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## Original Communications.

### DISEASE OF THE CORONARY ARTERIES AND ITS EFFECTS.\*

By DR. G. SILVERTHORN,

Physician to Home for Incurables and House of Providence, Toronto.

THE subject of this paper embraces so much, that I propose to limit myself to a review of the subject, ending with an exhibition of microscopic specimens illustrating one or two of the conditions.

The diseases of the coronary arteries to which I wish to draw your attention are (*a*) atheroma, (*b*) thrombosis and (*c*) embolism.

Slight atheroma of the coronary arteries is a very common condition, almost constant in the aged, and when we find a general arteriosclerosis there is almost certain to be disease of the coronary arteries

\*Read before Toronto Pathological Society.

with it. We have, however, cases in which the coronary arteries seem about the only vessels affected; this "localized" atheroma, especially in the young and middle-aged, is generally due to syphilis. Extreme sclerosis of the coronary arteries is common in the aged, not as a cause of death, but as a post-mortem find.

Atheroma of a vessel necessarily leads to more or less narrowing of its lumen, and when this narrowing is extreme, and other conditions are favorable, we have our second condition as a result—*thrombosis*. When the narrowing is not of such a degree as to cause thrombosis, we have effects associated with it varying all the way from no symptoms at all to shortness of breath on exertion, fatty degeneration and angina pectoris. These conditions I do not intend to discuss, so we come at once to the effects of blocking of the coronary arteries by thrombosis or embolism.

The effects of a complete blocking of a coronary artery are (1) sudden death, (2) infarct, white or red, (3) rupture, (4) fibrous myocarditis, (5) aneurism of the heart, (6) abscess of the wall of the heart.

The terminal branches of the coronary arteries are end arteries in spite of the fact that Wickersheimer has succeeded in making an injection fluid pass from one artery, through communicating branches, to another. The coronary arteries anastomoses, but the anastomosis is so slight that it does not permit a collateral circulation of such extent as to preserve the infarcted area from degeneration.

Kolster† tied a small branch of the ramus descendens in the dog and kept the animals alive from one day to seventeen months. The microscopical examination of a heart of a dog killed twenty-four hours after ligation, showed a "typical coagulation necrosis in the area of the artery ligated." Kolster remarks that "nothing else could have been expected, for Weigert (Virchow Archiv. Bd. LXXIX.) took these very infarcts as a type of coagulation necrosis."

In dogs kept longer alive the progressive alterations were traced from day to day and month to month, and resulted in an area of fibrous myocarditis exactly corresponding to the area supplied by the ligated vessel.

W. T. Porter‡ ligated the descendens in the dog a few millimetres from its origin; two dogs lived, respectively, four days and fourteen

†Skand. Archiv. f. Physiolog. 1893. iv. pp. 1-45.

‡Archiv. f. d. ges. Physiolog 1894. lv. pp. 366-371.

days and a half. Characteristic anæmic infarcts were found occupying the anterior part of the septum, and that part of the anterior wall of the left ventricle which adjoins the interventricular septum.

W. T. Porter\* has an interesting series of experiments on dogs on closure of the coronary arteries, and comes to the conclusion that the "frequency of arrest is in proportion to the size of the artery ligated."

In the human heart blocking of one of the branches of the coronary arteries by an embolus or by thrombosis may cause sudden death, and the frequency would be in proportion to the size of the vessel affected, other things being equal. In thrombosis the rate of closure would have an influence. That sudden death can occur is of special importance in medico-legal cases, as it happens rather frequently from this cause.

Should sudden death not occur we have the condition known as anæmic necrosis or white infarct as a result. The affected areas, when recent, are firm and appear only as dull, yellowish discolorations of the heart muscle; after a time they become softened and friable and assume a yellowish-white tint. They are generally irregular in outline and are at first raised above the surface, although later they may be retracted. The pericardium over it may be covered with a grayish membrane, and if the area extends to the endocardium, we may find thrombi adhering to the heart wall corresponding to the area affected.

A red or hæmorrhagic infarct is present when an extravasation of blood takes place from the capillaries, and the appearance and subsequent processes differ only to the extent of the extravasation.

Microscopically the muscle cells are fragmented and granular in appearance, the nuclei and striæ disappear and sometimes there is some formation of oil globules. The tissue is soft and easily torn.

Should this condition affect a considerable portion or the entire thickness of the wall, the result might be a rupture of the heart and consequent, more or less sudden, death.

When this process of anæmic necrosis has proceeded a certain length and death does not ensue, we have a process of repair set up. This consists of the removal of the detritus followed by increase in connective tissue and the gradual formation of the condition known as fibrous myocarditis. Here the original anæmic infarct is converted into fibrous tissue with contractions of this tissue, showing its position. The muscular elements are never regenerated.

Fibrous myocarditis may thus result by the gradual transforma-

\*Journal of Experimental Medicine, January, 1896.

tion of a white or red infarct, but is most commonly caused by a gradual narrowing of a coronary branch by obliterative endarteritis. This may be the same process as from an infarct, only on a microscopical scale.

If the patch of fibrous myocarditis is of considerable extent and affecting the whole or nearly the whole thickness of the wall, we may have as a result *anæurism of the heart*.

In pyæmia the coronary arteries may be blocked by septic emboli and then the infarcts are of the nature of miliary abscesses. These may not cause any disturbances, but when large may rupture into the ventricle or pericardium.

Rupture of the heart is divided into (1) traumate (2) spontaneous. Spontaneous rupture of the heart was observed by Harvey, and may occur in any chamber, is most frequent in the left ventricle, rare in the right ventricle, and still more rare in the auricles. The majority of those affected are males and over sixty years of age.

Rupture of the heart usually takes place during exertion, but sometimes occurs during sleep. Other immediate causes are fright, labor, tetanus, epilepsy, copulation. George II. of England died of rupture of the heart due to straining at stool, and Philip V. of Spain died of rupture of the heart on hearing of the downfall of Piacenza.

That spontaneous rupture may occur only in a diseased heart was recognized by Morgagni. These diseases are, abscess, hyaline and amyloid degeneration, fatty degeneration, aneurism of the wall, new growths, echinococci, but while these are of occasional or possible causes, the majority of cases may be traced back etiologically to the degeneration called arterio sclerosis and its resulting changes. These changes are most frequent in the left coronary artery and its anterior branch.

The rupture is usually sudden and complete, but ruptures partially through the wall may take place causing very severe pain due to separation and laceration of the muscle fibers. This separation and laceration may be in different directions and different planes, thus giving rise to a kind of dissecting rupture, taking possibly days for its passage through the wall of cavity. At other times the progress in one particular spot may not extend all the way through the wall, but commence anew at a more favorable situation and rapidly tear asunder the tissues. From this rupture the blood is poured out into the pericardium; if very slowly through a small external opening the blood may clot in successive layers on the surface of the heart and thrombi form in and around the rupture.

If from a larger opening, and this is the usual case, the pericardium is rapidly filled with blood and death takes place quickly with only partial clotting of the exuded blood.

With these preliminary remarks I would like to now draw your attention to this specimen of a rupture of the left ventricle in a specimen obtained from a man sixty years of age, for some time - invalidated by a chronic neuritis, peripheral, apparently, but still working when he felt like it at his trade, that of a cabinet-maker.

On the evening of June 4, 1897, after having eaten his usual evening meal he suddenly fell to the floor, pale and unconscious, in a few minutes becoming restless and crying out as if in terrible pain, hand applied to the epigastrium. The three succeeding days he spent mostly in bed, pain becoming less, and sensorium clear. On the fourth day, in the morning, he got up, ate his breakfast, felt like going to work, and intended doing so. Went to the bath-room, and after defæcation, buttoned up his clothes and started to leave the bath-room. He suddenly fell forward on his face to the floor, and moaned a little. Was carried to his room, gasped a few times, and in a few moments was dead.

*Post-mortem.* Abdominal organs as usual. Brain and cord not examined. Pericardium distended with blood about ten ounces, partly fluid and partly clotted. A longitudinal rupture through the whole thickness of the left ventricle, one inch in length, with ragged edges, commencing one-half inch from upper border of ventricle, and extending midway between anterior and posterior borders, and extending from point of commencement towards the apex. Internally the rupture is of about the same dimensions and in the same direction, but more ragged, and consequently not so linear in appearance. The left ventricle wall is not more than three-eighths of an inch in thickness at any part, and its substance is very friable, and "grossly fatty" in appearance. The heart in other respects is fairly normal, except that the muscular tissue everywhere is somewhat soft. There is a patch of atheroma about as large as a five cent piece in the aorta, two inches from its commencement. All the coronary arteries are atheromatous. The anterior branch of the left coronary artery, immediately after its commencement, is occluded by a partly organized thrombus, which extends downward as far as the artery can be conveniently opened up. In the interior of the left ventricle, near the apex, some columnæ carneæ and part of the wall of the heart have been torn, and between the torn portions and around them are several very firm thrombi. Other organs as usual.

The progress of events in this heart is not hard to trace. There was atheroma of the left coronary artery, which was most marked in its right branch. A thrombosis of the vessel occurred as a result of the roughened calcareous plates found in the artery, and the partial occlusion of the vessel.

There resulted, in consequence of the thrombosis, an anæmic infarct of practically the full depth of the muscular tissue on the anterior surface of the left ventricle.

The blood pressure in the ventricle was sufficient to tear asunder near the apex some softened and necrotic fibres of the wall, including some columnæ carnæ on the first day of pain, June 4th. On the 8th of June, after straining at stool, probably, the rupture occurred through the whole thickness of the wall, at the site as you see it now, and death followed rapidly.

## DICEPHALOUS MONSTER.

BY W. H. PEPLAR, M.D.,

TORONTO.

THE specimen I am presenting this evening is an incomplete dicephalous. From the photograph you will be able to make out two perfectly formed faces placed side by side on a single head ; one face looking to the front and right, the other to the front and left side, the head slightly broader than that of an ordinary foetus at term. Body and limbs are well developed and normal. I am indebted to Dr. E. E. King for an excellent skiagraph which shows the spinal column dividing at about the seventh dorsal vertebra (here I might observe that the more complete the dicephalous the lower is the division of the column). Complete dicephalous monsters generally have the bifurcation in the sacral region. Dr. Anderson kindly assisted me in making a number of cross sections, which show the brain to be quite undeveloped as to convolutions. There appears to be three hemispheres ; two larger and one smaller. The section through the cervical region shows one trachea, one oesophagus, two spinal columns, and but one cord. On referring to the skiagraph you will see that one column is better developed than the other, the more fully developed one containing the cord. The other parts of the body are normal.

I might add that the mother, a multipara, with good previous history, gave birth to this child at full term without complications ; the child showed signs of life.

The causes of these double monsters are very interesting. The ancient Greeks, and later the Romans, long before the days of the microscope, described the foetus in reproduction as the semen or menses, and some both. As Aristotle, who says : "The blood of the menses is the marble, the semen is the sculptor, and the foetus is the statue." No idea of ova or spermatozoon was known, and they thought monsters were caused by some fault in one or other of these factors. They also had the idea that intercourse between humans and brutes caused monstrosities. This theory can be traced up to



the seventeenth century. The Hebrews thought that coitus during menstruation produced monsters. At the present time the opinions seem to be divided between two theories—one that double monsters are caused by fission of blastoderm; the other a cleavage of blastoderm. The latter seems to be in favor. The cause of this cleavage is as yet unknown.

Windle believes that there is first unity followed by fission. Fission takes place probably at the very earliest stage of differentiation. He gives various explanations as to cause, such as overstimulation, faulty relation between embryo and zona pellucida, superabundance of formative material, entrance of two or more spermatozoon, faulty spermatozoon, and finally what the author is inclined to believe the probable cause, a retention of the whole or part of the second polar body. Klausser deals very fully with this subject.

After taking up the different theories, he advocated the following: Firstly, the multiple form may arise from primitive plurality of the formative substance, this condition leading to twins, etc. Secondly, from fission with post-germination, the valves of the embryo forming their missing portions, not from themselves, but from the neighboring material, in which case double monsters are the result.

Wilson showed in his experiments that by complete separation of the blastoderms he caused each to enter on an independent development and produced twins.

Incomplete separation of blastoderms gave rise to double embryos of all varieties.

Hereditary and maternal impressions are small factors in the cause of monsters.

## ANÆSTHESIA AND ANALGESIA.\*

By H. H. OLDRIGHT, M.B.,

Assistant Surgeon, St. Michael's Hospital.

**D**URING the past fifty years, dating from the introduction of anæsthesia by volatile drugs, the subject has never failed to be of interest to the medical profession.

It is an obvious but curious fact that the first-discovered anæsthetics, nitrous oxide, ether, and chloroform are those held most reliable to-day, and, taking them in the order named, other things being equal, we find the mortality records from their use to increase in the same order.

There has been much discussion in the past on the relative safety and efficiency of ether and chloroform, and at the present time both have their special advocates, and, as regards the prevailing use of each, it would be hard to say which is most generally employed.

In the tropics, as you all know, chloroform, on account of its less volatile properties, is better kept in stock, and, for the same reason, is more efficient when administered at any time in those regions, or in our own latitude in the hot summer months.

Thus the surgeons in India and the Southern States are accustomed to employ chloroform to produce anæsthesia.

Frederick W. Hewitt, London Hospital, says that the safety of the patient depends more on the anæsthetist than the anæsthetic, and in this connection Marmaduke Shield says that practical instruction in anæsthesia is neglected for the sake of theoretical or non-practical subjects.

Treves thinks that ether is preferable as a general anæsthetic, but respiratory catarrh contra-indicates it, and says, moreover, that no anæsthetic should be used in conditions of collapse, or where sensation is blunted.

I well remember, in my childhood, holding basins without any qualms while the factory hands had their fingers amputated after having taken that milder anæsthetic, alcohol, in the shape of brandy

\*Read before the Toronto Medical Society.

or whiskey, and this brings forth the remark or thought, would it not be better for the race to bear their pains more stoically, without such general resort to anæsthesia? But if we need anæsthesia, the depth must necessarily differ in degree according to the severity of the operation, as Hewitt remarks.

Now, to revert to the relative merits of the two anæsthetics, while believing that ether, at the time of administration, as regards safety, is as a rule the preferable anæsthetic, I must say that, having used chloroform for the past six years at the hospital in a great number of cases, it is my opinion that the danger in its administration has been over-rated.

There have been cases where we have had to use or change to ether where a stimulating effect was needed, but in cases where this was not required we have found the chloroform most satisfactory.

Among the patients who do not stand chloroform well are the neurotic (those with shallow, irregular breathing habit), the adynamic (poor nervous force or inco-ordination, although the muscles may be well developed), and the very anæmic. The cachexiæ contra-indicated one or the other drug. The Vienna mixture is still *subjudice*.

I would like to give you some records to criticize on the safety of chloroform, the references being from the excellent work on anæsthesia by Henry M. Lyman, of Chicago.

He quotes Chisholm, in his work, "What anæsthetic shall we use?" who states that during twenty-eight years from the time of the introduction of chloroform there were only two deaths from its use in the Royal Infirmary at Edinburgh, and that during the ten years of that period there were 36,500 administrations with one death.

From other countries we have :

Elser, of Strasburg, 16,000, no death.

Kidd, of London, 10,000, no death.

Richardson, of London (had seen), 15,000, one death.

Clover, of London (self), 3,000, no death.

Bilroth, of Vienna, 12,500, before a fatal accident.

McGuire, Confederate army, 18,000, no death.

Chisholm, of Edinburgh, 6,000, no death ; his estimate one in 20,000.

Crimea—French army, 30,000, two deaths.

English army, 12,000, one death.

American war, 80,000, seven deaths.

Nussbaum, 15,000, no death.

Kolney, 7,000, no death.

Kappelar, 5,000, one death.

Bardeleben (witnessed), 30,000, no death.

1879, Germany, four deaths in 84,000.

1875-1880, St. Bartholomew's,

Chloroform, 4,810, two deaths.

Ether, 6,440, two deaths.

Summing up all statistics we have :

Ether, 99,255 cases, six deaths, 1-16,532.

Chloroform, 492,235 cases, 84 deaths, 1-5,860.

The analgesics, or local anæsthetics, which are commonly used at the present time are cocaine, ethyl chloride, atropia and morphia, the latter two being often combined with ether and chloroform, the former two being used by themselves.

Eucaïne is a later local anæsthetic, which is said by Charteris and McLennan in *The British Medical Journal* to be as effectual as cocaine and less toxic.

Dr. Geo. W. Spencer, in an article in *The University Medical Magazine*, November, 1896, says that he has used it extensively in 2 per cent. solution, using 15 grains in one case and has used 3ii of 5 per cent. solution.

Anæsthesia is obtained in five to ten minutes, and lasts twenty to sixty minutes. With cocaine, the great disadvantage is that when used in very vascular and absorbent parts it sometimes has an alarming depressant effect on the heart and circulation, unless the parts are capable of being constricted to avoid a rapid absorption of the drug into the general circulation.

With ethyl chloride we have been able to remove, without this danger, large growths on the face, an inch in diameter, without any marked discomfort to the patient, the only drawbacks here being the hardening of the tissues to be cut, and, perhaps, a coincident loss of vitality of the tissues at the edges of the wound.

My friend, Dr. Wm. Carter, observes that with cocaine injection we must allow the drug to circulate in the tissues before applying the Esmarch, while with ethyl chloride we get a prolonged effect from the freezing by applying the Esmarch first, thus preventing the warm blood from thawing the frozen area.

A. E. Bridger, in the Proceedings of the Society of Anæsthetists, January 21st, 1897, speaking of the disorders favored or produced by anæsthetics, cites a case of acute mania following the administration of nitrous oxidë gas.

About two months ago I engaged a servant, who was with us three days, at the end of which time I had to send her to the

General Hospital, from whence she went to the gaol (hospital ward).

Three days previously to the time of our engaging her she had had a tooth extracted, cocaine and nitrous oxide having been used.

At the time I did not see the connection between the administration and the mania, but, since seeing the above instance, think that the one may be a sequence of the other.

She had been worrying before, and recovered in five weeks.

He says also that the administration of chloroform to morphia habitues may cause prolonged excitement at the time.

In this connection I would cite two cases which may be of interest on account of the diversity of the effects produced in the subjects. They were both in the habit of taking a number of grains of morphia per diem. In the first the anæsthesia was required for the extraction of teeth, the amount used from the commencement to the end of the administration lasting fifteen minutes, the patient being deeply under, was only one drachm (drop method).

In the second case the patient had used morphia for two years on account of tubercular disease of the ankle joint.

Before the administration she had received in the morning one and a half grains of morphia, but during the first stage of anæsthesia there was great excitement (prolonged) and she was with difficulty brought under the influence of chloroform which was changed for ether on account of the irregular action of the heart. The anæsthesia was not deep during the time of the operation, although a large amount of both anæsthetics was used.

And now I would ask you to consider the effects of another analgesic which we are accustomed to look upon rather as a hæmostatic, namely the Esmarch bandage and tourniquet.

We all probably have observed the anæsthesia produced by our having slept with the arm raised above our heads or else from the pressure of the head on the brachial artery and plexus of nerves.

This pressure, as we know, may even produce paralysis of the arm. The tourniquet in the same manner causes a loss of feeling in the limbs. Since reading this paper I see that Buxton says that John Hunter operated on a patient, amputating the thigh after strong pressure had been made on the sciatic nerve trunk.

Again, if we tie a ligature around the body of a frog so as to cut off the circulation between the two halves and then dip either part into a solution of chloroform, the half immersed will become anæsthetic and motion will be lost.

We may thus arrive at the conclusion, verified I think by experiment, that having anæsthetized a patient with morphia and

chloroform, the Esmarch and tourniquet having been applied, we have the patient in the most favorable condition to feel least pain, and need not use as great an amount of the anæsthetic, thereby lessening the risk from the chloroform.

Again, where we are not able to use the tourniquet as about the face and trunk, we may notice that during the first incision through the skin our patient is stimulated reflexly, the arterial tension increases for the time being, and it would be a mistake to use a greater amount of the anæsthetic, for, as we find, this tension is not lasting, the deeper parts (muscle, fascia, peritoneum, and bowel) not being as well supplied with those nerves which transmit painful impressions. This point was brought to me forcibly by Dr. Nicholas Lum, of Chicago, on hearing him remark on the same and seeing him open the bowel in the secondary operation for colotomy, the patient, an old lady, having had no anæsthetic and not evincing any feeling of pain.

We need not therefore keep our patient as deeply under after the skin incision has been made as before, neither for the sake of the convenience of the operator nor the feeling of the patient.

As to the best method of administering chloroform, that where it is used drop by drop at four or five seconds' intervals at first till the patient's fifth nerve becomes accustomed to it is preferable, gradually lessening the intervals for a time, say five minutes, *cæteris, paribus*, then again increasing the length of the intervals as the heart distributes the anæsthetic equally throughout the body. The heart is thus able to distribute the drug in steady quantities both to its own muscle through the coronaries and to the brain and body in the order written.

Lauder Brunton says that the probable explanation of the absence of ill effects in giving a very large amount of concentrated vapor in the beginning of anæsthesia is that the patient is at that time in the most favorable condition to withstand the depression caused by this method, and that it is dangerous to commence by the drop method and give large doses in the later stages or to alternate large and small doses. We can judge the effect of the drug on the heart by the tension and rate of the pulse, which it is well always to watch, our sense of pressure touch being utilized for this purpose.

At the same time we use the sense of sight for any sign of hyperæmia, cyanosis or pallor of the chest and face, and also to note the state of contraction of the pupil, any sudden dilatation of which denotes either that the patient is about to vomit (irritation of the

sympathetic nerve causing contraction of the muscle supplied by it) or paralysis of the third nerve and sphincter, which is more alarming.

If there is a tendency to vomit give more anæsthetic, but if it occurs stop till it is over and the air passages are clear.

The most important sense is that of hearing, which enables us to judge of the rapidity and depth of the respirations, the character of the same, whether the passages between the posterior nares and the trachea are freely open or not, also whether there be mucus in trachea and bronchi or not, which would hinder the expiration as well as the inspiration of the anæsthetic.

If it is necessary to change from ether to chloroform we must allow for the imperfect elimination from collection of mucus.

A friend of mine called this "being drowned in her own secretions." Suppression of urine may follow the use of an anæsthetic more often with the use of ether, but as to the cause of this disaster we are still in the dark, and as has been observed it may be due to septic infection of the kidneys.

Henry M. Lyman, of Chicago, an advocate of ether, says that the risks from ether increase with age, on account of the tendency to bronchial catarrh, to a degree which is not conspicuous with the more potent agent chloroform, and cites cases of œdema with lingering death from the administration of ether, one of œdema of the lungs and pleuræ, operation tenotomy, administration for twenty minutes, amount 3 oz., becoming conscious and dying two hours later; another dying four hours after cessation of administration, the post-mortem examination revealing œdema of the membranes of the brain and of the lungs. Also a case of lingering death in a hard drinker, from chloroform  $\frac{1}{2}$  oz., time  $1\frac{1}{2}$  minutes; slept twenty minutes, was roused, and died one day and a half after operation. P. M. showed interstitial nephritis.

R. L. MacDonnell, M.D., McGill University, in an article in Woods' "Reference Handbook of the Medical Sciences" on idiosyncrasy, says that a friend of his experiences a motion of the bowels every time he administers ether. He attributes the fatal effects of inhalation of chloroform in minute doses to this same cause—idiosyncrasy. We should at any rate, be very cautious and administer slowly at first by the drop method, to observe if such an effect be present.

To illustrate this phenomena we may remember the case of Jenny Lind, the prima donna, who would almost faint from the smell of a rose thrown on the stage. I saw a case where the smell of pickles caused a dilatation of the vessels, and sweating over one half only of the head and face.

While this may be the immediate cause of serious symptoms, there is another which may be got rid of by the use of purgatives and intestinal antiseptics repeated as required for some days beforehand, namely, the depression from stagnant bile, food, and toxins.

Silk, King's College Hospital, gives beef tea four hours before anæsthesia (milk digests slowly), or a nutrient enema one-half hour before. He deprecates the use of morphia as an adjuvant.

Gilbert G. Cottam injects spartiene sulphate  $\frac{1}{10}$  gr. before administration, and finds it an efficient heart stimulant.

Caffeine might be used the same way.

Dudley P. Allen finds that the body temperature varies much under an anæsthetic, heat being lost if the operation is prolonged; therefore we should make the time as short as possible for the sake of the patient, and should apply external heat.

Leonard Hill describes very well the manner and treatment of ill effects from chloroform administration. He distinguishes two forms of syncope, in the primary during struggling, with venous congestion from holding of breath, right heart and lungs loaded with blood and chloroform, left heart relatively empty; a deep breath is taken and the left heart filled with blood and chloroform from the lungs, which is distributed by the coronaries to the heart muscle first, paralyzing it, and causing complete loss of arterial tension.

Treatment: Feet-down position for a second, repeated if necessary; bleeding from jugular if necessary; artificial respiration, and strychnine. Avoid pressure on the abdomen.

Secondary syncope from exhaustion and gradual loss of arterial tension, causing anæmia of respiratory centre.

Treatment: Stimulants; head-down, feet-up position, and artificial respiration. In this case press the arms on the abdomen.

#### CONCLUSIONS.

1. Always have your hypodermic ready beforehand with five minims of Liq. strychnia.
2. Give the anæsthetic to the patient, not the patient to the anæsthetic, *i.e.*, a small amount at longer intervals when breathing is deep or rapid.
3. Watch the effect on the heart at the radial pulse; the regularity and tension tell us more than the rapidity.
4. Choose your cases for either anæsthetic; a weak heart or adynamia indicates ether, while pulmonary catarrh or albumenuria contra-indicates it.
5. Whenever possible have the intestinal tract empty and sterile.



# THE SURGICAL TREATMENT OF INSANITY.

BY ERNEST HALL, M.D.,

Fellow of British Gynæcological Society, etc.,  
VICTORIA, B.C.

## PRELIMINARY REPORT.

INFLUENCED by the work of Drs. Hobbs, of London, and Rohé, of Baltimore, reported at the Montreal meeting of the British Medical Association, I took the first opportunity to investigate and determine if these things be true. A former patient, Mrs. McF., aged 35, of excellent family history, no hereditary taint, had been committed to the Provincial Asylum during my absence in Europe. She was the mother of two children; the elder suffered from asthma, the younger from chronic hydrocephalus. She had enjoyed excellent health until, after attending to her household duties and acting as nurse to both children, she became considerably debilitated. This, with the shock of the younger child's sudden death, caused by falling from the verandah where his mother had placed him in a wheel chair, brought on intermittent melancholia from which she suffered for eight months. At this period, while visiting a friend, symptoms of pronounced insanity with suicidal tendency were developed. After a month's treatment under the care of a nurse she was committed to the asylum on April 1st, 1895, where she remained until January 3rd, 1898. During this period she was at times violent, would attempt to scratch and bite her attendants, exhibited a most obstinate disposition, was considered by the late matron as one of the worst cases, and by the authorities as hopeless. The medical superintendent gave the friends no encouragement as to her recovery.

Having obtained permission from the patient's husband, with the assistance of Dr. Boggs and with the courteous co-operation of the medical superintendent, Dr. Bodington, the patient was placed under chloroform and a pelvic examination made. The right ligament was thickened, left ovary prolapsed, uterus fixed, and perineum

partially ruptured. Upon this data, I recommended operative measures, my recommendation was accepted, and the patient was placed under the care of two trained nurses, as admission to the hospital was refused.

Section, January 5th, assisted by Drs. Frank Hall and Hart. Right ovary was found cystic with tubal adhesions, left ovary adherent in cul-de-sac, fimbriated extremity closed. The appendages were removed, uterus also curetted. The operation was brief and practically bloodless; post-operative history, normal; stitches removed on the twelfth day. The mental condition remained unchanged for some days. She persisted in sitting up in bed, tearing the bed clothes, and endeavoring to bite and scratch the nurses. It was necessary to tie her hands to either side of the bed, and place a heavy bandage over the lower part of the body. Upon the fourteenth day after the operation she became calm and recognized her mother. On the following day she conversed a little and appeared to appreciate the kindness of the nurses. Upon the seventeenth day the patient seemed more rational, did a little sewing, and took an interest in her surroundings. The following day I allowed her to see her daughter, now a bright girl of eleven years, whom she had not seen since entering the asylum. The meeting was one not soon to be forgotten; it was one of those periods in a physician's life when his remuneration is beyond computation, an experience that lives. The patient acted and spoke as only a reasonable mother could. Day by day, as the physical strength increased, the mind became capable of more extended effort. Thirty-five days after the operation the nurse accompanied the patient to her home and remained with her a few days; and to-day, after two months, the patient is managing her own household and attending to her social duties with all the reason and energy of her former self. Her husband informed me that he detects no difference in her present mental condition from that of five years ago.

Such is the brief history of one who spent two years and eight months in the asylum, "a hopeless case of insanity," one who "was not a fit case for operation," and who would have been doomed to such a life until death closed the scene, who to-day is restored to her family. Of course, it is too early to speak of a permanent cure, and some critic may suggest that nature might have removed the disease, as many cases of insanity recover. But the fact remains that this patient was relieved of her insanity after the removal of diseased organs, that there were no indications of cortical or other lesions beyond the pelvis, that it is not in the ordinary process of nature that salpingitis adhesions become absorbed,

nor do cystic ovaries become normal ; therefore, we are justified in concluding that the pelvic condition was the cause of the insanity, and that without surgical procedure probably the condition would have continued. Can we yet state with mathematical exactness what part of the body the mind inhabits, or is it located in one part to the exclusion of other parts? A study of the development of the nervous system in the lower forms of life would lead us to infer that we cannot give definite location to the mind. If so, possibly we may underrate the office of the abdominal ganglia and plexus, and we may find that the normal mentality may depend, to a much greater extent than we have formerly supposed, upon the proper condition of the abdominal and pelvic organs. If perineal lacerations are one-fifth as potent in their relation to the causation of neurasthenia as Professor Etheridge, of Chicago, would have us believe, what must be the effect upon the delicate nervous organism of disease of those parts which bear the most intimate relations to the consciousness? The invasion of the domain of the alienist by the gynæcologist marks an epoch in surgery. It is opportune to call a halt in the management of our ever-increasing burden of the incapable. It is the duty of the profession to consider insanity in the light of recent results and to demand a more scientific treatment of these unfortunates. If, as Dr. Hobbs reports, thirty per cent. of the insane women he examined were cured by appropriate treatment of the pelvic organs, why should not a searching enquiry be made into this matter? The prejudice of asylum superintendents, who may or may not be capable of diagnosing such conditions, should not obstruct progress in this department. So far I have had the opportunity to examine but four of the patients in our asylum ; one here reported ; a second, subject to epilepsy, had undeveloped uterus and ovaries ; a third, retroversion with adhesions, and a fourth, upon whom I operated but a few days ago, had varicocele of both ligaments, peritoneal cysts and calcareous deposits in ligaments.

I would urge upon every physician the necessity of making a thorough pelvic examination under anæsthesia of every case before signing papers of commitment. If the physician has not the experience he should associate himself with one who has had special training in this department. Such careful discrimination would send at least one patient to the hospital for every two sent to the asylum. As a rule the patients are ignorant of their physical condition, and do not complain of pelvic pain or inconvenience. In personal communication with Dr. Hobbs he stated that his best results have followed the removal of fibroid and cystic ovaries. The case here reported falls within this classification. It would be interesting to continue the analogy in the treatment of the opposite sex. A very limited experience has shown a striking parallelism.

## BERMUDIAN NOTES

BY J. B. FRASER, M.D.

TORONTO.

THE "Bermudas" are a group of British islands lying in the Atlantic Ocean, south of Halifax and 726 miles S. E. of New York. Leaving Toronto on the 15th of December, we arrived in Bermuda on the 18th, it taking only three days to make the trip.

The climate here is very different from that of Ontario. We found the weather mild, even warm at times, men were wearing straw hats and white flannel suits. Women appeared in muslin dresses and carried sunshades; while in the gardens, roses, lilies, pansies, geraniums, etc., were in full bloom; the fields were green, and trees in full leaf—some in flower.

The temperature varies only about 35 degrees throughout the year, ranging from 50 degrees F. in midwinter to 85 degrees F. in midsummer, with a mean average of 66 to 68 degrees F.

The rainfall is not excessive, and on account of the porous condition of the soil is speedily absorbed; in fact, one half hour after a heavy rainfall the water has disappeared, leaving the roads comparatively dry. One can always count on two health-giving principles, viz., plenty of sunshine and fresh, invigorating sea breezes; and as there are no large factories the air is never smoky, but clear and bracing as a rule. There are occasional fogs in the morning, but the sea breeze soon clears the air.

There are about 15,000 inhabitants (including the soldiers) of which about 60 per cent. are colored.

There is no such rush or bustle in Bermuda as we have in Canada, nor the extremes of wealth and poverty, as both money and property are more evenly distributed than with us.

The average house is built of soft limestone covered with cement, roofed with the same material, and having a gutter running around the lower edge of the roof to convey the rain-water to a cistern; this is their only source of obtaining water for domestic use, as there are no springs, creeks, or rivers in Bermuda. The

water is palatable, not differing much in taste from Lake Ontario water. The government passed a law compelling householders to whitewash their roofs at stated periods—this helps to keep the water pure and free from organic matter.

The old system of privy pits is still in general use, some use the dry-earth closet, but as they have not a system of waterworks, even in Hamilton, the modern arrangements are seldom seen. The streets of both St. George and Hamilton are lit with kerosene lamps, as they have neither a gas nor electric light plant in the islands.

For board and lodging in private houses one has to pay \$10.00 to \$12.00 per week ; hotel rates are from \$15.00 to \$20.00 per week. The roads are excellent, they are smooth and firm and in many places are cut through the rock—in places the cutting is from twelve to fifteen feet deep. They have some fine horses and carriages, but also use donkeys for light work.

The islands are strongly fortified, and as Bermuda is the headquarters of the British North American fleet there are usually several men-of-war in the harbor, each with its complement of marines.

I am told that about once a year the military authorities take possession of the main roads, closing them by means of a chain across them, but with a soldier in attendance who will at once lower the chain if requested to do so—this is to show that the military authorities take precedence over the civil, and that Britain looks upon Bermuda as a naval and military station rather than a colony.

One of the attractions to the tourist is the dock-yard where the vessels of the British North American fleet are cleaned and repaired:

Here is seen one of the largest floating docks in the world; it is built of iron; was made in Britain, and towed across the Atlantic to Bermuda. It is a huge structure with the sides towering many feet above the sea, and large enough to accommodate any ordinary vessel or man-of-war. After entering the dock the water is pumped out of it, and although both dock and vessel are away from land the workmen can scrape or repair the hull as well as if they were on land.

The town of St. George was for many years the principal port, and did more business than Hamilton, but of late years the latter has overtaken and passed her rival. Some of the streets of St. George are so narrow that two carts cannot pass each other, but the main streets are of respectable width although too narrow for sidewalks. From Fort George one has a magnificent view of islands;

sky and water ; reminding one of our own Thousand Islands.

At each side and rear of the Episcopal church are some old gravestones, and what strikes one forcibly is the curious method of burial. Instead of digging they build a square retaining wall of masonry about two feet high, place the body inside of this, and cover with solid masonry arched longitudinally ; this makes a small closed vault which has to be broken open and cemented again if another body is interred ; their reason for this method is the shallow soil, as the rock is at or within a few inches of the surface in nine out of ten cases. At times you see several graves side by side, all one pattern, all white, and most of them with inscriptions at the end of the grave.

## LAVAGE OF THE ORGANISM IN ACUTE COCAIN POISONING.

Experimental Researches of DR. CARLO BOZZA, of the University of Naples.

A NEW general method of cure for all poisonings can be found in lavage of the organism, as proposed by Sanquirico. The latter—starting from the known canon of the pathology of the blood, “that the organism in normal conditions is endowed with a regulating power so quick and certain as to tend always, in qualitative and quantitative changes of the blood, to resume its original physiological condition” by means of the wonderful harmonious mechanism of hæmatopoiesis and secretion—endeavored to utilize the fact of the ready elimination of neutral liquids injected into the blood, with the object of freeing it mechanically from heterogeneous substances which might injure it.

This process, consequently, has nothing to do with the experiments of Landerer, who introduced into animals poisoned by chloral, etc., from whom a definite quantity of blood had been taken by blood-letting, an equal quantity of solution of chloride of sodium. The principal aim of Landerer was that of making the heart more active and also that of having a more rapid reformation of the blood.

Lavage of the organism, as I have practised it in my experiments, rests on the known fact that the vascular tree has the property of allowing itself to be distended, without experiencing any local or general change, by liquids injected in considerable quantities; and it proposes to quickly eliminate from the organism poisonous substances introduced in fatal quantities, by means of the secretory hyper-activity induced by the increased arterial pressure.

From what we have said one can infer that the advantages to be derived from lavage of the organism must, without doubt, be ascribed:

1. To the greater dilution undergone in the blood by the poisonous substance, which therefore reaches, in a smaller quantity, the anatomical element, upon which it exerts its elective action.

2. To the more rapid and certain elimination of the poison produced (*a*) by the gradual increase of the blood pressure, the mass of the blood plasm being increased by the addition of the sodium solution; (*b*) by the greater fluidity of the blood which, (Cohnheim) while it facilitates renal filtration, permits the heart to overcome more easily the resistance of the vessel walls.

3. To the lessened absorption of the substance administered, on account of the increase of the intravascular pressure, since, as we know, the fulness of the circulatory system is an obstacle to absorption.

It seems evident, therefore, that lavage of the organism, resting specially on the strength of the cardiac contractions, and upon perfect renal functions, but also on the sweat secretion, can be assisted, whenever possible, by the administration of digitalis and pilocarpin.

Sanquirico, in a series of experiments extended over many years, tried with varying results lavage of the organism in many poisonings, by strychnine, alcohol, chloral, nitrate of aconitine, urethane, caffeine.

Continuing such experiments, I have tried to find how far lavage of the organism can avail against acute cocain poisoning, which is met with not very rarely, since this alkaloid has been used as an anæsthetic in minor surgery.

As a neutral liquid I have used a physiological solution of sodium chloride, which has the advantage of having no solvent action on the red corpuscles, and hence does not produce hæmoglobinuria. For instrument I have not been able to use the common syringes, because, having at times to introduce large quantities of liquid, I should have to make too many punctures. This would be more dangerous when compelled to make intravenous injections. I have used, therefore, Rogers' apparatus for intravenous injections, because it permits the gradual and regular entry of the liquid into the vein at a known pressure, without any danger of the entrance of air. The needle and all the apparatus were diligently sterilized and the liquid filtered and sterilized. I made these experiments with dogs, which were more available than other animals for my purpose. I have been able to prove that young and lively dogs, in whom consequently the cerebro-spinal system is more easily excitable, are more susceptible to the toxic action of cocain.

Starting from these data I began to try the effect of lavage as caused by abundant hypodermoclysis of artificial serum in an animal poisoned by the minimum fatal dose of cocain, and was able



to see that by lavage not only did the symptoms of poisoning become less severe, but also that the state of stupefaction which was wont to remain in the animals after the convulsive stage and which preceded the period of depression and death, was eliminated.

(Then follows a series of six experiments with different kinds of dogs, a record of their condition after the hypodermic injection of varying doses of cocain, also of their condition at different periods after the injection of the sodium solution. I simply give one of these experiments in this translation.

*Experiment 1.*—Young and lively bitch, with red hair. Weight, 6 kilos.

2.15 p.m. Hypodermic injection of 18 centigr. of cocain.

2.40 p.m. Up to this time the animal has remained crouching on the ground. It rises suddenly and shows restlessness. Hypodermic injection of 100 grammes of sodium solution; after which there is less restlessness. Mydriasis.

3.15 p.m. The typical agitation of cocain poisoning is now seen. The animal jumps about and executes circular gyrations. Injection of 300 grammes of sodium solution, making the animal quieter.

4 p.m. After a period of quiet the animal again becomes agitated. I make an intraperitoneal injection of 200 grammes of sodium solution, since the extreme compactness of the subcutaneous cellular tissue makes absorption so slow.

The animal survived. Altogether, 600 grammes of sodium solution were injected.)

From these experiments I can make the following deductions :

(1) While the minimum fatal dose of cocain muriate administered hypodermically is 0.025 gr. per kgr., one can inject, of the same drug, without fatal result—

(a) Gr. 0.03, if we follow the said injection with hypodermoclysis;

(b) and 0.035 gr. per kgr. if we follow the said injection with lavage of the organism by the injection of the physiological solution of sodium chloride.

(2) While the minimum fatal dose of cocain muriate administered fasting by the alimentary canal is  $3\frac{1}{2}$  centigr. per kgr., one can, with lavage of the organism, administer as much as  $5\frac{1}{2}$  centigr. per kgr. without fatal result.

The maximum limit of tolerability could be much greater if the toxic substance were given in broken doses, as Sanquirico did, rather than in a single dose; but I refrained from experiments by that method, because poisoning by cocain, whether accidental or with criminal or suicidal intent, rarely takes place in broken doses.—*Translated for THE CANADIAN PRACTITIONER, from Giornale Internaz. delle Scienze Medicne, February, 1898, by Dr. Harley Smith.*

## Selected Articles.

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### THE HYPODERMIC USE OF PILOCARPINE ALONE, AND ASSOCIATED WITH OTHER MEDICINES IN THE TREATMENT OF CERTAIN AFFECTIONS OF THE EYE.\*

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BY HERBERT BURNHAM, M.D. TOR., F.R.C.S. EDIN., M.R.C.S. ENG.

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1.—I shall begin this paper by giving a very brief summary of one case of rheumatic affection of the eyes, one of acquired syphilitic irido-cyclitis, and one of gonorrhœal irido-cyclitis, so that we may have placed before us some of the data upon which I have based my conclusions.

I may here observe that it is solely with the treatment of these diseases that I am dealing.

Robert M., aged 48 years, was sent to me by Dr. Tucker, Orono, in the year 1890. The general condition was that of chronic articular rheumatism, and so much crippled was he that he walked into my consulting room with difficulty, leaning on two stout sticks. Exposure seemed to be the chief cause of the disease. The condition of the eyes was very grave. The centre of each cornea was thickly studded with small closely placed infiltrations, occupying a space larger than the pupillary area, but having a rim of clear cornea. In the left eye these infiltrations were undergoing undoubted calcareous degeneration. There was an iritic adhesion in one eye. Vitreous slightly hazy; no change in either fundus. R. eye: vision, a few letters of Snellen type for distance, No. xx. at six inches; and L., a few letters of No. xv. of the same type at six inches. He could not even guess the time on looking at the face of a watch with big-figures and hands. The eyes first became affected three years prior to consulting me, and during this time there had

\* Read before the Ophthalmological Section of the British Medical Association held at Montreal, August-September, 1897.

been inflammatory attacks, with subsequent deterioration of sight. He had been under the care of specialists, and though given very careful local and general treatment, the eyes had steadily gone from bad to worse. Iridectomy had been advised.

On putting himself under my care I at once began the hypodermic use of pilocarpine. He seemed to have received every form of treatment save this.

To begin with I used it every day for three weeks, the dose varying from gr.  $\frac{1}{12}$  to gr.  $\frac{1}{4}$  and a few times it was even larger. At the end of this period he could easily make out the time by an ordinary watch. He returned every six to eight weeks, and received each time seven to ten injections. From the beginning of the treatment there was an uninterrupted improvement, both as to the eyes and the general condition. Every six to eight weeks during 1890, 1891, 1892, 1893, and 1894 these injections were given. The vision gradually improved till in 1895 it was  $\frac{2}{5}$ . In April, 1895, an interval of almost one year, during which no treatment was carried out, his sight remained the same. The vision is now—that is one year ago, when last seen— $\frac{2}{5}$ . He is now very active, and can run up and down ladders with great ease and quickness.

The hypodermic injections of pilocarpine were discontinued, as he could not attend any longer, and besides saw and felt so well that he was contented.

In his case the cornea did not further clear up after the cessation of the use of pilocarpine. I have observed that as long as an improvement is produced by the pilocarpine its use must be maintained if the improvement is to be continued; otherwise, with the cessation of its use, there is no longer any improvement. This non-progress does not mean relapse, it only means the progress established goes no further. This rule has, of course, exceptions, but my experience teaches me that in the main it is adhered to.

I shall now mention the case of syphilitic affection of both eyes treated by mercury and iodide of potash given internally and pilocarpine hypodermically.

2.\*—July, 1894, a man, aged 30 years, was sent to me, suffering from acquired syphilitic inflammation of both eyes of at least nine months' standing. The treatment of the eyes during this period had been by mercury and iodide of potash internally, and atropine locally. However, the eyes had steadily got worse, till when I saw him the condition was as follows:

Left eye: much conjunctival and ciliary injection, pain at times,

\* *Archives of Ophthalmology*, vol. xxiv., No. 3, 1895.

aqueous turbid, many lymph dots on the posterior surface of the cornea, very many posterior synechiæ, some being broad and dense with the deposit of a membrane of lymph in the pupillary area ; V. = p. l. only.

Right eye : letters of No. xl. of Snellen type for distance at eight inches : cornea and aqueous very slightly affected, if at all ; posterior synechiæ more numerous and broader, so as to be almost without a break, *i.e.*, so as to form almost one solid ring of adhesions, and the lymph deposit in the pupillary area thicker. I continued the mercury and the iodide. At the end of five weeks no improvement had taken place—in fact the eyes were worse.

I now made a change in the treatment, as follows. I still continued the internal use of mercury and the iodide of potash, and added pilocarpine, giving it hypodermically. This treatment was kept up for nine months, and the result at the end of that time was: right eye =  $\frac{2}{4}$  and left eye =  $\frac{2}{20}$ . The deposit of lymph once markedly present in the pupillary areas seemed to be practically gone in the left eye, and much lessened in the right ; and of the posterior synechiæ, some had given way, others had become so thinned that persistence in treatment was, I believe, only needed to cause all of them to snap asunder.

This case, I hold, has made manifest the superiority and value of the combined form of treatment, *i.e.*, of mercury and iodide of potash internally, and pilocarpine hypodermically, over the ordinary routine of mercury and the iodide of potash.

3.—My third case was one of very severe gonorrhœal iridocyclitis, with p. l. only : aqueous hazy, and many posterior synechiæ with exudation of lymph into the pupillary areas. Here atropine and leeching locally, with mercury and potassium iodide internally were used with benefit for ten days. Then there was a return of the severe pain, and the pupils which had dilated partially and irregularly, began apparently to contract, an appearance due to the presence of active inflammation of the ciliary region. I now added pilocarpine, giving it hypodermically, to the treatment, with immediate and marked benefit. The vision finally became  $\frac{6}{9}$  correctly, though mistily, which latter condition was due to the thin lymph still lingering in the pupillary areas. This only requires further treatment to be fully removed. This, however, he has not as yet returned to receive.

From the foregoing brief account, and after careful observations upon the effect of the treatment, continued over seven years, I feel that I am justified in drawing favorable conclusions as follows :—

The first case narrated—and I have others of a like nature which strengthen my opinion—clearly shows, I think, the great and lasting benefit of the persistent use of pilocarpine given hypodermically in long-standing rheumatic disease of the eyes, and incidentally in the general rheumatic condition. I think that in this case the addition of the internal use of medicine would have been beneficial, but none was given.

The second brings markedly to our notice the brilliant and rapid improvement through the addition of pilocarpine used hypodermically. Here we see the gradual removal of long-standing and organized exudation, a most important and significant result. I wish also to draw your attention to the permanence of the curative effect; for never since the use of the combined form of treatment has there been any relapse.

The case of gonorrhoeal irido-cyclitis, which under ordinary treatment would have, at the best, left the vision much impaired, showed under the combined treatment immediate improvement; and I am confident that by persistence in the treatment normal vision would have resulted through the removal of the exudation.

My method of administration is as follows:—The mercury I give in the form of pulv. hyd. cum creta and pulv. Doveri made into pill mass and put into capsules. This is given before eating, and the iodide after eating. My procedure regarding the pilocarpine is as follows:—I give it in the afternoon and keep the patient in the house afterwards, not allowing him to leave it till the next day, when in suitable cases he can go out and take exercise, sometimes even follow his occupation. Just prior to giving the injection he is put to bed, lying between flannel sheets and dressed in a flannel suit. The temperature of the room is about 75°.

The covering over him is a blanket well tucked in. In a few cases where, under the influence of the drug, the feet become cold, I place a warm bottle to them. The patient also holds to his mouth a large cup to catch the saliva that flows freely. The solution is pilocarpine muriat. gr. v. aq. destill. ℥i., *i.e.*, gr.  $\frac{1}{4}$  to *miii*. It is injected into the forearm, and the amount being small in quantity makes the subsequent tenderness very slight. He remains in bed for one and a-half to two hours, and, on getting up, is wiped down with warm towels, and is then free to go about the house, but not to go out till, in suitable cases, the following morning.

Eight weeks I have found clinically to be the longest interval between each group of injections that can be profitably allowed, and three weeks the shortest. But this latter interval is only made

use of in the beginning of the treatment. Later on the interval is extended to six or eight weeks. It is very necessary, indeed, not to cause intolerance of the drug, but at the same time important to use it as fully as it can be borne. In retinal and retino-choroidal affections I feel that the combined method will be found in a certain proportion of cases to be more reliable and satisfactory in its results than the remedial measures now used.

In a few cases of optic neuritis, with copious exudation, it has seemed to accelerate absorption. The action of pilocarpine appears chiefly to be upon the nervous and absorbent systems, and hence the intensifying of the action of other medicines when it is associated with them ; and also the necessity of a careful routine such as I have indicated during its administration.

The combined form of treatment, having been found so useful in the diseases of the eye above mentioned, should be of equal value in the treatment of other parts or organs of the body that may become affected by the same diseases, and where what may be termed the usual remedies have failed to be of service.

However, there is one intractable affection of the eye in which I have not had the opportunity to try the combined treatment, *i.e.*, sympathetic ophthalmitis. I have a feeling that it should be of signal benefit in this disease. My own faith in this combined form of treatment is now so established by reason of its uniform success that I consider myself justified in recommending it with confidence to the favourable consideration of the members of the medical profession.—*Review of Ophthalmology.*

# Progress of Medicine.

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## OBSTETRICS

IN CHARGE OF

**ADAM H. WRIGHT, B.A., M.D. Tor.,**

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the Toronto General Hospital

AND

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ASSISTED BY

**H. CRAWFORD SCADDING, M.D.,**

Physician to Victoria Hospital for Sick Children and St. John's Hospital.

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### HUNTERIAN SOCIETY.

The Hunterian Oration was delivered before the society by Dr. Peter Horrocks, who gave William Hunter's description of the placenta of 100 years ago, and showed that in its essential features it was identical with the latest description, namely, that given by Professor Leopold, of Dresden. He pointed out that the maternal and foetal circulations were quite separate and distinct, although the two bloods were brought into very close contact, and that there was no nerve connection between mother and foetus. He then described the ovum and the sperm. Many illustrations were shown on the screen by means of limelight lantern slides. He discussed the heredity of an individual derived from the germ, and also from the sperm, and then showed that the united germ and sperm was influenced by the mother through her blood causing the growing embryo and foetus to be modified in such a way as give it additional heredity, which might be called intra-uterine maternal heredity. He showed how this might be modified by conditions in the mother herself, such as food, work, environment, and disease. He showed that there was good reason for believing that poor living and hard work tended to produce males, whilst high living, especially abundance of fat, warmth, and leisure, tended to produce females. The

statistics of the Guy's Lying-in Charity, taken entirely amongst poor people, and collated by the late Dr. Braxton Hicks, Dr. Galabin, and himself, showed the ratio of 100 boys to eighty-nine girls, whilst our own Royal Family showed in the Royal Blue Book that out of fifty-four descendants of the Queen thirty were girls and twenty-four boys, the ratio being 100 girls to eighty boys. Dr. Horrocks then dealt with the subject of syphilis, and showed that the ovum in the ovary, the fertilized ovum *in utero*, and the embryo and foetus *in utero*, might each one become syphilized through the mother. The subject of maternal impressions was mentioned, and details of published cases were given, but on the whole it was doubtful if they could be accepted as scientific, and from the numberless instances where mothers during pregnancy were profoundly affected by some great fright or other emotional disturbance, and yet no result whatsoever was manifest in the child, it was very unlikely that the foetus ever was or could be affected in such a manner. The total absence of all nerve connection between mother and offspring *in utero* bore out the same idea. The effect of the united germ and sperm, and of the growing embryo and foetus *in utero* upon the mother was then described, and it was shown that there was very good reason to believe that the mother was affected through the contiguity of her blood with the offspring by the father of her child, through the sperm, and that therefore a wife who became a mother was so affected by the father of her child as to show such influence upon succeeding children by a different father. The subject of transmutation in transmission was discussed, and also the question of heredity of diseases now said to be caused by microbes.—*British Medical Journal*.

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#### ABDOMINAL SECTION AS A MEDICAL MEASURE.

Mr. Frederick Treves (*Br. Med. Jour.*) concludes a paper on this subject in the following words :

In conclusion, I cannot avoid one word on the subject of this self-same exploratory incision. That this simple procedure has been of enormous value no one will doubt; that it has been the means of saving many a life has been amply demonstrated; that it has enabled a correct diagnosis to be made and a logical treatment to be carried out in hundreds of obscure cases needs not to be insisted on; but there must arise in the minds of many the question whether the exploratory incision, infinite as its value may be, is an entirely unmixed blessing. I notice that there are indications which tend to allow this ready measure to replace the admirable labor of



clinical observation. The incision is so simple, the collecting and arranging and judging of clinical evidence is so difficult and tedious. With a scalpel in the hand, the patient, searching examination of the abdomen as practised in older days is no longer needed, and it is a question whether the education of those who wish to become acute clinical observers has not suffered a little thereby.

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#### THE TREATMENT OF VAGINITIS AND ENDOMETRITIS WITH LACTIC ACID.

W. Ilkewitsch (*Antr. f. Gyn.*, Oct. 30th, 1897) gives an account of his experiments with lactic acid in the treatment of vaginitis and endometritis. He bases his claim for therapeutic value of this agent upon the following observations made by himself and other clinicians: The acidity of the vaginal secretions is due chiefly to the presence of lactic acid, which is either a product of bacillus *döderleini* or of the physiological activity of the vaginal walls, or both. He lays stress upon the fact that in 99 out of 100 cases, when the vaginal secretions are distinctly acid, pathogenic micro-organisms cannot be found therein, or if so their virulence is markedly impaired. In the secretions of the normal vagina of a pregnant woman 0.4 per cent. of lactic acid was found. The growth of the streptococcus pyogenes was inhibited when the bouillon culture contained 0.1 per cent. of lactic acid, though the staphylococcus pyogenes required 0.4 per cent. before it yielded.

The author irrigates the vagina with about 800-1000 c.c. of a three per cent. aqueous solution, and claims to effect therewith a complete destruction of all micro-organisms present. To cervical erosions and uterine mucosa he applied the remedy in strengths varying from 50 to 100 per cent. From a careful study of a limited number of cases he draws the following conclusions: (1) That the topical application of lactic acid to the endometrium markedly diminishes the amount of fluor albus; (2) that irrigations of the vagina with a three per cent. solution destroy saprophytic and pathogenic micro-organisms and cure colpitis; (3) that the same solution removes unpleasant odors; (4) changes the color of the discharge from yellow-green to white; (5) that it is a safe remedy in ambulatory cases, even with an existing salpingo-oophoritis; and (6) the remedy will, in many cases, replace curettage.—*Am. Gyn. & Obs. Jour.*

# MEDICINE

IN CHARGE OF

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AND

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ASSISTED BY

JAMES G. CAVEN, M.B.

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## INTESTINAL FEATURES OF TYPHOID FEVER.

Osler (*Phil. Med. Jour.*, Jan. 1st, 1898), contributes an excellent article on the above subject. He says that "the severity of the symptoms of typhoid fever bears no relation to the extent or intensity of the intestinal lesions." He characterizes the plan of treating the disease as of an enteric rather than of a systemic nature as being "wrong in the worst possible way, in principle as well as in practice." There may be localized pain in the right iliac fossa, and several appendicectomies have been done because of mistaken diagnosis.

With regard to early purgation, he says: "While gentle laxatives are not specially contra-indicated, yet I think free and active purgation at the outset of the disease is decidedly harmful," and he commends Graves' remark that "patients who have escaped active purgation before admission to the hospital get through the disease with little or no tympanites."

For many years past his practice has been "not to disturb the bowels in the course of the disease with the exception of a few doses of turpentine for tympanites, or measures directed against hæmorrhage or active diarrhœa." He occasionally gives castor oil for the constipation of convalescence, but never uses the so-called intestinal

antiseptics, nor purgative salts. If the bowels are at all constipated he gives injections, or dilutes the milk and increases the amount of albumen water. His experience has taught him that the cases with constipation do better than those with diarrhœa. Meteorism is usually an accompaniment of diarrhœa and is rarely present with constipation. It is of grave omen and hard to combat. Diarrhœa during convalescence is usually due to persistence of ulceration in the large intestine and may prove very intractable. Of his last ninety-nine cases four died and none of these from any intestinal complication. He used no measures directed either to disinfection of the bowel or to the removal of supposed irritants, etc. "Calomel, mercuric chloride, Yeo's chlorine water, salol, creosote, guaiacol, beta-naphthol, benzo-naphthol, and the shot gun compound of Dr. Woodbridge are now much in vogue, and this at least can be said—that they probably do no harm." The typhoid bacilli do not multiply and develop their poison to any considerable extent in the intestinal contents themselves and such measures are not indicated, and his results with the non-interference plan have been quite satisfactory.

He uses very vigorous language in speaking of the Woodbridge treatment, and scores Dr. Woodbridge's book most severely. "Every intelligent physician," he says, "must be impressed first with the crude unscientific character of his work and with the ignorance everywhere displayed of the nature of typhoid fever; and, secondly, with the persistent vaunting of a specific or cure-all for it. Dr. Woodbridge is a devoted, earnest man, who honestly believes in his plan—but until the presentation has been made in a very different way, I can no more accept his statements than those of any other misguided enthusiast who has been fortunate enough to have his wares exploited in the profession by a drug house of repute."

#### POST-TYPHOID FEVER.

J. M. DaCosta (*Phil. Med. Jour.*, Jan. 1st, 1898) refers to cases often met with after an attack of typhoid fever in which the temperature, which may have become normal, rises again and persists for an uncertain length of time. He suggests the name post-typhoid fever for the condition, and warns us not to confound it with true relapse or with cases in which some local condition, such as phlebitis, periosteal lesions, local pleurisy, nephritis, otitis, bed-sores, boils, constipation, unhealed ulcers with diarrhœa, or a dysenteric state, is the cause of the febrile condition. The fever is of very moderate

character, continuous, and without marked remissions or changes, and usually lasts eight or ten days, though it may persist much longer. The most peculiar feature of those post-typhoid fevers consists in their being continuous or nearly so with the original attack, and not setting in like true relapses after a period of ten days or more. There are no other symptoms than the fever—no fresh eruption of spots, enlarged spleen, or diarrhœa.

Transitory rises of temperature may, it is true, result from indiscretions in diet, but the frequency of this cause is greatly over-rated. Mental emotion may also cause a rise in temperature of short duration. But, eliminating all those conditions, there yet remains to be explained cases coming on at the end of the typhoid attack in which everything else points to convalescence but fever springs up unaccountably and of uncertain duration.

This post-typhoid fever beyond being a source of great uneasiness to patient, friends and physician, does not lead to any serious consequences. Its cause is uncertain. DaCosta is inclined to think that the fever is neurotic and to be explained by the ill-nourished heat centres having been so long disturbed that they have become unstable—a kind of fever habit being developed in them, which is not easily shaken off. The anæmic state may, however, assist in its production.

The best means of treating such cases is by cautiously but rapidly improving the diet, giving easily assimilated tonics such as the lighter preparations of iron and strychnia, and, above all, by getting the patient out of bed and rapidly increasing the time he is to sit up daily. Temperature observations should be made as seldom as is consistent with the necessities of the case. It is, says the author, surprising how soon the fever stops under this plan of treatment, no matter what may have been its length.

# THERAPEUTICS

IN CHARGE OF

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AND

WILLIAM LEHMANN, M.B. Tor.,

Physician to the Home for Incurables and House of Providence.

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## ARTIFICIAL SERUM IN TOXÆMIA.

There is a steadily growing body of testimony as to the value of subcutaneous injections of artificial serum in eclampsia and all cases of toxæmia. The best fluid for injection seems to be a modification of Ringer's fluid as advised by Edes (*Boston Medical and Surgical Journal*, March 4th, 1897.) It consists of:

Calcium chloride.....	0.1 gramme.
Potassium chloride.....	0.75 grammes.
Normal salt solution.....	1.000 c.cm.
	(75 per cent. solution.)

The fluid should be injected slowly into the cellular tissue, not into a vein. Absorption from the cellular tissue is very rapid, and the injection is not accompanied with the same danger as in direct injection into a vein. The method is worthy of a wide trial in toxæmia, and especially in uræmia, and seems to offer a chance of recovery to many almost inevitably fatal cases.—*The Practitioner*.

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## CARE OF THE TEETH.

The following directions, taken from *The British Journal of Dental Science*, are evidently written by a practical man:

“In addition to the use of a suitable tooth-brush and tooth-powder on the teeth, there is no practice which commends itself so highly as the use of a piece of silk thread. It will take the average person some time to become expert in handling it; but when this

is attained, it will be acknowledged the best toothpick and beautifier of teeth in the world. Cut off from the reel a piece of silk about fifteen inches long, which thoroughly wax. With the thumbs and forefingers carry the waxed floss silk into each space between the teeth, the remaining three fingers of each hand being used to hold on to the ends of the silk firmly. The thumb and forefinger of each hand, as they hold the silk, should be kept but a very little farther apart than the width of the teeth between which the silk is to be passed. Thorough tension of the silk must be kept up at all times. For the eight teeth on the left side of the upper jaw, pass the silk over the end of the left-hand thumb and over the end of the right-hand forefinger. Thus the palm of the right hand and the back of the thumb of the left hand will be toward the face. Hold firmly, slide it between the teeth with a gliding motion; carry it well down between the necks of the teeth and the free edges of the gums, but not in such a manner as to wound the latter, the pressure being properly brought against the teeth, not against the gums. Before sliding the silk from between the teeth, the silk may be rapidly drawn backward and forward on the necks of the teeth, thus polishing and preserving these surfaces, and 'raking out' any deposits of food or incipient tartar which may be there. The silk should be slid from between the teeth with the same tension as when it is introduced between them, otherwise it will tear when the teeth are very close together. If this rule be observed and the silk still tears, it indicates one of several conditions—a cavity of decay, a scale of tartar, or a sharp point or jagged edge of the tooth, any of which conditions should be corrected by a reliable dentist."—*The Practitioner*.

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#### SCARLET FEVER.

Seibert (*Arch. of Ped.*, September, 1895) has found that inunctions of a 5 per cent. ointment of ichthyol have been followed by a most marked effect upon the local condition of the skin, producing decline of fever and improving the general condition. The swollen red skin shrinks and turns pale brown; the temperature falls 3° to 4° within two hours; and the nervous, itching, peevish child becomes quiet and usually goes to sleep. While he does not believe that the treatment has any specific effect upon the character of the general infection in scarlatina so as to change a malignant case into a mild one, he is convinced that the ointment applied in these cases destroys most of the bacteria causing scarlatinal dermatitis, and thereby materially aids in overcoming the general infection.—*The Practitioner*.

## FISSURE OF ANUS.

For the relief of painful anal fissure, Allingham recommends the following ointment :

Extract of Hemlock . . . . .	5 grammes
Castor Oil . . . . .	15 "
Lanolin . . . . .	30 "

To be applied to the parts after each action of the bowels.—*The Practitioner.*

## A NOTE ON TRIONAL.

A safe, efficient, and easily administered hypnotic is a distinct addition to our armamentarium, and as fulfilling these conditions, the result of a six months' constant use of trional may be of interest.

I have given it to produce sleep in cases of pneumonia, bronchitis, alcoholism with delirium, insomnia from mental worry, and other forms of nervous insomnia, and I have invariably found it satisfactory. It is rapid in its action, and it has these advantages over sulphonal or the bromides, that it is more certain and does not produce the disagreeable sequelæ of sleepiness, lassitude, and depression on the day following its exhibition. Nor have I observed any derangement of the digestive system in connection with its administration. An initial dose, gr. xx or xxiv, may usually be reduced to xv or less, and in this way trional becomes invaluable for breaking a pernicious habit of sleeplessness, where a few good refreshing nights may restore the normal habit of sleep. Even in cases of confirmed insomnia, which have been treated unsuccessfully by chloral, paraldehyde, and the whole gamut of hypnotics, each drug having in turn to be increased in dose until it finally loses all power or becomes dangerous, trional in my hands has afforded marked relief without apparently any ill effect, and has given tranquil, refreshing sleep without any increase of the initial dose.

One patient, a retired navy surgeon, a museum of complaints—mitral insufficiency, gout, eczema, albuminuria, and marked emphysema—who has had every known hypnotic for his obstinate insomnia, has been taking by my advice trional 15 to 20 grains for the last five months almost every night. He has never had to increase the dose, and I have never detected anything but a good result from his continued use of the drug. I am confident that his heart has much benefited by the regular sleep, and his nocturnal attacks of dyspnoea are now unknown. I find trional is easily taken in cachets or suspended in hot milk or water.—*J. Arthur Browne, B.A., M.B., in British Medical Journal.*

# ORTHOPÆDIC SURGERY.

IN CHARGE OF

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Surgeon to Industrial Refuge.

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## CORRECTION OF SPINAL DEFORMITY BY MANUAL FORCE.

Some time ago the attention of the readers of this journal was drawn to the fact that Calot, of Paris, had, by traction and manual force, succeeded in largely correcting the deformity resulting from Pott's disease, in quite a number of selected cases. Since that time surgeons in England and on the Continent have operated on similar cases with good results, but until recently the operation has not been attempted in America.

Dr. V. P. Gibney, Surgeon-in Chief of the Hospital for Ruptured and Crippled, New York, writes (*N. Y. Medical Journal*, Mar. 26th, 1898):

"At the Hospital for Ruptured and Crippled we are so familiar with the correction of deformity at the hip and knee, and even at the ankle, that the attempts at correction of deformity of the spine have not seemed especially hazardous, especially if one takes pains to employ absolute immobilization immediately after correction."

He also gives notes of three cases operated upon, two of them deformities following Pott's disease and one a case of rotary lateral curvature.

*Case 1.* M.D. Boy, 12 years of age. The history was vague, although it was reported that he had "spinal trouble" as long as he could remember. There was no history of any treatment. The boss occupied the lumbar region.

He walked very awkwardly, bending forward, and it was with difficulty that he could hold himself in an erect position. There was no psoas abscess, although there was some contracture of the psoas and iliacus muscles. All acute symptoms had long subsided.

The deformity was well marked before operation, and afterward, according to the tracings given, the spinal column was almost straight.



The operation took place on March 1st. Anæsthetic gas and ether. Two members of house staff held the lower limbs, [two the upper, and with a rest under the thighs and a broader one under the thorax, pressure was made over the boss. The parts yielded with a distinct noise heard all over the operating room.

Afterwards a close fitting plaster-of-paris jacket was applied in the recumbent position, especial care being taken to pad the parts where pressure had been made and also the bony crests of the ilium.

No interference with the respiration took place. No opiate was required and no sense of discomfort next day. There was no elevation of temperature, and patient was up on the third day and walking perfectly erect. The jacket will not be removed for several weeks.

*Case 2.* A.O.N. Age, 6½ years, suffering from Pott's disease, the boss occupying the mid-dorsal region. Had worn jackets nearly two years.

On March 8, was subjected to identically same treatment as in Case 1. The result was equally satisfactory, the deformity being almost entirely corrected.

The respiration was not interfered with to any extent. The pulsé was a little irregular a few hours after the operation, but all irregularity stopped before morning. He required no opiate, had no rise of temperature, did not complain next day. The third day he was up and around.

*Case 3.* Rotary lateral curvature. High degree of deformity in dorsal region, which had existed four years. She was rather short in stature and presented a typical, classic hunchback. Early in January an attempt was made to extend the spinal column in a horizontal position on a frame, but owing to evidences of chloroform-poisoning operation was discontinued.

On March 8th with hip rest under the hip, and broader rest in axilla, with patient on left side, powerful traction was made by two assistants at either end, and manual force applied over deformity, resulting in forcing the spinal column into much better position, although the deformity was not fully corrected.

There was a gain of at least an inch in height.

The plaster-of-paris jacket was applied and there was no reaction whatever.

It was the intention of Dr. Gibney to repeat procedure within a week or two.

# HYGIENE AND PUBLIC HEALTH

IN CHARGE OF

**WILLIAM OLDRIGHT, M.A., M.D. Tor.,**

Professor of Hygiene in the University of Toronto; Surgeon to St. Michael's Hospital

ASSISTED BY

**J. W. SMUCK, M.D.**

## REPORT OF PROVINCIAL BOARD OF HEALTH FOR FEBRUARY, 1898.

Monthly Report issued by the Provincial Board of Health, showing the deaths from contagious diseases in the Province as reported to the Registrar-General by the Division Registrars throughout the Province for the month of February, 1898.

Total population of the Province, 2,263,492. Total population reporting, 1,519,768, or 67%.

	Population.	No. of deaths and rate per 1,000 per annum.						Total.
		Scarlatina	Diphtheria.	Measles.	Whooping-Cough.	Typhoid Fever.	Tuberculosis.	
Cities reporting. 13 (100%)	432,675	6 (0.16)	11 (0.3)	0	5 (0.13)	6 (0.16)	55 (1.5)	83
Towns and vil- lages, 236. Reporting. 167 (70%)	315,622	6 (0.2)	10 (0.38)	0	1 (0.04)	7 (0.02)	34 (1.3)	58
Townships 496. Reporting, 373 (75%).	771,471	3 (0.05)	17 (0.26)	9 (0.14)	4 (0.06)	6 (0.01)	44 (0.7)	83
	1,519,768 (67%)	15 (0.1)	38 (0.3)	9 (0.07)	10 (0.07)	19 (0.1)	133 (1.0)	224

## RECOMMENDATION TO PUT THE MATERNITY BOARDING HOUSE ACT IN OPERATION IN TORONTO.

The Medical Health Officer has prepared his report in reference to the enforcement of the Act relating to maternity houses. After consultation with the Children's Aid Society, Sun. vside Orphanage,

Haven, St. Vincent de Paul Society, House of Providence, Salvation Army, and other institutions interested in the work, all of whom have promised hearty support in the event of the Act being put into force, Dr. Sheard reports:—"While I consider that the operation of the Act will not put a stop to child desertion, I think its tendency will be to decrease it, and am of the opinion that no reliable statistics can be obtained regarding the evils existing in connection with maternity houses, and children born therein, unless the Act be put in operation, and the working of this measure will not, in my opinion, be a serious expense to the municipality. I would, therefore, respectfully recommend that your board request the City Solicitor to prepare the necessary by-law declaring the Act to be in force within the municipality of the City of Toronto, and that the same be submitted to the Municipal Council for their adoption."

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#### THE MEDICAL MAN'S CIVIC DUTIES AND RESPONSIBILITIES TO HIS COMMUNITY, STATE AND NATION.

John Punton, M.D., in *The Alienist and Neurologist* says that much of the former influence wielded in the community by the medical men has been lost. The learned professions are now taking an inferior position in public estimation to that formerly occupied, and, therefore, it is interesting to see ourselves as others see us occasionally. Ex-president Cleveland criticizes the profession of to-day, and advises its members to take a deeper interest in public affairs and give the advice most needed to elevate the tone of public life. There are phases of sociology which every class of the community might well lend its best energies to improve.

The questions relating to insanity, common school education, matters relating to public health, the treatment of epilepsy, etc., demand attention which only especially trained minds can give. Mr. Cleveland says: "If laws were needed to abolish abuses which your professional investigations have unearthed, your fraternity should not be strangers to the agencies which make the laws. Let me also remind you of the application to your case of the truth embodied in the homely injunction 'If you want a job well done, do it yourself.' If members of your profession were oftener found in our national and state assemblies, ready to advocate the reformatory measures you have demonstrated to be necessary, the prospect of your bestowal upon your fellowmen of the ripened results of your professional labor would be lighter and nearer."

In Canada, the physicians who take a high rank in politics are too often those who have apparently forgotten the tenets taught

them in college, and instead of using the ability they have to further the cause of hygiene and public health, they become slaves to party expediency. The Provincial and Dominion Governments have done much to promote the public welfare in this direction, but as yet little or nothing has been accomplished by legislative enactment to stay the ravages of that insidious destroyer, the tubercle bacillus.

Our governments should be ready to hold up the hands of those who are trying to preserve the public health. Medical men in parliament should forget their party ties and endeavor to secure the enactment and enforcement of adequate laws along this line.

About a year ago the Medical Health Officer of Toronto undertook to enforce the law relating to the inspection of dairy herds, from which was obtained the city milk supply. The milkmen waited on the Government in a body and secured the withholding of the law for another year.

The question now naturally arises, what is going to be done? Are the ministers too busy to consider this matter? The two thousand, and over, physicians in this province can do a great deal to educate people along this line, and to assist in electing those who will support legislation, from whichever side of the House it may come, thereby helping to fight the battle of sanitation against every form of pecuniary opposition.

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#### LEPROSY CONFERENCE.

The following in brief are the conclusions of the Berlin Conference, October, 1897 :—

1. The bacillus lepræ of Housen is the virus of leprosy.
2. The mode of entry into the human organism is unknown.
3. Leprosy is a contagious disease, probably not hereditary.
4. Treatment has so far been unsuccessful.
5. Prevention is best secured by isolation.
6. Compulsory notification is recommended.

Next Congress meets in 1900, probably in Paris.

## Editorials.

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### THE GOVERNMENT AND THE MEDICAL PROFESSION.

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WHETHER from a lack of self-assertion on the part of its members or from a want of proper appreciation amongst men of other callings who have been handling the ropes, our profession appears to have been much overlooked in the active political life and government of Ontario. An able, energetic, well educated and popular man ought not to be any the less fitted to take a share in managing the affairs of the people because he is an active and successful physician or surgeon. He does not lose any portion of good sense, of knowledge of things in general, or insight into the wants of the people because he has superadded to these a knowledge of their bodily ailments and of matters connected therewith. On the contrary, many of the subjects which come up for discussion and direction by the Government have a relation more or less direct to the health interests of the people : markets, regulations regarding cattle and other domestic animals, milk, dairies and food supplies, drainage, water supplies, contagious diseases and the other numerous subjects with which the Provincial Board of Health deals ; vital statistics, the ventilation and sanitation of public buildings and institutions, the oversight of our hospitals, gaols, asylums, etc. So great is the number and importance of the subjects, some of which have just been enumerated, that the establishment of a portfolio of public health, either here or at Ottawa, has at times been mooted. Meanwhile the various sub departments dealing with these matters in the Province have been from time to time included in one or other of the Ministerial portfolios. Common sense would suggest, in the event of there being a vacant position in the Cabinet, that in making a selection from amongst a number of gentlemen equally well fitted by education and general knowledge and equally well informed as to the requirements of the people and the duties pertaining to an office, preference should be given to one whose train-

ing had given him special knowledge on certain subjects, such as those mentioned above. The profession has been recognized in the Governments of the Dominion and the other provinces, as witness Sir Charles Tupper and Dr. Borden at Ottawa, Hon. Dr. Parker in Nova Scotia, Drs. Harrison and Brett in Manitoba and the Northwest, besides many of our Lower Canadian brethren and others whose names will occur to our readers. Why should the case be different in Ontario, with her \$900,000 spent on her asylums, hospitals and other eleemosynary work, besides the large amounts of money and property, and the large interests involved in public health work? Two of the members of the Ontario Government have failed to secure seats in the new House; we think that Messrs. Gibson and Dryden deserved better treatment at the hands of their constituents, but as these vacancies have occurred there will probably be a re-arrangement of portfolios. In such an event we trust the Government will not continue to overlook the medical profession, the members of which, coming into contact with all classes of the community, wield a wide-spread influence throughout the country.

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#### THE DIRECTOR-GENERAL OF THE MEDICAL DEPARTMENT AND THE SERVICE.

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THE recent appointment by the Dominion Government of Surgeon Lieut.-Col. Neilson as Director-General of the Medical Department should be of immense advantage to the service. Surgeon Lieut.-Col. Neilson is the senior officer of the medical staff. He has had great experience, and has been connected with the force for over twenty-five years. He should make an excellent Director.

The medical department up to the present has been most severely neglected by the Government, no recognition whatever being given to the medical corps, and no allowance being made for regimental ambulance corps, either in pay, clothing or equipment. There are at present no medical staff corps, and regimental ambulance corps are, in the absence of a medical staff corps, an absolute necessity.

The different regiments having ambulance corps have to support these organizations out of their private funds, which is not right. At a first cost to the Government of say \$300, an ambulance bearer company of four-stretcher sections could be established and properly equipped, while a yearly allowance of \$104 would pay and maintain

the corps efficiently. Yet nothing whatever has been done, even when so small an outlay would so thoroughly equip a corps.

There are many other points of great interest, such as dress, rank (relative or substantive), title, etc., which are of vital importance, and to these points we do not wish at the present to refer. We will be glad to have an expression of opinion from the medical officers of the service on any point appertaining to the organization of the Medical Department.

A number of questions will undoubtedly arise in organizing the medical department to which the Director-General will have to give answers, and a few of them can be enumerated here.

Are two surgeons necessary to a regiment?

Should the formation of ambulance corps in the regiments be encouraged and placed on a pay footing?

Should ambulance corps, now existing as regimental accessories, be recognized or disbanded? Should army medical corps be organized?

How should army medical corps be officered?

Should the ambulance corps in the different districts be encouraged, paid, and given proper drill at the district camps by forming field hospital corps there and placing the same in their charge?

We are glad to know that the present Government is alive to the needs of the medical men, as evidenced by the above appointment. We sincerely hope that no change will be made until the views of the medical officers are obtained. Our columns are open for expressions of opinion, and these should be freely given, so that we may not be placed in the unenviable position of the medical corps in the Imperial service.

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### ISOLATION OF CONSUMPTIVES.

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THE best place for a patient with tuberculosis is a well-ordered sanitarium with healthy and cheerful surroundings. This fact is now fairly well appreciated by the public as well as the profession. Dr. Bryce, the secretary of the Provincial Board of Health, in his last report, referred to the prevalence of the disease throughout Ontario and the high rate of mortality therefrom, and expressed the opinion that there should be a sanitarium for every county.

We are glad to know that the trustees of the National Sanatorium Association are well pleased with the prospects for the institution at Gravenhurst. We quote the following from the *Mail and*

*Empire*, April 4th : "Senator Sanford, of Hamilton, paid a visit last week to the sanatorium at Gravenhurst. He spent some time in making a careful examination of the institution. While there he selected a site for a cottage, a gift of a friend, who is donating some \$2,000 for this purpose. This makes the third gift of this kind this year—the Frank Bull cottage, the Foresters' cottage, and the one for which the site has been selected by Senator Sanford. Some five additional patients were received in the institution within the past week, and from the numerous enquiries from different parts of the province there is every prospect that every available room will be occupied during the coming season."

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### ACCIDENT INSURANCE FOR PHYSICIANS.

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THE question of insurance against accidents is well worthy of careful consideration by the members of the medical profession. We have reason to believe that the average income of physicians in Canada is now less than it has been for many years, perhaps less than ever before. The writer was lately asked : "How many doctors in Toronto are saving and laying by one thousand dollars a year?" He could not tell, but thought—not many.

The physician and surgeon in ordinary routine practice is especially liable to meet with accidents. Not only has he to encounter dangers from the run-away horse, the railway, the trolley, etc., but also those arising from septicæmia. A number of years ago a run-away accident caused the death of one of Montreal's leading physicians. Although he had a large and lucrative practice he had saved nothing for his family. Only a few weeks ago a run-away accident killed Dr. Snelgrove, of Meaford. At the time of writing Dr. Jessop, M.P.P. of St. Catharines, is seriously ill from a similar accident. We might give many other instances of serious accidents to members of our profession, causing death or serious injury, but such facts are sufficiently known to all.

The death roll from septicæmia in this province is large, including such names as those of McFarlane, Fenwick, Saunders, Gardner, etc. We all have a fairly correct idea of the number of physicians who have died from various forms of septicæmia during recent years ; but probably very few of us have any adequate conception of the number who have met with accidents, accompanied or followed by septicæmia, which have seriously crippled them for some time. At the present time a leading physician of Toronto is recovering from a serious attack of septicæmia produced by an apparently



trifling cause; and yet only a small portion of the residents of the city know anything of the case.

Under the circumstances we consider it remarkable that the members of our profession are so careless about insuring against accidents. The great majority insure their property against fire, while only a small proportion, so far as our information goes to show, insure their bodies against accidents. We believe this should not be the case, because a broken thigh is quite as serious a matter both for a doctor and family as the destruction of a portion of his property by fire; while death from an accident is as great a calamity from a money point of view as the destruction of his house and furniture. We think, therefore, that every physician without independent means should carry an accident policy; and, at the same time, should be careful to deal with a reliable company, and have due regard to special clauses relating to septicæmia. In expressing these views with reference to accident insurance we have no desire to ignore the question of life insurance, which is of paramount importance. The receipt of twenty-five or fifty dollars a week by a physician who is incapacitated for work through an accident is rather *comforting* to the family. All things considered, we would be inclined to give life insurance first place, and, at the same time, give the accident insurance a *good second*.

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### THE INTERNATIONAL MEETING OF RAILWAY SURGEONS.

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WE learn from Dr. Riordan, the chairman of the Committee of Arrangements for the coming meeting of this large international society, that considerable progress has been made in the way of organization, and that much work is now being done. The Toronto City Council has promised a grant of five hundred dollars to be used in assisting to entertain the visitors. The various railway companies of Canada and the United States will do their share especially in bringing delegates to and from this meeting. The meeting will be held July 6, 7, and 8. It is rather unfortunate that two other important meetings will be going on at the same time, viz., the regular session of the Ontario Medical Council in Toronto, and the meeting of Life Insurance Medical Directors in Montreal.

This will be the eleventh annual meeting of the Railway Surgeons' Association, and the first held outside the borders of the

United States. The other places of meeting have been Chicago, Detroit, St. Louis, Omaha, Galvesion, Old Point Comfort, Denver, etc. The following extract from the constitution shows the aims of the society :

“The object of the association shall be to promote acquaintance and fraternal relations among railway surgeons, to secure interchange of ideas, and the adoption of the best methods of development and improvement of railway surgery, and to establish it as a special branch of the chirurgical art.”

The meeting will be held in the Normal School buildings, St. James' Square. There will be an exhibition of surgical appliances in the gymnasium. At Chicago last year thirty-nine manufacturers had exhibits, and it is expected that about thirty will have representatives present this year. A daily journal, *The Railway Surgeon*, will be published during the meeting. We indicated in our last issue the methods of entertaining which the local committee and the railway authorities had in view. We understand now that all the entertainments mentioned, together with the trip to Muskoka, are likely to materialize in a way that will be highly satisfactory to all the members and their friends.

# Meetings of Medical Societies.

## THE TORONTO MEDICAL SOCIETY.

THE regular meeting of the society was held in the council chamber on the 10th of March.

The minutes of the last meeting were read and adopted.

Dr. J. N. Elliott Brown presented a young man whom he had been treating for a sub-acute attack of rheumatism. His object in presenting the patient was not to call attention to the disease, but rather to the uncommon size of the man, who measured seven feet five inches in height. The patient was well formed and in good health.

Dr. Price-Brown read a paper on

### PHARYNGEAL MYCOSIS.

This was a comparatively rare disease, and when it did occur it usually affected some part of the fauces. It had various appellations depending on the situation of the fungus, but usually went by the above title.

It was a parasitic disease, composed of small, whitish yellow growths, dense in structure, and projected above the mucous membrane upon which it grew. It belongs to the schizomycetes species of fungus, a term applied to a variety of vegetable organisms found in drains, garbage, bogs, etc. These fungi may be found in milk, urine and watery solutions containing organic matter after exposure to the air for any lengthy period. The microscope reveals the thread or rod-like cells of the leptothrix, imbedded in amorphous granules. If treated with Lugol's solution these bodies assume a bluish tinge, indicating the presence of starch. The cells vary in form according to the anatomical region from which they are removed. When the fungus appears on the surface of the mucous membrane it may be merely superficial, or it may be inserted in a wedge-shaped manner in the parenchyma. In the one it is simply

attached *en masse* to the flattened epithelium, and is homogeneously striated in appearance. In the other, where it penetrates deeply into the epithelium, the growth is dense and more granular; and the microscope fails to demonstrate the rod-like cells. When the mycosis enters still deeper into the crypts, the latter become dilated, and filled with a fungus growth and degenerated epithelium. In these cases iodine staining brings out the thread-like bodies colored blue, and also the masses of amorphous matter.

The original source of the fungus is still a matter of question. The leptothrix is frequently found in the mouth, and is innocuous; but a condition of impaired health would appear to be all that is required to secure the attachment and growth of the fungus to the pharynx. The peculiar feature is that although the bacteria may be present in large numbers within the oral cavity, they should scarcely find a nidus for development there, and should prefer the faucial region. Possibly the intense muscular activity of the mouth may act as a deterrent to the leptothrix attachment.

Impaired health is supposed to be a predisposing cause. Sex has little if any influence; neither has age.

Dr. Brown said that he had seen only four cases. The first was in a man aged 50, the second in a woman aged 40, the third in a man aged 30, and the fourth in a girl aged 19, whom he presented to the society.

The third was very interesting. Two years ago the patient had suffered from chronic antral disease. Before cure could be accomplished openings had to be made through the alveolus and also the canin fossa. In time there was complete cure, and the patient returned home. One year after the patient came to the city to be treated for a chronic sore throat, which he had complained of for several months. On examination no sign of the antral disease was to be seen; but the lateral regions of the pharynx, the tonsils and the base of the tongue were studded with spots of the fungus *mycoides*. There was possibly one hundred of them. In inquiring for a possible cause it was ascertained that the patient had worked during the winter in polishing cows' horns. Sometimes the odor from the horns was very strong; and it was after pursuing this occupation for several weeks that his throat commenced to get sore. Could the leptothrix have been existent in the dead matter of the horns, the essayist asked, and the disease have been produced by the leptothrix spores with the powder from the surfaces?

There were few subjective symptoms in this disease. It produces no inflammatory action. It causes a feeling of stiffness rather

than soreness. As the plant increases and becomes scattered over a larger area, the movements of the pharynx become restrained, the muscles slightly stiffened, and partial dysphagia may result. A slight irritable cough may be produced. The fungus grows most luxuriant between the crypts of the faucial tonsils, next on the base of the tongue and lingual tonsil; then on the pharyngeal walls and last upon the pharyngeal tonsil itself.

Mycosis presents small creamy-white opaque masses projecting above the mucous membrane. They are soft and moist in appearance, but are not easily removed. They will stand a large amount of friction without separating their attachment. Usually a number of the plants are scattered over the area affected, varying in size from a pin's head to a millet seed or larger. There is no inflammatory areola around them. Sometimes they exist for years, presenting few symptoms of a distressing or injurious character.

Upon a hurried or casual examination, it might possibly be mistaken for diphtheria in its first stage. This could only be so when the nests are massed together; but even then the fact that it is non-febrile, undergoes no change, and is intensely chronic, should at once remove all doubt.

From sebaceous accumulations in the crypts of the tonsils it is easily distinguished, by the fact that the former only occur at the mouths of the crypts and are easily pressed out, while the leptothrix growth occurs indiscriminately independent of the position of the lacunæ; and can barely be removed by any amount of legitimate pressure.

There was little or no difficulty in making a diagnosis between this disease and tonsilitis. In pharyngeal mycosis there is nothing dangerous to life; and, as a rule, if left to itself, might last through a lifetime. It is quite probable that its long continuance might depress the vital forces and render the subject more susceptible to the influences of other diseases.

The treatment is the eradication of the plant. In a few recorded cases this has been done with facility; but in the majority careful and vigorous treatment has been required, and this has had to be persisted in in many cases for a long time before complete cure can be obtained. The tincture of iodine, silver nitrate, bichloride of mercury, calomel insufflations, have all been used with more or less efficacy. Chromic acid cauterization has its advocates. Curettement has also been recommended. None of these have met with as good results as the use of the galvano-cautery needle. It should be inserted directly into the fungoid deposit, and a number should be

done at each sitting. The use of cocaine would be required on each occasion; for although the cauterization would cause but slight pain, to do it effectually the parts should be kept at rest while the needle is being inserted. Hygienic treatment should always be insisted upon.

Dr. Ross asked if this disease had any relation to that which affects the gills of fish.

Dr. Brown replied that he did not know.

Dr. J. F. W. Ross reported some cases illustrating different phases of appendicitis, which will appear in May issue of *THE PRACTITIONER*.

Dr. F. Oakley asked how the diagnosis was made in the second case where the pain was on the right side.

Dr. A. A. Macdonald agreed with the essayist in regard to early operative treatment. Delay was dangerous. The so-called recovery in non-operation cases was not a permanent recovery. Referring to rupture following operation, Dr. Macdonald said it was not always easy to cure. Patients did not like to submit to another operation.

Dr. Wm. Oldright said that in his experience the point of tenderness was not always where the mischief was. He thought cases of rupture would be lessened in number if the same pains were taken to close the abdominal incision as is afterward taken to close the hernial opening. He was in favor of the layer by layer method of closing rather than *en masse*.

Dr. W. J. Wilson asked Dr. Ross if he could formulate any rules as to when an operation was necessary. Would he operate after the first attack, invariably? In the early days of his practice Dr. Wilson said the term inflammation of the bowels was a common one and used to inspire terror into the people. So that for any sudden abdominal pain at night the doctor was sent for. But people had got over the scare and night work had dropped off one-half. Now all these cases were being handed over to the surgeon.

Dr. McKeown spoke of his case which Dr. Ross had referred to in the paper. He (Dr. McKeown) did not think operation in that case was necessary. The patient was vomiting and had a good deal of pain, but there was not much elevation of temperature nor was the pulse much faster than normal. Yet on opening the abdomen a gangrenous appendix was found.

Dr. Carveth spoke of the difficulty of making a diagnosis between appendicitis and disease on the right side of the pelvis.

Dr. H. H. Oldright discussed the differential diagnosis between appendicitis and typhlitis.

Dr. Webster reported a case of sudden abdominal pain where he advised against operation; two weeks later the patient consulted another practitioner, an operation was done, the appendix being removed. The patient still complained of the same pain.

Dr. J. N. E. Brown asked the essayist in how many cases of recurrent appendicitis had he noted, on removing the appendix, that there had been primary rupture.

Dr. Harold Parsons referred to the differential diagnosis of appendicitis from biliary colic and suppuration in the gall bladder. This point had been strongly brought to his mind at Johns Hopkins Hospital. He was called suddenly to see a nurse who gave a history of repeated attacks of pain on the right side of the abdomen on going to work. There was a good deal of pain, marked rigidity on the right side, tenderness, and vomiting. This he thought was appendicitis, as did Osler and others who saw it. On opening up an intense degree of infection of the gall-bladder and gall stones was found, with adhesions all about, matting the omentum and intestines.

There was another case of interest: A patient came into the hospital with painful micturition and marked tenesmus. On opening, an appendiceal abscess was found behind the bladder.

In another case great pain was noted over the region of the liver. A long gangrenous appendix was found, with abscess formation on top of the liver.

Another point Dr. Parsons called attention to was the fact that pressure over one side would produce pain on the other, especially where adhesions were extensive.

Dr. MacMahon said that he had found a large number of cases go along well without operation.

His first twenty-two recovered without a death. His practice was to call in an abdominal surgeon, with a view to operation if that was considered necessary. There was a good deal of difficulty in persuading patients with the milder types of the disease to undergo operation.

Dr. F. N. G. Starr agreed with Dr. Oldright that the pain was referred in the early stage to the region over the central nerve trunks, consequently about the umbilicus.

After the inflammation had lasted some time the pain becomes localized over the organs affected. As to the advisability of operating in the early stage he was not prepared to go "the whole hog," owing to the fact that so many get over the first attack without operation and do not have recurrence.

Dr. Dickson referred to a case which had gone the rounds, having been treated for nervous dyspepsia. Finally one surgeon guessed at appendicitis, and operated, finding a thickened appendix.

Dr. Ross, replying, said that the patient in the second case, which Dr. Oakley had enquired about, gave a history of a previous well-marked attack ; besides, a mass could be felt on the right side of the abdomen. He agreed that during the first few hours of an attack the pain was over the whole abdomen, but later it became localized. He favored the *en masse* suture in closing the abdominal incision. He had come to believe in operating as soon as the diagnosis was made. The cardinal symptoms were sudden pain in the abdomen, vomiting, tenderness on pressure, and rigidity of the right abdominal muscles. One never knew when recurrence would take place ; it might be ten, twelve, fifteen or more years after.

In the diagnosis between this and disease of the right fallopian tube it was to be remembered that the latter condition was rare, apart from disease on the other side as well.

He thought the case reported by Dr. Dickson was neurotic. In reply to Dr. Brown's question, he said in nearly every case of operation, in recurrent cases, there was a scar showing sign of primary rupture having taken place at some earlier date. He thought biliary colic was not often taken for appendicitis. At any rate a section was called for. He believed Dr. McMahan would soon change his view on the question of operation.

Dr. G. Gordon reported a case. He had seen the patient eight years ago. The symptoms were those of flatulent dyspepsia. Later, neuralgia supervened over one eye, with muscular twitchings in the hands. Two years after the hands became numb. There was extreme headache. There was also vomiting after taking food. He had slight attacks of dizziness. Treatment was directed to the liver, stomach and bowels ; still the symptoms persisted, the headache becoming very intense. The eyes showed well marked optic neuritis. The signs were those of cerebral tumor. Under large doses of the iodide of potash the symptoms almost disappeared, but only to return after some months. The patient then went abroad for a time with benefit. But he soon relapsed into a worse condition than before. The arteries were always extremely hard. There was no albuminuria. Later, aphasia became marked, but disappeared during the last six months of life. The patient became very irritable and hard to manage. His death occurred about a month ago. Dr. H. B. Anderson did the post-mortem. There was very marked atheroma of the arteries. Miliary aneurisms were universally found. All through the brain were found areas of focal softening.

This case was briefly discussed by Drs. Parsons, Wilson, and MacMahon.

The society then adjourned.



## Book Reviews.

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LECTURES ON THE ACTION OF MEDICINES, being the course of lectures on Pharmacology and Therapeutics delivered at St Bartholomew's Hospital during the summer session of 1896. By T. Lauder Brunton, M.D., D.Sc. (Edin.), LL.D. (A:n.) (Aberd.), F.R.S., Fellow of the Royal College of Physicians, etc., etc. London: Macmillan & Co., Limited. Canadian agents.—A. P. Watts & Co., College street, Toronto.

In this day of the multiplication of medical works without reason, other than the personal advertisement of authors, it is a pleasure to pick up a work of the real worth of the one under consideration. The subject of Pharmacology and Therapeutics is altogether too much neglected by the practising physician, and the thorough works are too few. This is a subject that must be handled by a master to stamp it with authority. No mere tyro could compile such a work as this. The practical value is beyond computation.

It is impossible to review this volume as most works are reviewed, simply because the contents are the result of practical work, and based on scientific physiological and pharmacological knowledge.

The present volume and that of Fothergill & Murrell should be read by every practising physician. Therapeutics is the neglected subject to-day, but such works as these should make a change for better treatment, and after all what do patients require but scientific treatment? Study your cases and treat them, do not theorize, be practical and this is the work to help you.

We have to find fault with the binding and uncut leaves, but no one will begin this volume without cutting every leaf, while many another work would be discarded after cutting the first chapter.

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A CLINICAL TEXT-BOOK OF SURGICAL DIAGNOSIS AND TREATMENT. By J. W. Macdonald, M.D., graduate in medicine of the University of Edinburgh; licentiate of the Royal College of Surgeons, Edinburgh; professor of the practice of surgery and of clinical surgery in Hamline University, Minneapolis, etc. One volume of 781 pages, with 328 illustrations. Price, cloth, \$5 net; half morocco, \$6.50. Philadelphia: W. B. Saunders, 925 Walnut street, 1898. Toronto: J. A. Carveth & Co., Canadian agents.

Still another book on surgery! Although the field in surgery would seem to be sufficiently well covered by such excellent works as those of Erichsen, Treves, Grieg Smith, Jacobson, etc., the author thinks there

is room for an up-to-date book on surgical diagnosis ; however this may be, we do not agree with him when he says that "surgical diagnosis up to the present time is not dealt with in any work that claims to represent the most recent surgical knowledge." We think it very efficiently dealt with in Erichsen, Treves, and other works. In giving the treatment of Colles' fracture the following appears: "A plaster-of-Paris dressing is often employed, but excellent results are obtained by using no splints at all." The latter part of this is undoubtedly true, but we think it a great pity that the former statement should be made, for the inference is that plaster-of-Paris would be correct treatment but unnecessary. Now, as the chief seriousness of this accident is the danger of long-lasting stiffness and painfulness of fingers and wrist, and as this can be avoided by allowing free movement of flexion and extension, abduction and adduction, we would consider plaster-of-Paris dressing a plan of treatment to be strongly condemned.

In the chapter on tumors of the scalp, many of the characteristic points which would enable one to distinguish between a sebaceous cyst and a fatty tumor are not mentioned ; and it is stated that an error in diagnosis is of no consequence, as the treatment of both is extirpation. For a book dealing specially with diagnosis we think this rather weak. A special chapter is devoted to the X rays. In this a very good account is given of the history of the discovery, the apparatus, and its uses in surgical diagnosis. The index is very well arranged and most comprehensive, but the context, although containing many good practical features, is capable of considerable improvement.

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**PATHOLOGICAL TECHNIQUE.** A Practical Manual for the Pathological Laboratory. By Frank Burr-Mallory, A.M., M.D., Assistant Professor of Pathology, Harvard University Medical School ; Assistant Pathologist to the Boston City Hospital ; Pathologist to the Children's Hospital and to the Carney Hospital ; and James Homer Wright, A.M., M.D., Director of the Laboratory of the Massachusetts General Hospital ; Instructor in Pathology, Harvard University Medical School. With 105 illustrations. Toronto : J. A. Carveth & Co, Agents. Philadelphia : W. B. Saunders, 925 Walnut St. 1897.

The student and the enquiring practitioner have long felt the want of a guide which would point out the safe paths in the shifting sands of pathological technique. Such a guide we have in this volume. A practical manual is at last practical. Outlined in a common sense way, the student is not bewildered with a mass of mere detail and assertion, but language and reason enables him to grasp the essential points. Dealing with all essential points, the greatest of accuracy is shown. While there is room for improvement, we do not hesitate to warmly recommend it to all students, and to practitioners who wish to further their studies in pathology.

Part I. deals with Post-mortem Examinations on adult and infant in a clear and practical way ; lacking only the fuller details of the external examination.

Part II., on Bacteriological Examinations, is the most logical introduction to such technique that we have. One is pleased at once by the absence of useless, obsolete and complicated apparatus and methods. In the division on bacteriological diagnosis there is an accurate account of essential points for recognition of the pathogenic bacteria, while in the division on clinical bacteriology the student will welcome reliable points for the quick identification of the more important forms.

Part III., on Histological Methods: the same careful judgment has guided the arrangement and reasoning, making it one of the shortest, clearest, yet complete outline for such work that could be placed in students' hands.

We are sorry that the authors did not see fit to deal more thoroughly with the division on clinical pathology.

We hope that it will receive the full recognition that it deserves.

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THE PRACTITIONER'S HANDBOOK OF TREATMENT, OR THE PRINCIPLES OF THERAPEUTICS. By the late D. Milner Fothergill, M.D., F.R.C.P., physician to the City of London Hospital for diseases of the chest, etc., etc., etc. Fourth edition. Edited and in great part re-written by Wm. Murrell, M.D., F.R.C.P., physician to and lecturer on Pharmacology and Therapeutics at the Westminster Hospital and School. London: The Macmillan Co.; Canadian agents, A. P. Watts & Co., College street, Toronto.

It is rather a curious fact that writers of text-books on therapeutics are nearly all optimists, and we often fail to get the brilliant results from drug medication which they promise us. A few disappointments of this kind are apt to drive us to the opposite extreme, and the tendency to-day is rather toward pessimism. The young graduate is frequently splendidly equipped for making an accurate diagnosis but entirely at sea in interpreting the indications for treatment in the individual case. It is here that Dr. Fothergill's book, revised and brought up to date by Dr. William Murrell, will be found invaluable. Every therapeutic procedure is explained so far as it is possible to do so by reference to its physiological basis as well as the pathological conditions of the organs concerned.

Former editions of the work enjoyed a great popularity, and the advances made since Dr. Fothergill's death in 1888 have necessitated large additions to the text. Dr. Murrell has accomplished the task of revision in a most satisfactory manner, and has wisely preserved the original design of Dr. Fothergill as well as his happy style.

The young physician will find the work especially useful, for it is full of practical hints, which would otherwise be acquired only after years of experience. We know of no work on treatment which will better repay careful study, and we warmly recommend it to the profession.

It is practical books of this kind that should be purchased, read, and digested. It is not the number of volumes but the quality of those.

on the library shelves that indicate the physician's learning. We are sorry that so admirable a volume should be bound with uncut leaves. In this country we much prefer those cut at time of binding, but the Messrs. Macmillan have presented this admirable volume in clear, well-printed type, on excellent paper with stable binding.

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Books received :

- CHAPIN ON INSANITY. A Compendium of Insanity. By John B. Chapin, M.D., LL.D., Physiann-Chief Pennsylvania Hospita for the Insane ; late Physician-Superintendent of the Willard State Hospital, New York, etc. 12mo., 234 pages, illustrated. Philadelphia : W. B. Saunders & Co. Toronto : J. A. Carveth & Co.
- KEEN ON THE SURGERY OF TYPHOID FEVER. The Surgical Complications and Sequels of Typhoid Fever. By Wm. W. Keen, M.D., LL.D., Professor of the Principles of Surgery and of Clinical Surgery, Jefferson Medical College, Philadelphia. Octavo volume of 400 pages. Cloth, \$3.00 net. Philadelphia: W. B. Saunders & Co., Toronto : J. A. Carveth & Co.
- ACCIDENT AND INJURY, THEIR RELATION TO DISEASES OF THE NERVOUS SYSTEM. By Pearce Bailey, A.M., M.D., attending physician to the department of correction, and to the almshouse and incurable hospitals ; assistant in neurology in Columbia University, consulting neurologist to St. Luke's Hospital. New York : D. Appleton & Company. Toronto : G. N. Morang.
- THE ANNUAL AND ANALYTICAL CYCLOPÆDIA OF PRACTICAL MEDICINE. By Charles E. Sajous, M.D., and one hundred associate editors assisted by corresponding editors, collaborators and correspondents, illustrated with chromo-lithograph engravings and maps. Volume I. Philadelphia, New York and Chicago: The F. A. Davis Company.

## Medical Items.

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DR. D. KING;SMITH has gone on a three months' trip to Europe.

DR. L. M. SWEETNAM, of Toronto, has gone for a trip to Mexico and the Southern States.

THE American Academy of Medicine, will hold its twenty-third annual meeting at Denver, June 4 and 6, 1898.

THE American Medical Publishers' Association will hold its fifth annual meeting at Denver, Col., Monday, June 6, 1898.

DR. D. THOMPSON, who practised in Cayuga for ten years, has removed to Hamilton, and is living in the house formerly occupied by the late Dr. George M. Shaw:

THE American Electro-therapeutic Association will hold its seventh annual meeting at Buffalo, September 13, 14, and 15, 1898, under the presidency of Dr. Charles R. Dickson, of Toronto.

DR. CHURCH and Sir Dyce Duckworth have been appointed Consulting Physicians, and Sir Thomas Smith, Bart., Consulting Surgeon to the Royal General Dispensary, Bartholomew Close.

DR. MILTON MCCRIMMON (McGill, '78), of Palermo, was elected April 7th, the representative for No. 7 division in the Medical Council of Ontario, in the place of Dr. George M. Shaw, of Hamilton, deceased.

THE American Medical Association will hold its fifty-first annual meeting at Denver, June 7-10, 1898, under the presidency of Brigadier-General George M. Sternberg, M.D., surgeon-general of the U.S. army.

CHAIR OF MEDICAL JURISPRUDENCE AT GLASGOW.—Dr. John Glaister has been appointed to the chair of Forensic Medicine in Glasgow University. Professor Glaister is a graduate of Glasgow University of nineteen years' standing.

DR. CHARLES CARTER, House Surgeon, New York Polyclinic Hospital, met with a serious accident while assisting in an operation recently, which developed into septicæmia. He recuperated in Toronto, and left to resume his duties on April 1st.

DR. N. MCL. HARRIS was seriously ill with typhoid fever for several weeks in Baltimore, where he had been spending several months work-

ing in the Johns Hopkins' laboratories. He is now recuperating in Toronto, and, we are glad to say, is looking very well.

"AND," were the concluding words of the professor's lecture to the medical students, "do not promise too much. I knew a physician of real ability who promised a patient whose legs he had just amputated that he would have him on his feet within two weeks."

THE Council of University College have appointed Dr. Charlton Bastian, F.R.S., Consulting Physician to the hospital, and conferred on him the title of Emeritus Professor of Medicine and Clinical Medicine; and Dr. J. S. Risien Russell, F.R.C.P., Assistant Physician to University College Hospital.

THE OBSTETRICAL SOCIETY OF FRANCE.—The Obstetrical Society of France will hold its sixth annual meeting in Paris on April 14th and two following days. The following are the questions on the programme: (1) Application of Forceps to the Upper Brim in Flattened Pelves with the head in the transverse position; (2) Treatment of Placenta Prævia.

HONORARY PHYSICIANS TO THE QUEEN.—Surgeon-Major-General Charles Edwin McVittie, I.M.S., and Brigade-Surgeon-Lieutenant-Colonel Benjamin Franklin, C.I.E., I.M.S., have been selected for the appointment of Honorary Physicians to the Queen, in succession to the late Surgeon-General Sir W. J. Moore, and Surgeon-General W. R. Cornish.

THE vacancy among the surgeons of St. Bartholomew's Hospital, London, caused by the retirement of Sir Thomas Smith, Bart., under the age regulations, will, it is understood, be filled by the promotion of Mr. Walsham, the Senior Assistant Surgeon. This will create a vacancy for an assistant surgeon, for which the candidates are Mr. D'Arcy Power and Mr. James Berry.

MEDICAL CHARITIES IN NEW YORK.—It is stated by *The Medical Record* that the number of persons who received free medical and surgical relief at the hospitals and dispensaries of New York during the past year amounted to 49.7 per cent. of the entire population, and that fully 70 per cent. of this number were quite able to pay a medical practitioner at least a moderate sum for his services.

THE late Bishop Selwyn had a morbid taste for seeing death or the dead. This propensity was the subject of many a joke among his intimates, of which the first Lord Holland's was the best. When on his death-bed, he was told that Selwyn had called to enquire after him. "The next time Mr. Selwyn calls," said he, "show him up, for if I am alive I shall be delighted to see him, and if I am dead he will be glad to see me."

MEDICAL PRACTICE AT KLONDIKE.—British doctors who are thinking of Klondike as presenting a likely opening for medical practice should take note of the fact, announced in some American papers, that they will not be permitted to practise unless they have passed an

examination before the Board of Medical Examiners of the Northwest Territory at Calgary, of which Dr. Brett, of Banff, Northwest Territory, is registrar.

**THE HUNGARIAN BALNEOLOGICAL CONGRESS.**—The Hungarian Balneological Congress held its eighth annual meeting on March 27th and 28th, in Buda Pesth, under the presidency of Dr. Wilhelm Tauffer. Among the papers read were: The Treatment of Consumptive Patients in Sanatoria and Climatic Health Resorts, by Professor Adolf Onodi; The Balneotherapy of Heart Disease, by Dr. Franz Tausyk; and Hungarian Health Resorts, from the balneological point of view, by Dr. Josef Sumegi.

**ILLEGAL PRACTICE.**—Detective Wasson and Constable Boyd have returned from East Ontario, where they had been on a tour of investigation. The result of their work was that A. H. Morgan, River Baudette, and D. L. Maclellan, Fournice, were each fined \$25 and costs for practising medicine without a license. J. Quigman, Melrose, was brought up on the same charge, and remanded. Messrs. Wasson and Boyd return this week, as they have several other cases on hand.

**PREVENTION OF TUBERCULOSIS IN FRANCE.**—On March 14th the Chamber of Deputies passed a vote to the following effect: "In case of seizure of meat on account of tuberculosis, indemnities shall be paid to the owners who shall have conformed to the requirements of the law and to the regulations of the sanitary police. The total amount of the indemnity shall be equal to half the value of the meat seized in case of generalized tuberculosis, to three-fourths of that value in cases of localized tuberculosis, and to the total value if it is proved that the animal was not the subject of tuberculosis.

**PECULIAR ACTION FOR DAMAGES.**—A peculiar case occupied the Supreme Court at Auckland, New Zealand, for several days, Miss Baker suing Dr. Purchas for £500 damages for grafting more skin from her body than she alleged had been arranged for. It appears a Miss Houldsworth was severely burned, and Miss Baker agreed that Dr. Purchas should graft some of the skin from her body. Miss Houldsworth succumbed to her injuries. It was found that, although Dr. Purchas was a clever physician, he was too brutal in taking more of Miss Baker's skin than was absolutely necessary. Miss Baker was awarded \$3,000.

**LONGEVITY OF PHYSICIANS.**—One of the most curious statistical records that has been compiled this century is that by Dr. Salzmann, of Essling, Wurtemberg, on the average duration of life among physicians. He found, in going over the ancient records of the kingdom, that in the sixteenth century the average duration of life among the class was 36.5 years; in the seventeenth century, 45.8; in the eighteenth, 49.8, and at the present time they reach the favorable average of 56.7. It appears from the foot-notes to the above that this very great increase in longevity is due to the disappearance of the "black pest," the introduction of

vaccination, and the great diminution in the number of typhus epidemics, three classes of diseases which formerly decimated the medical practitioners.—*Church Family Newspaper.*

QUEEN'S UNIVERSITY.—At the annual convocation of the University of Queen's College, April 7th, 1898, the degree of LL.D. was conferred upon Dr. Charles W. Purdy, of Chicago. Dr. Purdy is a Canadian, and a graduate of Queen's University, from which he received the degree of M.D. in 1869. He practised in the village of Hastings, county of Northumberland, Ontario, for three years, and went to Chicago in 1872. He soon achieved success in this city, and, after spending a few years in general practice, devoted special attention to Bright's disease and allied affections of the kidneys, and wrote certain textbooks on these subjects, which are well-known to physicians in the United States, Canada, and Great Britain. Dr. Purdy's many friends in Toronto, Kingston, and other parts of Canada are well pleased at the action of his *alma mater* in conferring on him so high an honor.

THE HEALTH OF LORD SALISBURY.—Lord Salisbury's present indisposition is to be attributed to a desire to return to ordinary habits of work too soon after an attack of influenza. This disease, as is well known, often leaves behind it a condition of lowered health, in which the sufferer, although free from any definite diseases, is yet unable for some time to face the ordinary wear and tear of life. Every man has the fault of his qualities, and Lord Salisbury is one of those who cannot take things easily. So long as he remained officially responsible for the business of the Foreign Office, he felt bound to deal with the more important public business himself, and whenever this involved an interview of any duration with Ministers, secretaries, or other officials, he experienced a rise of temperature. The Cabinet meeting on March 11th was followed by great prostration, and on Saturday he was so seriously ill that more anxiety was felt with regard to his state than at any period of the acute attack. We are glad to be in a position to state that he has steadily improved ever since, and that this improvement was so marked by March 16th that Sir William Broadbent felt justified in allowing Lady Salisbury to leave for Beaulieu. It is fully expected that Lord Salisbury will be able to follow her early next week, when Sir William Broadbent also intends to start for a holiday in Italy. Experience has again and again proved that the only remedy for the depression of health left by influenza is complete rest of body and mind. Sir William Broadbent, therefore, had no alternative but to exercise his authority as a physician to prescribe to his distinguished patient complete abstention from work. It should be added that experience has proved also that real rest is followed by permanent recovery even in men who have reached a far more advanced age than Lord Salisbury. There is therefore every reason to hope that the Prime Minister will return from his holiday completely restored to health.—*Brit. Med. Journal.*



## OBITUARY.

DR. CHARLES WEST, of England, the well known author on diseases of children, died March 19th, aged 81.

BEAUMONT W. B. DIXIE, M.D.—Dr. Dixie died suddenly at his late residence, Springfield-on-the-Credit, March 27th, 1898, aged 79. He was one of the oldest physicians in Ontario, having been engaged in practice for 55 years. For many years he was considered one of the leading physicians of the province, and had a very large practice in the southern part of the county of Peel. He was an excellent physician and readily inspired confidence in his patients, by whom he was much beloved. He was a good specimen of that old and cultured school of doctors in Canada of which but few are left; and, apart from his professional standing, was a most charming and estimable man.

WILLIAM NEWCOMBE, M.D.—Dr. Wm. Newcombe died of pneumonia at his home in Sandwich, March 22nd, 1898, aged 69. He received his medical education in the old Rolph's School of Medicine, and received the degree of M.D. from Victoria University in 1865. He was at one time a well-known physician of Toronto, practising with his brother, Dr. James Newcombe, their offices being on the corner of Richmond and Church streets. After leaving Toronto he went to Victoria, B.C., where he practised for a time. He then removed to Sandwich, where he was engaged in practice for a few years. His funeral took place from the residence of his brother in law, Dr. E. J. Barrick, Toronto, March 25th.

DR. E. ARNOLD PRAEGER.—Dr. Praeger died at his home, Los Angeles, Cal., March 6th, 1898, aged 43. He was professor of gynaecology at the Los Angeles Polyclinic, and clinical gynaecologist at the free dispensary. He was born in England, where he received both his preliminary and professional education. He became Lic. Phys. and Surg., Glasgow, and Lic. Soc. Apoth., London, 1883. He came to Canada in 1886, and practised in Nanaimo, B.C., for a number of years. He soon became known as a skilful gynaecologist and abdominal surgeon. He attended some of the meetings of the Canadian Medical Association, and thus became known to many physicians of Eastern Canada. He was also a prominent member of the American Association of Obstetricians and Gynaecologists. He went to California in 1893, partly on account of the delicate health of his daughter, and settled in Los Angeles, where he practised up to the time of his death.