muscular coat. The connective tissue between the two becomes absorbed, leaving continuous muscle. The next coat togive way is the tuni_a propria, and then it approximates with similar tissue on the opposite side. The button was the first device, the speaker said, to acomplish thebringing edge to edge of corresponding tissues. The button had its drawbacksdefects which he hoped would soon be overcome. Some had raised the objection that the button would cause obstruction. In 129 cases reported to him up to the present, there had not been one report of obstruction. In one pylorectomy he had heard of, the button had slipped into the stomach, but did not cause symptoms. He had not heard of it being stuck in the ileocæcal valve either. It had been retained in one case at the hepatic flexureof the colon. The only thing in the way

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of obstruction that was to be feared was the presence of adhesions in the gut below the point of approximation. He had learned of two cases where the button itself had become obstructed with fæces. It was difficult to see how this could be in the small intestine where the contents are fluid. Where the large intestine was approximated fluid diet should be admin istered. The doctor demonstrated to the Association the proper way of inserting the button. One important point was in making the purse-string suture at the mesenteric attachment. By making one overstitch at this point, the peritoneal surfaces of the mesenteric peritoneum at this point were nicely approximated. As to results-in intestinal obstruction they must always be bad. The question to answer was, how many were due to the technique of operation and how many from other causes? In cutting of the intestine, it should be cut so that the greatest portion will be removed from the convex surface.

Restoration of Intestinal Continuity without Mechanical Devices. This was the subject of a paper by Dr. Wm. E. B. Davis (Birmingham, Ala).

Cholelithiasis. An interesting case was reported by Dr. F. Blume (Allegheny, Pa.) in a woman thirty-seven years of age, in which the number of calculi removed, besides minute concretions, was one hundred and twenty-three, weighing fourteen drachms. The stone removed from the gall-bladder weighed four and threequarter drachms.

Hysterectomy for Cancer of the Uterus: By Dr. Cushing.

Diaphragmatic Hernia. Two cases were reported by Dr. Machell (Toronto).

ings every night.--Med. Press and Circular.

PROVINCIAL BOARD OF HEALTH OF ONTARIO.

The fourth quarterly meeting of this Board was opened in Dr. Bryce's office in the legislative buildings at 10.30, October 16th. There were present: Dr. Macdonald (Hamilton), Chairman; Dr. Covernton (Toronto), Dr. Cassidy (Toronto), Dr. Rae (Oshawa), Dr. Vaux (Brockville), Dr. Kitchen (St. George), and Dr. Bryce (Toronto), Secretary. A number of communications were received and read.

Dr. Bryce then read his report on "Malaria on the Madawaska." This subject had been brought to his attention by communications from the village of Combermere, a place of 150 population, situated on the Madawaska river. He made personal investigation into the unsanitary condition of the village, which, it is maintained, was caused by the flooding of the land for a distance of over twelve miles, in consequence of Palmer's dam, used for floating logs down the stream. When the water was suddenly drawn off to carry logs down, large areas of drowned land were This subsequently became uncovered. covered with green growth, emitted disagreeable odours and injuriously affected the water in the wells of the village, thereby jeopardizing the health of the residents, some of whom had been taken ill through drinking the water. The residents desired to have the dam removed. Dr. Bryce suggested that, as the driving of logs here would shortly cease and the dam then become useless, and as no serious effect had yet been produced, some arrangement should be come to, whereby cellars of houses, now flooded, should be filled up, and replaced by larders built off the kitchens, and that wells should be driven in sandy soil, where the water is only a few feet below the surface, and not, therefore, to be affected by the overflow from the river. The report was adopted.

At the afternoon session statements were read from the various local Boards of Health throughout the Province, regarding the action taken in the different municipalities in vaccinating residents.

Dr. Bryce submitted his report on the Canadian packing establishment of London, Ont. He found the factory to be a large one, having a capacity for killing from 800 to 900 pigs daily, and dealing with them after the methods of the most approved modern establishments. The buildings were wholly of brick, with stone pavements, and so arranged, that the pens, slaughter rooms, etc., could be daily washed. The complaint was, that the wash-water from the floors ran into the creek. The company had instituted a method of sewage disposal, which consisted of filtration of the water by means of ditches, before it reached the creek. These ditches, however, were not of sufficient capacity, and it only required an excess of water, by rain, or otherwise, to carry much of the water direct to the creek without filtration, thereby polluting the stream. To remedy this, the report recommended that the ditches be increased in extent and other improvements made, whereby pollution would be avoided. The report was adopted.

October 17th. The report of Mr. Mc-Kenzie on laboratory examinations of tubercular sputum was adopted. The drawings and plans of the proposed isolation hospital, at Port Arthur, were presented and approved. The application of the Kemptville Cemetery Company to open a new cemetery was agreed to.

The Committee on Epidemics reported with pleasure the "continued immunity of the Province from any serious outbreak of small-pox. The patients in Dover and Chatham townships, in Kent and in Sandwich East, and Windsor had all recovered, and the disease had not spread in any instance. These cases were all traced directly to Detroit. On

September 28, a second outbreak occurred in Sandwich East, two patients, relatives, taking ill at the same time. One, on being diagnosed as a suspicious case, went to his home in Windsor. All his family were vaccinated, one successfully; both convalescent and sick were in the infectious disease hospital in Windsor. The unfortunate continuance of small-pox in Detroit, there being, on October 14, eight new cases, or fifteen in all within a few days, makes that city a continual menace to our western counties."

The Committee reported the small-pox record of the neighbouring States, from which it appears that up to October 8, during this year, Ohio had 1 case, at Cleveland; Pennsylvania, 21, of which Philadelphia gave 8; Wisconsin, 126, with 28 deaths, of which Milwaukee had 102 cases and 21 deaths; Indiana, 8 cases; Manitoba, 1 case; Ontario, to October 2, 3 cases; Michigan, 17 cases. The hope was expressed, that the coming of winter, and increased vigilance on the part of State authorities, would prevent any rapid spread of this disease.

The unusual prevalence of diphtheria during September was the subject of comment. It was reported, that three, more or less widely distributed centres of this disease exist-one being in Ottawa, and counties to the north and west, as far north as Mattawa; another extending from Lindsay, on the west, with interruptions, to Lakefield, and Apsley township on the east; and the third extending from Orangeville, with interruptions, to Nassagaweya township to the south. Outbreaks had occurred in the neighbourhood of some infected house, a physician not having been consulted in the first case, or the first case not having been reported ; or in some school section, where children, infected, or from infected houses had gone to school. "It is most disappointing to have further to direct the attention of the Board, and through it

the public, to the fact, that there are here and there practising physicians, so lost to their sense of duty to the public, that, either to please some selfish householder, or to get the advantage of some local rival, they are prepared to sacrifice the honour of their profession, and even to prevent the proper isolation of diphtheria cases, and subsequent disinfection of premises."

The Committee stated that health officers should continue to insist on the isolation of all cases of sore throat with exudation, this being the meaning of the Health Act. The report was adopted.

A report was made on the sanitary condition of Essex Centre, where typhoid has been reported from time to time. Great benefit has followed the use of a splendid supply of water from deep wells; but owing to the level nature of the country, drainage is difficult, and the fall is not at all adequate. Open drains would, Dr. Bryce thinks, be a notable improvement to the hidden cesspools, created by drains, without any regular flushing. The cleaning of drains by flushing, and the construction of automatic flush tanks were recommended.

October 18th. The special committee on the burial and transportation of bodies, Drs. Covernton, Cassidy and Bryce, submitted an interim report containing a set of rules, on which the undertakers' association and the railroad companies will be consulted before a final report is presented. These rules include a regulation, that all death certificates must be presented to the Medical Health Officer, who, if everything is satisfactory, will issue a burial certificate. If there is no Medical Health Officer the Secretary of the local Health Board must be consulted, and if there are suspicious circuinstances he may employ a coroner to conduct an inquiry before he grants a When death occurs from certificate. contagious disease, the body must be

immediately washed with an antiseptic solution, and wrapped in antiseptic cloths, and, if necessary, in a rubber sheet. When the bodies of persons, who have died from non-contagious diseases, are to be transported by rail, or otherwise, they must be wrapped in rubber or other impervious sheets, and the space about the body, in the coffin, must be filled with vegetable moss, cotton waste or sawdust. A room in which a death from a contagious disease has occurred must be thoroughly disinfected. Hearses and funeral trapping, used for the burial of the bodies of persons who have died from contagious diseases must not be employed at the funerals of persons who have died of noncontagious diseases. Funerals in contagious cases must be private, and must take place within twenty-four hours. No transportation of such corpses will be permitted. When death has taken place from a contagious disease, exhumation of the corpse will not be allowed. These regulations will be submitted to the Government, and will finally be referred back to the Board for approval.

Dr. Cassidy read a report on the antitoxin treatment of diphtheria. The report was adopted. For full report see page 141.

A committee composed of Drs. Macdonald, Cassidy, Covernton and Bryce, was appointed to wait upon the Government and urge upon them that notification of tuberculosis cases should be enforced by order-in-council.

After some further business of minor importance the Board adjourned.

CANCER OF THE RECTUM.—Dr. V. Shultz makes use of :—-

M.—Sig.: For I suppository. Make 6 of these suppositories, and introduce I each night at bed time.—North American Practilioner.

Dominion Medical Monthly.

- All literary communications, exchanges, and books for review, should be addressed to the DOMINION MEDICAL MONTHLY, 50 College Street, Toronto.
- Address all business communications to the Publishers, THE MEDICAL PUBLISHING CO., OF TORONTO, Box 418, Toronto, Canada.

TORONTO, NOVEMBER, 1894.

THE OPERATIVE TREATMENT OF ULCER OF THE STOMACH.

A very complete report on this interesting subject was presented by Mr. Pearce Gould, at the Bristol meeting of the British Medical Association. He premised by stating that the pathogenesis of the disease is still obscure, being met with frequently in anamic young girls, particularly maidservants, as well as in middle-aged men. As a rule, only a single ulcer is found, situated, most frequently, on the smaller curvature, more rarely, on the larger curvature of the stomach. In size, it is about as large as a quarter of a dollar, and its depth is variable. The clinical signs of this disease, pain, hematemesis, and melæna, are sometimes not well marked, and may be absent; in the latter case, a diag nosis of the disease is, of course, impossible. In some cases, also, the pain may be severe, and may be accompanied with frequent vomiting. There may also be intervals of shorter or longer duration, during which the patients do not complain of pain, or any other morbid symptom. Perforation occurs in 25 per cent. of the Most frequently, and this is parcases. ticularly observed in maidservants, the

perforating ulcers are situated on the anterior wall of the stomach. Perforation of the posterior wall is much more rare.

Billroth had recommended laparotomy, followed by excision of the ulcer and suturing of the wound in the stomach as a prophylactic measure. The mortality from this operation, however, is large, and besides, there is no sign, by which one can exactly tell, whether the ulcer is located near the cardia, or the pylorus, on the anterior, or posterior wall of the stomach.

In \$5 per cent. of cases, a cure may be obtained by purely medical treatment. Perforation into the peritoneal cavity is, almost invariably, fatal. Death is, in such cases, due to shock, or it may result from peritonitis. The acute symptoms of perforation, in cases in which the patient does not die from shock, last for twenty-four hours. The shock is of variable intensity, and may, sometimes, be confounded with the collapse, which precedes dissolution. Shock is best treated by hypodermic injections of morphine, and local applications of heat.

The operative treatment of the perforation consists, in stitching the wound (with silk), and in carefully cleansing the peritoneum. The latter is of the greatest importance, so much so, that, upon its careful performance, the success of the operation especially depends. The operation should not be performed, during the first period of shock, neither should it be delayed, until peritonitis has had time to become general.

As the localization of pain gives no exact information about the real site of the ulcer, the abdomen should be opened in the median line—this form of incision allowing the operator to explore, easily, all parts of the peritoneal cavity. For washing out the peritoneum, Mr. Gould recommends the physiological solution of chloride of sodium, or plain boiled water ; antiseptics he rejects, as he considers that they are toxic in such cases. The ulcer, when it is accessible, is sutured, without attaching too much importance to a preliminary freshening of the edges, or excision of its borders. When shock does not yield to the use of hot water in the peritoneal cavity, he uses intravenous injections of the solution of chloride of sodium.

OLIVER WENDELL HOLMES.

Few medical men have lived so long and become so well known as Dr. O. W. Holmes. He belonged to a group of rare literary talent. Dana, Hawthorne, Whittier, Longfellow, Curtis and Emerson were his intimate friends and literary companions. Grand company this to live in! There is in all his writings a fine vein of humour, which leads one along gently, yet irresistibly. His "Breakfast-table Series" are real gems, and the soul must be unsympathetic, indeed, that cannot find pleasure in them. "Elsie Venner" is a beautiful tale of destiny; in it, Holmes evolves his theories on heredity in a most attractive manner. The "Guarding Angel" is one of those stories that cannot be read without advantage to the reader. His poetry is rich, but simple, and fairly sparkles with wit, sarcasm and fun. His essays on medical subjects are worthy of study. They do not belong to that class of medical writings soon to be forgotten. They are written in such a way as to retain their freshness and greenness as the years roll by.

His life was a very quiet one. He lived at peace with all the world. He believed that man to man should brothers be the world over. His domestic life was one long golden chain of good deeds.

Few men ever understood human nature better than Holmes. As humourist, poet and philosopher, he excels in this deep insight into the *real* man as apart from the *anatomical* man he taught for so many years.

He died on October 7th, in his 86th year—nay, rather he ceased his labours, for such men never die. In the words of the poet Hallick,

"He is one of the few and immortal names, That are not born to die."

REPEATING BY DRUGGISTS.

It is a notorious fact that many druggists repeat physicians' prescriptions without the doctor's knowledge or consent. Now, it would seem a plain duty to every druggist that this is not proper. When a doctor gives a patient a prescription, he only sells to the patient the right to use the amount ordered in the prescription. This has been tested in the court and settled. Neither the patient nor the druggist has any legal right to repeat.

But it is morally wrong. The use of a prescription may do much harm when continued in this manner. Indeed, most doctors know of cases where the use of prescriptions thus repeated has been the cause of much injury to the patient. There is a time to begin a drug, and a time to quit it. This lesson the druggist ought to learn at once.

Dispensing is not as troublesome as it used to be. Reliable houses are now putting up nearly everything the doctors require in a neat and handy form. A physician can now keep his supply of tablets, triturates, pills, dressings, etc., in such a convenient form that he can give his own medicines to his patients at very little waste of time. If the druggists are not careful, they may force medical men to keep their own supplies.

We think it would be much wiser for the druggists to meet the doctors on fair terms, than to rush into the daily press with fulminating letters. No good can come from this way of dealing with such a difficulty. We do not wish a war, but we do contend that th. rights of the doctor in this matter of repeating prescriptions must be respected.

ONTARIO MEDICAL COUNCIL.

The Medical Council for the next four years will consist of the following members:

Territorial representatives-Nc. 1, Dr. Bray, Chatham, and Dr. Samson, Windsor ; No. 2, Dr. Williams, Ingersoll ; No. 3, Dr. Roome, London; No. 4, Dr. Graham, Brussels; No. 5, Dr. Brock, Guelph; No. 6, Dr. Henry, Orangeville; No. 7, Dr. G Shaw, Hamilton; No. 8, Dr. J. Armour, St. Catharines; No. 9, Dr. Hanly, Waubaushene; No. 10, Dr. Barrick, Toronto; No. 11, Dr. Machell, Toronto; No. 12, Dr. Sangster, Port Perry; No. 13, Dr. McLaughlin, Bowmanville ; No. 14, Dr. Thornton, Consecon; No. 15, Dr. Spankie, Kingston; No. 16, Dr. Reddick, Winchester; No. 17, Dr. Rogers, Ottawa.

The Collegiate representatives on the Council are: Dr. W. Britton, Toronto University; Dr. J. W. Rosebrugh, Hamilton, Victoria University; Dr. V. H. Moore, Brockville, Queen's College; Dr. W. T. Harris, Brantford, Trinity; Dr. James Grant, Ottawa University; Dr. J. Thorburn, Toronto School of Medicine; Dr. F. Fowler, R.C.P.S., Kingston; Dr. W. B. Geikie, Trinity Medical College, Toronto; Dr. W. H. Moorehouse, Western University, London.

Homoopathic representatives — Dr. George Logan, Ottawa; Dr. C. T. Campbell, London; Dr. G. Henderson, Strathroy; Dr. L. Luton, St. Thomas; Dr. J. H. Emory, Toronto.

It will be observed that a number of Defence men have been elected, notably Drs. Sangster, McLaughlin, Armour, Hanly, Thornton and Reddick.

SOME REMARKS CONCERNING THE MANAGEMENT OF SO-CALLED DYSPEPSIA. -J. B. Marvin, M.D., of Louisville, in the July number of the American Practitioner and News, has an article under the above caption. He comments upon dyspeptic troubles under the following headings: (1) When there is loss of motor power in the stomach, and consequently a sluggish action of the organs, the secretion of gastric juice is imperfect. There is usually dilatation and flatulence. This may end in catarrh. There is often pain, eructation, nervous symptoms, palpitation, vertigo, etc. In cases with a history of constipation, biliousness, dyspepsia, flatulence, etc., there are good grounds for diagnosing stomach atony. In these cases no one remedy has been so useful in the hands of the author as mercury. He gives calomel in either large or small doses; sometimes he combines it withipecac. Blue pill, grs. 5, on alternate nights, may be given and kept up for a long time. Colocynth may be added to the mercury. (2) There is a class of cases, mostly in women, where the nervous symptoms predominate. The patient is often hysterical; such cases require rest. and frequently isolation. The best medicinal treatment is hot salines before meals. These empty out the stomach and lighten the portal circulation. Rubinat acts well in such cases. (3) Then there is a class of cases with deficient secretion. The digestive agents, the writer thinks, are not so useful in these cases as large doses of muriatic acid after Ewald's The stomach is sometimes method. sour, and the patients think they cannot take the acid. But it agrees well and gives relief. (4) There is a class of cases with hyperæsthesia of the stomach. For this he gives : Ammon. brom. grs. 5 to 10, aq. camph. 3ss, glycerine 3ss. To this he sometimes adds one or two drops of Fowler's solution. This simple mixture has yielded the author excellent results.

NEW LOCAL TREATMENT OF PHTHISIS. -Dr. Carl Mund (New York Medical *Journal*, Oct. 20) claims that he has very good results, almost brilliant, from employing insufflation of medicated powders. after the method of Dr. Loebinger. Ethereal oils are mixed with the powder in the proportion of 1 to 10. A very small quantity of powder should be used at first. The patient should lean over to the sound side, so as to make the current of inspiration go to the diseased side. After some practice, the patient can take the powder well into the lung. This is done by a short sipping inspiration, followed by a slower, longer expiration. The warmth of the lung diffuses the ethereal oil. He has had cases where, after a few months, the bacilli entirely disappeared. The powder itself favours the calcification of the cheesy and tubercular foci by means of insoluble calcium salts. In the case of cavities, the powder usually enters there readily, as the cavities in connection with some large bronchial tube.

THE CONTAGIOUSNESS OF PHTHISIS .----Dr. C. E. Tennant, in the American. Lancet of October, contends that phthisis is contagious. He believes that heredity plays but a small part in the disease, while direct infection plays a large share. He thinks the disease is often contracted through the infected upholstery and bed clothing in hotels and sleeping cars. Cars, hotels and cottages should be periodically disinfected. Patients should be instructed to use cuspidors containing a 5 per cent. solution of carbolic acid. He condemns the custom of consumptive patients using a handkerchief to catch the expectoration, and then tucking it under the pillow. Consumptive patients should not be allowed to handle food supplies. With proper care in the way of prevention, the disease should claim far less than one-seventh of the total population.

USE OF BONE MARROW IN PERNICIOUS ANÆMIA.-Dr. I. N. Danforth, of Chicago, in the Chicago Clinical Review, October, 1894, calls attention to the use of marrow in pernicious anæmia. He states that his wife was ill with the disease. He had tried other means of treatment with disappointment. He saw a note referring to Prof. Fraser's treatment of the disease by this agent. He began, and with excellent results. He gave the marrow in the form of large capsules. Then he made an emulsion, composed of liq. potass. arsenitis Zuss.; Horsford's acid phosphates, žiii.; ext. bone marrow 3viii. Of this, 3ii. were given after each meal. Prof. Fraser gives about two or three ounces of raw marrow from the long bones daily. In Dr. Danforth's case rapid improvement took place. In Prof. Fraser's case recovery followed in about three months.

SALOPHEN IN PEDIATRIC PRACTICE .---Dr. Richard Drew, in the New England Medical Monthly for October, gives his experience with this drug. He records the opinions of a number who have used it. He claims that it is specially valuable in articular rheumatism. He gives from 3 to 5 gms. daily, in divided doses, every two hours. He has not had any unpleasant effects from it. It is also good in muscular rheumatism. In purpura rheumatica it is also of much service. One patient, aged 14 years, was ordered 5 gms. daily, in .5 gm. doses. The benefit derived was very marked. In cases of chorea, with rheumatism, it has been used to good effect. It is a useful antipyretic and antineuralgic. It was well tolerated in all these cases. It may be given in powder, washed down with a swallow of water.

INTERNATIONAL SANITARY REGULA-TION.—Dr. Stephen Smith, in the *Medical Record*, Oct. 13, deals with the question

of regulations relating to the migration of large bodies of people in times of con-That much should be tagious diseases. done to prevent the spread of contagious diseases is now an admitted fact. Quarantine, when properly carried out, has more than once held the enemy at bay. Thorough disinfection of the patients, their goods and vessels, has arrested the onward march of many an epidemic. He advocates the co-operation of sanitary officers of different countries acting in conjunction with each other. Thus the officers abroad could aid those in America. and vice versa, in controlling cholera, or international rules could be agreed upon.

PAPAIN AS A REMEDY FOR TANIA .---Dr. Roberts Bartholow (Medical News, Oct. 6) directs attention to the employment of papain in tænia solium. The -case he mentions had tried extract pine needles, naplithalin, pumpkin seeds, pelletierin, croton oil, etc., until thcre was much irritation of the digestive To correct this, the patient was organs. ordered 10 grs. of papain three times a It seems as if, in a few days, the day. papain exerts some toxic influence on the parasite, causing it to relax its hold, when a good dose of a laxative carries it off. It seemed stupefied; but on the application of warm water, the uncoiling began.

INCONTINENCE OF URINE AND FÆCES CURED BY CIRCUMCISION.—H. L. Rosenberry, M.D., in *Medical Record* for Aug. 11th, gives the description of a case, where a child of four years had constant dripping of urine and no power to retain the fæces. The sphincter muscle seemed to be very relaxed. Circumcision was performed, and the wound healed well. The incontinence of fæces ceased at once. A short period of treatment with atropia gr. 1-120, hypodermically till the throat became dry, cured the incontinence of urine.

Correspondence.

The Editors are not responsible for any views expressed by correspondents. Correspondents are requested to be as brief as possible.

A CARD OF THANKS TO THE MEDICAL ELECTORS OF TERRITORIAL DIVI-SION No. 12.

GENTLEMEN,-I desire to tender to you my grateful thanks for the honour you have conferred upon me by selecting and electing me as your representative in the Medical Council, and to express my very high admiration of the manner in which you have vindicated your manliness and fidelity by refusing to swerve from your pledges of support, even though subjected to private solicitation and personal pressure of varied kinds and from many sources. It is to me a matter of great satisfaction that, from start to finish, my canvassers have scrupulously refrained from every means of influencing you that could be regarded, by the most fastidious, as unfair or dishonourable. Attempts, it is true, were freely made to bring you into line by appeals to your fears, to your University sympathies, to your political partyism, to your sectarian alliances, and to your fraternal or society ties and obligations; but I am glad to know that no such attempts were made in my behalf, and that even on behalf of my opponent, they were made chiefly by persons not resident in our division, and whose interference was, on that account, both impertinent and offensive. Such efforts to influence you were, in most cases, barren of profitable result, and it is gratifying to know that, in not a few instances, they evoked from you replies that were far more forcible than complimentary.

When two years ago it was charged that ---not content with exercising their abnormal and usurped powers of appointment--- medical school professors and teachers were insolent enough to actively interfere in professional elections outside their own territorial divisions, the charge was indignantly denied. In the light of the methods adopted in the contest just closed, there are but few of you who could not testify that such unwarrantable interference is a painful reality. Our entire constituency was flooded with urgent and reiterated appeals to vote for Dr. Cotton, made by Toronto schoolmen and their allies.

While my success was doubtless chiefly due to the appeal which the Defence platform must make to the sympathies of every thoughtful and intelligent medical man, and to the earnest and unselfish efforts of my generous and loyal co-workers, I feel that I am, in no slight degree, also indebted for that success to the valuable assistance rendered to me by the Ontario Medical Journal and its staff of illustrious literati and associates. A little more effort on the part of the official editor; another Farmer's Sun article from his associate over the signature of "A University Graduate"; a couple more letters from the London ex-president and the Ayr "sore-head," and an additional bray or two from Division No. 1, and my opponent would have been left without even a corporal's guard to sustain him in his unaccustomed and enforced association with such questionable companionship.

I desire further in this connection to congratulate my late opponent on his want of success. Defeat he can easily survive, and I gladly bear testimony to the fact that he emerges from the conflict without detriment to his personal honour and manliness. Had he, however, achieved success by the unworthy means employed to compass it—employed, I honestly believe, without his sanction, and very probably also for the most part without his knowledge—that very success would have marked him with an indelible stain. When I remember`his frank readiness to adopt every plank, or nearly every plank, of the Defence platform, and think of his personal popularity, his graciousness, his hard work, and his private insistance, I do not feel surprised that out of nearly 120 of my pledged supporters twowere induced to cast their ballots in his favour, and that some dozen others were so far won over as to promise not tovote against so good a fellow.

It only remains for me to state that I am honestly proud of the whole body of my constituents. It will always give me pleasure to hear from you individually, and I hope to be able to thus keep myself in touch with you. It will be my constant aim to win your continued confidence and support by a watchful and a fearless. advocacy of our common rights, and of our interests as a profession.

I am, gentlemen, very truly yours,

JOHN H. SANGSTER. Port Perry, October 31, 1894.

A CARD OF THANKS TO THE MEDICAL ELECTORS OF TERRITORIAL DIVI-SION No. 13.

EDITOR DOMINION MEDICAL MONTHLY:

SIR,-Allow, me through your valuable journal to thank the medical electorate of Division No. 13 for the more than generous. support given me in the recent contest. I shall always remember with gratitude and pleasure, that after taking a considerable part in the conflict, every medical practitioner in the West Riding of Durham, where I reside; everyone in the East Riding, and everyone in the West Riding of Northumberland, without exception, signed my nomination paper, as well as 80 per cent. of the electors of Peterboro', nearly all of East Northumberland whowere canvassed, and all of Haliburton. I take this almost unanimous expression of

opinion as a mandate to push forward the reforms the Defence Association has advocated. Be assured, gentlemen of Division No. 13, that whilst safeguarding the public welfare, the one great object I shall ever keep in view, whilst your representative, will be the best interests of our common profession.

I desire to thank you, Mr. Editor, for that public-spirited generosity which has opened the columns of your journal for the free discussion of issues which underlie the very existence and permanence of the Council, as well as the rights and well-being of the profession. Sir, you have my gratitude and, I believe, with rare exceptions, the gratitude of the profession of the whole province.

Yours, etc.,

J. W. MCLAUGHLIN.

Bowmanville, November 3, 1894.

Personal.

Dr. Bruce L. Riordan, of this city, was elected 3rd Vice-President of the National Association of Railway Surgeons.

Dr. C. R. Dickson was elected 2nd Vice-President of the American Electro-Therapeutic Association, and appointed chairman of the Standing Committee on Electrodes at the recent meeting in New York. The Association will meet in Toronto next September.

Book Notices.

Essentials of Refraction and the Diseases of the Eye, by Dr. ED. JACKSON.

Essentials of Diseases of the Nose and Throat, by Dr. GLEASON. Formerly one of the series of question compends published by W. B. Saunders, of Philadelphia. We have had occasion before to recommend this series of publications to students and young practitioners. The present volume is fully up to the standard of preceding ones. The style is clear and concise. We can especially commend the chapters referring to Movements of the Eye-ball— Refraction and Methods of Diagnosis. Dr. Gleason has done his part of the work very satisfactorily.

A Manual of Human Physiology. Prepared with special reference to students of medicine. By JOSEPH H. RAY-MOND, A.M., M.D., Professor of Physiology and Hygiene in the Long Island College Hospital, etc., with 102 Illustrations. Price \$1.25. Philadelphia : W. B. Saunders, 925 Walnut Street. 1894.

The author having had twenty years' experience as a teacher of physiology, has in this work put in concrete and available form the many facts and principles of this branch of medicine.

Education and Culture, as Correlated to Health and Diseases of Women. By ALEX. J. C. SKEEN, M.D. Price 25c.

This is one of Davis' "Leisure Library Series." One expects that anything Dr. Skeen undertakes would be well done. This expectation is more than fulfilled in reading the little volume. It is often said of books that every chapter is full of useful information. In the case of the work before us, we can say that every page is of value and sparkles with good thoughts. We certainly think every physician ought to secure a copy. It will stand more than one careful reading.

Landmarks in Gynæcology. By BYRON ROBINSON, B.S., M.D., Professor of Gynæcology in the Chicago Post-Graduate School, etc. Vols. I. and II. Detroit: George S. Davis.

These two neat volumes belong to "The Physician's Leisure Library Series." Under the headings of anatomy, menstruation, labour, abortion, gonorrhœa and tumours, the author has collected much useful information. The remarks on lacerations, abortion and gonorrhœa are likely to prove specially interesting and helpful to the physicians who consult these pages. The volumes are in the pretty form so well known to readers of this series.

A Manual of Modern Surgery, General and Operative. By JOHN CHALMERS DΛ COSTA, M.D., Demonstrator of Surgery in Jefferson Medical College, Philadelphia, etc. With 188 Illustrations in the texts, and 13 full-page plates in colours and tints, aggregating 276 separate figures. Price \$2.50. Philadelphia: W. B. Saunders, 925 Walnut Street, 1894.

The aim of this manual is to present in clear terms and concise form, the fundamental principles, the chief operations, and the accepted methods of surgery. This work stands between the complete textbook and the incomplete but concentrated compend. It is a practical, wellwritten book.

A Synopsis of the Practice of Medicine, for Practitioners and Students. By WIL-LIAM BLAIR STEWART, A.M., M.D., Lecturer on Therapeutics; Late Instructor on Practice of Medicine in the Medico-Chirurgical College of Philadelphia; Demonstrator in the Philadelphia School of Anatomy. Cloth, \$2.75. E. B. Treat, Publisher, 5 Cooper Union, New York.

This is a work of over four hundred pages, which was prepared in order to present to the profession a brief synopsis of the subject, and in order to give the busy practitioner and student concise and brief descriptions which would suggest practical thoughts upon etiology, symptomatology, pathology, diagnosis, prognosis and treatment. All of the prominent authorities in the recently

issued Text-books and Systems, also the current Medical Literature, have been laid under contribution, and the most approved methods of treatment have also been given prominence. Many drugs and methods have not been considered at length, not on account of their inutility, but from the fact that better forms of treatment have taken their place.

Text-Book of Nervous Diseases. Being a Compendium for the use of Students and Practitioners of Medicine. By CHARLES L. DANA, A.M., M.D., Professor of Nervous and Mental Diseases in the New York Post-Graduate Medical School, and in Dartmouth Medical College; Visiting Physician to Bellevue Hospital; Neurologist to Montefiere Home; Ex-President of the American Neurological Association, etc. Third edition, with 210 illustrations. New York: William Wood & Company. 1894.

It is but a short time since the above work made its bow to the medical profession, and we have before us the third edition. The table of contents shows that the author has taken a comprehensive view of his subject. Part I. discusses the general description of the nervous system. its anatomy and diseases, in a very clear and able manner. In this portion of the work a solid foundation is laid for the study of nervous diseases. Part II. deals with the anatomy and diseases of the cerebro-spinal nerves. Under this head neuritis, neuralgia, tumours, degenerations and functional disorders come in for their the share of attention. The information is well up to date and in a highly readable form. Part III. discusses very fully and ably the anatomy and diseases of the spinal cord. The arrangement of the topics in this section is excellent. Part IV. covers carefully the anatomy and diseases of the brain. A large amount of information is compressed into a little over one hundred pages. Part V. treats

of functional nervous disorders. These are the forms of nervous disorder met with most frequently, and the author gives them much attention. Throughout the work is richly illustrated, which adds very much to its value. These have been selected with good judgment to aid the descriptions in the text. The publishers have done their work well. The book is one of that handsome set by the same publishers, "The American Series of Medical Text-Books," We recommend the work to all who wish a good text on nervous diseases.

Syllabus of Lectures on Human Embryology. An Introduction to the Study of Obstetrics and Gynæcology. For Medical Students and Practitioners. With a Glossary of Embryological Terms. By WALTER PORTER MANTON, M.D., Professor of Clinical Gynæcology and Lecturer on Obstetrics in the Detroit College of Medicine; Fellow of the Royal Microscopical Society, of the British Zoological Society, American Microscopical Society, etc., etc. Illustrated with Seventy (70) Outline Draw-ings and Photo-Engravings. 12mo, Cloth, 126 pages, interleaved for adding notes and other illustrations, \$1.25 net. Philadelphia: The F. A. Davis Co., Publishers, 1914 and 1916 Cherry Street.

The study of embryology is probably one of the least attractive to the medical student, and is one of the subjects that he finds most difficult to understand. Much of this has been due to the manner in which embryology has been treated in the various text-books. No subject should be more interesting than embryology. By a careful study of it a flood of light is thrown upon a wide field of medicine and surgery, such as deformities, defects in development, new formations, etc. After a careful examination of this little volume, we have no hesitation in saying that the study of embryology has been robbed of all its terrors, and made a thoroughly interesting subject. This book is also a gem of the printer's and bookmaker's art.

Obituary.

ROBERT WILLIAM HILLIARY.

Robert William Hilliary, M.B., Aurora, Ontario, was born on the 31st of October, 1832, in Dublin, where he was educated. He was a student under Sir George Owens, M.D., of Dublin. He came to Canada in 1856, and commenced practice at Laskay, County York ; then at Springhill, and 1858, settled in Aurora, where he had since enjoyed a very large practice. Dr. Hilliary was a strong Conservative and Mason. He was married, 1861, to Annie, daughter of the late Colonel Fry, of Aurora, formerly of Boyle, Ireland. His funeral took place, October 22nd, from the family residence, In respect to the memory of, Aurora. the deceased all places of business were closed, and all flags hoisted at half-mast. The funeral cortege was the largest ever known in the district, thousands of people coming in from the surrounding country, where Dr. Hilliary's extensive practice and amiable qualities gained for him a great number of friends. The services at the Episcopal church were conducted by the Rev. Canon Osler and the rector; a full choral service was rendered, and the church was thronged with people who had come to pay the last tribute of respect to the dead. The procession to the cemetery was headed by the band of the 12th Battalion, and was followed in order by the Order of United Workmen, the Masonic body, and the colonel and officers of the 12th Battalion. The pallbearers were : Dr. Morton (Toronto), Dr. Rogers (Newmarket), Dr. Rutherford (Aurora), Drs. Strange and O'Reilly (Toronto), and Dr. Morton (Barrie).