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## GOITRE AND ITS TREATMENT.\*

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FOUR years ago at the request of the Committee on Papers I made a report to this Association based upon my experience with thirty-three cases of goitre operated upon. This year in casting about for a subject upon which to address you, I thought it might be useful to omit those questions of medical politics which have been so thoroughly threshed out by my predecessors in this chair, and to detail very briefly a second report on goitre and its treatment founded on a series of eighty-two operations in all.

As pointed out by C. H. Mayo,<sup>1</sup> the rapidly increasing number of cases operated upon during recent years does not mean that goitre is on the increase, but that nowadays, it is recognized that a comparatively early operation for goitre is, as a rule, followed by results most gratifying to both surgeon and patient, and is accompanied by an extremely small mortality rate. Indeed, I would now go so far as to say that in cases where as yet no pressure symptoms have developed, the patient, in view of future development, and even for aesthetic reasons, has a perfect right to claim the benefits of an operation which, in careful hands, should be as free from danger as appendicectomy.

## THE PARATHYROIDS.

The anatomy and functions of the parathyroids and their relations to the thyroid gland have been matters of keen interest to the surgeon of late years, and much experimentation has been carried out. But much remains still to be done before the riddle of these curious bodies shall be interpreted aright. First noted by Sandstrom in 1880 and described by Horsley in 1884, many experimenters have since labored to ascertain their functions. They found that the thyroid and parathyroids were separate and distinct entities; that while complete removal of the thyroid interfered with assimilation and metabolism producing a chronic condition known as myxoedema, on the other hand complete removal of

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\*The President's Address, Ontario Medical Association, 29th May, 1907.

the parathyroids induced a very acute state of tetany, somewhat resembling Graves' disease, and from which the patient usually succumbed. Roswell Park<sup>2</sup> thus sums up the knowledge so far conveyed to us by the experimenters :

"1. There are two quite different sets of tissues involved in the thyroid and parathyroids.

"2. They are not completely independent of each other, for the removal of either one caused changes in the others.

"3. There is reason to believe that myxoedema follows removal of the thyroid, and tremors and nervous symptoms, including tachycardia, result from extirpation of the parathyroids.

"4. It would appear, further, that failure of the parathyroids is followed by enlargement of the thyroid. If this be true, Graves' disease seems to be explained, since the former would account for the enlargement of the thyroid sometimes so conspicuous, while the increased secretion afforded by this enlargement will account for the exophthalmos."

This relation of the parathyroids to Graves' disease, however, would appear to be pretty thoroughly disproven by the careful dissections of Benjamins, MacCallum and others who found that the parathyroids were perfectly normal in cases of exophthalmic goitre examined and, therefore, could have nothing to do with the production of the disease. These little ductless glands which have received so much attention of late (and to the study of which I beg to direct the efforts of my younger scientific friends in the profession) are usually four in number—two upper and two lower—and, as a rule, lie behind the thyroid, often in the neighborhood of the entrance to the gland of the superior and inferior thyroid arteries, from which vessels they receive their blood supply. They have been found most frequently in the areolar tissue behind the gland, sometimes in contact with the gland capsule and rarely within the capsule embedded in the thyroid tissue itself. They are elliptical in shape and homogeneous in appearance and they are much softer in consistence than either thyroid or lymphatic tissue.<sup>3</sup>

Let us now ask ourselves the question : Of what value to the operating surgeon is this somewhat vague and indefinite knowledge of the situation and function of the parathyroids? Here I think we must all agree that in operations upon the thyroid, we should endeavor to leave intact a part, and, if possible, all of the parathyroids, as it has been shown that the severity and danger of the tetanic condition resulting from their extirpation is in direct proportion to the amount of parathyroid tissue removed. The only difference of opinion will be as to how, during an operation, the safety of the parathyroids may be best conserved.

It has been suggested by Park<sup>4</sup> that this end might be most effectually attained by opening up the thyroid capsule and enucleating the gland, thus leaving behind the capsule and, of course, the parathyroids in contact with it. To this method I must object for several reasons, some positive and others negative:

1. The hemorrhage resulting is always severe and makes the operation an unsatisfactory one.

2. In thyroidectomy I almost invariably leave one lobe intact and, consequently, at least two of the parathyroids are preserved, and in man it seems fairly certain that two normal parathyroids are sufficient.

3. While the parathyroids in dogs are quite often found within the thyroid capsule, I have never found it so in man, nor so far as I know have others of much greater experience and opportunity of observation.

4. It would seem that by exercising care during an operation upon the thyroid, the parathyroids may often be distinguished, avoided, and their blood supply preserved.

5. Finally, by working very close to the outer surface of the thyroid capsule, and by ligating the vessels at a point as close as possible to the gland, it would appear very probable that the parathyroids would be preserved even though not recognized during the operation.

#### GRAVES' DISEASE.

As has been pointed out by Kocher<sup>5</sup> the term exophthalmic goitre is misleading, inasmuch as the exophthalmos is not as a rule present at the beginning of the disease, and, indeed, may not develop until the very life of the patient is threatened. Now, as the cure of the patient depends very largely upon an early diagnosis by the physician, it would seem wise to discard the term "exophthalmic," at all events in connection with the earlier symptomatology of the disease. Every surgeon interested in this class of work has encountered cases differing greatly in severity. Kocher<sup>6</sup> classifies these types of varying degrees of intensity as follows:

Class A.—Vascular Goitre. This type develops rather suddenly as a soft and uniform enlargement of the gland. Exophthalmos is absent but Gräfe's sign is probably present. Tachycardia, tremor, enlargement of the vessels of the gland with bruit and thrill are nearly always symptoms of this variety of goitre from the beginning.

Class B.—Struma Gravesiana Colloides. Here an ordinary colloid goitre has existed perhaps for years when, suddenly or slowly, symptoms of Graves' disease make their appearance. Exophthalmos is often absent until the disease is well developed. All the other symptoms are present, but are not so severe as in a typical case of Graves' disease. It is suggested that in these cases the colloid material present may, in some way,

counteract the toxic effect of the hypersecretion of the gland upon the sympathetic nervous system.

Class A.—Typical Graves' Disease. In this class the symptoms of the disease develop slowly or sometimes suddenly, frequently with a history of previous long-continued nerve strain or a severe mental shock. Exophthalmos is present and all the other symptoms are well marked and severe. If this type of the disease be not early recognized and treated, it runs a rapid course, and secondary changes soon appear in heart muscle and vessel walls which render impossible an operation, which, if undertaken at an earlier date, would almost certainly have effected a cure.

Including these three classes of Graves' disease, I have operated upon 13 cases, 4 males and 9 females. Ten of these cases improved steadily after operation and to-day consider themselves cured. In regard to the three deaths, all belonged to the typical class of Graves' disease. The first was a male in good mental condition prior to operation. He died in a severe maniacal condition 72 hours afterwards. In this case the operation was an easy one, the tumor was not large, though deeply placed, and there was but little manipulation of the gland, the smaller lobe being left *in situ* as has been my custom. I confess that this case has been a complete puzzle to me. The other two cases were females with the disease altogether too far advanced for operation. On neither of them, with my present experience, would I now operate. One of them died in an asylum three and a half months after the operation. There was a rapid recrudescence of the growth in the remaining lobe, and she died of exhaustion. The other case died six hours after the operation of heart failure. Now, although 13 cases of Graves' disease is but a small number from which to make deductions, yet the fact that 77 per cent. of them were cured has quite decided for me the question of the advisability of operation in these cases. The all important points are for the physician to make his diagnosis early, put the patient to bed, and make his surroundings such as that he will be in a condition of absolute rest, physical and mental. As for medicines, in addition to maintaining strictly the nutrition and functions of the body, I have used phosphate of sodium grs. v., t.i.d. with apparent benefit. Theoretically phosphorus in some form is indicated. Under such treatment some will be cured, others will improve up to a certain point, and the wise physician will soon see when his patient has reached that point and will hand him over to the surgeon long before the disease has advanced to such a stage as will render an operation useless. I believe that every case of Graves' disease, when seen early enough, should be submitted to this rest treatment for two or three weeks before operation.

The operation carried out on my cases, as a rule, has been the removal of the larger lobe and the isthmus, though in two cases, when both lobes were equally enlarged, I removed the whole gland with the exception of a small portion of one lobe.

I have had no experience in other methods of operating for Graves' disease, such as ligating the thyroid vessels or sympathectomy. As to the former—if the thyroid veins were included in the ligature, one would expect an immediate increased absorption of the glandular secretion through the lymphatics and a consequent exaggeration of the symptoms. Again, ligature of the vessels would expose the patient to the dangers of gangrene and, besides, the deliberate exposure and ligaturing of the thyroid vessels would be quite as serious an operation as thyroidectomy itself. As for sympathectomy, I cannot see how the removal of the sympathetic ganglia can possibly cure a condition which (if my experience of 77 per cent. of cures by operation is of any value) must be caused by some abnormal activity of the gland itself.

Whether the disease be due to the secreting by the enlarged gland of some toxic substance other than the normal secretion, as was long ago argued by Horsley, or whether Graves' disease be merely an expression of toxic poisoning by a hyperactivity of the gland and an overproduction of its normal secretion, is still a debated point. In favor of the latter theory I would point out a fact that is very generally known, viz. : That by feeding a healthy subject upon thyroid extract one can produce most of the symptoms of Graves' disease.

#### MALIGNANT GOITRE.

In this condition complete and early operation offers the only chance for the patient. Unfortunately, a sufficient early diagnosis is not usually made, the neighboring glands being already involved. Even in such advanced cases the patient may be made fairly comfortable by partial removal, thus relieving pressure and making possible a future tracheotomy.

I have done a thyroidectomy in only three cases of malignant goitre—all females. One, who was also suffering from Bright's disease, died a week later from uraemia. It was at her own earnest solicitation that I operated in this case. The second case, an old lady of seventy, died two weeks after operation of exhaustion following a long journey to her home. The third died of recurrence six months after operation.

#### SIMPLE GOITRE.

In a series of sixty-six cases of simple parenchymatous goitre operated on, I have had three deaths. The causes of these deaths are of interest.

Case 1.—A huge goitre in a girl, aged seventeen, which was causing very severe pressure symptoms, was easily removed. Twenty-four hours later, when I visited her, I found her extremely lively and clamoring for food. The nurse reported that the patient had been feeling so well all morning that it had been difficult to keep her in bed and impossible to keep her quiet. Six hours after my visit she suddenly sat up in bed, screamed once and fell back dead. No autopsy was allowed. The cause of death was probably pulmonary embolus. This result impressed me with the wisdom of insisting in all cases, and especially where the operation field has been very large, that the patient shall remain perfectly quite, so far as the head and neck are concerned, during the first forty-eight hours after operation.

Case 2.—An aged woman with the largest goitre I ever saw, weighing six and three-quarter pounds when removed. The anatomical relations behind the gland were much disturbed, and the adhesions were dense. In breaking down some adhesions, the much displaced and attenuated oesophagus was, unfortunately, torn across, and she died three weeks later of inanition. Here, again, the lesson was learned that, in all such extreme cases, a stomach tube should be passed and the oesophagus carefully outlined before the final steps of the operation are undertaken. Had this been done in case 2, the accident would not have happened.

Case 3.—A man, aged forty-five, from whom the right lobe and isthmus had been removed two and a half years ago for Graves' disease. The remaining lobe had been injured some months ago and increased in size quite rapidly, so that he now returned to have it removed owing to the severe pressure symptoms. The operation was difficult, owing to the cicatricial contractions and adhesions and the extremely vascular nature of the tumor. He did fairly well for thirty hours with the exception of some difficulty in breathing. At that time he suddenly became cyanosed, respiration quickly failed and he died shortly afterwards. It looked like failure of the respiratory centre, but no autopsy was allowed.

I am aware that this mortality of 4.54 per cent. is too large, but I feel sure that at least two of such deaths would never occur in one's practice a second time.

I should like to detail a few points in the history of the last named case, illustrating the effects of operation on a typical case of Graves' disease. Mr. W., aged 42, presented himself in September, 1904, with a very large goitre, both lobes being involved, the right being the larger. The vessels of the gland were enormous, the thrill and bruit being marked. Exophthalmos and tachycardia were extreme, the pulse rate being

130 to 140. Tremor was very marked. Although a tall man, he weighed but 100 pounds. This man's history dated back for about a year, since when he has lost flesh rapidly and all the symptoms of Graves' disease have developed. His mental condition was bad. There has been a complete change of temperament. He has threatened his wife's life and his own, and was noisy, flighty, and at times vicious in temper. I removed the right lobe and isthmus and he returned home within two weeks of operation. He returned to me in April, 1907. His weight was 100 pounds, and he had worked steadily since his recovery from the operation. Instead of the wild excited picture which he had formerly presented, he was now quiet, self-controlled and mentally quite normal. The pulse rate was 82, the exophthalmos and tremor were gone, and he declared he was in excellent health. Unfortunately during the previous winter the left lobe, which had become much reduced in size, had been injured in an accident, since which it had grown rather rapidly and he returned to have it removed, because it was kinking the trachea and thus interfering with his breathing.

Illustrating the class of cases described by Kocher as thyroidea gravesiana colloides is the following: Miss B., aged 44, has had a goitre for fifteen years, but paid no attention to it until one and a half years ago when tachycardia and tremor began to trouble her. Steady loss of flesh ensued and now exophthalmos is quite marked. All the symptoms are more moderate than in the case of Mr. W. just quoted. Left lobe and isthmus were removed. She went home in three weeks and a steady improvement has resulted. Though she had been unable to work for a year previous to operation, she is now, three months after operation, doing light house-work and enjoying life.

The next case quoted clearly belongs to the class of vascular goitre. W. J., aged 27, an Englishman, has been troubled with goitre for eight months. It interferes with his breathing, especially when he stoops. As he is a farmer this prevents him from working. Thrill and bruit present and pulse rate 102 to 110. Slight tremor and muscular twitching. Exophthalmos is absent, but Kocher's sign is distinct, viz., sudden retraction of the upper eyelid when the patient is made to look steadily at his examiner. Right lobe and isthmus removed. Patient left hospital on ninth day. Four months after operation his physician writes to say that the man is quite well and working every day.

#### THE ANESTHETIC.

I still use a general anesthetic, preferably chloroform, or a mixture of chloroform and ether, *administered by an expert*. We have always followed the rules mentioned in my former report (7), and in none of my cases have we had any serious difficulty.

## THE TECHNIQUE.

The distinguished gentleman, who is to open the discussion on Surgery to-day (Dr. Crile, of Cleveland), has done much to aid the surgeon in the carrying out of this operation by his teaching as to blood pressure and the use of adrenalin, while the elevation of the head and shoulders of the patient, especially in operations for Graves' disease, materially reduces the amount of blood in the field and the resulting hemorrhage.

The transverse incision is the one chosen in most cases, and the technique has changed but little during the last four years. There is one change which perhaps should be noted. Instead of transfixing and tying of the pedicle (which is usually the junction of the isthmus and the lobe to be left behind), I now tear through this pedicle with a blunt dissector and seize and tie any small vessels which may bleed. This is practically the only operation in which I use silk in ligating the vessels. The possibility of cat-gut ligatures slipping or untying in a very restless patient and resulting secondary hemorrhage has so far deterred me from using it.

I am thoroughly impressed with the importance of another feature in the technique of thyroidectomy, viz. :The avoidance of excessive manipulation of the gland during the removal. In some of the earlier cases where this rule was not carefully observed the convalescence was quite stormy. I am now convinced that this was largely due to hypersecretion caused by unnecessary manipulation, this, of course, being followed by undue absorption and the production of a toxic tetany. The manipulations must be gentle and the various steps of the operation carried out in precise and clean-cut manner.

In cases of cystic goitre affecting both lobes my experience has shown me that it is not enough to remove one lobe and the isthmus as cystic degeneration will continue in the remaining lobe. It would seem to be safer after having removed the lobe most affected with the isthmus to incise the capsule of the remaining lobe and enucleate every cyst to be found.

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<sup>1</sup>*Jour. Med. Assoc.*, Jan. 26, 1907.

<sup>2</sup>*Med. Review of Reviews*, July, Aug., 1906.

<sup>3</sup>*MacCallum, B. M. J.*, Nov. 10, 1906.

<sup>4</sup>*Med. Review of Reviews*, July, Aug., 1906.

<sup>5</sup>*Brit. Med. Jour.*, May 26, 1906.

<sup>6</sup>*Ibid.*

<sup>7</sup>CANADA LANCET, July, 1903.

MENTAL SANITATION, WITH SUGGESTIONS FOR THE CARE OF THE DEGENERATE, AND MEANS FOR PREVENTING THE PROPAGATION OF THE SPECIES.\*

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THERE is no longer doubt that the number of defectives in Canada is increasing beyond the proportionate increase in population. The persons to whom it is sought to call attention in this paper are those who, either physically or morally, are so far below the normal that their presence in society is hurtful to their fellow citizens, or that their unhindered natural increase is a menace to the well-being of our country. Official returns show that in England to-day one in every 301 of the population is insane, while in Ontario one in every 357 is mentally defective. The cost to the Province of Ontario last year for caring for its mental degenerates was over one million of dollars. The chronic insane, the epileptic, the paralytic, the imbecile and the idiot of various grades, the moral imbecile, the sexual pervert; many, if not most, of the chronic inebriates; many of the prostitutes, tramps and minor criminals; many habitual paupers, especially the ignorant and irresponsible mothers of illegitimate children, so often found in our Refuges and Infants' Homes—all these in varying degree, with others that are not mentioned, are classed as being effects of the one cause—which itself is the summing up of many causes—degeneracy. For several of the above mentioned classes special provision has been made for their custodial care, but there are others, who are either hereditary degenerates, or whose condition resembles this so much that they may be treated like them, for whom it seems desirable to make special provision and over whom complete and permanent control might well be exercised.

While the spirit of this age has done so much to encourage preventive medicine, few and feeble have been the prophylactic efforts made in searching for and applying a remedy to check the growth and development of degeneracy in our country. Herbert Spencer well said, "To be a good animal is the first requisite to success in life, and to be a nation of good animals is the first condition to national prosperity." If the best study of mankind is man, the time has surely come when in every University centre there should be a lectureship for the study of the causation of degeneracy, criminality, insanity, pauperism and other defectives. Thousands of dollars are spent every year in Canada in fostering and developing a knowledge regarding the best methods of raising and propagating live stock that will enrich the agricultural resources of the country. At the same time, while we know that the very backbone of a nation

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\* Read at the meeting of the Ontario Medical Association, 28th May, 1907.

is its manhood and womanhood, nothing is done to urge the study of the begetting of a sound offspring and the establishment of a nation physically and mentally strong. The inter-dependence of mental vigor upon bodily health is acknowledged, but for some reason little attention is paid to create such a public sentiment as will produce a wide and comprehensive appreciation of the necessity of a general physical and mental culture that will be at once helpful to the present race and in the end lead to a lessening of the blighting taints of degeneracy in succeeding generations.

In this age of scientific research the study of degeneracy has led to the closest investigations to show the relations that exist between tissue degeneration and the mental phenomena noted in the varied phases in which these abnormal conditions attract attention. Probably too much attention has been paid to a study of the changes which accompany and emphasize the developed condition. Back of that development lie social and racial conditions and in the careful and comprehensive analysis of these we must look for a partial solution of the great problem, the safeguarding of the human understanding from destructive disease or premature decay. Without doubt in more than fifty per cent. of all cases of developed insanity we find such evidence of ancestral defect or disease as would lead us to expect at some point in the line of descent a re-appearance of this defect in the form of active disease of the mind. There is probably no other condition in which the probability of development may be so often and so certainly foretold by a study of the ancestry. That insanity appears in succeeding generations in the same line is well known to every one. The more fully we can persuade the public to the fullest comprehension of the dangers which attend the introduction of such defective strains, the better will we be able to protect future generations. Parents and children are not half alive to the importance of guarding against such entanglements. They should be taught to look upon alliances with such ancestral lines not simply as discreditable or unworthy, but as fraught with danger. The awful responsibility of imposing such tainted heredity upon offspring should be clearly understood and carefully avoided. In a portion of one county of Ontario, through indiscriminate marriage and inter-marriage, mental degeneracy has become most frequent, and I have known several members of one family, with numerous other relations from the same section of the country, to be inmates at the same time of the same institution.

Dr. Blanchard, in an address a few years ago before the British Medical Association, said :

"I have long been of the opinion that insanity is to be prevented chiefly by limiting the propagation of this most fearful disease through the union of affected persons. I am convinced that the only way to

really diminish and finally stamp out insanity is by so educating public opinion that those who have been insane or are threatened with insanity shall, in the face of such public opinion, abstain from bringing into the world children, who must certainly contain in them the potentiality of insanity, who will, some of them, develop it even if others escape, and so will hand on the heritage from generation to generation till the race dies out."

It is a difficult question to decide whether or not there should be restrictions by legal enactment in Canada to forbid the marriage of any person whose ancestral line was tainted by insanity. Public opinion must be educated to the necessity for all restrictive legislation. In the State of Minnesota a law has been enacted that no woman under the age of forty-five years, or man of any age, except he marry a woman over the age of forty-five years, either of whom is epileptic, imbecile, feeble-minded or afflicted with insanity, shall hereafter intermarry or marry any other person within the bounds of that State. It is also made unlawful for any clergyman or magistrate to marry any feeble-minded imbecile or epileptic person or any one afflicted with insanity. Other States, Michigan, Delaware, Connecticut, Indiana, New Jersey and North Dakota, are following the example set by Minnesota and are further enacting that before marriage is allowed, in every case, certificates made by two medical practitioners must be filed certifying under oath that the family history is clear on each side of traces of mental degeneracy. These are indications that the influence of heredity, as one of the great predisposing causes of insanity, is becoming more thoroughly understood. The day may yet dawn in Canada when we will give the same attention to the breeding of children that we now do to the breeding of horses. If this great land, whose resources and vastness are now only beginning to be understood, is in ages yet unborn to be peopled by a hardy and vigorous race, there must be a wide dissemination, among all classes, of knowledge expressed so plainly that he who runs may read and understand how great and lasting are the influences of heredity. Thousands of dollars are spent yearly in this country in spreading broadcast a knowledge regarding the evils of intemperance. The pulpit and the press vie with each other in the exercise of their potent influence for the suppression of many known vices. How seldom are these forces expended in warning the people in regard to the fearful ravages brought upon mankind by indiscriminate matrimonial alliances. Many of the different religious sects might with advantage forsake their squabbles concerning dogmas and shibboleths and give the time thus wasted to the spread of the doctrines of health and thereby open avenues, too often shaded by indifference and ignorance, to the highest forms of race culture. How great the responsibility of the medical profession in moulding public

opinion on this important question! The people look to the family physician, and quite properly trust to his judgment and advice, in all matters relating to health. True, he may not often be consulted with regard to such matters, but how often is he made the silent witness of alliances which he knows are, to say the least, unsafe. If the full significance, and grave responsibilities, involved by a marriage in which in the ancestry of either of the contracting parties there was insanity, were properly explained, both parents and children could soon be taught the gravely prejudicial nature of such a procedure. We can do a great deal to create a proper public sentiment in regard to this matter. No coercive measure enacted by any Legislature would probably be respected or obeyed. The public must first be intelligently instructed as to the dangers involved, and when thus taught they will surely comprehend the importance of the subject.

I would not venture to assert that all persons with such defects in their family histories should be condemned to celibacy. It is fairly safe to make an estimate of the probability or improbability of a particular individual of such a line of descent transmitting to his offspring the special defect which has appeared in his ancestry. Much may depend upon the intensity of the predisposition, the frequency of its appearance, and the relative proportions between damaged and vigorous branches. On the other hand, I think, there are instances where marriage is not advisable under any circumstances. For example, where experience has shown that in that particular family the defect so dominates and stamps itself upon the hereditary tissue that it cannot be made safe. I feel sure, too, in asserting that this absolute restriction applies to a small proportion of the cases in which insanity has appeared in the family history, and that in the larger proportion the defective numbers have been relatively few. There is, therefore, room for discrimination, and here the family physician may render invaluable aid. He will be comparatively safe in offering no objection where the particular individual is of strong and vigorous development, well balanced, and if the alliance is with a line which will tend to antagonize such a defect rather than to encourage it. But if there is evidence of physical or mental weakness, of instability or eccentricity, or if there is reliable trace of such defects in the family history, the prudent counsellor will not only withhold his sanction, but do all in his power to discourage such a contemplated union.

However successful the effort to guard against the alliance of persons having their ancestry tainted by mental disease, children will continue to be born handicapped by this unfortunate predisposition. Even where such defect has not been known in the ancestry, it may arise from accident, or it may be the fruit of the individual elements, either of which in itself or in other combinations would be safe, but which plus the ele-

ment with which it is united makes an uncertain and unsafe compound. Herein lies a great field for useful work in the prevention of mind disorders.

The family physician will find a wide field for usefulness in the study of the variability of child character and of the types and features of mind disease by early recognition of the susceptible or too sensitive brain, and by early detection of all indications of mental hyperæsthesia.

When the physician has created an interest and shown the importance of thus early attending to and watching the mental development of childhood he will stimulate parents and teachers to recognize the great importance of making a careful and intelligent study of the characteristics, tendencies and weaknesses of each child. With such recognition carefully studied and faithfully applied there could only be one outcome—a healthier and hardier race of children with all the after-blessings in the later years of life. The examination-passing test is not now regarded as the only standard by which to estimate a pupil's merits in the Canadian school system, and the sooner teachers learn that there are other methods by which the mental growth of childhood is to be encouraged there will be a brighter prospect of healthier young Canadians. Those in charge of the education of child-character must exercise more discrimination in this work; make a careful study of the characteristics of each child; and give the parents such advice and such caution as the case would require. To secure this greatly-to-be-desired end, the physician must be prime mover in this reform.

To lessen the demands on the brain means to regulate the burden to an organization which has already given evidence of weakness or susceptibility. The wonderful progress in every department of human affairs at the present day means an increased complexity in the human brain which is consequently rendered more than ever susceptible to disturbance and disease. No doubt many an attack of insanity would be warded off and wholly prevented by proper regulation of the conduct and surroundings of the individual. By correcting imperfect hygienic surroundings, by teaching the necessity of avoiding monotony in daily life, by urging the importance of attention being paid to secure regularity in the discharge of the different functions of the human body, and by imparting a knowledge of the value of spending a certain number of hours each day in the open air, are among many of the instances by which the physician may inculcate the doctrines of the gospel of right living.

The class of literature which people read has a marked influence in moulding thought. Are there not many popular books which we, as physicians, know are not conducive to soundness as well as purity of mind? If the literary tastes of the people may be judged by the class of trashy literature that is most popular, degeneration is surely manifesting itself

in the large majority of the widely read books of the year. There is a dangerous element, which is sure to create impure thought and strongly tend to establish dangerous mental perversion. Our young people are now invited to feast at a literary repast that is decidedly dangerous. Some popular literature can only be described as damnable, so alluring and seductively attractive are the scenes, characters and incidents portrayed. We criticize not so much what is said as what is suggested. Many of the books that now find the largest sales, and are read by every one, are polluted by a suggestiveness that can only prove injurious by inducing an abnormal individual attention which begets a neurosis. They stimulate a curiosity which tempts while it attracts. People now seem to be losing an interest in the world's best literature. Their lives must be influenced by their reading, and the perusal of doubtful books is directly antagonistic to sound mentality. The family physician should feel it his duty to point out to parents and children how helpful are good books and how injurious are bad books. Not a few cases of mental degeneration have already been traced to the influence of improper literature, and unless a more vigilant censorship is placed upon books coming years will witness a marked increase in the number of sexual perverts. It is far from me to be an alarmist, but I feel this is a subject worthy of more strict attention.

None will deny that excess and dissipation, so frequently the excitants of mental disease in fertile soil, might be kept from those individuals who by inheritance or by developed evidence of defect or unusual susceptibility have shown the existence in themselves of limitations below the normal. The employment of women and girls in factories when insufficiently provided with hygienic and sanitary conveniences accounts for many physical wrecks. Healthy offspring cannot be expected from such frail anæmic creatures as night after night can be seen hurrying home from many factories.

Parents should regulate with zealous care the surroundings of their children during their development, and particularly insist on proper hours for rest. The susceptibilities of youth must be fully recognized. Here the importance of careful study of child character and the proper instruction of parents and teachers is again seen. When so much depends upon the school life in estimating the value of the after life of the child, how important it becomes for more attention to be given to the variability of pupils in their functional capacity. The burden must not be imposed on all alike. The child-nature must be studied and understood, and the burden and future training be regulated accordingly.

While it is so manifestly important to guard against mental degeneration in the human family, the necessity of preventing as far as possible propagation of the species must never be lost sight of. To secure

this absolute necessity public opinion must be educated along the lines previously referred to in this paper.

There are classes, however, which sentiment fails to reach and who must be protected from themselves. There are in the Province of Ontario hundreds of feeble-minded girls and women without proper custodial care. They are to be found in every Refuge and Infants' Home in the Province, and many of them have had several illegitimate children. It is not a difficult task to predict the future of such children. Coming into the world as they do, with the stigma of imbecility stamped upon them, they are more than likely destined to become a public charge. Imbecility and heredity are the most prolific of the known causes of pauperism and crime. The time has surely come when more attention should be paid to preventing the propagation of the species. If for no other reason than economy it must seem desirable to make special provision in this country for the care of feeble-minded women and thus prevent these poor degenerates from perpetuating their kind. The cost of protecting feeble-minded women now is normal. The cost of neglecting them is appalling. Many of these poor creatures are practically unprotected, while others have found a temporary haven among the old people in our Refuges. The segregation of these degenerates is a question that is being settled in other countries where establishments have been founded for the custodial care of feeble-minded women of the child-bearing age. Such institutions are a necessity and must prove helpful as a means to prevent the increase in the number of degenerates, which are a public charge, increasing from year to year. No legitimate effort should be spared to prevent the propagation of degenerates, and no one who is properly classed as feeble-minded should ever be allowed to become a parent. The same is true concerning all who are really degenerate, of whatever class.

What avails the continuous increase of hospitals, asylums and similar institutions, if the numbers to occupy them grow faster than their accommodations? How can we possibly leave the world better for our work if we do not, at least, begin some action to stop this vicious stream at its fountain head? Those who have faithfully and patiently wrestled with this perplexing problem have concluded that the only course to be taken is to separate all true degenerates from society and keep them by themselves in carefully classified groups, under circumstances which will insure that they shall do as little harm to themselves and their fellows as possible and that they shall not entail upon the next generation the burden which the present one has borne. Establishing colonies or industrial refuges for these unfortunates is what is termed "segregation."

There have been other methods suggested to attain the same end. Perhaps some day science may so far conquer sentiment that the physically and mentally unfit shall be sterilized and by a safe and easily applied surgical procedure be rendered incapable of propagating their species. Dr. Rentoul, of Liverpool, has given no little thought and attention to this subject and has contributed more than any one else to the literature on this question. He advocates that every safeguard should be provided by law authorizing sterilization. As regards the operation itself, he maintains the procedure necessary is to excise a small portion of the spermatic cords in the male, or of the Fallopian tubes in the female. There is no necessity of removing the glands in either case. With respect to those who should be operated upon, this, Dr. Rentoul says, should be decided by a lawfully constituted board. He suggests that not only degenerates, but all confirmed criminals, tramps, vagrants and sexual perverts should receive attention. Sir John McDougall, Chairman of the Asylum Committee, London County Council, has said, "Some day we shall come to the conclusion that some physical means should be employed to prevent the unfit from producing children." At a meeting of the Medico-Legal Society at London, England, Earl Russell, in speaking on this subject, said, "I think it admits of little doubt that if the ruling classes in this country, in Parliament, and in the law, were composed entirely of people of adequate medical knowledge, some such remedies as those suggested would soon become part of the law of the land." Dr. Barnardo left on record these words: "Some step will have to be taken in the near future, if we are to protect the nation at large from large additions of the most enfeebled, vicious and degenerate type." Dr. Bevan Lewis, a distinguished English alienist, says, "Nothing short of such radical means can stem the tide of increasing degeneracy." Dr. Barr, in his recent work on *Mental Defectives*, says, "Let asexualization be once legalized, not as a penalty for crime, but a remedial measure preventing crime and tending to the future comfort and happiness of the defective; let the practice once become common for young children immediately upon being adjudged defective by competent authorities, properly appointed, and the public mind will accept it as an effective means of race preservation, it will come to be regarded, just as is quarantine, simple protection against ill."

Quotations such as the above indicate a remarkable growth in favor of rendering the reproduction of their species by the degenerate a physical impossibility.

Perchance much that I have herein submitted may seem visionary and impracticable, but I am convinced from the study and consideration of this important subject much that will prove of lasting value may be

accomplished along the lines I have imperfectly sketched and from which I submit the following:—

1. That the public should be enlightened with regard to the influence of heredity as a potent factor in the cause of degeneracy.

2. That the prevention of mental degeneration is not promoted by merely studying the phenomena of the disease.

3. That if the conditions under which mental degeneration commence were properly understood many threatened attacks might be avoided.

4. That segregation of all degenerates and the education of public opinion in favor of encouraging every legitimate means of preventing the propagation of the species are the only effectual methods by which we can reasonably hope to check the increase in the number of degenerates who have already become such a charge upon the public funds of this country.

#### DISCUSSION.

Dr. W. C. Herriman, Kingston, said: The degenerate is not only a sexual pervert. He may commit a variety of depredations upon the community. The point of his sterilization seems, therefore, a minor one, though it has occupied much attention in the discussion. The degenerate who is apt to be constitutionally a pauper, and in this way often to some extent at least a burden upon society, would be better cared for in a public institution. Whether sterile or not, he would be safe, he would be happier, often cleaner, and better in every way than when caring for himself. Let the institution be of an industrial character and the problem is considerably reduced. The degenerate will be prevented from reproducing his kind and his expense will be, if not entirely, certainly largely reduced.

Dr. John Hunter, Toronto, said: The propagation of degenerates, like the use of patent medicine, is a stain on the medical profession. If each of us would spend a fraction of the time we spend in writing out prescriptions for tonics or cough mixtures—ninety per cent. of which probably do as much harm as good—in enquiring into the environments of our patients, we would accomplish more good. Take time to find out something of the social, sanitary, and psychological conditions affecting our patients and then we can make suggestions that will conserve the physical and mental stamina of our patients. The question of the propagation of degenerates must of necessity be largely the work of the family physician in the privacy of home. Neither pulpit nor press can discuss such questions effectively. The appointment of medical inspectors in our schools would be a step that might help some in separating these degenerates from healthy children. The separation of the sexes in our higher

forms, and would permit of an opportunity for teaching sexual hygiene. The Government might be asked to put restrictions on the marriage of degenerates.

Dr. J. C. Mitchell, Belleville, spoke of the importance of proper marriages. Both father and mother should be mentally sound. Over fifty per cent. of the cases admitted to the asylums are hereditary, and this is likely to increase under our present conditions. Marriages are made indiscriminately and without any special thought as to the future even among those who are intelligent and without the stigma of degeneracy. What can be expected of the feeble-minded or the degenerate classes? It is very important that the children should be more carefully looked after and that early in life it may be ascertained whether their mentality is normal and then education be carried out properly, that children be taught proper control and learn to know something of themselves and their own inner nature. The public require a more general education on the line of marriage, and the medical profession should take up the subject. There is no question that those who are known to be degenerates should be sterilized and more active measures made use of to prevent the increase of this class in our country. Dr. Smith is to be congratulated on bringing a subject of so much importance before us and in proposing a practical method for disposing of it.

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### IMMUNE THERAPY IN PULMONARY TUBERCULOSIS.\*

By A. J. RICHER, M. D., Montreal.

SINCE 1890, when tuberculin was acclaimed throughout the world, to be relegated within a year to that class of toxins called poisonous, therefore dangerous, many clinicians have continued to make use of it in spite of the verdict then passed upon it. To eliminate the danger connected with the use of such a potent poison was a task which there and then fastened the attention of many, so that modified tuberculins have been offered from time to time in such numbers as to be beyond enumeration, much less detailed description. We may mention however, some of the better known ones, such as Koch's T. R. and Bacillen Emulsion, Klebs' T. C. Denys' filtered Bouillon, Béraneck's tuberculin, Landmann's tuberculol, von Ruck's watery extract, von Behring's T. C. and Tulase.

Experimentally, the living attenuated culture produces the most pronounced immunity (Theobald Smith). Tuberculin immunity does not protect itself against virulent inoculation of living bacilli, though it does

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\* Read at the Ontario Medical Association, 30th May, 1907.

confer a relative bacterial immunity, but renders the animal resistant to lethal doses of tuberculin. Old tuberculin, as you know, contains the culture medium and the bodies of the bacilli boiled down, so to speak, by prolonged heating in this way the more sensitive components are destroyed. The filtered bouillon, on the other hand, contains only the secreted products of the bacilli, and is looked upon as an incomplete toxine, since it is well known that the bodies of the tubercle bacilli contain immunising substances. Koch's "Bacillen Emulsion" is merely a ground preparation of the crushed bodies of the washed bacilli in suspension, containing no secreted toxine or cultural product.

Landmann's Tuberkulol (Merck) combines the various features of all the above, and possesses the distinct advantage of rigorous dosage.

Landmann<sup>1</sup> and Frey<sup>2</sup> have both written up this subject in an exhaustive manner, and both are well worth consulting.

The treatment of tuberculosis with the various tuberculins is often called active immunity treatment.

Passive immunity treatment is exemplified by Maragliano's and Marmorek's serums, and possibly also by Behring's Tulase. Maragliano immunises his animals with a watery extract of dead bacilli (bacillary pulp), supplemented by the filtrate of young virulent cultures, and when complete immunity has been established, withdraws the anti-toxic blood serum.

Marmorek<sup>3</sup> on the other hand, claims that none of the various tuberculins represent the true toxine of tuberculosis as it is formed in the body during the progress of the disease. The toxine which he makes use of to immunise his animals is extracted from a rapidly growing culture of tubercle bacilli in a leucotoxic serum, and this he maintains, gives the true toxine of tuberculosis. Latterly he has been using in conjunction with the above a streptococcus toxine, thus producing a bi-valent serum. Marmorek's serum undoubtedly possesses marked anti-toxic properties.

Among the many products now available it is really difficult to make a choice, especially as none can and do claim to be all-effective. As a matter of fact, the tuberculins have their limited field of application, and so have the antitoxic serums.

In 1899, inspired by the results obtained by Dr. Trudeau of Saranac Lake, I commenced using Koch's old tuberculin therapeutically, though I had made use of it at different times since 1895 as a diagnostic agent. The number of cases treated during the first three years was very limited, only eighteen. The results encouraged me to such an extent however, that in 1894 I submitted fifteen, in 1905, thirty-eight, and in 1906, sixty-four patients to the active immunity treatment, using at various

times Koch's old tuberculin, his T. R., and his Bacillen Emulsion, also von Ruck's watery extract, Denys' Bouillon Filtré, and Landmann's Tuberkulol. In 1904 and 1905 I<sup>4</sup> used Marmorek's serum quite extensively with very good results, but in cases which were selected because of their pronounced symptoms. Since 1905 I have made use of it to induce passive immunity in patients I wished to submit to tuberculin or active immunity.

Regarding tuberculin the following is Koch's opinion about his own product:—

"I maintain that its efficacy as a cure is completely proved, provided its application be restricted to still curable cases, *i.e.*, to those not too far advanced and not complicated by streptococci, staphylococci, pneumococci, influenza bacilli, etc. As these processes are almost always accompanied by rise of temperature, the best way of guarding against the misapplication of tuberculin is to use it in cases in which the temperature of the body does not exceed 37° C. That tuberculin exercises an exceedingly favourable influences on all such cases, and even completely cures them as a rule, is a fact of which I have repeatedly convinced myself, and a number of other medical men who have studied the therapeutic value of tuberculin for years, and have either published their experience or communicated it to me privately, have arrived at the same result. As such I name Spengler, Turban, Pètruschky, Krause, Thorner, Heron, Rembold, Baudelier, Goetsch, Kirchner and Kartulis, to whose publications I beg to refer you." (Francine.)

Trudeau<sup>5</sup> who had the largest experience with tuberculin therapy on this side of the Atlantic, endorses it in the following words:—

"Having stated the facts, I must therefore leave the interpretation of the figures to the individual judgment of those who may be interested in them. Many years ago, in spite of the general denunciation of tuberculin, and long before I knew anything about the statistical evidence, I had formed the opinion that tuberculin when carefully administered, had within certain limits, a favourable influence on the course of the disease, and that the results of sanitarium treatment could be improved and made more permanent in many cases by its application. As years passed, I have seen no reason to change this opinion, which the figures I have just quoted, however they may be interpreted, do not, at any rate, tend to contradict."

Now a word regarding the selection of cases for tuberculin treatment, and how to proceed. Here again I wish to let Trudeau speak. (*loc. cit.*)

"With a few exceptions, in which, soon after Koch's discovery, tuberculin was given as a last resort to far advanced patients who begged to be treated, the patients selected at the Sanatorium have belonged to

the incipient and advanced class, who were mostly apyretic, or whose temperature at irregular intervals reached only from 99.5° to 100°, and whose general nutrition was good. The acute types, or those suffering from marked febrile remission or hectic fever were excluded. Patients running a continuous temperature, even if not above 100°, with little to be heard in the lungs, but with rapid pulse, emaciation, debility and cachexia, pointing to scattered miliary tuberculosis, were also excluded. Elsassar, Denys and others advocate the use of tuberculin injection even in acute febrile cases, but I have had no experience with such cases.

For a long time the tendency was to choose as favourable cases as possible, from both the incipient and advanced classes, for treatment; but little by little less favourable cases were selected, and during later years those whose condition seemed to be at a standstill, and to have but little chance of arresting their disease by the hygienic and open-air method alone, have been frequently treated. It cannot be denied, however, that the desire to select, from whatever class, patients whose nutrition was good, prevailed to a greater or less extent, and must have somewhat influenced the results.

The first impression which the physician receives who begins to make use of the tuberculin is a most profound respect for the tremendous potency of this toxine. A toxic substance which, in so infinitesimal a dose as the one five-thousandth of a milligram of the solid substance contained in Koch's Bacillen Emulsion, may produce typical and marked constitutional disturbance in the tuberculous individual, is certainly not to be used heedlessly, and is potent for evil if carelessly administered. I would not urge any physician who prizes his peace of mind to embark on the treatment of tuberculosis by this method unless he is prepared to begin with minute doses and increase with the utmost caution. He will also soon be made to feel the deep-rooted prejudice which exists, both in the profession and laity, against tuberculin treatment, and he must be prepared to meet criticisms and blame for all the exacerbations and complications which naturally develop in the course of the disease, and which are invariably attributed not to the disease, but to the treatment; while coincidences occur occasionally which make his position indefensible, and which he can be prepared to face as best he can. I have seen tuberculous meningitis, hæmoptysis, and uncontrollable pyrexia, all ending fatally, occur in patients who were about to take tuberculin, but for some reason or other did not take it.

The method of administration is of the greatest importance, and has varied as time passed. At first little attempt was made to avoid reactions, which were advised by Koch, and which he still seems to consider as necessary to success in this form of immunisation, for in his

last paper on Bacillen Emulsion he says :—"One increases the dose very rapidly in order to obtain very pronounced reactions, with elevations of temperatures of  $1.5^{\circ}$  to  $2^{\circ}$  C. As soon as a strong enough reaction is obtained, the intervals must be lengthened to from six to eight days or more."

"From my own experience with tuberculin I have formed the impression not only that fever reactions are not necessary to obtain good results, but that although occasional moderate reactions are unavoidable and apparently do no harm, every effort should be made to avoid them. If frequent and violent, they have a bad effect on the patient's general condition and are by no means free from danger, as was shown during the early history of tuberculin treatment, the danger being the production of continuous fever, cachexia, and increased activity in the disease.

The best method has seemed to me to begin with very minute doses— $1/10,000$ , or even  $1/20,000$  of a milligram of solid substance Koch's Bacillen Emulsion, or a  $1/100$  of a milligram of old tuberculin—and increase so gradually and at such intervals as to carry the patient to full doses with as little disturbance as possible; and by taking sufficient time, most patients can be taken through the entire treatment with but occasional and moderate reactions. At the slightest evidence of intolerance, as manifested not only by the patient's temperature, but by his symptoms, by marked irritation at the site of injection, or depreciation of his general condition, the intervals between the injections should be lengthened and the dose diminished for a time. Care should be taken never to inject after a reaction until all effects of a previous reaction, both on the patient's temperature and general condition have entirely passed away. I have also formed the impression that the treatment should be extended over as long a time as is needed to avoid reactions, no matter how long that may be, and that time is an important element in obtaining the best results. Six months of treatment is almost always necessary, and a year or more would be better in many cases."

Keeping in mind the foregoing, you can readily appreciate the advantages of combined toxine and antitoxine treatment. Success will follow in the path of greatest caution in the dosage. Begin with extremely small doses of tuberculin under cover of protective antitoxine injections. To my mind the injections of tuberculin are given at too short intervals. The first five or six inoculations should be given at intervals of six to eight days, gradually lengthening the periods between each to four and even six weeks. The duration of the treatment should not be less than six months, though I usually carry it over one year, repeating it in another series after six months of rest.

The object of immune therapy is two-fold; curative and protective. Minute doses undoubtedly favour leucocytosis with its consequent fibrous tissue formation in the immediate neighbourhood of the lesion. With gradual increase in dosage a resistance is established which usually protects from relapses.

Judging from its therapeutic effect, I feel that we are now justified in recommending the use of tuberculin in the suspected, and even the healthy subject, with a view of not merely inducing protective immunity, but also of bringing into evidence latent lesions, which, as you know, often remain quiescent for months and even years.

#### DISCUSSION.

Dr. J. H. Elliott.—The reawakening interest in the use of the tuberculins therapeutically demands our attention. The disrepute into which Koch's tuberculin fell was, we fear, not due to the tuberculin but to faulty administration. In the years since it was introduced a number of workers have not given up its use, and to-day we know that the tuberculins are valuable adjuncts to other forms of treatment. Many of the forms in use have been outlined in the paper just read. They vary in their mode of preparation, in their physiological action, and in dosage. It would be advisable to use these very potent drugs—potent as indicated by the dose of two one-millionths of a grain often prescribed—without understanding them, and without exhibiting extreme care in their administration. We should distinguish between those, such as the old tuberculin prepared from sterilized broth cultures, and T. R., and bacillen-emulsion prepared from pulverized living bacilli. From these latter preparations living bacilli have been recovered, and they must be sterilized before use.

The difference in toxicity is illustrated in the case of old tuberculin and tuberculol (Landemann; i.c.c. of the former is borne by a healthy guinea pig, while 1-10 cc. of the latter is fatal to a 250 gui. pig.

We have yet much to learn. We do not know the comparative values of the tuberculins and there is little to guide us in a choice. We do not know the indications for their use, but so far their greatest value seems to be in closed, surgical tuberculosis, and in pulmonary tuberculosis in the earlier cases, before there has been much destruction of lung tissue.

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<sup>1</sup>Landmann:—"Ueber eine neue Methode der Tuberkulose-Toxin-Behandlung." (Hygienische Rundschau, 1900, No. 8.)

<sup>2</sup>Frey:—"Die Behandlung der Tuberkulose mit Tuberkulol." (Wiener Klin. Rundschau, 1906, Nos. 14 and 16.)

<sup>3</sup>Marmerek:—"Archives Générales de Médecine." (No. 47, Nov., 1903.)

<sup>4</sup>Richer:—*Montreal Medical Journal*, September, 1904; *New York Medical Journal*, June 10, 1905.

<sup>5</sup>Trudeau:—"The Therapeutic Use of Tuberculin, etc." (*American Journal of the Medical Sciences*, August, 1906.)

## RECENT ADVANCES IN OCULAR THERAPEUTICS.\*

By G. STERLING RYERSON, M.D., C.M.

Professor of Ophthalmology and Otology, Medical Faculty, University of Toronto.

THE time was not so long ago when the ophthalmologists had but few drugs to rely upon to combat the special diseases of the eye. Atropine, eserine, and more recently cocaine constituted his main support. Now; however, an array of pharmacal preparations and numerous alkaloids, are at hand to aid his surgical skill. For convenience of description I propose to divide these therapeutic agents as follows:—

1. Local anesthetics, (a) superficial, (b) deep.
2. Drugs acting specially upon the iris and ciliary muscles.
3. Drugs affecting the vascular condition of the eye.
4. Astringents and antiseptics and other general remedies in their local application.

Class 1. *Cocaine* cannot be used in all cases with perfect safety. Its action has precipitated attacks of glaucoma and the shedding of large portions of the corneal epithelium have been recorded. It is toxic in some persons, even when applied to the conjunctiva, causing faintness. It lowers the nutrition of the cornea and its use in corneal ulcers should be guarded. The anesthesia produced is somewhat superficial.

*Eucaine* is less toxic than cocaine but is irritating and painful when applied to the conjunctiva. Its anesthetic effect is about equal to cocaine. It should be used in a 2 or 3% solution, but can be used stronger without ill effect.

*Tropocaine* is also very painful but its anesthesia is deep and lasting.

*Holocaine* is a powerful anesthetic, but is more toxic than cocaine.

*Stovaine* is an ideal local anesthetic, it produces a deep and lasting anesthesia and is free from poisonous qualities so that it may be injected freely under the conjunctiva, but produces a good deal of smarting before its anesthetic effect is produced.

*Alypin* is the local superficial anesthetic par excellence. It does not cause dilatation of the pupil or paralysis of accommodation, nor has it any toxic effect. It is not very deep in action nor very lasting in anesthesia.

*Dionin* is a powerful sedative, hypnotic and lymphagogue and is of great value in episcleritis, iritis, irido-cyclitis, glaucoma and corneal opacities. Its later beneficial effect is caused by its lymphagogue action by which absorption is rapidly produced. I have seen most remarkable cures by its use in opacities of the cornea. In effusions of blood or lymph into the vitreous it produces rapid absorption. I have seen an interior chamber full of blood clear up in twenty-four hours under its influence. It may be combined with atropine, adrenalin, or cocaine. I regard it as one

\* Read at meeting of Ontario Medical Association, 28 May, 1907.

of the most valuable additions to our eye materia medica of recent times. It is used in a strength of from 2 to 10 per cent., always beginning with a weak solution and warning the patient of the reaction which follows its use.

*Acaine* is another drug of this character which is highly recommended by Darier. My experience is that while it is productive of deep anesthesia, it is very painful. I have used it to mitigate the pain of subconjunctival injections.

Class 2. It is not necessary to-day to say anything about atropine. Its action is well known and I am discussing recent or nearly recent drugs.

*Scopolamine* is not very new, but is very useful where atropine cannot be borne or where atropine has been used a long time and lost its effect.

*Duboisine* is very toxic, but is borne well by some persons.

*Euthalmine* in 2 per cent. solution dilates the pupil without causing paralysis of accommodation, and as such is useful where a complete ophthalmoscopic examination is desired or where the pupil is contracted.

*Eserine* and *pilocarpine* are old and well tried myotics. I would only add that the addition of dionin materially aids their action.

Class 3. *Adrenalin* is a powerful modifier of the vascular conditions of the eye. I have tried various preparations in which suprarenal extract is the active factor, but I have found for constant strength and reliability and keeping qualities nothing equals Parke Davis and Co's solution of Adrenalin Chloride. As a remedy it is useful in all conditions of the eye attended by hyperemia. Its greatest use is, however, in controlling and preventing hemorrhage during operations. The advantage of having a clear field of operation can hardly be overestimated.

Class 4. *Argyrol*. I put argyrol in the first place in suppurative conditions of the eye. It should be used in 5 to 50 per cent. solutions, which should be freshly made. Some of the disappointments which have been reported in the use of argyrol have arisen from the use of solutions which have been prepared for some time or have been exposed to light. It has also been claimed that staining of a permanent character arises from its use. I have never seen this, but can conceive that it is quite possible from prolonged and indiscriminate use. *Prolargol* is valuable but inferior in my opinion to argyrol.

*Alphazone*. One of the difficulties in eye surgery to render the conjunctival sac aseptic, because substances which destroy microbes effectively also injure the cornea. The strength of solutions of bichloride of mercury for aseptic purposes varies from 1-5000 or 1-10,000, but solutions of these strengths do not produce effective asepsis. Alpha-

zone is said to be effective, is non-toxic and non-irritant and so far as my experience goes, I am well pleased with it.

*Ichthargan* is highly extolled by Brinton in suppurative conditions. I have found it useful in persistent Blepharitis marginalis.

*Mercuriol* is another new remedy. I have used it with good results as an adjuvant in the treatment of trachoma.

*The Sodium salts.* Trousseau recommends the hyposulphite as an antiseptic lotion in 5 per cent. solution. It is non-toxic and non-irritant. Schiele recommends the iodate for phlyctenular ulcers. Fox writes enthusiastically of the saccharate injected hypodermically in opacities of the cornea and vitreous.

*Brometone.* For the relief of asthenopia and asthenopic headaches which lenses have failed to relieve, Kyle recommends five grain doses of brometone every three hours.

*Spermine.* Bosse reports considerable gain in visual acuity in a case of tabetic nerve atrophy from the extract of the testicles, and Jacoby reports similar improvement from Poehl's spermine.

*Jequiritol.* Powdered jequirity bean has long been known as a remedy in corneal opacity, but jequirtol, an extract, has only comparatively recently been introduced to the profession. Coppez reports that his results in trachoma from infusion of jequirity and for its active principal, jequiritol have been the same. He uses Merk's outfit, containing vials of graduated strength. He applies cocaine, first avoiding, bichloride washes, and gradually increases the strength of the solutions used. When there is reaction he waits until this subsides and resumes with the dose which caused the reaction, usually discontinuing applications after the second reaction. In mild cases of trachoma the disease is favourably modified by weak solutions even when no reaction is reached, and it has undoubted advantages in the treatment of persistent phlyctenular disease, chronic conjunctivitis and after conjunctival burns.

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#### THE TREATMENT OF PERFORATIONS OF THE NASAL SEPTUM.

Goldstein (*Laryngoscope*, Nov., '06) has found in many cases of perforation of the nasal septum when the crusts have all been removed, the mucosa has been retracted on both sides from the edge of the perforation about the greater part of its circumference, and that the cartilage projects beyond the mucosa edges. He cuts the rim of projecting cartilage well back, first having lifted up the mucous membrane all round. This permits a mucous membrane edge, as it were, to form, and practically does away with the formation of crusts which is the real complaint in most cases.

## PROVINCE OF QUEBEC NEWS.

Conducted by MALCOLM MACKAY, B.A., M.D., Windsor Mills, Quebec.

Increased expenditure and decreased revenue were the most important items in the quarterly report of the Montreal General Hospital, it being announced that the income during this period was \$725 less than that of the corresponding quarter last year, while the expenditure was \$4,875 over that of last year. The principal items of the increase were: Wages, \$1,357; provisions, \$1,541; fuel, \$451. According to the report of the medical officer in the indoor department, there had been 818 cases, as compared with 751 the year before. There were 62 deaths, of which 26 occurred within three days of admission. The mortality rate of ordinary hospital cases was 4.4 per cent. The aggregate number of hospital days was 18,316, and the average detention of patients 22.39 days, the number of patients in the hospital being on the average 210. In the outdoor there were 12,711 consultations, as compared with 11,928 for the same period last year, while the ambulance responded to 386 calls, as compared with 327 in the same quarter in 1906. Several of the by-laws are to be revised, notices of motion being given to amend the constitution so that the neurologist may be included in the usual board appointments. Again, that three be sufficient to form a quorum of the board, and from them that there be a better representation of the outdoor on the board of managers. The president, Mr. Jas. Crathern, expressed the opinion that the present system of quarterly meetings was a drawback, and that annual and semi-annual meetings would be sufficient. His suggestion met with approval and it was resolved that the question be discussed at the November meeting. Dr. H. M. Little was appointed assistant gynaecologist to succeed the late Dr. J. D. Cameron.

At the 64th annual meeting of the Montreal Dispensary, it was reported that 19,263 consultations were held during the past year, divided as follows:—General, 9,840; eye and ear, 2,194; gynaecological, 1,148; nose and throat, 675; skin, 2,507; diseases of children, 2,621; dentistry, 299. The new property will be ready by September the first, and it is expected that the work will rapidly increase soon after removal. The following staff was appointed:—

Attending Physicians.—Drs. G. H. Brown, J. J. Ross, J. L. Day, W. R. Howell, E. H. White, W. A. Dorion.

Attending Specialists.—Dr. Smith, diseases of women; Dr. H. D. Hamilton, nose and throat; Dr. Jack, skin diseases; Dr. Kerry, eye and ear; Dr. Vipona, children's diseases.

Assistant Physicians.—Drs. A. A. Robertson, W. H. Smyth, Nelson, McGovern and Williams.

Assistant Specialists.—Dr. Brown, nose and throat; Dr. Douglas, children's diseases.

Pathologist and Assistant.—Drs. Williams and Howell.

The following cases were reported before the Montreal Medico-Chirurgical Society :—

Tumour of the Temporo-Sphenoidal lobe with dreamy states. Dr. C. K. Russell. In this report Dr. Russell showed the patient, who was quite blind, before the Society. About three years ago she saw visions of an unpleasant nature which recurred again and again. A woman used to appear asking the patient to rescue her child from drowning. This vision used to appear so frequently that every detail was impressed on the patient's mind. About the same time severe attacks of pain in the region of the distribution of the fifth nerve were noticed. These attacks are very rare at present and the vision has disappeared, although other dreams occur. After the neuralgic pains had been present some time, blindness ensued. Present examination shows atrophy of the optic nerve, and definite areas of anæsthesia in the area of the fifth nerve. The whole of the symptoms point to a tumour on the left side of the head in the temporo-sphenoidal lobe.

Drs. Birkett and E. H. White showed pathological specimens of the turbinated bones and tonsils.

Dr. Von Eberts read a paper on Wright's treatment of infections, and Dr. Mussen reported a case of functional scoliosis.

Drs. Molsen and Gordon reported a case of cerebral hemorrhage simulating meningitis, and Gordon Campbell a case of Blocking of the Coronary Artery, as did also P. G. White.

Drs. Archibald and Cummings gave a paper on general peritonitis, in which Dr. Archibald gave the results of his work in all cases of this sort upon which he has operated. He believed that each case was a law unto itself and that no absolute rule could be followed, but he considered that to enter the abdomen, remove the cause if possible, flush out gently and close without drainage was the best practice. Although his series of cases was not large, yet the percentage of recoveries justified the treatment.

Dr. Sherris gave a paper on electrical examination and treatment of optic neuritis and atrophy. He reported two cases in which he considered he had decided improvement in vision. The patients considered themselves to be much better after a course of electrical treatment. Dr. Mathewson stated that he had seen one of the patients in question before and after treatment and thought that Dr. Shirres was a little optimistic to say the least, personally, he thought that there was but little change, if any, in the man's condition.

Dr. White showed a specimen of aortic and mitral stenosis and another of multiple emboli in the lung.

Dr. H. M. Little read a paper on clinical aspects of the diagnosis and treatment of puerperal infection.

Drs. Morrow and Mackenzie reported a case of cardiac arrhythmia and Dr. Henry one of traumatic empyema.

Dr. J. E. Laberge made a written complaint recently to the Montreal Hygiene Committee that many doctors in the city still fail to report cases of infectious disease that come under their care; some also neglect to give instructions to have patients' homes disinfected; others did not indicate the cause of death in their certificates, and cases were known of doctors being so unscrupulous as to mis-state the cause of death to please the relatives of the deceased, who did not wish it known that there had been a case of infection amongst them. It was decided that the by-laws governing these matters would be rigidly enforced, and that in all probability a few examples would put a stop to the negligence or deliberate fraud as the case might be.

Dr. Osler has presented McGill University with a rare medical work of the seventeenth century entitled "Pseudo doxia Epidemica, or enquiries into very received tenets and commonly presumed truths," and two doctors' diplomas quaintly illustrated in colors, as well as a "doctorate's privilege," a document also of the seventeenth century.

The Sherbrooke Protestant Hospital has been suffering lately to some extent from lack of funds and the following letter has been forwarded to all the medical practitioners in the townships. "At a meeting of the Governors held on the 17th inst., it was resolved that By-law No. 16 be amended so far as regards Rule 24, which regulates the fees to be paid by patients, said first part of Rule hereafter to read as follows: 'Patients in public wards shall pay at the rate of one dollar a day.. The rate for semi-private beds shall be one dollar and twenty-five cents a day. The charge for private wards shall be from one dollar and fifty cents to two dollars and fifty cents a day according to the ward occupied.' This resolution was the result of a full consideration of the financial condition of the hospital, there being now a serious and increasing deficit." In addition to this it is understood from a by-law recently passed that the lady superintendent will not receive any cases of poverty unless the hospital fees are previously guaranteed by a responsible person. The hospital has complained of lack of support from surrounding municipalities, and it would appear that this enactment could scarcely make the hospital a more popular object of charity. As a result in all probability of this feeling, the Board of Governors has requested that the City of Sherbrooke give \$500 annually to the support of the hospital, a similar sum to be given from the various surrounding municipalities. The statement being made that the municipalities thus acting should have the right to send in poor patients at reduced rates or free of cost. The Sacred Heart Hospital joins in the petition.

THE ONTARIO MEDICAL ASSOCIATION—THE TWENTY-SEVENTH ANNUAL MEETING, HELD IN TORONTO, MAY 28, 29, 30, 1907.

Medical men generally throughout the Province took a greater interest than ever in the work of the Ontario Medical Association. The twenty-seventh annual meeting, commenced on the 28th of May, in the Medical Building, Queen's Park, and was attended by a record-breaking number. The register for opening day was exceptionally large.

TUESDAY, 28TH MAY.

*Forenoon Medical Section.*

The subject of Dr. Smith's paper was "The Care of the Degenerate, with Suggestions for Preventing the Propagation of the Species." In the course of his remarks the lecturer referred to the continued increase of the degenerate class, which formed a great charge on the public funds, and also seriously affected the race, while the influences recognized as factors in producing degeneracy seemed to escape the attention they deserved. One of the greatest of these factors was heredity, and Dr. Smith pointed out that many of the States of the Union had enacted laws forbidding any persons tainted with insanity, or with any of those physical conditions which are known to be likely to be reproduced in the offspring, to marry. He also discussed the importance of providing an industrial institution where all feeble-minded women who are not properly protected may receive custodial care, and thus be prevented from becoming mothers of imbecile children.

"What was the use," he argued, "of building asylums when we neglect to use preventive measures, and to educate public opinion to the fact that much can be done to check the increase in the number of degenerates in the country?" He alluded to the importance of properly estimating child character, and the training of the mental faculties of children. The burden was one to be borne equally by physicians, teachers and parents. All who had studied the question were agreed that segregation or colonization of the unfortunates in industrial settlements was the only successful method of dealing with the defective classes.

An interesting discussion followed, in which Dr. Burgess, of Montreal; Dr. J. C. Mitchell, of Brockville, and Dr. W. C. Henderson, of Kingston, took part, and a resolution was adopted submitting the matter to a special committee for consideration of Dr. Smith's paper and to report at the next meeting of the Association on the suggestions.

Dr. D. A. Graham, of the Toronto General Hospital, read a paper on value of blood examination. Other papers were read by Dr. J. G.

Fitzgerald, of the Toronto Asylum; Dr. E. Brandon, of North Bay; Dr. J. A. Oille, of Byng Inlet, and Dr. G. Sterling Ryerson. Discussions ensued in each case.

*Forenoon Surgical Section.*

A clinic was held at the Hospital for Sick Children by the members of the surgical section of the association.

*Afternoon General Session.*

At 2.15 the afternoon session opened, with the President, Dr. George A. Bingham, in the chair. The attendance ran considerably over the hundred mark, and some of the discussions proved to be of exceptional interest, and consisted of a symposium of papers on the "Relationship of the Medical Profession and the Public."

The regulations as regards coroners in the Province were discussed several suggestions made, though on the whole the present system was endorsed. Vaccination was also threshed out. A resolution calling upon the Government to establish a system of county medical health officers was one of the most important matters dealt with.

A feature of the session was the appearance of Hon. Dr. Reaume, the Minister of Works, who took part in several discussions, making statements which, coming from a member of the Ontario Cabinet, were of more than ordinary importance.

Dr. G. Silverthorn, of Toronto, read the first paper, his topic being "The Medico-Legal Aspects of the Profession." He reviewed briefly the regulations in the matter of coroners' juries, and expressed the opinion that the present method in Ontario was the best in vogue anywhere. While the medical men who acted as coroners almost invariably lacked legal knowledge, this ignorance was more than offset by their knowledge of the medical aspects. He did not think there could be any just or sufficient grounds for a change, pointing out that there had never been the slightest hints of corruption and the results on the whole had been satisfactory.

In dealing with the defects in the system, he pointed out that there were restrictions in the matter of appointments, and the fees which it was possible for a coroner to pay for medical work in connection with his appointments were too small. He suggested that the number of coroners in the Province should be limited, and that all appointed be in possession of a certain amount of legal knowledge.

Dr. D. D. MacTaggart, of Montreal, led off the discussion, making the suggestion that the Province should be divided into districts, with one coroner at the head of each. Big cities could be operated separately. In his opinion the coroner should be a legal man with a medical associate. Reports from each district could be made each month. Dr. MacTaggart

further suggested that the establishment of a medico-legal society would result in throwing much light on the mixed relations of the two professions.

Hon. Dr. Reaume entered at that stage and was called to the platform amid applause. He stated that the system, while good, allowed room for improvement. One point that he believed might be enquired into was the question of expense when a railway accident occurred, instancing the fatal wreck at Guelph. At present the municipality where the accident occurred had to pay the shot.

Dr. Arell pointed out that the system was unfair in not allowing doctors who made preliminary examinations any fees.

In winding up the discussion, Dr. Silverthorn took a firm stand against the idea of allowing post mortems in cases where there was no suspicion of foul play.

"The Public Health Aspects of the Profession" was the title of a paper prepared by Dr. J. W. S. McCullough, of Alliston, and read by Dr. Hodgetts in the absence of the writer. It first dealt with the appointment of public health officers. The system was imperfect, and in many cases unsatisfactory, due almost entirely to the fact that small pay was allowed, if any at all. The result was that outbreaks of disease often occurred through lack of care in stamping it out in its inception. He believed that the Medical Health Act should be so amended that the health officers would receive a fair remuneration and be responsible for their districts to the Provincial Board. The basis of salary he suggested should be according to population, say \$500 for places of 1,000, and an extra \$100 for every additional 1,000 people, going as high as \$1,500.

His second point dealt with the unfairness of no fee being given for registration of infectious cases. The medical fraternity was not given sufficient protection, and he urged that better organization be effected.

Touching on the question of vaccination, he contended that steps should be taken to rescind the reactionary resolution passed by the Board of Education in Toronto. The benefits of vaccination had been so often proven that it was a pity that the laws could not be stringently carried out. The experience in all countries had shown that the only way to stamp out the disease was by compulsory vaccination and revaccination. He argued most strongly that the scarcity of the disease of smallpox in the Province was no reason for any laxity in this respect.

Taking up the fourth and last point, the need for better organization on the part of the medical profession was shown. At the present time they were unable to protect themselves against unjust prosecutions and suits. No matter how worthless the person bringing suit, heavy bills of costs were added up, and the medical practitioner had no excuse but to pay them.

Dr. W. R. Hall, of Chatham, led the discussion, commending the idea of having county health officers instead of municipal officials, on the ground that under the present system many municipalities could not afford to pay a medical officer. Dr. Oldright spoke to the same effect, urging that the officials should be in a position to give their full time and attention to the work. The need for compulsory vaccination, for medical health officers, and for other matters of the kind were so self-evident to medical men that they had not done enough to educate the public generally to see it the same way.

Dr. Oldright then moved that the Committee on Public Health be requested to take such steps as are deemed best to induce a system of county medical officers.

Dr. Harrison, of Selkirk, one of the veterans of the profession, was given a hearty ovation on rising to second the resolution. He spoke from long experience in the study of smallpox. The regime of "cranks," as he termed the anti-vaccinationists, could only be effectually done away with by some severe example such as had been met with in Montreal.

Dr. Hunter, as a member of the Board of Education, stated that he believed all the members of that board believed in vaccination. The reason why they had acted as they did on the occasion referred to was because there were already regulations on the statute books which the late Government had been too cowardly to carry out in the whole 32 years of their administration, and which the present Government were also shirking. Politics, he said, never comes into consideration in his attitude on such matters, but he blamed both the late and the present Governments for not establishing a system for a proper form and quality of vaccine. He had seen the arms of children badly used in the process of vaccination, and would personally never vote for compulsory vaccination in the schools until proper precautions were taken. He did not believe it would be possible to elect a man in Toronto to the Board of Education at the present time if he favored such a course.

Dr. Milner, of Toronto, declared that the fault was due to the parents neglecting to take proper care of the children's arms after the operation. It was hardly fair to decry the quality of the vaccine.

After some further discussion the motion of Dr. Oldright was voted upon and carried.

In reading a paper on "Ideals for Asylum Work in Ontario," Dr. C. K. Clarke made a very important announcement regarding the policy of the Government, and incidentally handed some bouquets to the Administration. The ideals for asylum work had not all been reached, he said, but the Government had taken up the question. The present Provincial

Secretary was taking the broadest view of the problem and already many changes had been made. The staffs at the asylums and hospitals, while too small, had been emancipated from clerical work, and in future medical qualifications would be considered in all appointments. In the past the care of the insane had been too much disassociated from their medical study. Dr. Clarke pointed out that in future the two would be made more closely associated, and stated that the plan was in view to establish a Government hospital and clinic for psychiatry. This would improve the knowledge of the scientific side of the work, and lead to better care and treatment.

Dr. N. H. Beemer, of the Mimico Asylum, in discussing the paper, stated that undoubtedly the scientific side of the study of mental diseases had not received the attention in the past that it should have done. If the medical profession should make recommendations to the Government regarding the appointment and promotion of medical men in the institutions for the insane, he felt sure that the Government would accede.

Dr. T. J. W. Burgess, of Montreal, stated that from an economical standpoint alone the establishment of the proposed hospital and clinic in Ontario would be money well spent. He believed that no man should take charge of an institution for the insane unless peculiarly fitted for the same, and no junior should be appointed unless possessing a penchant for the work. The time would come when no general practitioner would dare to accept such a position.

Mr. W. N. Barnhart, of New York, told of the new movement now on foot in New York State. The work being done in Ontario should have been carried out ten years ago.

Hon. Dr. Reaume declared that the Province of Ontario was in no way behind any other part of the world in the care of the insane. He did not wish to speak as a physician or a politician, but rather as a loyal Canadian, and he wished to say that the men at the heads of the establishments for the care of the insane in Ontario were able men, and with such men as Dr. Clarke in charge, it could not be said that Ontario was in any way behind. It had been said that the changes now on foot should have been done ten years ago. He coincided in that opinion and went on to show that many grievances which had existed were now being done away with. The Government was acting for the best, he said, and he wished to return thanks for the commendation which their efforts had met.

Dr. J. A. Amyot, of Toronto, read an instructive paper on "The Infection of Drinking Water," showing that nearly all infectious diseases could be conveyed by the natural element. He mentioned the interesting point that the diseases of animals were often conveyed to men through animal deposits in the water.

During the afternoon the ballots for the Nominating Committee were distributed. The committee selected consisted of Drs. Powell, Silverthorn, F. N. G. Starr, H. J. Hamilton, G. A. Bingham, J. C. Mitchell, C. J. Hastings, and A. McPhedran.

*Evening Programme.*

In the evening the delegates were entertained in St. George's Hall, when Dr. J. F. W. Ross gave an excellent address on a trip taken by him to the Soudan, illustrated by limelight views. Dr. Herbert Hamilton was master of ceremonies, and the vocal numbers were contributed by Messrs. Lautz, Bemrose, Davies, Macdonald and Alex. Gorrie. Dr. T. B. Richardson was accompanist.

WEDNESDAY, 29TH MAY.

*Forenoon Medical Section.*

Dr. Edward Ryan, of Kingston, read a paper on "The Desirability of Establishing an Institution to which Inebriates may be committed by Legal Process." He pointed out that the need of some such institution had been felt for some time, particularly by medical men, who were constantly faced with the problem of what to do with broken-down drunkards. Not only was the question a pressing one from the economic standpoint, but it also had to be approached on the issue of the national health. Children of inebriates inherit the taste. In Ontario there was not a single institution where the more severe cases could be attended to.

The continuation of the race itself in the higher and more valuable attributes was closely connected with the question, for inebriety was confined to no age, nation, or race, and stood in the first rank in the number of its victims. Professor Dr. Nicloux held that children conceived in drunkenness and nursed by inebriates developed the alcoholic tendency, and on that ground contended for legislation to prevent racial degeneration. Prof. Holitscher, of Austria, and other world-known medical men held similar views.

In all the more severe cases, treatment in an asylum was indispensable, the enfeebled will of the drunkard not being strong enough to resist temptation. Removal from home also helped to break up the morbid trend of reasoning and association, which could not be done by relatives. Children were raised in alcoholic atmosphere and sent out to join the grand army of inebriates staggering to its doom.

Dr. Ryan described what he believed would prove a suitable institution for the purpose. Any person who, in the estimation of two physicians, was considered to be suffering from the alcoholic or drug habit, could be committed and treated there.

Mr. Justice Riddell, who opened the discussion on Dr. Ryan's paper, expressed the opinion that the establishment of an institution for the care of the drunkard was absolutely necessary, but he did not think that the certifying by two doctors would supply a sufficient amount of evidence to justify the restraining of an individual. Personally he was of opinion that such questions might be more suitably submitted to a jury, as what was really required was a statement of fact rather than a technical diagnosis. It would also be necessary to avoid allowing such a measure to be controlled by the temperance crank. He did not wish, however, his use of that term to be taken as a reflection on any body of men, for he fully recognized that it was not in mechanics alone that the crank produced revolution. Proceeding, His Honor said: "While the machinery may not now be perfect—far from it—let us use effectively such as is at hand. I sought to use means at Guelph recently to put an end to the horrible slaughter getting more and more prevalent on the railways. I refer to it, because it has occasioned some public feeling as evidenced in the newspapers and elsewhere. It has at least arrested attention. For years we have been crying out for more legislation, and more legislation, and more legislation. The surest way to obtain—to make a right start, is to apply sternly and strictly the legislation existing. This is the counsel I would give you in dealing with inebriates."

He declared that there were men constantly appearing in the police courts for drunkenness, but no attempt was made to cure them. These men could not afford to go to institutions such as exist at Guelph and Toronto, and thus were completely in the power of the vice. Justice Riddell gave an exhaustive account of the legal enactments in the several provinces respecting drunkards.

At the conclusion of the discussion a strongly worded resolution was moved by Dr. Oldright, seconded by Dr. John Ferguson, calling on the Government to take some action. It was adopted by the meeting.

Dr. S. H. McCoy, of St. Catharines, read a very able paper on "Neurasthenia." "Modern Anæsthesia" was discussed by Dr. S. Johnston. Dr. Frederick Fenton gave a paper on "Anæsthesia in Labor." Dr. T. S. T. Smellie, of Fort William, gave a paper on "Allopathic Doses of Drugs." "The Influence of Protein Foodstuffs on the Therapeutic Action of Salicylic Acid" was discussed by Dr. Graham Chambers.

#### *Forenoon Surgical Section.*

In the Surgical Section there was given an interesting symposium on fractures. Those of the skull were taken up by Dr. D. E. Mundell, of Kingston; those of near the elbow, by Dr. F. N. G. Starr, Toronto; those near the wrist and ankle, by A. W. Stinson, of Brighton; and those

of the femur, by W. E. Gallie, of Toronto. These papers were discussed by Drs. L. Teskey, H. A. Beatty and others.

Other Surgical papers were: "A Case of Tetanus Cured by Amputation," reported by T. W. H. Young, of Peterborough; "Congenital Umbilical Hernia," by A. E. McColl, of Belleville; Mastoiditis, by Gilbert Royce, and Mastoid Suppuration, by Perry G. Goldsmith, of Toronto.

*Afternoon General Session.*

During the afternoon session two most important papers were given. The lecture room was practically filled, only a few of the upper seats remaining unoccupied.

The Presidential address was delivered by Dr. G. A. Bingham. He had chosen a technical subject, dealing with "Goitre and its Treatment." Being thoroughly acquainted with this form of disease, his treatise proved to be most complete. He outlined the different forms of the disease and the treatment required in the case. As the result of constant operations, he was able to affirm that the proper treatment was an early operation, as soon, in fact, as the trouble had been properly diagnosed. When early operations were performed, the mortality percentage was reduced almost to a minimum. He quoted numerous cases, giving the symptoms and the course of treatment in each.

At the conclusion, a vote of thanks was moved to the president by Dr. Harrison, of Selkirk, and seconded by Dr. Temple.

One of the most noted authorities on surgical matters appertaining to the blood, Dr. George W. Crile, of Cleveland, gave the address on Surgery, on "Clinical and Experimental Observations on the Direct Transfusion of the Blood," which conveyed a wealth of facts and interesting disclosures. He showed how the transmission of blood from the vein of one person to that of another had been made possible, despite the danger of "clotting." He explained how the veins were united, by means of an almost microscopic tube. The results of blood transfusion were explained, at length. He showed how the face of the recipient would change while the flow continued, filling out, and taking on the rosy tint of health, until the patient would awake to find himself changed from "pallid weakness to glowing jocoseness."

By means of experiments with animals it had been found that the blood of one animal was interchangeable with that of others of the same species. The wonder-working of science in the matter of life-sustenance, he showed by explaining that with animals it had been found possible to resuscitate them after all circulation of the blood had ceased, provided that the heart still vibrated ever so lightly. It has also been found possible to keep the heart on ice for a few hours and on returning it to main-

tain a slight circulation through the body for a few hours. A still more extreme possibility discovered was the keeping of an animal alive—tentatively alive—after the head had been cut off.

A vote of thanks was moved by Dr. Mundell, of Kingston, and Mr. I. H. Cameron, of Toronto. Both speakers commented on the cordial relations between the medical bodies of Canada and the United States.

A business session of the Association was then held, when the following items of business were transacted:—

The report of the Nominating Committee, read by Dr. Silverthorn, was adopted in toto, so that the officers and committees for the year are as follows:

President—Dr. Ingersoll Olmsted, Hamilton.

Vice-Presidents—Dr. H. J. Hamilton, Toronto; Dr. D. E. Mundell, Kingston; Dr. C. E. Casgrain, Windsor; Dr. T. S. T. Smellie, Fort William.

General Secretary—Dr. C. P. Lusk, Toronto.

Assistant Secretary—Dr. S. Johnston, Toronto.

Treasurer—Dr. J. Fenton, Toronto.

Credentials—Drs. W. J. Hackney, Ottawa; Malcolm Stalker, Walkerton.

Public Health—Drs. Emerson Bull, Lambton Mills; J. W. S. McCullough, Alliston; Ira Freel, Stouffville; A. E. MacColl, Belleville.

Publication—Drs. Geo. Elliott, Toronto; H. L. Hutchison, Toronto; Graham Chambers, Toronto; John Hunter, Toronto, and D. J. Gibb Wishart, Toronto.

By-Laws—Drs. James Lindsay Guelph; C. J. O. C. Hastings, Toronto; Alex. Taylor, Goderich; W. J. Charlton, Weston; W. T. Parke, Woodstock, and T. D. Meikle, Mount Forest.

Ethics—Drs. A. A. Macdonald, Toronto; H. S. Bingham, Cannington; H. T. Machell, Toronto; H. A. McCallum, London; G. T. McKeogh, Chatham; John Caven, Toronto; and H. J. Hamilton, Toronto.

After some discussion it was decided to meet next year in Hamilton. The delegates from Kingston extended an invitation to go to that city, but withdrew in favor of the former city, with the request that they should get the meeting the following year. Quite a number of the members spoke strongly against leaving Toronto, on the ground that the attendance was always larger here. The vote taken was a close one.

The Committee on Public Health reported to the effect that a deputation would wait on the Premier of Ontario and his colleagues to urge the advisability of establishing a system of county medical health officers.

The report of the special Committee on Hospital Provision for the Treatment of Acute Nervous and Mental Cases" was read by Dr. Campbell Meyers, of Deer Park. It showed that a ward had been established

in the Toronto General Hospital for the treatment of such cases, with very satisfactory results, except that no clinical teaching had been allowed. The report was discussed at some length.

The annual report of the Treasurer, Dr. F. Fenton, gave a financial statement for the two past years. A balance on hand at the present time of \$41.13 was shown.

On the suggestion of Dr. Oldright, it was decided that the President should be empowered to send delegates to attend the second International Congress of School Hygiene, which meets in London from August 5th to 9th.

*The Evening Banquet and Programme.*

In the evening a banquet was given at the King Edward Hotel. Wit and humor in a marked degree characterized the speeches delivered at the banquet. Each speaker had a store of pointed anecdotes and bright witticisms, tending to make the post-prandial programme particularly suitable and enjoyable.

The attendance was large. The guests were seated at small tables, and sufficient were present to fill the banquet hall. The dinner served was marked by daintiness and abundance.

Dr. George A. Bingham, retiring President of the Association, took charge of the toast list.

In responding to the toast of "The Lieutenant-Governor," Hon. Mortimer Clark spoke in a very jocular tone. The importance of the profession, he said, was fully recognized by everyone—particularly of late years. In days gone by not so much was known of the human frame as at present, and doctors would pour medicine, of which they knew little, into the body, of which they knew less, to cure a disease of which they knew nothing. (Laughter.) After giving a series of anecdotes, all of which caused rounds of laughter, he praised the profession for the consideration which they showed to the poor. Toronto had become one of the greatest medical centres, and her medical men were known in all parts of the world. He pointed out that in the progress which the profession was making, one man could not advance without all the others advancing with him.

Dr. J. H. Hamilton, the newly-elected first vice of the Association, proposed the toast to "Canada," coupling with it the name of Dr. Bingham, of Cannington. The latter struck a humorous vein, dilating on the advantages of Ontario. This banner Province could boast of many things, the equal of which could not be found anywhere else in the world, to wit—Cobalt, the Toronto Exhibition, the Medical Association, and the Whitney Government. (Laughter.) His concluding remarks took a highly patriotic turn.

In responding to the toast of "Our Sister Professions," Mr. Justice Fiddell made a most emphatic defence of the one branch of the triumvirate of professions, to which he belonged—the law. "The members of the legal fraternity, he said, were charged by the unthinking and smart Alects with being out for gain only. They certainly did look for gain—the laborer was worthy of his hire. But the speaker, who from experience knew whereof he spoke, could say that a more honorable and high-minded body of men than the legal profession did not exist. The liar had no more place in the legal fraternity than in the theological seminary. "The profession of Sir John A. Macdonald, Sir John Thompson, Hon. Edward Blake, Sir Wilfrid Laurier, Sir Oliver Mowat, Hon. A. S. Hardy, Hon. J. P. Whitney, and Hon. William Mortimer Clark needs no trumpeter in Canada," he declared.

In dealing with sister professions generally, Mr. Justice Riddell stated that the old-time acceptance of the term included the three—church, law, and medicine—pretty much in the order named. (Laughter.) Nowadays other professions were recognized—engineers, dentists and pharmacists, *i.e.*, druggists retired. (Laughter.)

In concluding, he urged a closer union between the learned professions.

The toast to "Our Guests" was responded to by Dr. George W. Crile, of Cleveland, and Dr. M. P. Ravenel, of Philadelphia. Both spoke with pleasure of the friendly relations existing between the medical men of Canada and the United States. Dr. Ravenel, who also told several humorous stories, declared that so much respect was felt for the achievements of the Canadian medical men, that he hoped to have the term American medical embrace them as well as the doctors of his own country.

Dr. J. T. Gilmour, warden of the Central Prison, responded to the toast of "The Medical Profession." "My time has been cut short," he remarked in opening, "because they probably feared my idea of 'time.'" (Laughter.) After referring to the great work of Dr. Grenfell, he declared that when missionary work was in question, the members of the medical profession were always in the forefront. What would be the result if lawyers were sent among the heathen to practise their art and teach the benighted people the benefits of love and mercy? (Laughter.) Although a doctor, he had not practised very much of late years, having become a specialist; he was now making a specialty of the study of cell life. (Loud laughter.)

Dr. Bingham replied briefly to the last toast of the evening. In his capacity as chairman he extended his warmest thanks to the officers who had worked with him and assisted in making the meetings this year

more successful than ever before. There had been an attendance this year of close on to 300, and in future he hoped that this would be increased to 500 or 1,000.

During the evening Mr. Donald MacGregor rendered several selections in his usual splendid voice, including "O Canada," "Eileen Alanah" and other selections equally popular.

THURSDAY, 30TH MAY.

*Forenoon Medical Section.*

Notice was given by Dr. Adam H. Wright, of Toronto, of a motion which will at the next meeting of the organization raise, for formal consideration by the assembled physicians of the Province, the question of the scientific treatment of the insane and of those suffering from mental diseases. The motion thus presented reads as follows:

"That the Ontario Medical Association desires to give expression to its hearty approval of the proposal that the Government of Ontario establish psychiatric clinics to work in conjunction with hospitals for the insane in the Province. That the Association also respectfully requests the Government to establish a Lunacy Commission or Board of Alienists, who alone shall give evidence in the courts of law as to sanity and insanity; and, also, to institute reforms in the civil service whereby promotion for merit shall take place, and especially to make a rule that no one shall be appointed a superintendent of any hospital for the insane until he has had some years of training."

In the Medical Section the following papers were read:—

"Alcohol and Life Insurance," was the title of a paper read by Dr. T. F. McMahon, of Toronto. He considered that narrow-minded persons had done incalculable harm to the cause of temperance. To call alcohol a poison, and say that its use even in moderation was harmful was not in harmony with the teaching of science and theology. While alcohol was a true food, supplying heat and energy, it was not a practicable source of energy of the performance of mental or muscular labor. It was useful in diseased conditions as a stimulus to appetite and digestion in the aged and debilitated, but the healthy man did not need it. If he chose to use it in strict moderation to make glad his heart, soothe his nerves, or as an adjunct to social life he might do so, but to avoid evil effects, the amount taken must be small. Such a use of alcohol he felt would not make a man a less desirable risk for insurance purposes than a total abstainer, except in so far as the latter was less likely to become an immoderate drinker. If, however, the life expectation of the abstainer was higher than that of the average drinker, it was only fair that the former should

be separately classified for insurance purposes and enjoy certain advantages. He felt that insurance business should be kept in three sections so that the temperance policy-holders would not be bearing the heavier mortality of the general section.

An interesting report on the practical application of the opsonic theory or the inoculation of patients with bacterial vaccines was read by Dr. G. W. Ross. Dr. S. Cummings, of Hamilton, read a paper on the value of Roentgen rays in diagnosis and treatment of calculi. "X-Rays in Diseases of the Skin" was the topic of a paper by Dr. King Smith, of Toronto. Dr. D. Campbell Meyers, of Deer Park, spoke on brain exhaustion, and Dr. J. J. Cassidy on the necessity for isolation hospitals for diphtheria, scarlet fever, and minor infectious diseases.

#### *Forenoon Surgical Section.*

The following papers were read in the Surgical Section:—

"The Bier Treatment," by S. H. Westman, of Toronto.

"Intestinal Obstruction," by Ingersoll Olmstead, of Hamilton.

"Closure of the incision in Abdominal Operations," by N. A. Powell, of Toronto.

"The Operative Treatment of Tuberculous Arthritis," by A. Primrose, of Toronto.

"The Clinical Diagnosis of Malignant Tumors," by William Hackney, of Ottawa.

"The Pathological Diagnosis of Tumors," by E. Stanley Ryerson, of Toronto.

"The Treatment of Club Foot," by Clarence L. Starr, of Toronto.

"Cases of Nephrectomy for Sarcoma and Calculus," by H. A. Bruce, of Toronto.

#### *Afternoon General Session.*

In the afternoon, at a general session, Dr. M. P. Ravenel, of Philadelphia, delivered the address in medicine. He took as his subject "A Discussion of the Methods of Infection in Pulmonary Tuberculosis." He pointed out that the chief source of infection for man was mankind, and the secondary source, cattle. In reference to the former the chief methods of transmission of the disease was by inhalation and ingestion. The sputum of a sufferer from the malady might be spread for yards by such simple acts as sneezing or the pronunciation of explosive sounds. The bacilli might be conveyed to the lungs by way of the alimentary tract. There the primary lesion or contact might occur, and yet the seat of the disease would be found in the lung itself.

Bovine tuberculosis, Dr. Ravenel thought, might be to some extent communicable to man. In this regard he differed entirely from Dr. Koch, who held that man did not contract the disease from cattle. And in reference to the secondary sources from which human beings might be infected, namely, cattle, he pointed out two means in which the bacillus might be transmitted. In the first place, although very rarely, they might enter the system on meat, as when a butcher cut through a diseased portion and then used the same knife on edible parts of the animal. In the majority of cases, however, the heat of cooking would destroy the germ. In the second place, milk might contain tubercular infection and endanger chiefly children and invalids. In the course of his experiments he had traced the source of infection in something like twenty-five per cent. of cases coming under his notice to the intestines.

Another interesting point mentioned by Dr. Ravenel was that it was possible in cases where infection was given in small doses far enough apart that the subject should be practically rendered immune on the same principle that vaccination was a preventative of small-pox.

After a discussion led by Dr. A. McPhedran, of Toronto, Dr. A. J. Richer, of Ste. Agathe, Quebec, spoke on the subject of immune therapy in tuberculosis. He referred to the use of "tuberculines," which he described as very potent poisons to be administered with great care in minute doses. He had found these preparations to act very beneficially in a large number of cases, but only in instances where the disease had not passed beyond what was considered to be the curable stage. Their administration might be justified, he was inclined to believe, in cases of incipient tuberculosis, to render those persons immune to infection, as far as possible, to reveal latent diseases.

A resolution moved by Dr. Anglin, of Kingston, seconded by Dr. Bruce Smith, Toronto, was passed to the effect that the names of Dr. Harrison, of Selkirk, and Dr. J. H. Richardson, of Toronto, be added to the roll of honorary life members of the association as a recognition of their long and eminent services to the profession. The secretary, Dr. Lusk, announced that forty-five new members had joined the association.

Finally, the president, Dr. Bingham, announced the appointment of Dr. Helen MacMurchy as a delegate to the International Congress on School Hygiene, to be held in London, England, in August. Votes of thanks were unanimously tendered the officers for their efficient services during the past year. The newly-elected officers were then installed and the meeting ended.

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## CURRENT MEDICAL LITERATURE

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MEDICINE.Under the charge of A. J. MACKENZIE, B.A., M.B., Toronto.  
—THE SALT-FREE DIET IN CHRONIC PARENCHYMATOUS  
NEPHRITIS.

In the *Medical Record*, March 9th, Peabody discusses the advantages of this form of treatment in cases of parenchymatous nephritis. The rationale depends on the assumption, supported by experiment, that there is a salt retention in this condition and that water is required for its solution in the tissues, and that by reducing the ingestion of salt to the amount normally contained in the food, a balance will be brought about between the salt in the body and the permeability of the kidneys for salt. Widal and Javal report a case of uræmia with daily elimination of urea 28 grams, but only .39 grams sodium chloride, and consider the chloride elimination a better index of the functioning power of the kidney than the excretion of urea. According to Bunge, a person upon a mixed diet requires daily only 1 or 2 grams but most people consume 10 or 20 grams, The excess is eliminated chiefly through the kidney, as there is little excreted by the skin and fæces.

Miller showed that in a case of small contracted kidney albuminuria could be increased or diminished uniformly by increasing or diminishing the sodium chloride in the food. Bryant reported a case in a medical man, in good health but in the habit of taking inordinate amounts of salt, who suffered from persistent œdema in the legs. This condition was cured by a salt-free diet.

The diet suggested, which we quote here, is not unpalatable.

Breakfast.—Coffee or tea, eggs, cereals, cream, fresh butter, fruits, bread made without salt.

10 a.m.—A glass of milk.

Dinner.—Chicken, fish, potato variously prepared, bread made without salt, ice cream, jelly, fresh butter, cocoa 8 oz.

3 p.m.—A glass of milk or water.

Supper.—Eggs, chicken, bread without salt, jelly, custard, cream, fresh butter, tea 8 oz.

8 p.m.—A glass of milk or water.

Six cases are described, in all of which marked improvement was brought about by the diet, although it was combined with the other well-known forms of treatment, but these had not availed when used alone. We may quote a typical case :

Case 2. Was an Italian, Antonio G., a gilder by occupation, 40 years of age. He entered the hospital on the 27th of July with fluid in both chests and the abdominal cavity, and œdema, which was especially marked in the abdominal wall, genitals and lower extremities.

His urine, 28 ounces on admission, always contained albumin. Before the salt-free diet was commenced this reached the amount of .6 per cent.; hyaline and granular casts were abundant, and its specific gravity fluctuated between 1,008 and 1,025. His blood pressure was not uniform, but fluctuated, without obvious cause, between limits as wide as 140 and 210 mm., and when high it failed to respond to the dilators. Under symptomatic treatment which was intelligently tried for seven weeks, the œdema was at times diminished in amount, but it always returned to the original extent when he was allowed to get up. Headache was very troublesome throughout this period.

The salt-free diet with restriction of fluids was tried from the 15th of September to the 8th of October, when he left the hospital greatly improved. In these three weeks he lost 22 pounds in weight, his headache and dyspnœa disappeared, all the fluid left his serous cavities without tapping, and the œdema vanished. In this case the urine became and remained higher in amount than it had been under symptomatic treatment, its fluctuation being between 35 and 71 ounces.

The hot pack was used throughout this treatment, and in it he perspired freely; but no complete alleviation of symptoms took place until the salt was withdrawn from his food.

It must be borne in mind that this applies only to the parenchymatous form of the disease, the writer found no advantage from the diet in the interstitial form, in which the œdema is as a rule due to cardiac conditions.

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### LICHEN PLANUS.

In the *Journal of the American Medical Association*, Feb. 16th, Lieberthal reports two cases of lichen planus of the oral mucosa. Case 1, a male æt. 21; family history negative; personal, used tobacco immoderately. Examination showed tuberculosis of the apices. Lichen planus was found on the forearm, abdomen, penis, scrotum, and buccal mucosa. The posterior part of the mucous membrane of both cheeks, opposite the interdental space, showed white glossy linear elevations, forming an irregular network, and anteriorly to these a number of pin-point flat papules. They were hard and rough to the touch. About six months afterwards, examination of the tongue showed on the left margin two plaques, with a dull white streak between; on the buccal mucosa of both sides

were irregular plaques reaching up to the soft palate, and also on the gum of the lower jaw. All these lesions were smooth, not elevated, and opaline. Case 2, a girl *æt.* 18, showed the lesions on the nape of the neck, the back of the hand, the inguinal region.

The vermilion border of the lower lip showed a copious eruption consisting of groups of pinpoint to pinhead size opaque, white, polygonal and round papules, sharply defined and irregular as well as roundish white opaque plaques of various sizes, some of the round ones having a depressed center. The margins of all these lesions were slightly raised above the level of the normal portions of the vermilion border, of which there was not much left unaffected. They felt dry and rough to the touch. On the upper and lateral surface of the left margin of the tongue and the lower surface of the right margin there were grayish-white, irregular and streak-like smooth plaques not sharply defined. On the back of the tongue in its posterior half were three slate-colored plaques arranged asymmetrically in the raphe in close proximity one behind another. Their size was about that of a dime, their surface smooth and dull and lacking the distinct papillæ. Their consistence was not different from that of the surrounding normal mucosa. They were not raised. There was no hyperæmia or infiltration zone around them. They were round and did not show any trace of their origin from typical mucous papules, while on the borders of the tongue and the vermilion border of the lower lip there were true papules and papular indications in the periphery of the plaques. The clinical symptoms justified the diagnosis of lichen planus.

Some difficulty is found in the diagnosis between syphilis, leucoplakia proper and lichen planus. In leucoplakia as a rule the patient will complain of subjective symptoms, of dryness, stiffness, more or less pain at the ingestion of hot or very cold liquids or spicy substances, while in lichen planus the lesions of the cheeks are rarely noticed by the patient and then only in rare instances when the tongue touching them perceives slight roughness, while those of the tongue may be felt as a slight stiffness in mastication. Leucoplakia never heals without local interference, while lichen planus may heal spontaneously or disappear by the administration of arsenic, while the cases calling for local treatment are in the minority.

The changes observed on inspection differ materially from those of lichen planus. Papular formations are rarely encountered and if plaques present themselves, they are, as a rule, thickened and hardened. If on the cheeks and of a recent stage of development, they affect in many instances the mucosa behind the angle of the mouth, while lichen frequently first develops on the posterior portion. If left untreated, leucoplakia shows the tendency to increase in thickness with time, to become rough, rugged, and even exfoliating, while lichen planus becomes flatter

and smoother continuously until at last it is level with the mucosa and represents only a discoloration such as is produced by the application of silver nitrate. This latter appearance is noted also in recurring lichen planus. In lichen planus the papillæ of the tongue are flattened while in leucoplakia they may be accentuated. Leucoplakia is infrequent in women while lichen planus is equally frequent in both sexes.

Syphilitic lesions of the mouth are painful (except plaques of the tonsils which in spite of their extensive development sometimes may be painless), lichen eruptions are painless. The syphilitic mucous plaques are situated within a highly reddened infiltrated area, lichen planus is surrounded by perfectly normal mucosa. The syphilitic manifestations show a tendency to progressive changes, viz., erosion, ulceration and proliferation; lichen planus, though also quite persistent—lasting sometimes for months—shows no such changes. These, together with the characteristics of lichen planus previously described, may serve to differentiate these processes. In addition to these, the cutaneous lesions—if present and typical—and also the effect of specific treatment, will aid the practitioner to establish a diagnosis.

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#### FORMALDEHYDE DISINFECTION.

In an article by Boston in the *Medical Record*, March 9th, on the prevention of disease, there is a description of a method of using formaldehyde for disinfection that is useful under some circumstances, as it requires no heat and no apparatus except a tin pail of sufficient capacity with a double bottom, or an ordinary milk pail set inside a wooden bucket will answer as well.

The room is sealed, fine needle-shaped crystals of potassium permanganate ( $3\frac{1}{2}$  ounces to each 1,000 cubic feet of air space) are placed in the container. Over this salt is poured 40 per cent. solution of formaldehyde (1 pint for every 1,000 cubic feet of air space). The operator should leave the room quickly, as large quantities of gas are at once evolved. The results of laboratory experiments have shown that the gas thus evolved acts more thoroughly on account of its great concentration, and kills very resistant microorganisms, even when concealed under several thicknesses of cloth. The Maine Board of Health recommends  $6\frac{1}{2}$  ounces of permanganate and two pints of formaldehyde solutions for every 1,000 cubic feet. Presence of moisture in the air is essential. The disinfection of the room, the woodwork, furniture, and floors with liquid disinfectants (mercury bichloride, 1 to 1,000) is as important in this mode of disinfection as in any other. The method requires the use of common

and relatively cheap chemicals, so that it is estimated that the disinfection of 1,000 cubic feet costs about 75 cents. Based on this method, proprietary preparations are on the market under fanciful names, and for which extravagant claims are made, but they are in no way superior to the simple methods, and their use should be avoided because of the uncertainty as to the amount of gas they will evolve.

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#### OINTMENT FOR BOILS.

An ointment for boils is recommended by Bulkley: Carbolic acid, gr. 5-10; fl. ext. ergot, dr.  $\frac{1}{2}$ ; starch, dr. ii. zinc oxide, dr. ii.; ungt. rosæ, oz. ii. This is spread upon the centre of a moderately thick layer of absorbent cotton, several times the size of the inflamed area, and secured with strips of adhesive plaster. The dressing can be left on for ten to twelve hours.—*Internat. Jour. Sur.*

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#### MONGOLIAN IMBECILITY.

In the *Transvaal Medical Journal*, December, 1906, there is an article on this type by Baumann. They are world-wide in geographical distribution, and the name is derived from the resemblance of the facial expression to that of a Chinese. On this account the name was suggested by the late Dr. Langdon Down in 1866.

The typical Mongolian imbecile, in infancy, presents small, squat features with a short snub nose, whose nostrils look forward more than is usual, and whose bridge is broadly flattened. The eyes are almond-shaped; owing to the depression of the bridge of the nose they may appear to be set somewhat wide apart, but in reality they are, if anything, rather nearer to each other than is usual. In most cases the palpebral fissures are abnormally oblique, sloping upwards and outwards. In a large proportion there is present a well-developed epicanthic membrane, the fold of skin at the inner angle of the eye which is so characteristic of the Mongol races. Strabismus and nystagmus are frequently noted. The cheeks are flabby and redundant, lending themselves peculiarly to the facial grimaces which are frequently observed. The skin is usually smooth and white, and that covering the cheeks is of a characteristic ruddy color resembling the malar flush, which so greatly assists to render attractive the appearance of the Japanese geisha. The hair is generally soft and abundant, although it may be straight and lank, and devoid of much tendency to curl. The mouth is usually open, with slight

protrusion of the tongue, as though that organ were too large; the fungi-form papillæ of the dorsum of the tongue may be somewhat hypertrophied. These children often have a habit of sucking the tongue, whilst they cut quaint grimaces and screw their faces into peculiar contorted shapes.

Next to the curious physiognomical conformation, Mongolism is characterized by a remarkable, brachycephalic type of skull. The head is shortened anteroposteriorly and of spherical shape, with a tendency to parallelism of its anterior and posterior planes, and an abnormal degree of approximation of its transverse and longitudinal diameters. It is strikingly devoid, generally, of protuberances, and frequently so flattened posteriorly that the occiput may be on a plane with the neck and the vertex of the skull. In some cases an actual depression has been observed in place of the normal occipital protuberance.

Other stigmata of degeneration are evidenced in the general retardation of development. At 7 or 8 months the child may not be able to hold its head up, or to sit up at 2 years. The size may be small, the teeth late in erupting, the fontanelles slow in closing, speech may not come before the child is 5 or 6 years of age. A peculiar incurvation of the little finger of both hands has been described, but this is not peculiar to the type, and indeed is often absent.

These children as a rule are affectionate, cheerful, bright, lively, restless, and often born mimics. They show a marked appreciation of rhythm, but they are inclined to obstinacy and jealousy. The pleasing appearance of the infant, its playful ways, etc., usually makes it the pet of the ward, and false hopes are raised as to the ultimate chances of education. But as they grow older the charms of the infant coarsen into repulsing features, the voice is gruff or guttural, the skin coarse and fissured, the tongue protruding, the eyelids blepharitic. It has frequently been impossible to teach them habits of personal cleanliness.

The only etiological feature made out is that the condition may arise as a result of impairment of the procreative powers in the parents. The pathology has shown no constant lesion of the brain; an antero-posterior shortening has been described, also a diminution in the size of the pons and medulla.

The diagnosis may easily be made from the appearance by anyone familiar with the type. It has been distinguished from cretinism and congenital syphilis. However, the brachycephalic head and characteristic physiognomy, the tapering finger tips (as contrasted with the broad-tipped fingers of cretinism), the absence of myxœdematous infiltration of the skin, the existence of a normal thyroid gland, the lively disposition of the child (as contrasted with the lethargy of the cretin), the fact of the existence of the condition from birth (in cretinism the child may appear

healthy for the first six or seven months of its life), and the inefficacy of the thyroid treatment: All these factors should suffice to prevent any real confusion of the conditions.

Congenital syphilis may be suggested by the depressed nasal bridge and snuffles; but the absence of other syphilitic manifestations, the characteristic physiognomy, the inefficacy of antisiphilitic medication, and, later, the imbecility, will serve as adequate differential signs.

The prognosis is bad. Most die in infant life, few reach adult life. Much may be done by training to make their life more endurable for themselves and others, but the prospect is not good. There is no treatment as for cretinism. They should be put in an institution as affording the only chance for improvement.

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### SARCOMA TREATED BY MIXED TOXINS.

In the *Medical Record*, March 16th, Coe and Coley of New York report a case of inoperable round-celled sarcoma of the ovary which was treated successfully by injections of the mixed toxins of erysipelas and bacillus prodigiosus.

The tumor was in a woman of 32, had been noticed for about a month, and exploratory incision showed that it filled practically the whole pelvis, and was so attached that it was impossible to remove it. A portion was sent for examination to the Government laboratory, and was reported as "an apparently rapidly growing and infiltrating, very cellular growth of probably perithelial origin, perithelial hemangiosarcoma." The injection treatment was begun on Feb. 26th, 1905, beginning with  $\frac{1}{2}$  minim injected into the abdominal wall, continued 3 to 4 times a week, in gradually increasing doses, up to the point of producing a moderate reaction with a temperature of 101 to 102. The highest amount reached was 7 minims, the patient's condition preventing larger dose. Forty-seven in all were given, up to May 31st. A slow diminution in size of the tumor and an increase in mobility, without any great improvement in the general condition suggested operation, which was done, and a tumor the size of a child's head was removed, originating in the ovary, markedly pedunculated. No metastases were found.

Examination of the tumor showed great changes in its consistency, the interior being much degenerated though a diagnosis of round-celled sarcoma was made. The patient's health improved very much. She gave birth to a healthy child in the summer of 1906. She died in January, 1907, from a pneumonia which was possibly due to metastasis in the lung.

# The Canada Lancel

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## EDITORIAL.

### THE ONTARIO MEDICAL ASSOCIATION.

The twenty-seventh annual meeting of the Ontario Medical Association has passed into history, but not forgotten history, nor for many a year into ancient history. It was a very successful event and will leave waves of influences for good for a long time to come. The attendance was large, the arrangements were perfect, and the programme of papers and entertainments were all that could be desired by the most fastidious.

During the forenoon of the first day a leading feature was the valuable contribution of Dr. R. W. Bruce Smith on the subject of "The Care of the Degenerate, with Suggestions as to the Prevention of the Propagation of the Species." It was urged in the paper that steps be taken to press upon the attention of the Government the need that exists for a home where feeble-minded women may be properly cared for, and, in this way, lessen the risk of propagating weak-minded children. The influence of heredity was fully dwelt upon.

The important features of the question were fully dwelt upon by those who took part in the discussion. It is quite evident that something should be done along the lines laid down in the paper. There is every reason to believe that the committee, to which the matter was referred, will report to the next annual meeting in such a way that some definite action will be taken.

A feature of the meeting was the symposium of papers on "The Relationship of the Profession to the Public." Throughout these papers a number of very valuable suggestions were made. Some of the ideas, set forth in Dr. Silverthorn's paper on "The Medico-Legal Aspects" of our work, should find ultimately expression in our laws.

Dr. J. W. S. McCullough's paper on questions of "Public Health" was very timely. In his paper he dwelt upon the appointment and remuneration of public health officers, the unfairness of asking the profession to report infectious disease without a fee, the necessity of compulsory vaccination, and the need for a better organization throughout the profession. These are most important topics, and ones that we have emphasized on many occasions.

Dr. C. K. Clarke's contribution on "Ideals in Asylum Work" had for its main feature the advocacy of a psychiatric clinic, wherein definite teaching would be given to those who desired to make institutional work in the care of the insane their life's aim. This is taking sure ground, and we hope Dr. Clarke will receive the backing of the entire profession, and that his efforts may meet with the approval of the Government.

Dr. Amyot's paper on "The Infection of Drinking Water" should quicken the public conscience. When the great cities learn that in supplying bad water they are endangering their own citizens, something may be done. The average citizen will not always remain willing to be subjected to heavy taxes, one result of which is to convey disease to him.

Another discussion which touches the public as well as the profession was that introduced by Dr. Edward Ryan, of Kingston, on "The Desirability of Establishing an Institution for Inebriates." He pointed out how these unfortunate people sank deeper and deeper into their drinking habits. Attention was directed to the poverty and crime caused by drink. The asylums held their due quota of insane from alcoholic excesses. The children of drunken parents are very prone to become heavy drinkers.

Mr. Justice Riddell, in an able address, supported the position taken by Dr. Ryan. A resolution, moved by Drs. W. Oldright and J. Ferguson, favoring an institution for inebriates, was unanimously adopted.

Another topic that touches closely upon the welfare of the public was the one raised by Dr. J. J. Cassidy in his paper on "The Need for Separate Hospitals for Diphtheria, Scarlet Fever, and Minor Infectious Diseases." It always has seemed wrong to many that any two of these diseases should be treated in practically the same building. We all know how hard it is to prevent the spread of infection from one ward to another when under the same management and in practically the same building. The earliest law laid down for the guidance of man points to the sacredness of life.

The final subject discussed, and one of truly State importance, was that of "The Methods of Infection in Pulmonary Tuberculosis." Dr. M. P. Ravenel, of the Phipps Institute, in Philadelphia, for the study of tuberculous and infectious diseases, chose the foregoing as the topic for his address in Medicine. He conferred a great favor upon us all by the lucid manner in which he set forth afresh the leading questions regarding the ways by which we may become infected with tuberculosis.

He frankly admitted that the bacilli may be inhaled into the lungs and there light up disease. While this is true, in many instances the bacilli are taken into the nose and mouth and swallowed, and thus gain an entrance into the body. In the same manner the bacilli, in infected milk, find their way into the system. He pointed out that tuberculous

cows might yield infected milk, though the udders were not diseased. This is very important.

Another feature of his address was that, when the infection enters by way of the intestinal canal, the primary seat of the disease is to be sought for in the lungs and not in the intestines, nor the adjoining glands. He maintained that the bacilli pass through the unbroken mucous membrane, entering with the products of digestion the chyle channels, and thus directly reach the lungs.

He took strong ground against Professor Koch's teachings that bovine tuberculosis is not communicable to man. The paper was a very important contribution both to scientific and State medicine.

The more distinctly medical and surgical papers of the year all attained a high average. It was our privilege to attend the first meeting of the Ontario Medical Association. Comparing the papers and discussions of that date with those of this year, one is at once impressed with the great advances made by the profession of this Province in its knowledge of medical and surgical subjects.

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#### ONE COUNTRY, ONE PROFESSION.

We have urged for years that there should be one common standard for all Canada. This is one common country, and its interests would be best conserved by such an arrangement.

Some years ago, Dr. Roddick succeeded in carrying through the Houses of Parliament an Act looking towards this. Much was hoped from the Act. It furnished all the legal machinery necessary for the consolidation of the medical profession of Canada into a united profession, with a common standard.

So far nothing has effectively come from this valuable piece of legislation. The various local jealousies have stood in the way. But these can be overcome, and an effort should be made to bring the provisions of the Roddick bill into operation.

From our esteemed contemporary, the *Western Canada Medical Journal*, for May, we quote with pleasure the following:—

“We cannot let the subject of Reciprocity drop, feeling that it is the most important question before the medical profession in Western Canada at the present moment. Much more than appears at first glance is involved. The letter from a student which appears in our correspondence column shows that the coming medical man is following the discussion with lively interest. We are glad of this because it proves that if we do not gain this point our successors assuredly will. One has only

to hear the opinions of the students on the subject. What is the bar? *Provincialism* always. For an individual to be dubbed 'provincial' is a slur. Then surely for a profession doubly so. The greater the education and culture, the greater should be the open mindedness and straightforwardness."

We hope soon to hear of the death and burial of parochialism, provincialism, *Chauvinism*. We cannot have rid of these fetters too soon. This is Canada, one country, and should be free to the medical profession as it is to the business man. Medicine is one and common to all the Provinces.

#### WHAT THE MEDICAL JOURNALS OF CANADA HAVE DONE.

It may be that but few stop to think what the medical journals of Canada have done for medical education, medical literature, and the medical profession.

As near as we can ascertain, the medical journals of Canada have issued about 250 volumes all told for the number of years they have been published. Putting the average circulation of each journal at 1,000, which is under rather than over, the mark, the total number of volumes issued and distributed among the profession of this country would be about 250,000.

This gives permanency to a vast amount of Canadian medical literature and news of an important historical nature. Had it not been for the publication of these 250,000 volumes the Canadian medical profession would not have been as well nor as favorably known, either at home or abroad, as it is.

The publication of all these volumes has encouraged the cultivation of a literary taste among many of our profession. Reading makes a full man, but writing a correct man. The poising influence of so much Canadian medical literature cannot be overestimated.

But the medical journals of Canada have done much to guide medical opinion and medical politics. As we look over the volumes of bygone years, we see evidences on all hands of an independent spirit, and the all questions where the profession touches the public the subjects are discussed on their merits. We think we may claim the same for the journals as they now appear from issue to issue.

At the present moment the medical journals of Canada are giving to the profession about 800 octavo pages per month, or 12 large volumes a year. On the conservative estimate of an average circulation of 1,000, this would mean an annual circulation of some 12,000 volumes of Canadian medical literature among Canadian medical practitioners.

We are disposed to think that the editors of our Canadian medical journals are receiving the recognition at the hands of the profession for the immense labor they are giving to the cause of Canadian literature. This labor is in many instances largely a labor of love, as the monetary returns are but slight.

Among the ways and means for the diffusion of knowledge, such as the Universities, the medical societies and the medical journals, the latter take a prominent place. Indeed, the medical journals are the ever-present helpers and co-workers in all good efforts looking towards the betterment of the profession and the people. The medical journals give publicity and permanency to the work of the medical convention and the medical teacher. Through their pages the experimenter and investigator can reach the doctor in the farthest away hamlet. They are the bow-strings by which he shoots his arrows of thought, truth and criticism.

Colleges, hospitals, charities, associations, have all in turn gone to the Government for aid and have received it; but the medical journals never. They have never been suppliants. They have done all their good work without the aid of any Government or influential organization. We are sometimes told that the Canadian medical journals are no good, and that to publish a paper in any one of them is as good as consigning it to the flames. Well, we are somewhat proud of the forty years of issue of THE CANADA LANCET, and we presume the editors of the other journals are proud of their publications.

If Canadian medical journals have not attained to as high a standing as some of the journals of older countries, it is because the conditions of the past did not enable Canadian practitioners and teachers to produce as good papers as those of the older centres of investigation. But this is passing away. Canadians now produce as good papers as any the world over, and the publication of these will give our journals as high a standing as can be found anywhere. Prepare good papers, and the journals will be glad to publish them, their readers will be glad to read them, and foreign journals will be glad to quote them.

Let us all be up and doing. This is a young country, and our faces should be steadily turned to the future. The papers of to-day are vastly better than those of 25 years ago, and those of 25 years hence will put to the shade those of to-day. First the seed, then the seedling, later on the tree with foliage, and finally its blossoms and fruit. Under cultivation the latter increases in quantity and improves in quality. We are now in the fruit age.

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Dr. A. B. Eadie, of Toronto, is now able to be around again. It will be remembered that he was assaulted on the street and was seriously injured.

## THE CANADIAN MEDICAL ASSOCIATION.

The meeting of this Association is called for 11th, 12th, and 13th of September, in Montreal. Many of us can recall the pleasant days spent in the above city four years ago. The meeting on that occasion was one of the most successful in the history of the Association, and the coming gathering should be better if possible.

To make the Association a success two things are requisite : a large attendance of members, and a thorough preparation of papers. It will not do to leave the latter off to the last moment. Only those who have had a very extensive experience and have a rich clinical field to draw from can prepare a paper in a hurry, and even then it is much better to give it more time and deliberation. It is unjust to the Association to submit a hastily prepared paper, and it does the author no good. This should be an occasion when everyone shall do his best.

It should be a rule that the titles of papers be handed in early enough to enable the secretary to issue the preliminary programme, in such form that those who intend being present may form some idea of the meeting and prepare themselves for the discussions.

It should also be made a working rule that no paper would be put on the final programme unless a copy of the same is handed into the secretary at least one week before the commencement of the meeting. In this way only can the secretary arrange the meeting to most advantage, and keep his records in proper order. This rule is altogether too much neglected.

Important subjects will come up for discussion. We have already given our readers the proposed constitution of the Association. There are features in it that deserve the closest study. This Association is a sort of medical parliament for Canada. It should be well attended. It has done good work in the past, but what it has done is only an intimation of the possibilities for the future.

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THE COMMITTEE ON PUBLICATION OF THE ONTARIO  
MEDICAL ASSOCIATION.

The question of publishing the transactions of the Ontario Medical Association has been discussed on several occasions, and has been, no doubt, finally abandoned. The publicity, therefore, which the papers, discussions, reports and resolutions of this Association may receive with the medical profession, must come by way of the medical journals.

In the past the medical journals have always been most willing to do all that lay in their power to further the interests of the Association,

and no doubt will continue to do so. But there are some things that must be here referred to that are not of the most pleasant character.

The Committee on Nominations for the Ontario Medical Association at the meeting just closed contained the names of Drs. N. A. Powell, G. Silverthorn, F. N. G. Starr, H. J. Hamilton, G. A. Bingham, J. C. Mitchell, C. J. Hastings, and A. McPhedran.

This committee brought in a report of officers and committees which was adopted. This report so arranged the Committee on Publication that the only medical journal represented is the *Dominion Medical Monthly*, which is given two members on the committee. The *Canadian Journal of Medicine and Surgery*, the *Canadian Practitioner*, and THE CANADA LANCET are not represented on the committee.

If this was done by design, the journals have done nothing to merit this treatment. If it was an oversight, it only goes to show that the Committee on Nominations gave the matter very little consideration. One thing is quite apparent, namely, that the interests of the medical journals which have done so much in the past for the Association did not receive fair treatment either at the hands of the Committee or the Association.

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#### THE STATE AND SYPHILIS.

It is now being urged in many countries by the leaders of medical opinion and social reform that the Governments should take steps to control the spread of syphilis.

This disease is the cause of a vast amount of ill health and is responsible for many deaths. In the British army it costs the nation about \$15,000,000 annually for sickness and about \$20,000,000 in pensions and superannuations, or a total of \$35,000,000 a year.

The disease may be considered from the moral, social, and legislative standpoints. The first of these came more within the range of the church, while the second was one that the medical profession should interest itself in. By legislation the Governments of countries might do much by arranging for lectures, the distribution of tracts, and the providing of places where syphilis might receive proper treatment.

It is certainly a serious blot on our modern civilization that this disease should have free scope to afflict the innocent and guilty alike.

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Remember the meeting of the Canadian Medical Association, in Montreal, 11th, 12th and 13th September. The titles of papers should be sent to Dr. Ridley MacKenzie, Montreal.

## RESPONSIBILITY IN IMPULSIVE CRIME.

Many criminal acts are committed under the influence of impulses which are irresistible. In this sense these persons would not be responsible in the ordinary way in which people with full control over their actions would be. But there is grave danger in allowing too great scope to this plea for exemption from punishment.

Those who have had large experience in the management of the insane, and in institutions for the custody of persons with some mental obliquity, know how potent a deterrent the fear of punishment is on these persons. The insane will often plan ways and means for the accomplishment of their acts with marked cunning and skill. But it is well known that in such cases they almost always fear and dread detection and exposure. We may infer from this that the fear of punishment is a powerful deterrent on those of lowered responsibility who are at large. It may be a very dangerous practice to make the plea of insanity or irresponsibility too common.

We see this tendency cropping up in so many trials for murder and other high crimes that it may be well for the medical profession to reconsider the whole question. It is no doubt due to its efforts that the insane criminal has had a measure of leniency shown him by our courts, but, on the other hand, the humane views that prompted this may cause the pendulum to swing too far to the other side. There is grave risk that those with some pronounced mental warp, or with some hereditary predisposition to insanity, may rely upon these, and be thereby prompted to commit crimes which they would not otherwise do, if they did not expect these mental and hereditary features to help them out at the time of trial.

It will not do, therefore, to weaken the demands of justice upon these partly irresponsible or impulsive criminals. They are not entirely irresponsible in the proper sense of the term. They should be punished in a measure somewhat in keeping with their mental condition. This is not always easily determined, but care may be able to approximate it in most cases. For this purpose they may have to be placed under skilled observation for a time, but whatever plan is adopted it is highly obligatory on society that crime should not go unpunished because of the plea of irresponsibility which may be all too easily set up.

Throughout every community there are always some who are of lowered responsibility. These will be only too ready to take advantage of any avenue open to them to escape punishment for any crimes they may commit. Here comes in the responsibility of the medical profession to see to it that it does not lend itself too willingly in aid of the low and cunning designs of this element in the community. The sacredness of life may be seriously lost should such be the case.

## SUICIDE AND INSANITY

One does not need to look very far back into history to locate a time when the person who committed suicide was regarded as having wilfully and wickedly taken his own life—was guilty of self-murder.

But as we live and learn newer and truer views come to us. In a recent study of suicides, covering a large number of cases, it appears that at least 75 per cent. is due to some form of insanity.

As science advances our knowledge of suicide, it does not yet transpire that very many instances are the wilful acts of mentally sound persons. Sudden disappointment, or loss, or grief, may temporarily derange the health or depress the nervous system to such an extent that the victim may take his life. Certain self-made poisons in the system may also prove competent depressants. These are cases that would not be ordinarily classified as belonging to any type of insanity; yet, for the moment these cases are truly insane. The mind may have momentary vertigo, as the body may, and yet there be no permanent disease of either mind or body. If the person had not committed suicide at that particular moment, he might never again have felt like doing it.

But viewed from another standpoint, the act of suicide is an insane act. Many cases of suicide are to avoid some trouble which is of a trivial nature and yet the person at the time was regarded as sane by those who knew him. Here is good ground for thinking they did not know everything.

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THE MEDICAL EXPERT.

The recent Thaw trial has again raised the subject of the medical expert. Many of the journals throughout the United States are discussing this question afresh. It is unfortunate that there should be such differences among medical men when giving evidence on the same case. This, however, will always be the case, and arises from a number of causes.

One of these is ignorance. A doctor may not have a full knowledge of the subject, and make statements that others with fuller knowledge must contradict.

Another reason for difference arises from the fact that a number of doctors go into the witness box intending to tell only what each thinks will help the side on which he is called. This is a case of *suppressio veri*. They have a good knowledge of the case, but they conceal much of it for a purpose.

Then there is another reason for these wide differences. Some doctors who are called as experts in a given case, approach it from the standpoint of seeing in what way they may be able to introduce some

misleading theory, or show that the cause was one quite other than that laid down in the trial.

For these reasons, the time will never come when medical experts will agree in the form of testimony they may give. To overcome this it has been urged that the courts should appoint a certain number of competent persons to give evidence on the case, in the form of a report.

It must be borne in mind that the courts are only human after all, and the selection of these advisors might not always meet the ends of justice. The defendant has his rights as well as the prosecution. In the case of a murder trial it would not do for the Crown to select all the medical experts. Such a course would destroy public confidence in the result.

It is a notorious fact that our judges do not agree with each other, and cases are constantly being appealed and the verdict of the previous court often reversed; and this may happen several times in the same case. There is no ground for believing that a number of medical men on the bench would be any freer from the same errors.

What might be done in such cases would be to have some doctor as an assistant to the court for the purpose of giving a true interpretation to the medical evidence in a case, and point out wherein it agreed or really differed. Medical evidence may appear to differ more widely than it really does. This arises from the method of expression or the choice of language of the several witnesses.

Regardless of all that has been said against the medical expert, it would seem that we must go on about as we have been doing. The law is as full of blunders as is medicine. It cannot commence throwing stones.

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### ARTERIO-SCLEROSIS.

There is, perhaps, no subject in the whole range of medical pathology and therapeutics of more importance than that of arterio-sclerosis. The vast number of deaths due to diseases of the arterial system abundantly attest this.

The pathological changes which take place in the arteries vary. In some instances they are inflammatory or hyperplastic, while in others they are degenerative or necrotic. It is also recognized that these changes may have their origin sometimes in the tunica intima and at other times in the tunica media, and from one or other of these structures extend to the other coats of the vessels. In some instances there is a fibrosis, while in others a deposit of calcareous matter, as a secondary process to previous disease.

Among the early signs, if indeed it be not the earliest, is increased arterial tension. At a later period the vessels become rigid, palpable, visible, and tortuous. The early beginnings of the disease are very difficult to determine, and this much to be regretted, as this is the time for successful treatment, as no drug will remove chalky deposits once they have been formed.

In the treatment of arterio-sclerosis we must bear in mind the causes, the morbid changes, and the symptoms of each case.

As to the causes authorities are agreed upon the important role played by syphilis, alcohol, lead, tobacco, strong tea and coffee, gout, nephritis, diabetes, autointoxications, excessive use of nitrogenous foods, mental and physical strain, and sedentary habits. All these conditions pervert metabolism and poison the system, or act through the nervous system upon the blood vessels.

In the treatment of arterio-sclerosis we must have regard to the foregoing conditions. In most cases the physician has to do with a condition of premature senility. The absence of alcohol, tobacco, tea, coffee, proteid food, overstrain, etc., must receive due attention. Every care must be taken to avoid intestinal decomposition, and consequent autointoxication. For this purpose the best diet is milk, bread, gruel, fat, green vegetables, some egg, and fresh fish.

In the obese it is necessary to limit the carbohydrates, such as sugar, starch, fat, and to increase the amount of green vegetables. One of the most important questions is how to treat the diabetic with arterio-sclerosis. Here the diet that would be suitable for the condition of the vascular system will not suit the diabetes, and *vice versa*. It is necessary, therefore, to adopt a compromise diet.

As has been mentioned, the main characteristic of arterio-sclerosis, even in its earliest stage, is increased tension. For this a diet of milk and vegetables is peculiarly appropriate. It has the effect of modifying the qualities of the blood in such a manner as to render its flow through the arterioles and capillaries much more freely than is the case on a diet rich in proteids. In other words the viscosity of the blood is lowered. In this way the disease in the vessels is checked and the resultant cardiac hypertrophy mitigated.

Iodine in some form is a valuable agent. It lessens the viscosity of the blood and lowers arterial tension. Its good effects are often increased by the combination with drugs which dilate the arteries, such as the nitrites. Warm baths and massage are measures of considerable assistance along with the iodides.

In most cases of arterio-sclerosis and high arterial tension there is a deficiency of the normal salts of the blood. These salts have been advocated as valuable adjuncts to the treatment. Chloride, sulphate, phosphate

and carbonate of sodium, phosphate of magnesium, and glycerophosphate of calcium are combined in the proportion found in normal blood, and administered to those suffering from arterio-sclerosis.

Special attention may have to be directed to the various organs of the body affected by the diseased condition of the vessels. Thus the brain, the digestive organs, and the renal functions, may call for special attention.

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### THE ROYAL COMMISSION ON TUBERCULOSIS.

In 1900, Professor Koch read his famous paper in London at the International Congress on Tuberculosis. In that paper he declared that bovine and human tuberculosis are not identical, and that the former could not be contracted by man.

As the result of this statement the British Government appointed a Commission, consisting of Sir Michael Foster, and Professors Sims Woodhead, Martin, McFadyean, and Boyce, to study the subject and report.

On several occasions instalments of the report have appeared. Recently an important addition has been given out. The Commissioners finally reach the following highly important practical conclusions:—

In a certain number of cases human tuberculosis, especially in children, is the direct result of the introduction of the bacillus of bovine tuberculosis. In the majority at least of these cases the bacillus is introduced through cows' milk. In 14 out of 60 cases of human tuberculosis investigated the virus was the bovine bacillus. If, instead of taking all these 60 cases, only cases of tuberculosis in which the bacilli were apparently introduced into the body by way of the alimentary canal are considered, the proportion becomes much larger. Of the total of 60 cases 28 possessed clinical histories indicating that the bacillus was introduced through the alimentary canal. Of these, 13 showed the bovine bacillus. Of 9 cases in which cervical glands were studied 3, and of 19 cases in which the lesions of abdominal tuberculosis were studied 10, showed the bovine bacillus. These facts indicate that a large proportion of tuberculosis contracted by ingestion is due to bovine tubercle. Much disease and loss of life, especially among the young, must be attributed to the consumption of cows' milk containing tubercle bacilli. The tubercle bacilli can be detected in cows' milk with difficulty. But it is much easier to recognize clinically that a cow is suffering from tuberculosis, in which case she may be yielding tuberculous milk. The milk from such a cow should not be used as food. The results point to the necessity of more stringent measures to prevent the sale or the consumption of such milk.

## THE VALUE OF THE OPSONIC INDEX.

At the meeting of the Association of American Physicians, held in Washington a short time ago, much attention was paid to Sir A. E. Wright's teachings on the value of the opsonic index as a guide to the proper use of bacterial vaccines.

The general trend of the papers and the discussions was to the effect that too much reliance cannot be placed upon the index. Some of the speakers pointed out that it was open to many errors, while others went the length of contending that it was misleading. A few expressed confidence in it.

Much work will have to be done before the wheat can be sifted from the chaff. The value of the opsonic index should be sent to the laboratory to be fully tested. Clinically, the vaccines should be tested carefully and thoroughly, as they may yield good results. On this point the Association of Physicians was more hopeful.

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HAFFKINE AND THE PLAGUE.

It is a standing disgrace to the Government of India that some 20,000 persons are dying weekly of the plague, a preventable disease. During the past eight or ten years, it is contended that at least 4,000,000 have died of this disease.

In 1894, Kitasato and Yersin discovered the bacillus of the plague. So far no serum or vaccine has been discovered that cures the disease; but Haffkine has discovered an immunizing bouillon of the greatest value. Some time ago one of the bottles of this bouillon became contaminated by the tetanus bacillus, causing a few deaths. This brought down upon Dr. Haffkine the severest censure.

Thus the Indian Government stands idly by and sees the people dying by the millions on the one hand, and Dr. Haffkine, one of the greatest benefactors of mankind, abused on the other, without doing anything. What the Indian Government ought to do is to place the protective value of Haffkine's bouillon within the reach of all.

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PROF. AUGUST BIER'S TREATMENT.

In following custom blindly, the medical profession has made some of its greatest blunders; and Prof. Bier holds that the anti-phlogistic treatment of the past has been the cause of much harm. He has, therefore, not only condemned it, but has gone to the opposite side and encourages hyperæmia in the treatment of infection inflammations. He believes that hyperæmia, inflammation, and suppuration are efforts on the part of nature at the cure of disease.

Prof. Bier employs three methods of securing hyperæmia of the part, or of increasing it if already present. These are (1) by means of compression bandage, (2) by suction apparatus, and (3) by hot air. The object of these methods is to increase the amount of blood in the part affected without causing stasis of the circulation in it, or interfering with its nutrition.

If the bandage method is used, it should not be so applied as to cause pain. If it is properly applied it has the effect of relieving pain. The treatment by bandages may be applied for many hours each day. Indeed, may only require to be omitted for a short period each day.

When suction is made use of it is best attained by the employment of cupping glasses. These should not be used too long at a time, sometimes for only a few minutes, then a period of rest, when they are re-applied. They should not be used so as to cause pain. They are valuable agents in causing the needed hyperæmia, and in removing discharges.

The use of hot air, in the hot-air chamber, or by the hot-air douche, is of much assistance in the treatment of painful and swollen joints, in the absorption of indurations and fluid, and the cure of neuralgia. It should not be employed in tubercular cases.

The bandage is applied so as to prevent the venous blood flow, but the arterial. By this means a marked hyperæmia may be maintained. In tubercular joint cases it should be maintained for only a few hours daily; but in infection and septic cases the hyperæmia should be more prolonged, even for nearly the entire twenty-four hours.

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## PERSONAL AND NEWS ITEMS.

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### ONTARIO.

Dr. F. W. Smith has resumed practice in Aylmer after having spent two years in post-graduate work in London.

There could not be a greater approbrium on preventive medicine than the fact that over 200 persons die each month in Ontario of tuberculosis.

The McKellar General Hospital, Fort William, is to have a \$40,000 addition with accommodation for 150 patients.

Forty-five cases of diphtheria were reported to the Toronto Medical Health Department during May, and 99 cases of scarlet fever, 8 of typhoid fever and 15 of smallpox.

A number of the medical practitioners of Welland County met and organized themselves into a society. Dr. Neff, of Port Colborne, is President, and Dr. Howell, of Welland, is Secretary-Treasurer.

Dr. W. J. Smith, who has been doing post-graduate work in London, has gone into partnership with Drs. Robertson and Robertson, of Stratford.

Although the medical inspection of public schools is a most meritorious move, there were a number of members in the Legislature who opposed it.

Dr. Kennedy McIlwraith, of Toronto, announces that after August 1st he will confine his practice to obstetrics, gynecology, and the care of infants.

Dr. Warner Jones, late of St. Peter's Hospital, London, has located at 92 College street, Toronto, and will devote himself entirely to surgery and urinary surgery.

Dr. and Mrs. W. H. B. Aikins, of 50 College street, who have been absent from Toronto for several weeks, visiting France, Holland, Austria and Switzerland, home returned safely about the middle of June.

The building operations in connection with the new Medical Laboratories for Queen's University are progressing satisfactorily. The corner stone was laid by His Honour W. Mortimer Clark on 24th April.

The new medical buildings for Queen's University, Kingston, are making good progress. The corner stone was laid in April by His Honor, Mr. Mortimer Clark. The Ontario Government has made a grant of \$50,000 towards the building fund.

Dr. F. B. Bowman, a graduate of the University of Toronto, and who has been doing post-graduate work at Johns Hopkins, has gone to Manilla, Philippine Islands, in the employ of the United States Government, as an assistant in the laboratory there.

Samuel Johnston, M.A., M.D., 169 Carlton street, Toronto, begs leave to announce to the profession that after July first, nineteen hundred and seven, he will give up the general practice of medicine and devote his attention entirely to anaesthesia.

Dr. Bell, Inspector of the Provincial Board of Health, has been called upon to make a number of visits lately on account of several local outbreaks of smallpox in various parts of the Province. It would be easier, cheaper and safer to prevent the disease by vaccination than to have to deal with epidemics of smallpox.

Mr. I. H. Cameron, M.B., responding to a toast at the University dinner, took the viewpoint that the advancement of the interest of the Empire and the advancement of education were one and the same thing. The scheme for an interchange between all the great universities of the world was not abandoned by any means.

Smallpox still continues in many points in Ontario. Recently there have been a number of cases in the Counties of Grenville and Carleton.

Dr. Bell, from the Ontario Board of Health, visited the infected districts and reported that the cases were of a mild type, but that many of them were neither attended medically nor isolated. In Toronto there have been a few cases recently.

Dr. A. H. Beaton, of the Institution for feeble minded persons, at Orillia, has recommended to the Government the plan now in operation at Waverly, Mass. After the young persons are taught as much as possible, they are sent out in groups to a large farm and put to out door work on it. The farm at Waverly contains 2,000 acres. There is a separate colony for the women. Dr. Beaton thinks this system would be very beneficial if introduced into this Province.

An insane man and woman, both from England, who have been in Toronto Asylum for some time, have been deported, the arrangements having been made by Mr. W. D. Scott, Dominion Superintendent of Immigration, at the request of the Provincial authorities. In each case the parties became a charge upon the Province before they had been in the country two years, and under the law they go back at the expense of the transportation companies which conveyed them here. The man is a married man and his wife goes back with him.

Dr. Thomas Macrae, associate professor of medicine at the Johns Hopkins University, has been elected a Fellow of the Royal College of Physicians, London. Dr. Macrae is a Guelph boy, and a graduate of the University of Toronto. After serving as house physician at the Toronto General Hospital he went to the Johns Hopkins Hospital, where he became the first assistant in the medical clinic. He is now one of the teachers of medicine in the medical school, and in practice in Baltimore. It is many years since a Canadian has been elected a Fellow of the Royal College of Physicians, the last one being Dr. Osler in 1883.

Upon the requests of Drs. Ogden and Hunter of the Toronto Board of Education, Inspector Chapman has submitted to the Board reasons why a medical examiner should be appointed to the Public schools. Such a measure, in the opinion of the teachers generally, would be a step in the right direction. It has been already introduced with much success into many cities of the States. Boston has the honor of being the first city to adopt compulsory medical examination in the Public schools, in 1894. New York City followed Boston's example in 1897, and in both cases it has been found to be very beneficial in many respects.

The returns to the Provincial Board of Health for April received from 753 division registrars show a slight increase in smallpox, scarlet fever, diphtheria, measles, and consumption. Measles caused as many deaths as scarlet fever and diphtheria, as a consequence of which, it is urged that greater care should be exercised by parents in the careful

isolation of children suffering from the disease. The deaths from the different contagious diseases totalled 275, being an increase of 30, of which 21 were due to consumption. The total deaths from all causes was 2,433 from a reporting population of 2,110,151, making a death rate of 13.8 in 1,000. For the corresponding month last year 2,295 deaths were reported from a population of 108,000 less, the rate being 13.7 per 1,000.

Dr. W. M. English, the new Superintendent of Hamilton's Asylum for the Insane, was born in Goderich in 1861, and moved to London when he was eleven years of age. There he has lived ever since, except during a few years spent at Toronto and one year in London, Eng. He received his education in the London public schools and the Collegiate Institute, after which he read medicine under a preceptor and attended the medical department of the Western University for two years. Later he attended the Toronto School of Medicine, and graduated at the Victoria University in 1886. In graduating Dr. English went to London, Eng., spending a year in the leading hospitals there. He served many years on the London School Board and as Chairman of the Board of Health. He is a member of the faculty of London Medical College.

#### MARITIME PROVINCES.

Drs. A. R. Cunningham and F. V. Woodbury have been appointed medical inspectors of schools in Halifax.

Dr. G. G. Melvin, of St. John, has joined the editorial staff of the *Maritime Medical News*.

Dr. Murray McLaren is taking a holiday in Europe, and expects to spend some time in Vienna.

Dr. John Stewart, of Halifax, is in England. He is taking a lengthy holiday in hopes that it may recuperate his health.

Dr. W. D. Forrest is now Medical Health Officer for Halifax, having been appointed to the position recently.

Dr. and Mrs. Campbell, of Halifax, have been visiting Baltimore and Atlantic City. Mrs. Campbell is much improved in health by her sojourn south.

Principal Macalister at the session of the General Medical Council said the committee had decided to grant recognition of Nova Scotian degrees, and Canadian medical students who had fulfilled the conditions applicable to the Maritime Provinces would now be eligible for commissions in the Army Medical Corps.

Dr. William Bayard, of St. John, N.B., will, in August next, complete his seventieth year in continual practice of the medical profession. He is 95 years old, but still visits a few patients. Dr. Bayard graduated M.D. in England in August of the year Victoria was crowned. The greater part of his life has been spent here, where he is the Nestor of the

profession. The St. John Medical Society appointed a committee to commemorate his seventieth anniversary in August.

### QUEBEC.

The authorities in charge of the medical interests of McGill are going on with building arrangements. It is stated that no time will be lost in securing new ones to take the place of those destroyed by fire.

Mrs. Redpath has bequeathed to McGill University \$150,000 and \$40,000 to the Montreal General Hospital. Both bequests are well placed and worthily received.

### WESTERN CANADA.

Active preparations are going on to build a hospital at Swift Current. It is reported that the lunatic asylum will be located at Ponoka.

Winnipeg is to have an Army Medical Corps. Dr. Webster of that city is in charge.

Dr. Cooper, of Winkler, Man., has sold out his practice to Dr. Scott, of Winnipeg.

The new hospital which is to be erected in Saskatoon will be under the management of the Grey Nuns.

The health bill for Winnipeg this year will be \$146,000, or \$30,000 more than was expended the year before.

The Saskatchewan medical law requires physicians to report all infectious diseases, the list containing tuberculosis.

The Winnipeg Council has passed a by-law prohibiting expectoration on the streets, in street cars, and other public places.

The Provincial Government of Saskatchewan has purchased a vaccine plant and purposes producing vaccine for that Province.

Dayland, in Alberta, has already raised over \$5,000 for a hospital, which is now an assured enterprise.

The city of Winnipeg has now a quarantine hospital. This was greatly needed on account of the flow of immigration.

The Brandon Hospital is much in need of enlargement, and it has been decided to raise funds for the needed addition.

Dr. Schoffner, of Boissevain, has been appointed a member of the Provincial Board of Health.

Dr. J. B. Chambers has been appointed assistant in the Brandon Asylum.

Dr. Seymour, of Regina, Provincial Officer of Health, has been quite ill, and Dr. Charlton has been acting for him.

A vigorous effort is being made to secure a sanatorium for tuberculosis for Manitoba. Already \$30,000 has been secured towards the total of \$75,000 required.

The Medical College in Winnipeg, and connected with the University of Manitoba, is showing much evidence of growth. Last year there were in attendance on lectures nearly 170 students.

The new hospital at Saskatoon will cost \$50,000. The contracts have been let for its erection. The town gives \$30,000. The hospital will have 50 beds.

A new hospital is to be started at once in Edmonton, at a cost of \$125,000. At present there is a great lack of accommodation. The Catholic General Hospital of Edmonton has also decided to enlarge.

Regina has decided to raise \$100,000 for the purpose of securing more and better hospital accommodation. It is thought the present hospital will be sold.

Dr. J. O. Todd, of Winnipeg, while away doing post-graduate work, was taken ill with appendicitis and was operated upon. He made a good recovery.

The deaths in Winnipeg for April were 103, and the births were 324. Typhoid fever still occupies much attention, and was the subject of discussion at a recent meeting of the Winnipeg Medical Association.

These medical gentlemen compose the Provincial Board of Health for Manitoba: Dr. R. M. Simpson, Dr. John M. Eaton, Dr. J. A. Macdonald, Dr. F. L. Schaffner, and Dr. Gordon Bell. The latter is the bacteriologist of the board.

Following salaries are paid to Medical Health Officers: Calgary, \$1,080; Edmonton, \$2,000; Lethbridge, \$300; Regina, \$500; Moose Jaw, \$150; Medicine Hat, \$50. Compared with the population of these places, the remuneration differs very widely.

Dr. J. R. Jones, of Winnipeg, who has been connected with the medical profession in that city for many years, has sufficiently recovered from his accident to take a trip to Britain. His friends will be pleased to hear of his returning quite restored in health.

#### BRITISH COLUMBIA.

Dr. Lineham, formerly of Dauphin, has located in Victoria.

Dr. Thompson, of Dawson, M.P. for the Yukon, has been appointed Commissioner for that region.

The Sanatorium for Consumptives for British Columbia will be proceeded with at once. It is to be located on the shores of Kamloops Lake.

The British Columbia Legislature has passed the University Endowment Act, by which liberal arrangements are made for the support of the Provincial University.

## FROM ABROAD.

Professor August Bier, of Bonn, has accepted the call to the chair of surgery in the University of Berlin, made vacant by the death of Professor Ernest von Bergmann.

The Carnegie Institution, of Washington, announces that the *Index Medicus* will be supplied for an annual subscription charge of \$5. The present editors are Drs. Robert Fletcher and F. H. Garrison.

The Medical Officers of Health of the various South African colonies during their recent meeting visited the Leper Hospital on Robben Island and were much pleased with its condition and the excellent work it is doing.

Dr. Robert Barnes, the eminent obstetrician, died on 12th May at the age of 90. He was an extensive writer. His writings were a connecting link between the older obstetricians and gynaecologists and the modern school in which surgery has played such a prominent part.

At a recent meeting of the Vienna Medical Society, Professor Albrecht stated that he had examined the sputum of seventy children suffering from whooping cough, and in all of these he had found the bacillus pertussis of Eppendorf present.

Dr. J. A. Davis, writing in the *St. Louis Medical Review* for May 11th, claims that kerosene oil is a very valuable remedy for all forms of snake bites. It is applied freely and immediately to the bite. When used in this way it is a specific for both man and beast.

At a recent meeting of the Obstetrical Society of Paris, the subject of abortion, especially criminal abortion, was fully discussed. It was admitted that this crime was greatly on the increase. Many women now had no hesitation in stating that they have had an abortion procured upon themselves.

Mr. Whitely, the London shopkeeper who recently died under tragic circumstances, has bequeathed a large portion of his estate for charitable purposes. Nine London hospitals have benefited by substantial legacies, and the sum of \$5,000,000 has been left to found, provide and maintain homes for the aged poor.

Dr. George Herbert, chairman of the Board of Medical Examiners, and Dr. F. Howard Humphris, secretary of the Hawaiian Territorial Medical Society, state that in order to practise medicine in Hawaii the candidate must have graduated from a medical college, having not less than four years of study.

Sir Joseph Fayner died at the age of 83 on 21st May. He was one of the best known of British physicians. For many years he was closely identified with the Indian services, and was among those who was besieged in Lucknow. He was an extensive writer, one of his most charming works being *Recollections of My Life*.

It is stated in the *Scottish Medical and Surgical Journal* that it takes six years and costs about \$5,000 to secure the qualifications for the practice of the healing art in Britain. There are women physicians who offer to take positions as health visitors, etc., with \$500 a year. This our contemporary thinks too small a remuneration, and advises some sort of union to secure better terms.

It is being felt and freely expressed in some quarters throughout the United States that nurses' fees are too high for a large number of the people. Recently a circular letter has been sent out by an influential society directing attention to this, and suggesting that some steps be taken to secure a supply of competent nurses for the poorer classes at lower fees than now prevail.

By the death of Dr. Edward Markham Skerrett, of Bristol, England, the profession of Britain lost one of its ablest practitioners and teachers. He was born in 1848 and died in his 59th year of heart failure after pneumonia. Every doctor should read his able address on "Prognosis in Heart Disease." He was a man of the highest character and clearest mind.

In Vienna the hospitals are setting aside a certain number of beds for patients who are able to pay. The rates are \$1.25 per day for wards with several beds in them, and \$2.25 per day for entirely private wards. The plan is objected to by the physicians of the city because they are not allowed to attend their own patients when they pay. The Vienna hospitals should take a leaf from the plan in this country.

Dr. H. W. Lewis, Medical Superintendent of Barming Health Asylum, West Kent, England, remarks that "the type of admissions is changing. The asylum population is being augmented by ever-increasing numbers of hopeless senile demented who come to spend the last years of life, and of young irrecoverable cases, the predisposing cause of whose condition is a strong hereditary taint."

The third congress of the German Society for the Prevention of Venereal Diseases was held in Mannheim on the 24th and 25th of May. The meetings were open to the public, and much interest was taken in the proceedings. Many excellent papers were read, and it is hoped considerable benefit will result from the congress in the way of inducing the Government to take steps to restrain the spread of those diseases.

The *Medical Era* of St. Louis, Missouri, will conform to its usual custom and issue its yearly series of special gastro-intestinal numbers, embracing July and August. The August issue will be given over entirely to the consideration of every phase of typhoid fever. The series will contain about 35 or 40 practical papers and will contain a large amount of valuable information.

*Folia Therapeutica* is the name of one of the newest of our medical journals. The first two numbers are to hand, and promise well. They are full of excellent matter. John Bale, Sons, and Dailson, of London, are the publishers. It is to appear quarterly at the subscription price of 4 shillings a year. Dr. Baginsky, of Berlin, and Dr. Snowman, of London, are the editors.

Jonathan F. C. H. Macready, consulting surgeon to the Great Northern Central Hospital, London, died on 29th April. He was born in 1850, his father being the great actor of the same name. He was a pupil of Sir James Paget and Sir William Savory. He was surgeon to the Northern Central Hospital, the Truss Society, the Victoria Park Hospital for the Chest, the Cheyne Hospital for Children. He published a large work on hernia.

The South African colonies are having their troubles over the rights of doctors crossing the borders of one colony into another to attend a patient. Each colony has its own regulations and the doctor must pay special fees or taxes when he goes from one colony to another. At a recent meeting of the Transvaal Medical Council it was decided to approach the Governments of the various colonies with the view of establishing some suitable plan.

Some time ago a bill was before the Maine State Legislature dealing with the subject of expert medical evidence. The bill had its origin in the suggestions of Mr. L. A. Emery, now Chief Justice of the State. The Medico-Legal Society of New York has interested itself in having other States take up the matter. The main feature of the bill is that in cases where expert testimony is required the court shall appoint persons for this purpose.

There has appeared recently, both in the lay and medical press, in Britain, a good deal of severe criticism of the hospital management. It is contended that the physicians and surgeons give but a very hurried and perfunctory attendance upon the patients. It is also set forth that there is a profuse waste of money. It is contended that hospital doctors should be paid, and that hospitals should be thrown more freely open to the general profession.

A congress of medical practitioners was held in Paris during April. A number of topics of interest were dealt with. Among these special attention was paid to the question of medical education in France. It was shown that the income for the medical colleges was not sufficient to secure the necessary number of professors. It was also shown that the clinical material in the hospital was not well arranged for teaching purposes. It was also agreed that physicians should be allowed to charge double fees for Sunday calls and professional service on that day.

German authorities are taking active steps to limit the operations of quacks of all kinds. When any person, not a regular physician, locates for practice, he must give his address to the police. Distant treatment is prohibited. Quacks are not allowed to treat infectious nor venereal diseases, and they must not employ narcotics, hypnotics, or suggestion. They must keep books to show whom they treat, and may be refused the right to practice if he has ever been convicted of any crime or misdemeanor. Any violation of the Act may be punished by fine or imprisonment. It is proposed soon to take up and forbid the advertising and importation of secret remedies.

The following important associations hold their annual gatherings as follows: American Association of Obstetricians and Gynæcologists, at Detroit, Mich., September 17, 18, and 19, 1907; American Dermatological Association, New York City, September, 1907; American Electro-Therapeutic Association, at Jamestown, Va., September, 1907; the American Association of Railway Surgeons, at Chicago, Ill., October 16, 17 and 18, 1907; the American Academy of Ophthalmology and Oto-Laryngology, at Louisville, Ky., September 26, 27 and 28, 1907; the Association of Military Surgeons of the United States, at Jamestown, Va., October, 1907; American Public Health Association, at Atlantic City, N.J., September, 1907; the National Association for the Study of Epilepsy and the Care and Treatment of Epileptics, at Richmond, Va., October 23 and 24, 1907.

## OBITUARY.

JAMES ROSS, B.A., M.D.

Lieut.-Col. Dr. James Ross, a prominent military man, died suddenly at his home in Dundas on May 21st, from pneumonia. He was 53 years old, and was well known in Dominion and Provincial shooting circles. He had been a member of the Bisley team twice, and had shot on the old Wimbledon team. He was surgeon to the Ontario Rifle Association, and was principal medical officer of the 5th Infantry Brigade, having been gazetted this year. Dr. Ross was a graduate and gold medalist of McGill University, and had resided in Dundas for 25 years. A widow and four sons and daughters survive. One son and one daughter are now at McGill. Col. Ross had been connected with the 77th since 1889, when he joined with the rank of lieutenant. The funeral took place on 23rd, and the officers of this military district attended, the funeral being a military one. The 77th furnished the firing party. The late Dr. Ross held many important educational positions, and was also a tankard curler. His loss is greatly felt by the entire community, where he was universally honored and respected.

## CHARLES NEILL, M.D.

Dr. Charles Neill, who died while on the way to Texas and who was stated to belong to Toronto, was a native of Barrie. After graduating at the Toronto University in 1893 he took a post graduate course at Chicago. Five years ago he contracted consumption, and his last journey, on which he was accompanied by his brother, was one in search of health.

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## FREDERICK W. LEWIS, M.D., M.P.P.

Dr. Lewis, of Orangeville, died very suddenly at the Queen's Hotel on Wednesday morning, 22nd May, 1907. He was in Toronto attending the races, but had not felt well for a couple of days. During the night he was taken suddenly very ill and suffered severe pain. Medical aid was summoned at once, but he had expired before any assistance arrived. He was supposed to have died of angina pectoris, a condition from which he had suffered for some time. He was a graduate of Queen's University, Kingston. He was 52 years of age, and had a large practice in and around Orangeville. He was elected to the Local Legislature for the County of Dufferin in the year 1905. He was very popular with all classes. He was married and leaves his widow to mourn his loss. He will long be missed by his very wide circle of friends and acquaintances.

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## DR. YOUNG.

Dr. Young, a well-known physician, of Vancouver, B.C., left on 29th May, for Stave Lake on a fishing trip. He became separated from his friends and later was found dead in the water. The body was taken back to Vancouver for interment.

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## J. W. SCHOOLEY, M.D.

The citizens of Welland were shocked to hear of the death of Dr. J. W. Schooley, who dropped dead at his residence there on the morning of 4th June. He had been in his usual health, and his death was entirely unexpected. He was one of the best known medical men in that district. He was born in the county in 1837, and resided in this town nearly all his life, starting in the practice of medicine there in 1863.

Both his parents were born in that county. Mrs. Schooley died a few days before the doctor. They leave two daughters, Miss Maud, of Welland, and Mrs. W. J. Elliott, of Toronto. Dr. Schooley was a prominent member of the Methodist Church and was highly respected. He held many positions of trust. He was an examiner of the Medical Council of Ontario, and a coroner for his county. His grandfather was a member of the Society of Friends, and came to the country from New Jersey in 1776. Dr. Schooley was at one time a student of Victoria College, Toronto.

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#### THOMAS W. WALSH, M.D.

Dr. Walsh died at the age of 49, on 10th May, 1907, at his home in Halifax. He studied at the College in Halifax, and later on at Bellevue Hospital Medical College. He began his practice in Halifax in 1891. He held the position of Professor of Obstetrics in the Malifax Medical College. He took an active interest in the work of the local medical societies. He leaves his widow, a son, and two daughters. He was a man of a most generous and unsuspecting turn of mind. His funeral was very largely attended.

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#### JAMES DUDLEY MOSHER, M.D.

The death of this esteemed practitioner occurred on 4th May, 1907, at his home in Rawdons, Hants County, N.S. He received his diploma from the College of Physicians and Surgeons of Baltimore in 1886. He was a mason, and his funeral was conducted with masonic honors. He leaves his widow to mourn his loss.

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#### JOHN McMILLAN, M.D.

Dr. McMillan, a well known physician, died at his home in Pictou, N.S., on 1st May, 1907. He was born in London, Ont., 73 years ago, and studied at Queen's and McGill. He began practice 50 years ago at Wallace, and afterwards moved to Sherbrooke, then to New Glasgow, and finally, to Pictou. His wife, the daughter of the late Hon. Simon H. Homes, survives him, and also a son and daughter. He took an active interest in church work, and was a well-known mason. In April last he was presented by a number of friends with an address, a silver

service and a purse of gold, as it was the 50th anniversary of his entry into practice. His funeral was very largely attended by prominent citizens, many being from a distance.

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C. MELVIN FAIRCHILD, M.D.

Dr. Fairchild, who practised medicine for many years in Brantford and Burford, died on 7th June, 1907, in Boise, Idaho.

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C. W. MURRAY, M.B.

Dr. Charles W. Murray, son of Mr. W. E. Murray, of Toronto, died suddenly in the Toronto General Hospital. For two years he had been one of the resident house doctors of the hospital. He had also done some medical work for the government in the Bruce Peninsula. He was in his 24th year.

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IN MEMORIAN DR. W. H. DRUMMOND.

In Toronto at the annual commencement exercises of the University of Toronto, Dr. S. Weir Mitchell, of Philadelphia, made an excellent speech at the dinner given by the Governors, Senate and Faculty to the graduating class. Among other things, Dr. Mitchell said:—

The salmon of the Canadian rivers brought me into relation with this man, he continued. One memorable day on the Restigouche a hearty voice hailed me from the shore, and if there is love at first sight, here indeed was friendship at sight, for the voice was that of the kindly, competent, well-loved physician, the poet of the Habitant, William Henry Drummond.

Oh, hardly yet does Canada understand what she lost in the departure of that genius in the prime of productive life. His death was a loss to the gaiety of nations. Only in another tongue than prose may I fitly speak of him:

Peace to this poet-soul. Full well he knew  
 To sing for those who knew not how to praise  
 The woodman's life, the farmer's patient toil,  
 The peaceful drama of laborious days.

He made his own the thoughts of simple men,  
 And with the touch that makes the world akin,  
 A welcome guest of lovely cabin homes,  
 Found to no heart he could not enter in.

The toil-worn doctor, women, children, men,  
 The humble hero of the lumber drives,  
 Love, laugh or weep along his peopled verse,  
 Blithe mid the pathos of their meagre lives.

While thus the poet love interpreted,  
 He left us pictures no one may forget,  
 Courteau, Batise, Camille Mon Frere, and, best,  
 The good, brave, cure, he of Calumet.

With nature, as with man, at home, he loved  
 The silent forest and the birches flight  
 Down the white peril of the rapids rush,  
 And the cold glamour of your northern night.

Some mystery of genius haunts his page,  
 Some wonder secret of the poet's spell  
 Died with this master of the peasant thought:  
 Peace to your north-land singer—and Farewell!

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CHARLES P. BROWN, M.D.

Dr. Charles P. Brown, 35 years of age, of Toronto, died suddenly 14th June while on his way with his wife in a hack to receive treatment in Grace Hospital, Detroit. Dr. Brown had been visiting friends for some time in Wyandotte, and was in the habit of going daily to the hospital, where he was under the care of Dr. McMahon for diabetes. He served in Cuba as a Red Cross nurse during the Spanish-American war.

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P. W. McLAY, M.D.

Dr. P. W. McLay, one of the oldest and best known physicians in Elgin county, died 16th June, at Aylmer, where he practised since 1870. He was a native of Glasgow, and was sixty-two years of age. A widow, three daughters and one son survive. Dr. McLay, Woodstock, is a brother.

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## BOOK REVIEWS.

## ANÆSTHETICS.

A Text-Book for Medical and Dental Practitioners on the Administration of Anaesthetics. By Frederic W. Hewitt, M.V.O., M.A., M.D., Cantab., Anaesthetist to His Majesty the King; Physician Anaesthetist to St. George's Hospital, etc., etc. The MacMillan Company, 27 Richmond St. W., Toronto. Price, \$4.00 net. 1907.

This book contains the very latest that can be said upon the subject of anæsthesia. The author has had unusual opportunities of studying the subject, and he has made good use of these opportunities. He has long been known as an ardent student of every form of anæsthesia. The present edition has been carefully revised, and discusses fully the various agents used for the production of general anæsthesia, the best mode of administering them, the conditions indicating or contradicting one or other of them, the risks of each and to avoid them, and the comparative safety or danger of each. The book is got up in very attractive form and well illustrated. We certainly think that every practitioner who may at any time be called upon to employ an anæsthetic should possess such a work as this.

## NEPHRITIS.

A Manual of the Diseases commonly called Nephritis, or Bright's Disease, and of allied Disorders of the Kidneys. By Seelye W. Little, M.D. The Grafton Press, New York. Price, \$1.25.

This is a very readable little book on a rather large subject. The matter is well arranged under the headings of etiology, pathology, acute nephritis, symptoms, diagnosis and prognosis, treatment, foods and dietaries, and cases. After a careful perusal of the book, we are prepared to recommend it to anyone who may desire to give this subject the attention its importance deserves. This little book sets forth the essentials of our knowledge on Bright's disease.

## PRACTICE OF MEDICINE.

A Treatise on the Principles and Practice of Medicine. by Arthur R. Edwards, A.M., M.D., Professor of the Principles and Practice of Medicine and of Clinical Medicine in the Northwestern University School, Chicago; Attending Physician to Mercy, Wesley Hospitals, etc. Illustrated with 101 engravings and 19 plates. Lea Brothers & Company, Philadelphia. Price, \$6, cloth.

This volume contains 1,325 pages, and covers the ground of general medicine in a very thorough manner. The author remarks that in order to cover the whole domain of general medicine, there must be a

thorough application of system. The system adopted in this work is simple, but useful, and such as will appeal favorably to those who turn to its pages. There are now many one-volume books on the practice of medicine. Among these we are pleased to be able to place this one as worthy of a place, and able to take rank in any doctor's library. The book is well calculated to meet the needs of the advanced student going up for his degree, or the busy practitioner who requires a trustworthy volume of reference. The publishers have done their part very well.

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### A MANUAL OF PERSONAL HYGIENE.

Proper Living upon a Physiological Basis. By Eminent Specialists. Edited by Walter L. Pyle, M.D., Assistant Surgeon to the Wills Eye Hospital, Philadelphia. Third Revised Edition. 12 mo. of 451 pages, illustrated. Philadelphia and London. W. B. Saunders Company, 1907. Cloth, \$1.50 net. J. A. Carveth & Co., Toronto.

This book is now well known. Very many possess the work and have read it with profit. The whole subject of how one should take care of himself is the one discussed in the book. If the proper study of mankind be man, so the proper study of the individual should be himself. The advice in this book is suitable for any intelligent reader, and should find many outside of the medical profession. Indeed, doctors would often do their patients a real service by recommending such a book as this. It is what it claims to be, a guide on the subject of personal hygiene. We wish for it a wide sale.

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### DIAGNOSIS OF THE DISEASES OF CHILDREN.

By LoGrand Kerr, M.D., Professor of Diseases of Children at the Brooklyn Postgraduate Medical School. Octavo of 542 pages, illustrated. Philadelphia and London. W. B. Saunders Company, 1907. Cloth, \$5.00 net; half morocco, \$6.50 net. J. A. Carveth & Co., Toronto.

This work deserves special mention because of its many excellencies. With great judgment and much labor the author has produced a thoroughly reliable guide upon the subject of his labors. Each disease is delineated in clear language, and the difficulties of making a diagnosis in diseases of children reduced as far as it is possible to do so. Children's diseases have been receiving more attention lately than was once the custom. Among the many books on the diseases of children the present one will, no doubt, attract its fair share of attention. It will well repay a careful study.

## MODERN SURGERY.

General and Operative, by J. Chalmers DaCosta, M.D., Professor of the Principles of Surgery and of Clinical Surgery in the Jefferson Medical College, Philadelphia. Fifth Revised Edition, Enlarged and Reset. Octavo volume of 1,283 pages, with 872 illustrations, some in colors. Philadelphia and London. W. B. Saunders Company, 1907. Cloth, \$5.50 net; half morocco, \$7.00 net. J. A. Carveth & Co., Toronto.

That Dr. DaCasta has given his readers an excellent work on surgery the appearance of the 5th edition in so short a time is ample proof. These editions come in short intervals of each other, showing the demand of the profession for them. The present edition is brought well up to date. The work is well illustrated and the text is clear. It is not an easy task to cover the whole field of surgery in one volume; and, yet, it may be said that the author has succeeded in giving a safe guide on all the topics of general surgery. There are few works that would suit the general practitioner better than would this work. We can safely recommend it to all who wish to keep up their knowledge of surgery.

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 THE CARE OF THE BABY.

By J. P. Crozer Griffith, M.D., Clinical Professor of Diseases of Children in the Hospital of the University of Pennsylvania. Fourth Revised Edition. 12mo of 455 pages, illustrated. Philadelphia and London. W. B. Saunders Company, 1907. Cloth, \$1.50 net. J. A. Carveth & Co., Toronto.

This work has been before the medical profession for many years, and has won a place for itself that is quite unique among books. Each edition shows the care of the author in his efforts to keep the work up to date in every detail. There is no more complete text upon the subject that we know of than this one by Dr. Griffith. There appears to be nothing omitted, and everything is treated of in a clear and concise manner. This book should be in the hands of every nurse, and it would be an excellent addition to the outfit of every mother who seeks the best interests of her child. We would like to see its circulation as wide as the merits of the book would justify.

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 SURGICAL DIAGNOSIS.

By Daniel N. Eisendrath, M.D., Adjunct Professor of Surgery in the Medical Department of the University of Illinois (College of Physicians and Surgeons). Octavo of 775 pages, with 482 original illustrations, 15 in colors. Philadelphia and London. W. B. Saunders Company, 1907. Cloth, \$6.50 net; half morocco, \$8.00 net. J. A. Carveth & Co., Toronto.

Special study in the domain of medical science is now being carried out in its fullest aspects. For the convenience of workers in the various departments of medical science and practice many works appear upon

separate branches of our work. In the present work the difficulties of surgical diagnosis are discussed in a very lucid and able manner. The differential features of diagnosis are particularly well handled. Each disease and injury is taken up separately and treated in a very systematic manner. The illustrations are all original and have been prepared with the special object of aiding the text. On every page of the book are evidences of the value of the author's very rich supply of clinical material.

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### ATLAS AND EPITOME OF DISEASES OF CHILDREN.

By Dr R. Hecker and Dr. J. Trumpp, of Munich. Edited, with additions, by Isaac A. Abt, M.D., Assistant Professor of the Diseases of Children in Rush Medical College, in affiliation with the University of Chicago. With 48 colored plates, 147 black and white illustrations, and 453 pages of text. Philadelphia and London. W. B. Saunders Company, 1907. Cloth, \$5.00 net. J. A. Carveth, Toronto.

Professors Hecker and Trumpp have given their profession a work of much merit. Dr. Isaac Abt has rendered the original into good English and has added many notes on new methods of treatment. The many beautiful plates represent cases in the clinic of the authors. These have been selected with care and have been reproduced with all the skill possible. This manual is a very useful one, as it combines the very best in concise text, with such superior illustrations. The publishers deserve credit for the make-up of this volume.

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### THE SURGERY OF THE BRAIN.

Some Points in the Surgery of the Brain and its Membranes, by Charles A. Ballance, M.V.O., M.S., F.R.C.S.; Royal Prussian Order of the Crown; Corresponding Member of the Society of Surgery of Paris; Surgeon to St. Thomas' Hospital and to the National Hospital for the Paralyzed and Epileptic; President of the Medical Society of London. With illustrations. London: MacMillan & Co. Canada: The MacMillan Company of Canada, Toronto, 1907. Price, \$4.50.

It is a pleasure to review the work of such an original character, and enunciating such sound views on the surgery of the brain as are to be found within the pages of this book. Mr. Ballance has long been looked upon as an authority on the surgery of the brain and its membranes. The work discusses such subjects as the surgery of the membranes, abscess of the brain, and surgery of tumors. On all these subjects the advice is sound and well illustrated by the author drawing upon his extensive personal experience. The present work contains the material of the Lettsomian Lectures of 1906,

but much matter has been added, and these lectures, thus expanded, appear in book form. Mr. Ballance possesses an easy style, which gives grace to the scientific merit of his work. The publishers have made a very handsome volume. We can confidently recommend this work to a place on the favorite book shelf.

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### JOHNS HOPKINS REPORTS.

Studies on Hypertrophy and Cancer of the Prostate Volume XIV. Pages 652 and 97 illustrations.

In this volume Dr. Hugh H. Young discusses fully the three subjects of Prostatic Hypertrophy, Recto-Urethral Fistulæ, and Prostatic Cancer. Dr. Hugh H. Young is recognized as an authority upon all these topics. His writings on prostatic diseases have won for him a wide reputation. This volume is one of a truly original and valuable character. To every surgeon it will prove interesting and helpful.

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### JOHNS HOPKINS REPORTS.

Studies in Urological Surgery. Vol. XIII. 610 pages and 170 illustrations.

The contributors to this volume are Hugh H. Young, H. A. Fowler, J. W. Churchman, J. T. Gerouhty, L. C. Lehr, A. R. Stevens, S. H. Watts, and F. H. Baetjer. The papers by these authors are of an important character and cover most of the subjects in Genito-Urinary Surgery. They will all bear the closest study, and will amply reward those who take the time to peruse their papers.

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### CORRECT PHOTOGRAPHIC EXPOSURE.

Messrs. Burroughs, Wellcome & Company have issued a neat little pocket book containing full instructions to photographers. This little book should prove of distinct value to all who take an interest in photography. It deals very fully with the topic of correct exposure and provides a mechanical calculator.

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### THE CURE OF CONSUMPTION WITH SUB-CUTANEOUS INJECTIONS OF OIL.

This little brochure is a reprint from *The Antiseptic*, of Madras, India. Dr. Thomas Bassett Keyes, of Chicago, urges in these pages the use of oils hypodermically for the treatment of phthisis. He has devised a special syringe. He injects about 30 c.c. daily over the back.

He uses a variety of oils, and thinks this is preferable to confining the treatment to any one oil. It should not be quite as warm as the body heat. Dr. Keyes has employed egg, goose, olive, sperm, cod-liver, cocoanut, peanut, and butter oils. He claims the very best results from this treatment.

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## MISCELLANEOUS.

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### UNIVERSITY OF TORONTO MEDICAL EXAMINATIONS.

The following students have completed the examinations in the fourth year in medicine:—W. C. Acheson, R. T. Adams, J. S. Anderson, W. Baillie, G. A. Bates, H. W. Bell, F. R. Bennetto, E. Blanchard, G. F. Boyer, W. J. Brooms, W. H. Brydon, G. S. Buck, J. Burns, T. H. Callahan, A. D. Campbell, O. A. Cannon, J. Christie, E. C. Cole, A. R. Defoe, B. S. Elliott, J. A. Evans, R. W. Faulds, E. Fidler, A. G. Fleming, E. D. Gideon, L. B. Graham, M. Graham, G. C. Gray, T. L. Harrison, C. C. Hartman, J. F. Hazelwood, D. A. Henderson, E. M. Henderson, C. M. Hincks, J. W. Hunt, A. G. Huntsman, F. H. Hurlburt, T. O. Hutton, H. J. James, C. V. Jamieson, C. Johnston, H. B. Johnston, H. W. Johnston, W. J. Johnston, A. F. Kay, R. Y. Kenny, W. B. Large, S. S. Leigh, Miss M. L. Menten, F. C. Middleton, F. R. Miller, J. D. Milne, C. N. Mooney, A. H. E. Morgan, T. Morrison, R. P. Mulholland, A. D. J. McArthur, W. A. McClelland, H. M. McFadden, J. T. MacKay, D. W. MacKenzie, K. N. MacKenzie, J. MacLachlan, A. A. McLean, J. A. Macleod, N. MacLeod, W. A. McPhedran, A. W. McPherson, G. A. McPherson, J. M. McRuer, C. S. McVicar, C. J. Newall, M. A. Nickle, T. H. Norman, E. O. Platt, P. Reid, E. H. Relyea, E. F. Richardson, J. G. Robb, D. E. Robertson, F. W. Routley, A. B. Schinbein, W. C. Shier, L. J. Simpson, G. L. Sparks, J. H. Speers, Miss P. J. Sproule, C. G. Sutherland, W. A. Taylor, C. P. Thompson, J. J. Thompson, P. L. Tye, W. C. Walsh, G. H. Whitmore, R. A. Williams, N. K. Wilson, H. G. Willson, C. E. Wilson, H. B. Woods, E. H. Young, H. Walker.

The following obtained the degrees of M.D., C.M.:—I. S. F. Bigham, B. S. Cerswell, A. Crux, M. A. Hendrick, D. L. Lucklow, O. A. McNichol, W. G. Scheck, A. P. Stirrett and S. T. White.

Medals:—Faculty Gold Medal, G. C. Gray; First Faculty Silver Medal, C. S. McVicar; Second Faculty Silver Medal, F. H. Hurlburt; Third Faculty Silver Medal, A. W. McPherson.

Scholarships:—First Year, 1, S. B. Peele; 2, H. E. Alexander; Second Year, 1, W. J. M. Marcy; 2, W. F. M. Adams.

Post-Graduate Scholarship. The George Brown Memorial Scholarship in Medical Science:—Archibald Gowanlock Huntsman, Edward Cooper Cole (*proxime accessit*).

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#### MCGILL MEDICAL EXAMINATION RESULTS.

The following, 74 in number, have fulfilled all the requirements to entitle them to the degree of M.D., C.M., from the University:—Arthur, J. R., Perth, Ont.; Bailey, G. W. Fredericton, N.B.; Baird, W. S. Lucknow, Ont.; Benvie, R. M., Salt Springs, N.S.; Bernstein, D. H., Montreal, Que.; Blanchard, H. B., Mallorytown, Ont.; Bray, D. G., B.A., Sherbrooke, Que.; Brydone-Jack, F. W., Vancouver, B.C.; Budyk, J. S., Montreal, Que.; Coburn, Josiah, Newton Robinson, Ont.; Covey, H. W., Everett, Mass., U.S.A.; Crowe, H. S., Central Onslow, N.S.; Dearborn, H. F., Malden, Mass., U.S.A.; Denovan, B., Montreal, Que.; Dixon, J. A., Almonte, Ont.; Edwards, W. F., Smith's Falls, Ont.; Eggert, C. A., Atlin, B.C.; Enright, W. E., M.A., Sherbrooke, Que.; Farris, H. A., White's Cove, N.B.; Fraser, S. B., Richmond, Que.; Furse, W. J., Westmount, Que.; Gabie, W. G., Kazabazua, Que.; Garcelon, W. S., A.B., Lewiston, Me.; Girvan, G. G., Rexton, N.B.; Graham, D. W., Arundel, Que.; Gray, W. E., Campbellton, N. B.; Grier, R. T., Montreal, Que.; Hawkins, Z., B.A., Sussex, N.B.; Healey, J. J., Smith's Falls, Ont.; Hollbrook, R. E., Minto, Man.; Holman, W. L., B.A., Summerside, P.E.I.; Hunter, J. D., Victoria, B.C.; Huycke, A. H. Warkworth, Ont.; Keay, Thos., New Glasgow, N.S.; Lake, W. E., Ridgeway, Ont.; Landry, A. R., Dorchester, N.B.; Lannin, G. E. J., South Mountain, Ont.; Locke, E. E., B.A., Westmount, Que.; Logie, F. G., Chatham, N.B.; MacLachlan, W. W. G., Guelph, Ont.; MacNab, N. A., Montreal, Que.; McCann, J. H., South Framingham, Mass.; McCowen, G. R., St. John's, Nfld.; McLennan, A. L., B.A., Lancaster, Ont.; McPhee, T. J., Courtnay, B.C.; Morgan, J. D., B.A., Montreal, Que.; Muir, W. L., B.A., Truro, N.S.; Noble, E. C., Digby, N.S.; Norton, F. A., Savana le Mer, Jamaica, W.I.; Oulton, M. A., M.A., Jolicoeure, N.B.; Peltier, H. G., Fort William, Ont.; Penney, L. T. W., New Germany, N.S.; Peters, H. LeB., B.A., St. John, N.B.; Petersky, S., Vancouver, B.C.; Quinn, F. P., Ottawa, Ont.; Babinovitch, Max, B.A., Montreal, Que.; Robinson, R. C., Winchester, Ont.; Rublee, O. E., B.A., North Hatley, Que.; Scott, W. H., Edmonton, Alta.; Shankel, F. R., B.A., Hubbard's

Cove, N.B., Shirreffs, S. H., Clarence, Ont.; Sinclair, G. W., Provincetown, Mass.; Stein, S. F., Kemptville, Ont.; Stephens, G. F., Winnipeg, Man.; Stevenson, A. B., New Glasgow, P.E.I.; Sutherland, R. H., B.A., F' or John, N.S.; Taylor, G. O., Hillsboro, N.B.; Thomson, J. W., Mattawa, Ont.; Trufant, L. H., A.B., Auburn, Me.; Vesey, E. M., Little York, P.E.I.; Waddell, J. R., Chatham, Ont.; Whitelaw, W. A., Meaford, Ont.; Wilson, A. A., Perth, Ont.; Woodrow, J. B., Beaconsfield, Que.

Holmes Gold Medal.—R. M. Benvie, Salt Springs, N.S.

Wood Gold Medal.—R. M. Benvie, Salt Springs, N.S.

Final Prize.—L. H. Trufant, A.B., Auburn, Me.

Second Year Prizeman.—E. H. Funk, Rossland, B.C.

Senior Anatomy Prize.—E. H. Funk, Rossland, B.C.

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#### MEDICAL EXAMINATIONS, QUEEN'S UNIVERSITY.

Degree of M.D. and C.M.—Asselstine, B., Wilton; Bennett, A. E. H., Vancouver, B.C.; Bowen, H. M., Gananoque; Boyce, H. A., Murray; Brown, J. E., Kingston, Jamaica; Burke, M. L., Port Antonio, Jamaica; Casselman, S. B., North Williamsburg; Curphey, A. G., Kingston, Jamaica; Donevan, F. J., Gananoque; Greaves, G. A., Kingston; Johnston, A. C., Kingston; Kean, S. G., Brookfield, Nfld.; Keeley, F. J., Railton; Laidlaw, C., B.A., Georgetown; Longmore, H. B., B.A., Camden East; Mills, R. M., Kingston; McCormick, A. M., Ottawa; McDonald, A., Scotch Line; McDougald, W. L., Cornwall; McNamara, J. P., Stratford; Paul, R. D., Selby; Quigley, J. P., M.A., Kingston; Scott, R. A., B.A., Walkerton; Spankie, A. T., Wolfe Island; Spence, H. D. L., B.A., Kingston; Story, G. E., Evarts, Alta.; Sullivan, J. H., Peterborough; Trousdale, F. H., Hartington; Walker, M. J. O., Kingston; Wightman, R., Lancaster.

Faculty Prizes in Anatomy.—1st year prize, H. R. Thompson, Morristown, N.Y.; 2nd year prize, J. B. Hutton, Kingston.

First Prize for General Proficiency in Second Year, value \$25.—J. E. Galbraith, Arnott.

N. Y. Alumni Association Scholarship, value \$50.—W. G. Wallace, Met alfe.

Materia Medica Class Prize.—M. C. MacKinnon, Whim Road Cross, P.E.I.

Dean Fowler Scholarship for General Proficiency, Third Year, value \$50.—T. D. Cotnam, Pembroke.

Pathology Class Prize, Third Year.—W. C. Usher, M.A., Wicklow.

Chancellor's Scholarship for General Proficiency throughout Course, value \$70.—J. P. Quigley, M.A., Kingston.

University Medal in Medicine.—H. A. Boyce, Murray.

University Medal in Surgery.—J. P. Quigley, M.A., Kingston.

\$25 Prize in Mental Diseases given by Dr. Barber.—A. E. H. Bennett, Vancouver, B.C.

Recommended for House Surgeoncies at General Hospital.—R. Wightman, Lancaster; H. A. Boyce, Murray, Ont.; F. H. Trousdale, Hartington. Next in order: J. P. McNamara, Stratford; A. T. Spankie, Wolfe Island; R. D. Paul, Selby; M. J. O. Walker, Kingston; R. M. Mills, Kingston.

Class Prize for Physical Diagnosis, Third Year.—F. R. Sargent, Kingston.

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#### MANITOBA GRADUATES.

The following is a list of graduates and licentiates for Manitoba, 1907: M.D.—Frederick William Andrew, Alexander Howard Armitage, Daniel Baldwin, Edward MacDonald Blakely, Edward James Boardman, William Alexander Coglein, John Henry Conklin, Thomas Richardson Corbett, Robert William Henry Guilmette, Claude E. Kilborn, Alexander King, Benjamin Lang, Gordon Neill Mayne, William Angelo Mott, Prescott Campbell McArthur, Alexander Malcolm Macaulay, Duncan Alexander Macdonald, Herbert McGregor, Andrew Pritchard MacKinnon, Philip McRitchie, Thomas Henry Porter, Franklin Guy Schwalm, Lockburn Burton Scott, William Free Stevenson, Earl Stewart, Frederick Agar St. John, John Bain Thom, Eugene Walters, George Forrest Weatherhead, Victor George Williams. C.M.—Frederick William Andrew, Alexander Howard Armitage, Roslyn Brough Mitchell, William Wesley Lorne Musgrove, Herbert McGregor, Frederick Agar St. John. Honors.—Silver Medal, Frederick William Andrew; Bronze Medal, Frederick Agar St. John; O'Donnell Gold Medal in Obstetrics, Frederick William Andrew; Hutchinson Gold Medal, Frederick William Andrew. Scholarships, First Year.—George Washington Webster, \$80; William James Elliott, \$25; George William Mooney, \$25. Second Year.—Clarence Currie Everton, \$80; William Newton Maines, \$50. Third Year.—Percy Bissell Grant, \$80; David Alexander Volume, \$60. Licenses Granted.—Abram Bercovitch, Raymond Brown, Chas. F. Covernton, G. Garetti, J. A. Galliot, H. B. Gourlay, J. P. Hiebert, C. P. Holden, F. Lachance, G. G. Malcolm, W. H. Reilly, E. Richardson, J. L. Robinson, W. H. Secord, C. P. Templeton.

It is urged that the College of Physicians and Surgeons of Manitoba should assume its rights to examine students for their license. This is now done by the University of Manitoba.

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#### NOVA SCOTIA GRADUATES.

The following have passed Provincial Board of Examiners for Nova Scotia: Peter McFarlane Carter, Hugh Dan. Chisholm, Benjamin A. LeBlanc, John Macdonald, Ronald Et. J. Macdonald, Cornelius E. Walsh.

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#### OSTEOPATHY.

This ilk is active and in a number of the States and in several provinces of Canada have been asking for incorporation. There is no reason why they should be incorporated. Osteopathy is not a system of medicine; it is only one unimportant section of general therapeutics, as is well recognized by medical practitioners. In plain language it is only a process of massage, and as such should be under the control of the medical profession. One who knows nothing about the science of medicine, but knows something about osteopathy (massage) might apply it to cases that are entirely unsuited to its application. An instance or two may be of use.

We knew of a case of floating kidney that went through a course of osteopathic treatment. The woman was very much the worse for it. Another case of chronic appendicitis was vigorously pulled and rubbed. It is easy to imagine the effect. Then, again, a case of Pott's disease was rubbed and squeezed and manipulated. This sort of treatment is not calculated to allow the disease to become quiescent. Then, again, a case of tubercular inflammation of an elbow joint was freely moved and handled. Could anything be more injurious to such a joint?

But the osteopaths are loud in the advocacy of their so-called system of treatment. It would be just as proper for a body of persons to ask for incorporation as balneopaths, or hypnotists, or manicurists, or electropaths, etc. Some other subsection of therapeutics might equally well be selected for incorporation as a new practice, such as the administration of stimulants, and be called the stimulantists, or the use of water in medicine and be dubbed the hydropaths, or, if they preferred a more novel name, the aquariologists. There might thus be no end to the sub-varieties into which medical practice might be broken up, by subdividing that portion of general medicine known as therapeutics. And this brings

us back again to the starting point that osteopathy is only massage, and as such is a section of therapeutics and should be under the supervision of a physician. Osteopathy should not, therefore, be incorporated as a system of practice. It behooves the entire medical profession to take an active interest in this question; but there is every reason to expect that the osteopaths will renew their attempts on a future occasion to secure legal recognition.

The following opinions from a number of medical gentlemen and one or two osteopaths in Montreal are interesting:—

Dr. Roddick remarks: "I am of opinion that none but those who have followed a regular course of study and have graduated at a university of standing should be allowed to practise medicine in any form."

With regard to osteopathy, Dr. A. D. Blackader said they should be completely educated and their minds broadened by a course of medicine, otherwise they should not be allowed to work."

"I think osteopathists should be governed by the same laws that govern us," said Dr. Hyde, the house doctor at the Homœopathic Hospital on Peel street. "It might be all right if they confined themselves to simple manœuvring treatment, and not take acute infectious cases. They should, however, be required to pass examinations the same as we do, and spend four years at the course."

Dr. E. M. Morgan, Westmount, who in addition to allopathy and homœopathy, also practises osteopathy, agrees with the views of Dr. Roddick that none should be allowed to practise the last-named science unless they have followed a full course of medicine and graduated at a university of standing. Universities such as McGill, Queen's and Toronto, he considered, should recognize and teach osteopathy and have a branch chair for that subject, for as long as universities like these continued to ignore such teaching, people would still continue to practise, although in his (Dr. Morgan's) opinion they should not be allowed to do so unless they possessed a more general knowledge and a better grounding in medicine than osteopathy alone and fill a legal qualification.

Mr. A. S. Burgess, D.O., of the Dominion Institute of Osteopathy, agreed that everybody practising the healing art ought to be educated. This, he claimed, the certificated osteopaths are. There are now thirty-seven States of the Union where medical boards of examination license osteopaths, and there are some seven thousand osteopaths practising, mostly in the Middle West. Dr. Burgess says that with the exception of the materia medica, osteopathy includes all the essentials of the old school of medicine, and that osteopathic colleges teach efficiently everything taught in the medical colleges; only substituting for materia medica and its therapeutics the study of osteopathy and its therapeutics. As for

length of term, Dr. Burgess says that in the nine colleges where osteopathy is taught, there are three terms of nine months each, giving twenty-seven months to training altogether, whereas in McGill and Laval the terms have been four of six months each—or a total of twenty-four months. Even five terms of six months each would only give three months more to training than the osteopaths take now.

Dr. Burgess is quite willing that osteopaths should pass Canadian examinations, but not before what he considers would very likely be a prejudiced board. The board examining osteopaths ought to have, at least, osteopaths represented upon it, he says. In Toronto, there are about twelve practising osteopaths, and in the Province of Ontario there are twenty-five. In Canada there are already enough to incorporate and form a responsible board.

Asked to give a brief definition of osteopathy, Dr. Burgess said it was based upon the most perfect attainable knowledge of anatomy, with an advanced understanding of relations existing between different parts of the human body, which it deals with as an intricate, though perfectly constructed machine.

It will prove of much interest to read what A. S. Burgess, D.O., says in the foregoing expressions of opinion. His definition of osteopathy sets out in a few words the scope of this form of practice. His reason why they should obtain Canadian incorporation is quite unique—there are enough of them now to form a responsible board.

Our advice to the profession of Canada is to be on the alert for further movements made by this body.

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#### AMENDED LIST OF POISONS.

The Minister of Education, upon recommendation of the Committee of Council, advises that the resolution of the Ontario College of Pharmacy, be approved, declaring that the following articles should be deemed poisonous, within the meaning of the Act:—

Schedule "A," part I.—Acid, Hydrocyanic (Prussic; Acomte, and preparations thereof; Antimony, Tartarated (Tartaric Emetic); Arsenic, and preparations thereof, except Paris Green; Atropine; Carbolic Acid; Chloral Hydrate; Cocaine and its preparations; Digitalin; Ergot, and preparations and compounds thereof; Indian Hemp; Mercury Bichloride (Corrosive Sublimate); Morphia, and its salts and solution; Nux Vomica; Oil of Cedar; Strychnine, and its salts; Sayin, and preparations thereof; Veratrine.

Part II.—Acetanilid (Antifebrin), Oxalic Acid; Antipyrine; Antimony preparations; Belladonna and preparations and compounds there-

of; Potassium Bromide; Calabar Beans; Cantharides; Chloroform and Ether; Conium and preparations thereof; Cotton Root and preparations; Cocculus Indicus (Fish Berry); Creosote; Croton oil and seeds; Euphorbium; Elaterium; Formaldehyde; Goulard's Extract; Hyoscyamus and preparations; Hellebore; Mercury and preparations; Iodine and preparations; Opium and preparations and compounds thereof, including Laudanum, but not Paregoric; Oil of Tansy; Oil of Pennyroyal; Oil of Bitter Almonds; Pennyroyal and preparations; Phenacetin; Pink Root; Podophyllin (resin Podophyllin); Potassium Iodide; Potassium Cyanide; Phosphorus in a free state; Rue and all preparations; St. Ignatium Beans; Santonin; Sabadilla Seeds; Scammony; Strychnine (Nux Vomica) and preparations; Sulfonal; Oil of Tansy; Trional; Valerian; Verdigris; Zinc Sulphate; Columbia Spirits.

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MEETING OF CANADIAN MEDICAL ASSOCIATION AT MONTREAL, SEPT. 11, 12 AND 13, 1907.

The Committee on papers and business desire the intimation of papers or other matters to be presented at the forthcoming meeting. Papers will be limited to fifteen minutes and are to be submitted to the Committee three weeks before the meeting.

RIDLEY MACKENZIE,

Local Secy.,

192 Peel St., Montreal.

BRITISH COLUMBIA MEDICAL ASSOCIATION.

The 8th Annual Meeting of the British Columbia Medical Association will be held in the Parliament Buildings, Victoria, on August 1st and 2nd next. There should be a large attendance, as an excellent programme has been arranged.

Dr. R. EDEN WALKER, Secretary.

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AN ACT TO AMEND THE ACT RESPECTING MUNICIPAL SANITARIA FOR CONSUMPTIVES.

His Majesty, by and with the advice and consent of the Legislative Assembly of the Province of Ontario, enacts as follows:—

1. Section 9 of the Act passed in the 63rd year of the reign of Her late Majesty Queen Victoria, Chaptered 57, is amended by striking out all the words after the word "thereof" in the third line of the said section, and by adding thereto the following subsections:—

(1) The trustees shall have the right and they are hereby empowered to enter upon, take and use all necessary and convenient lands and build-

ings for the purposes of the trustees, making compensation therefor to the owner, occupier or other person having an interest in the said lands and buildings.

(2) For the purposes of the preceding subsection the trustees shall have all the powers conferred upon municipal corporations by the Consolidated Municipal Act, 1903, as to entering upon, taking and using lands required for the use of such corporations and sections 437 to 465 of the said Act shall *mutatis mutandis* apply to the trustees and to the exercise by them of the powers hereby conferred as if the trustees had been named therein instead of any municipal corporation and as if the chairman of the board of trustees had been named therein instead of the clerk of the municipality.

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#### REGULATION REGARDING HOSPITALS.

The following letter has been sent out to the hospitals of Ontario by Dr. Bruce Smith:—

I beg to inform you that at the session of the Legislature of Ontario for 1907 the Charity Aid Act was amended so that the clause relating to free patients now reads: "But no person shall be deemed a paying patient by reason only of the payment by any municipal corporation to such institution of any sum which together with the amount contributed by such patient or on his behalf from other sources, will not exceed each week the sum of \$4.90." Until further notice this Department will regard patients paying \$4.90 and less as free patients under the terms of the Act. This change in the law was approved April 20th, 1907.

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#### THE TORONTO ACADEMY OF MEDICINE.

The Academy of Medicine has been organized by the Toronto medical profession. The Toronto Pathological Society, the Toronto Clinical Society, the Toronto Medical Society and the Ontario Library Association are disbanded as separate societies, and are unified in the new organization.

Encouragement of research, and the advancement of the interests of scientific medicine are the aims of the new body.

About 100 members of the profession took part in an enthusiastic election, of which the results are as follows:

President, Dr. J. F. W. Ross; vice-president, Dr. McPhedran; hon. secretary, Dr. H. J. Hamilton; hon. treasurer, Dr. D. J. G. Wishart; council, the just-mentioned officers and Mr. I. H. Cameron, Dr. R. A. Reeve, Dr. H. A. Bruce, Dr. J. T. Fotheringham, Dr. A. A. Macdonald,

Dr. H. B. Anderson, Dr. W. P. Caven, Dr. E. E. King, Dr. John Amyot, Dr. F. N. G. Starr, Dr. R. D. Rudolf, Dr. R. J. Dwy. .

Section of Medicine.—Chairman, Dr. W. J. Wilson; Editor, Dr. John Ferguson; Secretary, Dr. W. Harley Smith. .

Section of Surgery.—Chairman, Dr. N. A. Powell; Editor, Dr. Shuttleworth; Secretary, Dr. H. A. Beatty.

Section of Pathology.—Chairman, Dr. W. Goldie; Editor, Dr. H. G. Hutchison; Secretary, Dr. Stanley Ryerson.

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## MEDICAL PREPARATIONS, ETC.

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### THE BEST HYPNOTIC.

A patient who would sleep but cannot sleep should be made to sleep. In the choice of a hypnotic the physician should always seek that one which not alone is most effective, but which presents the fewest disadvantages in the way of after effects. For years Bromidia has been the standard hypnotic prepared at the command of the profession. Through all the time that it has been known it has never failed in composition or efficiency. Its constituents have been of the purest, and in fact Bromidia has been the standard by which similar preparations have been measured. That the medical profession have appreciated its worth and thorough reliability is well apparent, from the place it holds in the regard of every physician who appreciates stability and honesty.—*The International Journal of Surgery*.

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### AN ANNUAL VISITOR.

We have just passed through our annual epidemic of la grippe, which, as usual, claimed its victims among all classes and conditions, mainly, however, among the classes where the resisting power was below par, or among sufferers from some chronic ailment. While the sequelæ and complications of this disease may assume almost any phase of acute inflammatory character, its primary effect is upon the nervous system. Therefore, we have no hesitancy in saying, no matter what the local inflammation may require as a medicine, by all means give antikamnia tablets as a nerve sedative and to relieve the muscular pains always present. We have seen a violent cough of bronchitis treated upon the general plan, with the cough as distressing at the end of twenty-four hours as at the beginning (promptly yield to six antikamnia tablets during an interval of six hours. La Grippe usually requires a double treatment, one directed to the influenza, and the other devoted to the complications present, be

they of the respiratory organs or digestive tract. In all cases antikamnia tablets will be found to perform a prominent and successful part and purpose.—*Medical Reprints.*

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### SPINAL CORD COMPLICATIONS OF ANEMIA.

With increased knowledge of the anatomy and physiology of the brain and spinal cord, there is a growing opinion among careful clinical observers that many of the nervous phenomena accompanying general anemia can be directly attributed to resulting changes in the nervous system. The spinal cord complications of pernicious anemia have been recognized for some time, and it is no uncommon thing in these cases to find pronounced degenerative areas throughout the cord. The posterior columns and occasionally the lateral are most often involved, the nerve fibres being chiefly affected, without however, the extreme shrinking usually observed in locomotor ataxia. While there can be no doubt that these conditions depend to a certain extent on the blood changes incident to the anemic process, it is more than probable that the toxins resulting from the attending hemolysis exert direct injury on the nerve cells.

Fortunately the ordinary anemias are not attended by such extreme changes, and the resulting symptoms, with their speedy control under appropriate treatment, point to a functional rather than an organic origin. These symptoms, while extremely variable, usually consist of constant and pronounced backaches, especially in the cervical and dorsal regions, sensitive areas along the spinal column, variations in the spinal reflexes, paresthesias generally, and often times irritability of the anal or vesical sphincters. Headache is frequently complained of, although the patient is usually able to sleep. The symptoms referable to the sexual function are also extremely variable, especially in the female, and range all the way from absolute frigidity to positive nymphomania.

Frequent reference is made to the heart by these anemic patients, and while their symptoms may be somewhat due to the changes in the blood current, there can be no question that the sympathetic nerves suffer in the general involvement of the nervous system, and may therefore be directly responsible for the arhythmia, tachycardia, etc., so often complained of.

The great therapeutic value of Pepto-Mangan (Gude) is well shown by its rapid and pronounced action in these cases of anemia complicated by nervous derangements. With the rise in hemoglobin and the blood count, which immediately follows the administration of Pepto-Mangan

(Gude), the hachaches and headaches cease, the sensory disturbances disappear, and the patient's nervous system rapidly returns to the normal. The comparative ease with which these cases are restored to health when thus treated, will be exceedingly gratifying to the zealous practitioner. He, more than anyone else, realizes the danger of letting young females thus afflicted drag along indefinitely, for he knows that the psychic influence of long continued sensory disturbance is extremely prone to develop and magnify any hysterical tendencies however latent. Early and efficient treatment is therefore not only desirable but urgently necessary, and Pepto-Mangan (Gude) will never prove disappointing.

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#### TREATMENT OF CHRONIC DERMATITIS.

In the treatment of the chronic skin inflammations, following in the wake of attacks of toxic dermatitis, attention to the general condition of the health, avoidance of anything irritating to the skin, a carefully selected diet and proper care of the skin are important features which must not be neglected. In addition, Battle's preparation of echinacea augustifolia and thuja occidentalis, which goes under the trade name of Ecthol, should be used both locally and internally, a drachm should be taken four times a day.—*American Journal Dermatology.*

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#### PERTINENT THOUGHTS.

The epidemics of la grippe which have made their annual onslaughts for some years have taught us that this disease, once considered of no serious consequence, is so dangerous and difficult to treat, that any suggestion regarding medication is always gratefully received.

With each succeeding visitation of this trouble, we have found it more and more necessary to watch out for the disease in disguise, and to treat these abnormal manifestations; consequently we have relied upon mild nerve sedatives, anodynes and heart sustainers, rather than upon any specific line of treatment. Most cases will improve by being made to rest in bed and encouraging action of skin and kidneys, with possibly minute doses of blue pill or calomel. We have found much benefit from the use of Antikamnia and Codeine Tablets in the stage of pyrexia and muscular painfulness. This tablet, containing  $4\frac{3}{4}$  grs. antikamnia and  $\frac{1}{4}$  gr. sulphate of codeine, is a sedative to the respiratory centres. In the treatment of la grippe and its sequelæ, its value is highly esteemed. In diseases of the respiratory organs following an attack of la grippe, pain and cough are the symptoms which especially call for something to relieve. This combination meets these symptoms, and in addition, controls

the violent movements accompanying the cough. To administer these tablets in the above conditions, place one tablet in the mouth, allowing it to dissolve slowly, swallowing the saliva. Exhibited in the grinding pains which precede and follow labor; in the uterine contractions which often lead to abortion; in the various neuralgias, and in all neuroses due to irregularities of menstruation, this combination affords immediate relief. In these last conditions, always instruct that tablets be crushed before taking.

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#### EVERY PHYSICIAN KNOWS.

Every physician knows full well the advantages to be derived from the use of antikamnia in very many diseases, but a number of them are still lacking a knowledge of the fact that antikamnia in combination with various remedies, has a peculiarly happy effect; particularly is this the case when combined with salol. Salol is a most valuable remedy in many affections; and its usefulness seems to be enhanced by combining it with antikamnia. The rheumatoid conditions so often seen in various manifestations are wonderfully relieved by the use of this combination. After fevers, inflammations, etc., there frequently remain various painful and annoying conditions which may continue, namely: The severe headaches which occur after meningitis, a "stitch in the side" following pleurisy, the precordial pain of pericarditis and the painful stiffness of the joints which remain after a rheumatic attack—all these conditions are relieved by this combination called "Antikamnia & Salol Tablets" containing  $2\frac{1}{2}$  grs., each of antikamnia and of salol and the dose of which is one or two every two or three hours. They are also recommended highly in the treatment of cases of both acute and chronic cystitis. The pain and burning is relieved to a marked degree. Salol neutralizes the uric acid and clears up the urine. This remedy is a reliable one in the treatment of diarrhoea, entero colitis, dysentery, etc. In dysentery, where there are bloody, slimy discharges, with tormina and tenesmus, a good dose of sulphate of magnesia, followed by two antikamnia and salol tablets every three hours will give results that are gratifying.

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#### DR. HOWARD ON THE TREATMENT OF MALARIA.

"Since 1899 it has been my privilege to act as Medical Officer to the Universities' Mission to Central Africa. In that capacity I have had charge of a number of Europeans living in typical outlying stations in the neighborhood of Lake Nyasa, and during this period I have personally made observations and directed anti-malarial measures at all stations, so that my conclusions are based on prolonged study and practical knowledge of the difficulties which have to be encountered.

"One point which is often neglected merits discussion, viz., which salt of quinine it is best to use. Sulphate of quinine was the earliest preparation, and there is a tendency to continue to use it blindly. Its insolubility is a great disadvantage, and so many people have employed the bisulphate instead. The latter, however, has nothing to recommend it except its solubility; on account of the high molecular weight of the two sulphate radicles, it has a very low percentage of quinine, while the amount of dilute sulphuric acid which is introduced into the stomach probably accounts for a good deal of the indigestion attributed to quinine.

"There are other salts that are far more suitable, especially the hydrobromate and the hydrochlorate. They are fairly readily soluble, contain a higher percentage of quinine, and are much less likely to disturb the digestion. The bihydrochlorate is the best salt of all; it has a fairly high percentage of quinine and is soluble in its own weight of water, so that there is probably no risk of even a tablet passing through the body undissolved. Its only disadvantage is, that owing to its solubility, the taste is more noticeable than with other salts.

"All these three salts have been found very satisfactory in the experience of the writer."

Howard & Sons, of London, prepare a very superior quality of quinine bihydrochlorate.

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#### DIETETIC TREATMENT OF CONSTIPATION.

To the use of improper food, or food improperly prepared and too quickly eaten, may be traced most cases of constipation. That the present treatment of functional constipation is almost entirely dietetic and hygienic is an indication that the profession generally attributes the cause of this condition to dietetic errors.

A common error of diet is the eating of food that is too concentrated—this applies particularly to present-day bread and other food-stuffs made from white boiled flour. Modern wheat flour contains practically none of the fibre of the wheat kernel, whereas whole-wheat flour contains enough of this cellulose to stimulate normal peristaltic activity of the intestines. The flaked food, Egg-O-See, not only presents the full food value of whole-wheat but retains a sufficient portion of the cellulose to give that "physiological irritation" necessary to tone the intestinal walls to a proper exercise of their function of removing effete matter from the system. Egg-O-See, fruit and the free drinking of pure water are valuable auxiliaries in restoring these cases of constipation to a normal condition.

Send to the Egg-O-See Cereal Co., Chicago, for a trial quantity of this food and free copy of the back to nature book.