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PRESIDENT'S ADDRESS, ONTARIO MEDICAL ASSOCIATION.

BY ANGUS MACKINNON, M.D., GUELPH, ONT.

Last year when I was informed that I was the president-elect of this the largest and most influential Medical Association in the Dominion of Canada, I felt that an honor came to me that should more properly have gone to some one more capable than I feel that I am to preside over this noble assemblage with the ability and dignity that the occasion demands. I was content as a worker with my professional brethren to continue my efforts to make these, our annual meetings, both interesting and instructive. I keenly feel that I owe this honor to your very great kindness to me, rather than to any fitness in me to fill the position, or to any claims I had upon the Association. I know, too, if I fail to acquit myself in the perfect way that my predecessors have done I shall receive from you a full measure of sympathy. When I look at the roll of the distinguished men who have preceded me in this chair it makes me feel all the more that your choice on this occasion might have been more fortunately made. I need scarcely say that I appreciate your kindness and I am very grateful for the distinguished honor you have conferred upon me.

I am fully confident that this meeting will be a successful meeting. I have been enabled, with the generous assistance of our energetic Secretary, to surround myself with earnest, clear-headed men on the various committees, that really do the work which commands success. To them we owe much. They have been untiring in their efforts, and when you look at the comprehensive programme which maps out the work of the meeting you will

understand they have had no sinecure. If we have time to carry out the work represented in the programme I am quite sure the meeting will be most interesting and instructive, and I venture to hope one of the most successful in the history of the Association.

Before I go further I wish to extend to our guests from abroad the right hand of cordiality and to say to them that I do not know the members of the profession resident in Toronto aright if by any chance they fail in being made to feel wholly at home. We invite them to take part in our discussions—giving us the light of their experience.

Indeed, the highest success of such a meeting as this can only be attained when every member feels it his duty to contribute what he can to the discussions. Innate modesty is all very well, but here we are a band of searchers after truth, burning with desire to know all that can be known as to the best methods of battling with disease, of relieving suffering, and of saving human life. It is not much short of a crime if any member, through modesty, keep silent if he has any knowledge to impart. It may not be necessary thus to encourage our brethren from the larger centres to speak in the discussions; they are accustomed, as teachers in the schools or members of the various medical societies, to discuss any subject. But I do wish that the members from the country be not too modest; their isolation compels them to be keen observers and necessarily self-reliant, and I am quite sure the discussions will gain in interest if they take a fair share in them.

We have entered a new century. Contrasted with the state of Medicine at the beginning of last century what vast advantages we possess! The discovery of anesthesia about the middle of the last century and of the proper use of antiseptics twenty years later, and of the real meaning of surgical cleanliness at a still later period, have opened a wide field for advancement in which this century has grand opportunities to make medical history. If we fail to make even greater progress than has ever yet been made we must consider ourselves less studious, less observant and less capable than our predecessors.

Surgery is now almost wholly different from what it was twenty years ago. There are prominent and successful surgeons who affect to despise the great attention given to antiseptic details which others think essential; but this much is true of all: every surgeon aims at being aseptic, if not antiseptic, in his methods. The man who is faithful to the idea of asepsis, even if he laughs at the use of rubber gloves in operations and makes light of other details, is still influenced unconsciously by the teaching of the great Lister. It is true that although the ritual which was once thought essential is fast disappearing, the results obtained under present methods are equally as good.

In Medicine the immense benefit to the human race by the dis-

covery of vaccination at the beginning of the last century has been almost equalled by the discovery of antitoxin for diphtheria in its closing years; as to tuberculosis, although the bacillus which is looked upon as its cause has been successfully isolated and recognized we are still without an antitoxin for it. Cancer and other forms of malignant disease from year to year cause much suffering to the human race and claim many victims. From the vast amount of profound study devoted to these diseases I am sanguine enough to hope that the dawn is not far distant of that grand and glorious day when we can say to the world that tuberculosis and cancer can both be cured. Is it a dream?—not more than it would have been twenty years ago to say that a cretin could be cured. Anything more absolutely hopeless than the state of the unfortunate cretin till the use of thyroid extract was discovered could not be. Then let us hope that soon a great discovery will enable us to deal with cancer and tuberculosis with the same success that has crowned the use of thyroid extract.

In *Materia Medica* the new century opens with wonderful surprises. The improvements and changes follow each other so rapidly as almost to make one's head dizzy. If the pharmacists continue to pour out upon our innocent profession new drugs with impossible names as they have been doing in the past few years it will be a sad time for the future students of medicine. The old pharmacopœia groaned with the load of useless drugs, but the pharmacopœia of this century must be immensely larger in case even a few of these drugs win their way into medical confidence. Try, if you please, to imagine what the gifted Abernethy would say if recalled to human existence and you named over to him some of the newer drugs, for example, stypticin, dionin, largin, hydrozone, mercuriol, cuprol, uargol, ferrinol, anusol, etc.

Whilst I cheerfully give great credit for the elegant preparations manufactured by the pharmacists of the present day I cannot but believe that some large manufacturing firms on both sides of the Atlantic, but chiefly on this side, are doing very great injury to the medical profession by putting up elegant preparations either as pills or mixtures according to certain formulæ. For example, a pill for a cardiac tonic, a pill for neuralgia, for malaria, etc. These preparations are on sale at every drug store and I think the medical man is the wiser who writes his own prescription, however simple it may be, instead of making use of any of these combinations. No medical man should allow any one to think for him as to what his patient needs, nor should he permit any manufacturing druggist to use him as a sort of advertising agent for his products. In many parts of this Province the literature and drugs sent out to medical men by large manufacturing concerns have become an intolerable nuisance.

Our noble profession, which gives its all to the relief of suffering

humanity, has attached to its skirts many things which are not clean. I might mention the advertising cancer-curer, the Osteopath, the so-called Christian Scientist—whose religion in claiming to be Christian is as much a fake as his science—the electric belt man, and many others. It is our duty to the public to warn them against these, that they be not deceived. They are all frauds; but there is a far greater fraud—I refer to the manufacturers and vendors of the various patent medicines. Under a claim that some new medicine of rare virtue is known to them alone, or that they have discovered some new combination of drugs that has marvellous potency, they push their sales by advertising in the most grossly fraudulent manner. Men's names are attached to testimonials they never wrote, certifying that they have been cured of diseases they never had, in order to lure unfortunate victims of these diseases to use their so-called remedies. Not satisfied with advertising like the ordinary business man, they stipulate that their advertisements and testimonials shall appear like the ordinary reading matter of the paper, thus trying to lead the unwary to think that the paper in which the advertisement appears really indorses their impudent claims. The press, I regret to say, both secular and religious, with rare exceptions, open their columns freely to these fulsome, untruthful and sometimes immoral advertisements—because they pay well.

Here lies a large mission-field for our profession. We must teach the people that wrong, and wrong only, can come to them from such unintelligent use of medicine. We must appeal to the manhood of the capitalist that it is in the last degree dishonorable for him to try to make large gains by thus committing a fraud on the sick; and eventually we must strive to secure such legislation as will mark the man a criminal who uses such means to sell drugs.

Before such legislation can be secured, or even if secured, before it could be enforced, the public must receive a very considerable degree of education from the medical profession. To accomplish this end every medical man must look upon himself as a missionary in the cause of science and truth. He will require to direct his efforts to enlighten the people as to the properties of the various drugs in common use; the nature of the common diseases, their causes, and that there is no dark secret as to the methods by which he endeavors to cure them. He must show that he is a constant student and a close observer. It must be quite easily seen by the people that the saving of life and the curing of the sick are more dear to his heart than are the shekels that should come to him as a reward of his honest labor. By such a course the influence of every medical man will grow upon the people.

The masses of the people even at this day are deplorably

ignorant so far as anything relating to disease is concerned. They know nothing beyond the worse than useless things they read in the newspapers, and quack advertisements. Many men are woefully ignorant in medical matters, in the knowledge of disease and its treatment, who are in other matters fairly intelligent. Clergymen, lawyers and successful business men are often the dupes of the veriest quackery. If the mission of the medical man was fully accomplished these things ought not to be so.

I referred to the semi-religious "pray-for-hire-healers" known as Christian Scientists and allied to them are the Doweites. Thus far the medical profession has treated these people with ridicule or ignored them entirely. If they confined their efforts to the unfortunates who imagine they have ailments they have not, we could well afford to continue thus to treat them; but when we find them impudently undertaking to treat infectious diseases such as diphtheria, scarlet fever and smallpox, diseases which they are unable to recognize, we think we have come to a point where toleration and forbearance become criminal. We have a right to insist, in order to protect the people from the spread of these diseases, that no man or woman shall be allowed to treat disease by any means whatever who has not had the training necessary to enable him to know the character of the disease he undertakes to treat. These people deny that disease exists and, of course, do not report to the proper officers any case of infection. They go in and out amongst the infected, and allow others to do the same; thus criminally and at variance with all health regulations, they are doing all they can to spread these infections.

Surely it is time the 2,500 medical men in Ontario raised their voices and used all their influence to obtain from the Legislature such an amendment to the Medical Act as will put an end to this trifling with human life. Medical men are now compelled under a penalty to report every case of infectious disease to the proper authorities, in order that its spread may be prevented; but these people trading under a religious name do not report any case and undertake to treat everything. Why should it be so?

On many questions which affect the relation of our profession to the public, the education of the people is of much greater service than legislation; but on the action of these religious healers, who profess to cure the sick by praying for hire, nothing less than very stringent legislation will meet the case. These people must be taught that infectious diseases are not to be spread by them under any cloak, religious or otherwise. Toleration towards religious belief is very commendable, but toleration of a vile fraud, of which the name is the only Christian thing in it, ceases to be a virtue.

There is another matter on which I wish to speak very briefly before I close. For many years there has been a great deal of friction about the admission of cases of acute mania to the asylums. Every medical man, except those in the immediate locality where there are asylums, knows about the delay that occurs before a patient can be got into an asylum, no matter how urgent the case may be. The regulations that are in force provide that a medical man in whose practice a case of insanity arises must apply for a formal application or history paper, which must be filled in and sent to the medical superintendent. If the patient has means for his support, a form of bond is furnished, which must be filled in and sent to the bursar before the medical certificates are issued. If the patient lives fifty miles or further from the asylum, even if the papers are executed immediately on their arrival at each end, the delay by their transmission both ways in the mails will cover from seven to twelve days or longer. In any case of acute mania this state of things is wholly wrong and surely unnecessary.

The regulations require to be looked into and amended in the interests of the general public. All the necessary forms for the committal of the patient to the asylum should be procurable at once, and in some central place in every county, without having to wait days and days for the delivery by mail of, first a history paper, later on a bond, and, by and by, the blank medical certificates. Meanwhile, the friends, unaccustomed to the care of such a case, reach a state of mind scarcely more sane than that of the patient himself. I beg to suggest that a strong committee of this Association be appointed to consider this matter and to confer with the proper authorities in order to obtain some redress. It might be urged against this that the depriving of a man of his liberty should not be too easy of accomplishment. This objection cannot apply because it is not desired to make any important change in the papers for admission, and the persons who now pass judgment upon the case will still do so. The needless delay, due to the transmission of the necessary papers by mail, can and must be terminated.

From year to year from this chair reference has been made to the desirability of having a medical Act for the whole Dominion of Canada, instead of permitting matters to go on as they have in the past—each Province having a separate Act of its own, the license to practise medicine being limited to the confines of one Province. In view of the many advantages a Dominion Act would confer, especially on the graduates from medical colleges in the Dominion of Canada, at home and abroad, we, of Ontario, should be willing to make any reasonable sacrifice to attain that end, excepting, always, any course that would lower our present high standard of examination. I cannot say that the bill introduced into the House of Commons by Dr. Roddick is wholly satisfactory. I am hopeful

that there is in the profession wisdom enough to draft such a measure as will remove the objections to Dr. Roddick's bill.

If it be thought the best course that each Province surrender the control of medical affairs to a single Medical Council for the whole Dominion then such a Council must be representative in character, and largely, if not wholly elected, by the medical profession. It must hold its examinations at least once a year in the capital of each Province. On the other hand if the control of medical affairs is to remain in each Province some inexpensive scheme should be devised to have the examinations exactly the same in the whole of Canada. The degree or the license thus obtained would cover the whole Dominion and would be recognized in any part of Great Britain and would entitle the holder to appointment for the army or navy.

The Dominion of Canada, our great country, has risen to the notice of the whole world in the past few years. There is no possible doubt that ere two or three decades pass, her place in the world will become much more important; and though we may find many things to admire in the great people to the South of us we are to-day at heart more thoroughly British than ever before. We are proud to be a part of that great Empire whose flag protects its humblest citizen in all his rights, as to life and property—of that great Empire whose laws are just, and justly administered by impartial judges.

The destiny of this country is clearly to fill a large place in the councils of this mighty Empire. In medical affairs let us seek so to act that nothing shall remain to hinder our graduates from occupying any position for which they are fitted in any part of this Empire.

RESULTS OF EXPERIMENTS WITH DIPHTHERIA ANTITOXIN AT THE ISOLATION HOSPITAL, TORONTO.

BY E. B. SHUTTLEWORTH,
Bacteriologist to the Board of Health, Toronto.

The first experiments with diphtheria antitoxin at the Riverside Isolation Hospital, Toronto, were made at a comparatively early period, commencing on November 16th, 1894. Fourteen patients suffering from true diphtheria, as proved by bacteriological test, were injected with Behring's or Gibier's serum, chiefly the former. Three died, making a mortality of 21.4 per cent., against a hospital mortality of 14.07 for the current year.

In view of this discouraging statistical result, and as serum therapy was at that time a mere experiment, it was thought better to suspend operations and await conclusions deducible from the accumulated experience of physicians generally, and more particularly from that derived from hospital treatment. Without entering into details, it may be said that the evidence afforded by the intervening period proved more or less conflicting, though, as far as regards the results of private practice in Ontario, it was largely in favor of antitoxin, while the number of the advocates of the new treatment became much more numerous and confident.

These circumstances, with the pronounced trend of antitoxin literature, led to a second series of experiments, which commenced in 1899, and was carried out under the following specified conditions: Every alternate child, under ten years of age, admitted to the hospital, was to be immediately treated with serum, in doses indicated by the severity of the attack. No exception was to be made in the choice of patients, nor was a bacteriological test to be waited for. The after treatment of the cases was to differ in no respect from that of non-antitoxin cases, of whom an equal number—represented by the alternate admissions—were to be put under observation. The test was thus to cover two hundred cases of true diphtheria, as determined by bacteriological diagnosis, and in one-half of which antitoxin was to be used. Records were to be kept, in uniform and systematic shape, with regard to each patient. In the antitoxin cases the particulars were embraced under the following headings, which, as far as applicable, were also used for the alternate cases:

(1) Name, age, sex, and date of admission of patient. (2) Site of membrane. (3) Severity of attack. (4) Day of disease on which antitoxin was administered. (5) Amount injected. (6) Temperature before, and every six hours after injection. (7) Unfavorable symptoms occurring during first three days. (8) Daily changes in appearance of membrane. (9) Time of disappearance of membrane. (10) Removal of patient to convalescent ward. (11) Rashes occurring during treatment. (12) Occurrence of paralysis. (13) Number of days in hospital. (14) Bacteriological record. (15) Number of days until disappearance of diphtheria bacilli. (16) Termination of disease.

The plan thus indicated was carried out fairly well, but there was, of course, some uncertainty as to the information furnished under several of the headings. This was necessarily the case in regard to the stage of disease on admission. The statements of parents, corroborated as far as possible by the evidence of attend-

ing physicians, were accepted. The period ranged from one to seven days for the antitoxin cases, and averaged 2.67. As the incubative period of diphtheria is very uncertain, and as the evidence of the attack is largely governed by the resistance of the patient, and the solicitude of his friends, I do not think that much reliance can be placed on these figures. The initial severity of the disease was also somewhat confused with its subsequent course, which leaves the statistics on this point open to question.

The information gained under some of the headings can be at once disposed of. Thus the records of temperature did not show any marked differences between the series of cases, nor were there any unfavorable symptoms immediately ascribable to the serum, nor did rashes supervene. The observations as to changes in the daily appearance of the membrane were not regularly kept up, and in any case were difficult to characterize and follow, except as to final disappearance.

As a matter of fact there were 113 injections administered, but thirteen of the cases were not true diphtheria, as proved by the absence of the specific bacillus. The totals of the other cases furnish the following percentages:

	ANTITOXIN.	NON-ANTITOXIN.
Total cases of proved diphtheria.....	100	100
Males.....	52	49
Females.....	48	51
Average age (years).....	5.42	5.64
Duration of sickness on admission (days).....	2.67	3.36
Type:		
Pharyngeal (cases).....	53	46
Laryngeal (cases).....	13	9
Nasal (cases).....	1	1
Naso-pharyngeal (cases).....	20	33
Laryngo-nasal (cases).....	9	9
Laryngo-naso-pharyngeal (cases).....	4	2
Character:		
Mild (cases).....	60	50
Severe (cases).....	30	32
Very severe (cases).....	10	18
Disappearance of membrane (days).....	8.0	9.1
Duration of hospital term (days).....	25.5	24.0
Occurrence of paralysis.....	8	1
Deaths (including moribund cases).....	19	16
Moribund cases (died within twenty-four hours)	6	3
Average duration of fatal cases (days).....	6.0	6.6

The antitoxin used was that of two leading American manufacturers, and the quantities administered were such as were generally recommended to be used at the time when the experiments were made. In one case only 500 cubic units were employed; in another ten times that quantity was injected. The average of the hundred cases was 1,122 units.

Between 1895 and 1898, inclusive, there were sent to the hospital, by city physicians, forty-three diphtheritic patients, who prior to their admission had been treated with antitoxin. Of these twelve died, equalling 27.8 per cent. The general gross mortality at the hospital for these years was, respectively, 15.4, 17.0, 13.7, and 9.9 per cent., or for the entire period, an average of 14.34 per cent.

The mortality results of antitoxin experiences may be thus summarized and compared with the preceding percentages of non-antitoxin cases:

	CASES.	DEATHS.	MORTALITY PER CENT.
1894-5. Serum injections at hospital....	14	3	21.4
1899. Serum injections at hospital....	100	19	19.0
1895-9. Serum injections outside hospital	43	12	27.8
Total.....	157	34	21.6

These undoctored figures are uniformly unfavorable to anti-toxin, and from a statistical standpoint are exceedingly convincing, but when critically examined they become less so. Thus, with regard to the hundred cases treated with serum, it is evident that the undue proportion of moribunds was the result of chance. It would be fairer to omit these from both series, and thus obtain a corrected or net mortality. If this is done it leaves 94 anti-toxin cases with 13 deaths, or 13.8 per cent., against 97 untreated cases with 13 deaths, or 13.4 per cent. This is as far as figure manipulation can be permitted, but still the result fails to present serum treatment in a favorable light.

If the location of the membrane be accepted as an indication of the probable severity of the attack, the number of laryngeal cases under antitoxin is 4 per cent. in excess of the other; but, on the other hand, there are 13 per cent. more naso-pharyngeal cases in the untreated series, and these are generally of the most severe and fatal character. The figures as to location are on the whole fairly comparable, though those as to severity are against antitoxin; but, as before explained, the latter are not absolutely reliable. The occurrence of paralysis, as noted by other observers, is shown to be more frequent when antitoxin is administered.

The loosening and disappearance of the membrane seems to follow rather more rapidly in antitoxin cases; but infection, as proved bacteriologically, persists for at least as long as in untreated cases.

As to the outside patients above referred to, no explanation can be offered. It is generally conceded that the most serious cases are sent to hospital, but there does not appear to be any

warrant for the assumption that the 43 antitoxin cases were in any other respect materially different from an equal number of untreated cases contemporaneously admitted.

It may be argued that absolute conclusions are not justifiable from the results of so small a number as 157 cases. This is, doubtless, true, but, so far, the indications have not been such as to afford much encouragement to further experimentation.

It seems likely that hospital cases are generally too far advanced for the realization of those good effects which are claimed to follow the use of antitoxin in outside practice.

INSANITY IN WOMEN FROM THE GYNECOLOGICAL AND OBSTETRICAL POINT OF VIEW.—ABSTRACT.

BY A. LAPHORN SMITH, B.A., M.D., M.R.C.S. (ENG.), MONTREAL.

Fellow of the American and British Gynecological Societies; Professor of Clinical
Gynecology in Bishop's University, Montreal; Professor of Gynecology in
the University of Vermont; Surgeon-in-Chief to the Samaritan
Hospital for Women; Surgeon to the Western Hospital;
Gynecologist to the Montreal Dispensary; Consult-
ing Gynecologist to the Women's Hospital.

From the careful consideration of a large number of recent articles by writers of great knowledge of this subject, added to the writer's own somewhat limited experience, he feels justified in coming to the following conclusions:

1. Insanity is not hereditary, as is generally supposed, but it is sometimes contagious.
2. Insanity in the majority of cases is not due to organic disease of the brain, but to functional disorders of its circulation and of its circulating fluid.
3. In many cases in women the disorder of the brain's circulation is caused by reflex irritation, carried by the sympathetic from the pelvic organs, and caused by retroversion of the uterus, cirrhotic ovaries, fibroid tumor, etc.
4. In other cases it is the fluid circulating in the brain which is at fault. In some it is too poor in quality because of the digestive apparatus being interfered with by reflex irritation of the sympathetic, due to lacerated cervix, endometritis, etc.
5. In a lesser number of cases the brain is prevented from working because the blood is badly oxygenated or loaded with uric acid, urea, or other poisons.

6. Hundreds of cases are now on record of insanity being cured by removal of the cause, the greatest number of mental cures having followed ventrofixation and shortening of the round ligaments for the removal of retrodisplacements, while many others have followed the ablation of fibroids, cirrhotic ovaries, the repair of lacerated cervixes, and even curetting.

7. Such being the case, it is the duty of the family physician to examine carefully every woman in his practice who becomes insane, or to have her examined by a gynecologist, and if any pelvic disease is discovered it should be remedied.

8. It is the duty of every medical superintendent of an insane asylum to have a systematic examination made, preferably under anesthesia, so that unsuspected sources of irritation of the sympathetic situated in the pelvis may be removed. In one asylum alone this course has resulted in improvement in 66 per cent. and recovery, mentally, of 42 per cent. of those operated upon, although the pelvic troubles had existed for from six to sixteen years.

9. If anything is done it must be done thoroughly, as several cases have been reported where no benefit resulted until a second and more complete operation was performed.

10. In view of the number of women who become insane from uremia more care should be exercised by practitioners in preventing this condition. All Protestant physicians should, with the advice and approval of one or two colleagues, empty the uterus before the kidneys become permanently damaged. (Catholic physicians are not allowed by their church to sacrifice the ovum in order to save the mother.)

NOTE ON THE CREMASTERIC REFLEX IN SCIATICA.

G. A. Gibbons (*Edinburgh Med. Jour.*), states that a remarkable exaggeration of the cremasteric reflex has shown itself in every case of sciatica that has recently been under his notice. It can be elicited in the ordinary way by gently stroking the skin on the inner side of the thigh, but is much more easily produced by firm pressure over the lower and inner portion of Scarpa's triangle, whose sensory nerve supply is derived from the internal cutaneous branch of the anterior crural nerve. The extent of the cremasteric reflex is greatest when the knee jerk is most exaggerated, yet it is found in cases which do not manifest much increase in the knee jerk. Anatomically, the cremasteric centre and the knee centre are situated above the connections of the sciatica nerve; it therefore seems probable that in sciatica the segments of the cord at and below these sciatic connections have but little tendency to exaggeration, while those above are in a condition of exaltation.—*Medical Record*.

Reports of Societies

ONTARIO MEDICAL ASSOCIATION.

The twenty-first annual meeting of the Ontario Medical Association was held in the Educational Department, Toronto, on the 19th and 20th of June, 1901, the President, Dr. Angus MacKinnon, of Guelph, in the chair. The secretary read the minutes of the last session of last year which were adopted.

The report of the Committee on Papers was presented by Dr. Machell, of Toronto, and the report of the Committee on Arrangements by Dr. Bruce L. Riordan.

THREE RECENT GALL-STONE CASES.

Dr. Wm. Oldright, Toronto, said these cases had occurred recently in his practice. They present features of interest to the profession. The first case occurred in a woman about fifty-five years of age. He was rather surprised to be called upon to see her in a hurry, to find symptoms of gall-stone obstruction. The late Dr. Little had seen the patient and had endeavored to obtain purgation without effect. Powerful carthartics were unavailing. About nine months previously she had a similar attack, but Dr. Oldright had heard nothing about it until this attack. The symptoms were: somewhat elevated temperature (about 100 to 101), constant vomiting, obstruction, and, of course, intense pain. He supplemented Dr. Little's catharsis, but without any effect. On examination he could map out a distinct tumor, and told her that she had a distended gall bladder; advised her to go into the hospital, which she did that night. She was operated on in the afternoon, and removed some gall-stones and endeavored to establish patency of the duct. He could feel no stones left behind, but there was some stenosis of the duct. There was a great deal of inflammatory action in this case. The gall bladder was stitched into the abdominal wall and drainage established in the usual method; bile flowed freely. The patient made a good recovery. The second case was one Dr. Oldright saw in consultation with Dr. McLean, of Woodbridge. She was sixty-five years old. The prognosis was certainly death without operation, and provided there was no malignant trouble she would probably recover. In this case one could imagine the difficulty there would have been had it been his first case of operation, as he could not locate the gall bladder. He came to the conclusion that it was not a case for further interference. Within twenty-four hours she succumbed to the shock and probably to some hemorrhage. There was no

doubt after passing the finger in that it was malignant. If this woman had been operated on some years before, Dr. Oldright thought that malignancy would not have occurred and her life would have been saved. The third case occurred in a woman forty years of age. Upon her the surgeon operated last February. Here was a case in which there had been gall-stone symptoms, obstruction, for about eighteen months. She consented to an operation. The obstruction was in the cystic duct. He opened the gall bladder and took out the stones which he exhibited to his audience. The operation occupied about forty minutes. The patient made an uneventful recovery, and left the hospital thirteen days after the operation.

Dr. Garrett, of Kingston, said that operative interference in gall-bladder surgery had only recently been brought into prominence. Early diagnosis is very important. We should operate at once when we make a diagnosis. He referred to a case which had been diagnosed as catarrh of the stomach upon which he had operated and had extracted 170 stones from the gall bladder.

Dr. T. Shaw Webster, Toronto, asked Dr. Oldright if there are not some cases where it would be better to wait for a little while, in cases where there is a strong probability that the condition will disappear in a short time.

Dr. Oldright in reply: As soon as we are satisfied of gall-stone obstruction, as soon as acute symptoms have subsided, we should operate, and not allow repeated attacks to go on until malignant disease is established.

EXCISION OF UPPER JAW FOR SARCOMA—WITH EXHIBITION OF PATIENT AND SPECIMEN.

Dr. Herbert A. Bruce, Toronto, presented this paper, whilst Dr. G. Silverthorn exhibited the specimen. Dr. Bruce also presented the patient, a woman thirty-four years of age, from whom he had removed the upper jaw for sarcoma. The patient had been sent to him by Dr. Bowles, of Woodhill. The history of the patient is, briefly, as follows: During the last week of January of this year she felt, for the first time, a slight swelling over the alveolus of the left jaw, which she thought to be a gum-boil. She consulted Dr. Bowles at the end of March, and Dr. Bruce saw her about the middle of April—that is less than three months after the first symptoms. Dr. Bruce operated upon her on the 29th of April, exactly three months after she had the first symptom. On examination he found a very hard swelling just behind the second bicuspid tooth and extending backwards to the full extent of the jaw. Internally it had not extended to the middle line and bulged externally to the extent of half an inch beyond what would be the line of the teeth. It extended backwards towards the antrum, but the latter did not seem to be implicated externally. The growth in the roof

of the mouth was covered by a mucous membrane. On looking into the nose a polypoid mass was seen, and the patient had some difficulty in breathing through the left nostril. The cheek on the affected side was slightly more prominent, and it moved freely over the growth. No prominence of the eye on the affected side was to be made out. A small portion of the growth was removed under cocaine, and Dr. Silverthorne reported to Dr. Bruce that it was sarcoma. The patient left the hospital on the 18th of May and made an uninterrupted recovery.

Dr. Silverthorne presented the specimen to the members of the Association. It was the size of a large-sized orange, containing spindle cells with a cartilaginous basis.

Dr. Bruce stated that the history of the patient showed that a polypus had been removed about eight years ago, and he thought that it must have been a simple polypus.

ECTOPIC GESTATION.

Dr. R. W. Garrett, Kingston, extended his thanks to the Committee on Papers for placing under his care a subject of such great magnitude. The subject is one of vital importance to every practitioner, for at any time he might be called upon to differentiate the condition from others with which it might be confounded. The responsibility of a life was in his hands and demanded accurate diagnosis, medical acumen and judgment and ability to conduct the case to a favorable termination. He entered at considerable length as to the causation and earlier changes consequent upon ectopic gestation, and stated that every physician is expected to make a correct diagnosis of tubal pregnancy on the occurrence of rupture; and in a fairly large proportion of cases, to make a diagnosis before the occurrence of rupture. Theoretically, the arrest of a fructified ovum may occur first in the ovary; second, in the abdominal cavity between the ovary and tube; third, within the tube; and fourth, between the tube and the uterus. He would direct the attention of his audience to but one kind only: arrest within the tube, or tubal pregnancy, as all other varieties are but merely developments of this kind, owing to secondary invasion of the fallopian tube. These he divided into three groups: First, tubo-abdominal, or simply abdominal pregnancy, in which there is a secondary invasion of the abdomen; second, tubo-ligamentary, in which there is a secondary invasion of the broad ligament and sub-peritoneal tissues, and, third, that sub-division of the tubo-uterine in which there is rupture into or secondary invasion of the uterus. At considerable length he discussed the etiology, then the symptoms, pointing out the difficulties that lie in the road to making a diagnosis owing to the absence of many, if not all of the classical symptoms generally enumerated. Having dealt in a masterly

manner with these he recited a very interesting case in illustration of his contention of the difficulties of diagnosis.

Dr. J. F. W. Ross followed Dr. Garrett in the discussion regarding the diagnosis as the most important point of all, and especially the diagnosis before rupture. He thought that we ought to be able to diagnose these cases before rupture had taken place. What are the symptoms? Generally four or five symptoms. He referred to the pain that is indefinite, not severe, not acute, but a feeling as if something were wrong. He referred to several cases recently seen in practice.

Dr. Powell referred to a case where Dr. Ross had diagnosed these conditions before rupture had occurred.

Dr. Oldright mentioned a double rupture of both tubes.

Dr. A. A. MacDonald complimented Dr. Garrett on the careful manner in which he entered into his subject, and thought it was one of the greatest importance to the general practitioner. He remembers the time when it was stated that no one could make the diagnosis before rupture. He referred to a case which came into Bellevue Hospital, in Toronto, comparatively recently—a case of twins, in which one child was delivered in the natural way, and the other child ectopic.

Dr. T. S. Webster said that the subject was one that he had taken a great deal of interest in, and has had to deal with four of these cases.

Dr. Prevost, Ottawa, showed a specimen and said that sometimes, in spite of the most accurate diagnosis, we make mistakes. He described the case, the specimen of which he presented.

Dr. A. F. McKenzie, Monkton, referred to a case seen in his practice, which went on to full term and was delivered of a large child and no trouble. He further spoke of the difficulty in making the diagnosis in these cases.

Dr. Machell thinks the interest centres in the diagnosis.

Dr. MacKinnon, the President, stated that he had not had much experience with these cases before rupture, but had had a little experience after rupture. He thought frequently there might be danger in making a mistake. He also cited a case occurring in a young married woman with a little child five or six years old.

Dr. Garrett closed the discussion, and thanked the members for their generous treatment of his paper. He considered that discussions of this character were of the greatest moment. Rupture is generally about the third month, and interstitial pregnancy can go on to a much longer term than tubal pregnancy, and in this form we generally have external rupture.

FIRST DAY—AFTERNOON SESSION.

PRESIDENT'S ADDRESS.

Dr. MacKinnon delivered a very able address on the opening of the afternoon session. He considered that it was a great honor to be elected president of this, the largest and most influential medical association in the Dominion of Canada. Having referred to the success of the meeting so far, he proceeded to contrast the state of medicine at the beginning of the last century with that of the present, and compared the vast advantages we to-day possess over those of one hundred years ago. Anesthesia, antiseptics, asepsis, vaccination, the anti-toxin treatment for diphtheria, the discovery of bacillus of tuberculosis were mentioned, and he looked for the dawn in no far-distant day, of that grand and glorious day when we can say to the world that tuberculosis and cancer can both be cured. He deplored the growth in the employment of new proprietary remedies, and thought that harm was being done to the medical profession by manufacturing firms making up pills for neuralgia, for malaria, etc. He considered that the literature and drugs sent out to medical men by these manufacturing houses had become an intolerable nuisance. The electric belt man, the Christian Scientist, the advertising cancer-curer, the osteopath, and many other such like fakes which hang on to the skirts of medicine, he scored most unmercifully, and regretted that the public press, both secular and religious, opened their columns freely to these fulsome, untruthful, and sometimes immoral advertisements, because they pay well. There was great danger to the public in permitting Christian Scientists, the "pray-for-hire-healers" and the "Dowieites," impudently undertaking to cure infectious diseases, such as diphtheria, scarlet fever and smallpox—diseases which they are unable to recognize, and he thinks that we have come to a point where toleration and forbearance become criminal. The 2,500 medical men in Ontario should have influence enough to obtain from the Legislature an amendment to the Medical Act that will put an end to this trifling with human life. He directed attention to the delay that occurs in securing admission to the asylums for people, the subjects of acute mania, and thought it was high time the necessary steps in this department in the practice of medicine should be simplified.

PULMONARY TUBERCULOSIS—ITS TREATMENT IN SPECIAL SANATORIA.

Dr. J. H. Elliott, Medical Superintendent of the Sanatorium at Gravenhurst, read this paper. Speaking generally, it may be said that from fifty to seventy per cent. of the incipient cases are restored to health, while from all classes from fifteen to thirty per cent. are reported cured or arrested, in sixty to seventy per cent. a marked

improvement The first thing noticeable after entering the sanatorium, in most cases, is an improved appetite, a gradual gain in weight, and a decline in evening temperature. With this improvement night sweats disappear without medication, the cough and expectoration noticeably lessen, and the patient sleeps until morning. The principles generally adopted are : First, a continual life in the open air, with rest or exercise as indicated ; second, a liberal, suitable diet ; third, medicinal treatment according to indications, and to a great extent symptomatic ; fourth, hydro-therapy ; fifth, a strict medical supervision of the patient's daily life. Speaking of the "rest-cure" in febrile cases, the object is to reduce muscular exertion to the least point consistent with the ingestion and proper assimilation of a good diet. Referring to medicinal treatment, with a hygienic life, pure medicines are required. The various tuberculins and serums are being used both in America and Europe, with the prospects of yet securing a specific for those cases where mixed infection is absent. Constant supervision of the patient is the most important point in which the sanatorium treatment must necessarily differ from that adopted by the general practitioner. Living, as he does, with his patients, adopting their mode of life, having his meals in common with them, the physician is enabled to individualize the treatment, and though on broad lines the patients all receive the same treatment, each one has to be studied in detail, and the indications met accordingly. The chief point, under all circumstances, is that the patients, wherever they may be, live prudently, and be under the care of an intelligent and firm physician.

Dr. Price-Brown referred to the advisability of sending patients for sanatorial treatment, and stated that we have for every disease places to send our patients—hospitals throughout the length and breadth of the land, except for tuberculosis. Having recently been at Asheville, N.C., he described the treatment which he had seen carried on in that institution.

Dr. John Hunter, Toronto, deprecated sending these patients long distances away from their homes, which was formerly the custom, but is not so now. He hoped to see the time when there would be a large number of these institutions established in this country. Dr. Elliott, in reply, emphasized the point that there should be no exercise when the evening temperature is above ninety-nine degrees ; it may be permitted in the morning if it reaches one hundred or one hundred and a half, but not in the evening.

VACCINAL PROTECTION AGAINST SMALLPOX.

Dr. P. H. Bryce, Toronto, the Secretary of the Provincial Board of Health, presented this paper. In the introduction to his paper he expressed the belief that although the practice of vaccina-

tion against smallpox had existed for a century, there never was a time since it was formally accepted by the profession, when there was so much expressed scepticism as there was to-day on the part of the laity with regard to its protective qualities, and never a time when the profession has been so indifferent as to impressing the necessity of its proper performance upon the public. In Ontario, between 1898 and 1899, there were but twenty-two recorded deaths from the disease. He made special reference to the art of vaccination and the quality of the lymph, and thought five separate insertions should be made in each case. The quality of the lymph was very important. He thought that a medical man going out from college did not receive sufficient practical instruction on this most important subject.

Mr. I. H. Cameron discussed Dr. Bryce's paper and stated, as a matter of fact, he had no hesitation whatever in seeing a case of smallpox himself, nor would he object to any member of his family seeing it, if he knew that they had sufficient protection through vaccination. He warned the profession against laxity in dealing with this most important subject.

Dr. Harrison, Selkirk, stated that he had had considerable experience with smallpox, and on account of that experience he entered a vigorous protest against the prevailing carelessness in insisting on vaccination and revaccination in the laity as well as the profession.

Dr. John Hunter, stated that in many cases he had failed to secure successful vaccination.

Dr. Geikie considered that Jenner's discovery was one of the greatest and grandest achievements in medicine.

Dr. Price-Brown referred to a case in the Toronto General Hospital in the year 1866.

Dr. Rudolf asked Dr. Bryce whether the instructions given along with lymph supplied by different firms were not partially to blame for the insufficient vaccination among the profession. He considered that no one should be guided by those instructions.

Dr. Bryce, in reply, thanked Mr. Cameron for taking up the discussion. He considered that the profession was lamentably ignorant of the nature of protection and protective qualities of vaccination itself.

Dr. D. J. Gibb-Wishart suggested that a resolution be passed by the Association expressing its approval of from three to five insertions, and advising manufacturers interested in the matter.

Dr. Thistle thought that they should not stipulate the number of marks, that it would not be wise, as many successful vaccinations had been obtained from one mark.

Dr. Stewart, of the Ontario Vaccine Farm, Palmerston, thought four or five marks better, so situated that there would be no coalescence.

Dr. McPhedran did not wonder that the younger members of the profession were weak as regards the diagnosis of smallpox when facilities for instruction in clinical work was absolutely nil, he had repeatedly asked to be permitted to take a class to the Infectious Diseases Hospital, but had always been denied.

Dr. Noble, Philadelphia, thought as a surgeon that something else might have been said about the care of the vaccination wounds. The wounds should be protected, so that there would be no chance of infection.

DISCUSSION ON EMPYEMA.

Medical Aspect.—This subject was introduced in a well-prepared paper by Dr. Ferguson, London, who said that the treatment of this condition was essentially surgical, and that the medical aspects of the disease were limited to a consideration of its pathogenesis and prophylaxis. He considered that the conditions of non-purulent or primary effusion indispensable to an understanding of the pathogenesis of empyema. He gave a description of the pleura and discussed the bacteriological aspect of purulent pleurisy, which he divided into four classes: First, those due to pneumococci; second, those due to streptococci (and staphylococci); third, those due to the bacilli of tuberculosis, and fourth, those caused by saprogenic organisms. In nine cases, extending over eleven years in his practice, three were diagnosed tubercular, three meta-pneumonic, two due to the streptococci, and one undetermined. The prognosis varies with the micro-organism present, the pneumococci being the most benign. It is the only variety of purulent empyema that may possibly yield to treatment by mere aspiration especially in children. Tubercular empyema is usually mixed infection. The prognosis here will depend upon the general condition of the patient, and the character of the mixed infection. We therefore see the importance of a bacteriological examination; as in any other debilitating disease, supporting and tonic treatment is essential. With the advent of pus, surgical means must be adopted.

Surgical Aspect.—Introduced by Dr. J. L. Turnbull, Goderich. When the presence of pus is determined it should be evacuated at once, as there is always the danger of the abscess bursting into or through the chest wall, or even through the diaphragm and producing peritonitis. Aspiration need not be described; remember not to remove the fluid too rapidly. In this, as in an ordinary abscess, it is not necessary to open at the most dependent point. The preferable way, and the one which Dr. Turnbull always uses when a diagnosis of pus is made, is to remove a portion of a rib; an inch and a half may be cut out, preferably with the saw, under strict antiseptic precautions. Dr. Turnbull advises washing out every day when pus is offensive, and drainage tube gradually shortened until it can be removed altogether. Where a cavity and

sinus remains after this operation, the sinus may become closed and a second empyema established. This requires an Estlander's operation, and one of the best ways is to carefully locate size and boundaries of cavity with a probe, and after dissecting up a flap of skin, be sure to remove enough bone. The hard fibrous tissue beneath the ribs, which is always present in quantity there, must be thoroughly removed. Dr. Turnbull advises mopping out with pure carbolic acid, then with alcohol to prevent poisoning, and then with sterilized water, the part being carefully dried. He puts a drainage tube in the most dependent part.

Dr. J. C. Mitchell considered that these cases should be dealt with purely on the same principles as an ordinary abscess. He has seen more cases in adults than in children. He considers that a good many of them are tubercular.

Dr. Powell took exception to Dr. Mitchell styling empyema as being only ordinary abscess. He considered that it was something more, because lung was pressing on one side of it. He exhibited an instrument which he used in the operation.

Dr. John Hunter mentioned a case where air entered the cellular tissue in the skin, and universal empyema set up.

Dr. Primrose considered it an important point to know whether the case was one of mixed infection. He does not think that we have taken all the advantage we might do of the researches that are made in the bacteriological laboratory.

Dr. Thistle said that one point had not been referred to which he considered of first importance in successful treatment—the time at which operation should take place. That is the crucial point in procuring success in these cases. The earlier the operation is done the speedier the cure, and in many of the cases which run into chronic empyemata, the result was due to the lateness of the operation.

Dr. McKeown said that there were three points of importance to his mind—recognized that pus is present; that we want to get at it; and that we want to get the cavity closed up.

Dr. McPhedran considered that these cases should be diagnosed very early, and are easily treated as a rule. One should be on his guard in a case of pneumonia when the temperature falls about the eighth day to near the normal; if it commenced to rise again it is suspicious of empyema.

Dr. Freel, Stouffville, considered that it was better to resect the rib with proper dressing and tube, than to aspirate.

Dr. Rudolf—So far it seems to be the opinion of this meeting that where pus is discovered in the plural cavity it should be removed by operation. He thinks there is one exception to that; that is, where an empyema exists along with tuberculosis of the lungs. In this condition where pus is found, it should not be at once removed without careful consideration.

Dr. Turnbull, in reply, considered that it was best that the rib

should be removed in every case. He does not think it necessary to wash out the cavity in every case; only where the discharge is offensive. The tube should be long enough to go into the cavity.

Dr. Ferguson, in reply—Early diagnosis, with the aid of the bacteriologist, will add much to the after treatment.

FIRST DAY, EVENING SESSION.

OPEN-AIR TREATMENT OF DISEASE.

By Dr. George H. Carveth, Toronto, who described his method of treating different forms of disease, first, in the house with wide-open windows; second, in beds on the veranda; third, in beds under tents on the lawn. At first he experienced some difficulty in getting his patients to consent to be treated in this manner, but after they had become habituated to life in the open air, they returned indoors reluctantly. Some of the cases that he has treated in this way are iritis, cases of fracture, cases of the radical cure of hernia, rheumatoid arthritis, tubercular disease of the spine, typhoid fever, and a case of hysterectomy. His address was illustrated by lantern slide projections on the canvas, which proved very interesting to the members of the Association.

Dr. P. H. Bryce spoke of the value of treating smallpox patients in tents. The tents should be double roofed, and double floored, and double walled, and each tent provided with a stove. The patients lived in these when the thermometer was 20 degrees below zero, being quite comfortable. Nobody died, although many were seriously sick.

Dr. Freel, Staffville, recited the history of the case of a clergyman, the victim of tuberculosis, who lived in his tent all winter when the thermometer was 20 degrees below zero, and the wind blowing a perfect gale, and he was very comfortable. In a few months' time he ceased sweating, and gained very rapidly in weight, to such an extent that delivering a sermon would not throw him into a perspiration as it always did before he took up tent-life on his lawn.

Dr. J. H. Elliott, Gravenhurst, saw no reason why out-door life should not be employed in the treatment of other diseases as well as tuberculosis. It is not specific, and the only reason it is used is to strengthen the organism to resist disease. It is practically returning to primitive life, and it is so comfortable and pleasant that you find it very difficult to get patients to return to the house.

Dr. John Hunter referred to the Orphans' Home, Toronto, where they keep about two hundred children. These are admitted about four years of age and they are kept there until they are about fourteen. Their mortality in that institution is about three in one thousand. They are practically kept out of doors all the time, and

comparisons between the children of the Orphans' Home and the children of the well-to-do people of the city are greatly in the formers' favor.

Dr. Webster—The trouble is not so much to get the patients to sleep out of doors as it is to get them to return to the house when they have once been out of doors.

Dr. G. S. Ryerson, speaking of his visit to South Africa, said that at Bloombfontein the typhoid fever patients did particularly well in tents. The mortality was much larger in buildings improvised and used as hospitals. He considered that it was well to have the roof of the tent of material of some dark color, such as green or brown, because the patient, lying on his back, begins to complain of the color of the roof.

ON THE USE OF NITROUS OXIDE AND ETHER AS AN ANESTHETIC.

This paper was prepared and read by Dr. L. Coyteux Prevost, of Ottawa, and it proved to be highly interesting, carefully prepared, and ably delivered. He considers that a good and satisfactory anesthetic must possess the following qualities: First, offer the least possible harm for the patient; second, be rapid; third, complete; fourth, permanent; fifth, followed by as few disagreeable post-operative effects as possible. He then proceeded to relate the results of his personal experience during the last two years at the hospital in Ottawa, as well as in his private practice; Dr. Carroll, of Ottawa, was his assistant in this work. The agent they employ is ether, with which they lately have associated nitrous oxide, which is given at the beginning of anesthesia by the means of Clover's inhaler. He considers this method as absolutely ideal, as much for the rapidity with which the patient becomes anesthetized as for the freedom from all unpleasant sensations during the process of anesthetization and the diminution of after-symptoms so frequent after operations. The apparatus which they have been using for the nitrous oxide and ether is Hewitt's inhaler, which is a modification of a Clover inhaler, with the rubber bag replaced by a large bag with valvular attachments. Within the last two years they have used this method almost exclusively, and the results are as follows: Anesthesia in one minute, twenty-four times out of three hundred and seven cases recorded; in one and a half minutes, fifty-five times; in two minutes, ninety-four times; in two and a half minutes, forty-seven times; in three minutes, forty-four times; in three and a half minutes, nine times; in four minutes, nineteen times; in five minutes, fourteen times. Dr. Prevost then entered into his observations with regard to the effect of the anesthetics upon the kidneys, and stated out of 434 observations albumen was found twenty-six times. He drew attention to the fact that post-operative vomiting was very rare. Dr. Prevost was the first surgeon in Canada to employ intro-spinal cocainization. He believes that so

long as the old and well-tried anesthetic agents, handled by competent men, continue to give good satisfaction that it will not be wise to abandon them until medullary narcosis has been clearly demonstrated.

THE COMPLICATIONS AND DEGENERATIONS OF FIBROID TUMORS OF THE UTERUS,
WITH REFERENCE TO THE TREATMENT OF THESE GROWTHS.

Dr. Chas. T. Noble, Philadelphia, delivered an able and exhaustive paper under the above heading, an abstract of which will be published in a subsequent issue.

Drs. J. F. W. Ross, N. A. Powell, MacKinnon, and Clouse discussed the paper, to which Dr. Noble replied.

SECOND DAY—MORNING SESSION.

THE RELATIONS OF NASAL OBSTRUCTIONS TO OBSCURE CASES OF ASTHMA.

This paper was read by title by Dr. Arthur W. Mayberry, of Toronto. Patients suffering from nasal obstruction are frequently coming before the notice of the busy practitioner. Asthma has a complex etiology, and the close association of this disease with nasal trouble is sometimes very remarkable. Adenoid growths in the thorax frequently cause asthma, and in recent years much stress has been laid on the nasal origin of this disease. The author quoted Bosworth, who goes so far as to assert that asthma, in a large proportion of cases, is attributed to some form of nasal obstruction, the bronchial spasm being caused through reflex sympathy conducted along the fifth nerve.

ON THE IMPORTANCE OF AN EARLY RECOGNITION OF LOCOMOTOR ATAXIA—DO
THE EYE SYMPTOMS ASSIST US?

Dr. J. T. Duncan, Toronto, read this paper, and emphasized the importance of being able to diagnose this disease in order that prompt treatment might be applied. To do this we must be able to recognize the pre-ataxic stage. What are these symptoms? Professor Osler gives them as pains, ocular symptoms, and loss of the knee jerk. What are the ocular symptoms? Strabismus or squint; ptosis or drooping of the eye lid; the fixed pupil (the Argyl-Robertson pupil); inequality of the pupils and optic atrophy.

NOTES ON THE USE OF ADRENALIN.

Dr. D. J. Gibb-Wishart, Toronto. This is the formula which Dr. Wishart has been using in his office practice, having made several hundred applications, chiefly to the mucous membrane of the nose; one in one thousand, the chloride being dissolved in normal salt solution containing 0.5 per cent. chloretone solution. A 10 per cent.

dilution of the above solution, which dilution is equivalent to one in 10,000, has been sufficient so contract the blood vessels in the membranes in a few seconds, and a repetition of the same, or the use of a stronger dilution, will blanch these membranes; especially is this seen to be marked in the nose, where the membranes will become tightly drawn over the turbinated bones, which show up white through them. It has proven itself to be highly useful in rendering operations about the nose practically bloodless; it is not found to answer so well in the removal of adenoids or enlarged tonsils. Dr. Wishart mentioned two cases in particular where it acted very promptly. The bottle in which it is kept must be tightly corked; and the properties of the substance are not destroyed by heat. Since he has added chloretone he is perfectly satisfied as to the stability of the preparation for all practical purposes. In no instance has there been a tendency to increase in the amount of bleeding. Dr. Wishart considers that the drug is a valuable addition to our armamentarium.

Dr. Duncan's paper was discussed by Dr. Wishart, Dr. Crow, and Dr. Hunter; while Dr. Wishart's paper brought out a discussion from Dr. Trow, Dr. McPhedran, and Dr. Graham Chambers. Dr. Wishart and Dr. Duncan replied respectively.

DISCUSSION ON GASTRIC ULCER.

Medical Aspect.—This was introduced by Dr. R. D. Rudolf, Toronto. In opening the discussion from a medical point of view, he gave a short historical sketch of the chief literature of the subject, and said during the last thirty years only one important symptom had been added to those mentioned by previous writers, viz.: the very common occurrence of hyperchlorhydria. Avoiding the consideration of the well-known points on the subject, he propounded five questions in connection with gastric ulcer which seemed to him to specially merit discussion. First, is there any relation between gastric ulcer and cancer? Trousseau believed that an actual antagonism existed between the two conditions, while Lebert considered that 9 per cent. of all gastric cancers so arose, and Rosenheim states that 5 to 6 per cent. of all gastric ulcers became carcinomatous. Clinically, the speaker had never seen a case of simple ulcer end in cancer, nor had he seen a case of cancer preceded by ulcer, although such cases undoubtedly occasionally occurred.

Dr. Rudolph had seen pathological specimens illustrating both. Second: Can we diagnose the site of gastric ulcer? This question is becoming more important on account of operations. Ewald states that in 90 per cent. of cases it is impossible to tell whether the ulcer is in the stomach or duodenum, and that usually it is hard to diagnose the site in the stomach. Most gastric ulcers occur on

the posterior wall, near the pyloric end. The site of the pain and tenderness ; the time the pain occurs after food ; the position in which the patient is free from pain, and the presence or absence of gastric dilatation may help, but these are very uncertain facts to lean upon. Thus, in Pinel's famous case, mentioned by Abercrombie, where the patient was *known* to have ulcers near the pylorus, the pain used to occur *immediately* after taking food. The taking the food may not only mechanically irritate the ulcer, but by stimulating the acid secretion peristalsis may cause pain without touching the ulcer. It must further be remembered that there are sometimes several ulcers present. Third question : Does ergot ever stop gastric hemorrhage? Most authorities recommend ergot without question, but we must remember that the hemorrhage tends to be self-limiting from the lowering of the blood pressure and the forming of a clot, and ergot may interfere with this natural cure by raising the blood pressure. Turpentine and other local styptics have no such objection, and calcium chloride increases the tendency to clotting. Fourth question : Are cases of apparently "cured" gastric ulcer "first-class lives" for insurance? The speaker did not think that they were, because sudden perforation might occur after years of quiescence (he had seen two such cases). Ulcers were apt to relapse or to break out in new places. The severer the symptoms the ulcer had been at the time, especially the hemorrhage, and the shorter the period since its occurrence, the worse the "life" was. Fifth question, as regards operation ; as soon as perforation into the peritoneal cavity be diagnosed, operation should at once be performed ; as regards operation where no perforation exists the question was not so easily settled. Severe, uncontrollable hemorrhage might occasionally call for surgical treatment, but the mortality from hemorrhage is surprisingly small, even when this is severe. Dr. Mayo Robson had recently recommended "that after a second bleeding, even during the course of the hemorrhage, if the patient can stand it, or as soon after as his condition will admit, the operation should be done." The speaker was glad to see that his old teacher, Dr. Byron M. Bramwell, challenged this advice (*The Lancet*, March 9, 1900, page 687). Operation for the less urgent symptoms of gastric ulcer would occasionally be necessary, but in this direction we should proceed with great caution. Dr. Moynihan, in a recent paper (*The Lancet*, April 27, 1901), gave a summary of all the cases to date in which gastro-plasty or gastro-gastrostomy had been performed for "hour-glass stomach." They amounted to thirty-eight in all, and nine of them were fatal, while in many complete relief of symptom ; occurred.

Pathology.—This branch of the discussion was led by Dr. H. B. Anderson, Toronto. In his opening remarks he said he would make no reference to ulceration resulting from the breaking down of tubercular foci, syphilitic gummata, or malignant growths, nor of

ulceration occurring during the course of acute infective diseases nor resulting from the action of corrosive poisons, but would limit the discussion to a consideration of the commonly designated simple, round, perforating or peptic ulcer. From the similarity in all essential points, however, he included the corresponding ulcer at the lower end of the esophagus and in the first part of the duodenum. From post-mortem statistics the frequency of gastric ulcer was in about 5 per cent. of cases, cicatrices being found about three times as often as healed ulcers. From his own experience at autopsies in Toronto he was sure that gastric ulcer did not occur in Ontario so frequently as indicated by the above figures. The condition occurred most frequently in adults from twenty to forty years of age, but was by no means rare at the extremes of life. The mortality was greater from forty to sixty years of age, no doubt from the lessened reparative power at that period of life. Females were affected more frequently than males, in about the proportion of two to one.

The etiological import of other diseases, especially chlorosis, was dwelt upon. Injury was a factor in rare instances, a statement substantiated by certain experimental data. Occupation, race, climate, habits—all had an indirect influence in some cases, and arterial sclerosis, thrombosis and embolism of the gastric vessels were occasional factors in the etiology of the condition.

All these factors were, however, of secondary importance, and were only active in the presence of an altered condition of the gastric secretion. The localities where this form of ulceration occurred—at the lower end of the esophagus, in the stomach and in the first part of the duodenum—situations exposed to the action of the gastric juice, as well as the not infrequent occurrence of post-mortem digestion of the walls of the stomach, were strongly suggestive of the importance of this factor, and this had received further direct proof from the discovery of the frequent occurrence of a hyperchlorhydria associated with gastric ulcer from a chemical analysis of the stomach contents obtained after test meals. The failure to find this condition in some cases was not proof that it had not existed at an earlier period in the diseases, for the hyperchlorhydria might afterwards have been lessened as the result of the greater or less degree of gastritis following on the wake of the ulcer. Ulceration did not occur unless there was a disproportion between the acidity of the gastric juice and the condition of the blood. Normally autodigestion of the walls of the stomach was prevented, not by a simple chemical reaction in which the acid was neutralized by the alkalinity of the blood and fluids in the tissues, but by the vital resistance of the living cells of the part. He did not think there was anything to uphold the bacterial origin of this form of ulcer urged by some authors.

The pathological anatomy of gastric ulcer and its various ter-

minations were discussed and illustrated by specimens. Healing was the fortunate result in the majority of cases. At other times a fistulous communication was formed with the duodenum, colon or the cutaneous surface, or a subphrenic abscess might result. Adhesion to the pancreas, liver, or to the omentum frequently walled the trouble off. Not infrequently however, peritoneal infection from perforation occurred, and the symptoms might be so intense as to simulate irritant poisoning. Gastrectasia or "hour-glass" deformity from cicatricial contraction at the pyloric orifice, or in the centre of the organ, at times gave rise to serious results. A specimen, showing the development of a carcinoma at the base of an ulcer with a clinical history extending over many years, was presented.

Surgical Aspect.—Dr. Henry Howitt, Guelph, conducted this part of the discussion and said, did it never strike you as being peculiar that the best remedies, nitrate of silver and so forth, are germ destroyers? He first took up the procedures for dealing with the ulcer or its results, in which perforation is not a factor. In all the operative procedures it was essential to prevent infection of the wound, stomach should be thoroughly washed with aseptic water, by means of siphon tube, immediately before the anesthetic is administered. It is not necessary to make the abdominal incision extensive, the length of the incision would depend upon the amount of contraction, and it is sutured in such a manner that when closed the line of union is at right angles to the original incision. This gives excellent results when properly done. Adhesions render this ideal operation impracticable. The first successful operation was performed in Toronto, 1894, by Dr. Atherton. Up to last September in the neighborhood of 300 operations were reported with a mortality of a little over 45 per cent. Dr. Howitt then referred to cases in his own practice. With regard to the treatment, Dr. Howitt said that as soon as we are satisfied that perforation has taken place, referring to acute cases, he believes it is good practice to give morphia hypodermically, and it further lessens the amount of the anesthetic in the opinion of many. Success largely depends on the shortness of time before operation; delay is dangerous. It is Dr. Howitt's practice to eviscerate the bowels; one or more small incisions in the prominent coils soon overcome the distension, and each one is closed before another is made. Attention is now turned to the stomach and the part brought into the wound. The ulcer is incised and opening closed with two or three layers of sutures. When the trouble is in the posterior wall it may be impossible to excise it, in which case it can be generally inverted and closed by layers of sutures. The abdominal cavity should be thoroughly flushed with a stream of saline solution. When drainage is necessary the tubes or gauze should not be introduced through a large wound. The

object should be to have primary union to take place in the incision.

Dr. McPhedran, referring to the treatment of simple ulcer, said that the treatment for this is one that is not carried out very effectively. If not successful after a month of rest in bed with medicinal treatment, he would advise operation.

Dr. J. F. W. Ross referred to a case of catarrh of the stomach in a woman of fifty-nine pounds, and where he was satisfied before operation that he had to deal with a cancer of the stomach. She recovered and rapidly gained in weight until she reached 140 pounds.

Dr. Bruce referred to a case upon which he had operated.

Drs. Rudolf, Anderson and Howitt replied.

VAGINAL SECTION, EXPLORATORY AND OPERATIVE.

Dr. T. Shaw Webster read a paper with the above title describing several operations performed in that way, one being for ectopic gestation. He reported good success in them from the vaginal route.

Dr. Noble thought the vaginal route all right for abscesses, but had a preference for the abdominal in pelvic operations.

Drs. Bruce, Macdonald, Oldright, Ferguson (London), W. J. Wilson and Clouse discussed this paper, the discussion proving an interesting one, although the members were rather impatient for hot soup, it being past the hour for luncheon.

Dr. Webster replied and defended his position ably.

Dr. Bruce L. Riordan now passed through the theatre announcing that luncheon was now ready in the dining-car, so there was an immediate bolt for the door, and all were soon enjoying themselves at a very fine spread provided by the Committee of Arrangements. Afterwards, bright and happy speeches were made by several of the members, the audience simply calling for their favorites, and no one being specially set down for any toasts. Amongst others who said some good things were Drs. Harrison, Dean Geikie, J. C. Mitchell, N. A. Powell, George Bingham and the President.

SECOND DAY—AFTERNOON SESSION.

THE ROENTGEN RAYS IN THE DIAGNOSIS OF URINARY AND BILIARY CALCULI.

This paper, X-ray photos and specimens of calculi, which proved a very interesting demonstration, was presented by Dr. S. Cummings, of Hamilton.

Dr. McGillivray, Toronto, asked if the diagnosis is always positive.

Dr. Cummings replied that if any errors, they are due to operator not to X-ray itself.

There was a demonstration of skiagrams in an adjoining room.

PRELIMINARY REPORT ON THE RELATIONS OF HYPERCHLORHYDRIA TO
"BILIOUS ATTACKS," SOME FORMS OF ECZEMA, GOUT
AND MUSCULAR RHEUMATISM.

Dr. Graham Chambers, Toronto, stated that on several occasions he had examined the gastric contents of patients of apparently normal digestion and found hydrochloric-superacidity, although in some of them there was a history of "bilious attacks," which were probably attacks of hyperacidity. He considers that the gastric distress, which is present in these cases, is more or less due to the hyperesthesia of the mucous membrane of the stomach, as well as to the excessive acid contents. The commingling of these two neuroses, hyperchlorhydria and hyperesthesia gastrica, makes an investigation into the relations of the former to "bilious attacks," eczema, muscular rheumatism and gout a very definite one, but he cannot but think that a general irritable condition of the gastric nerves must produce some changes in the sympathetic and cerebro-spinal centres, which would no doubt lead, or tend to lead, to diseases in other organs. Dr. Chambers' attention was first called to this subject about two years ago, when he observed that the internal treatment, both dietetic and medicinal, which he was accustomed to give in cases of hyperchlorhydria, was approximately the same as that which he was using in some forms of acute eczema, and in both cases it gave very satisfactory results. In his experience "bilious attacks" are very frequent in cases of chronic hyperchlorhydria; he has also found that symptoms of indigestion are of frequent occurrence in eczema, and are usually of a character which indicates hyperchlorhydria. He has examined the gastric contents of six cases of eczema, with symptoms of dyspepsia, and in five of these there was an excess of HCl. in the gastric contents. He gave notes of cases in illustration of his researches. "Acidity" is a common symptom in gouty subjects, and Dr. Chambers believes that a thorough investigation of the subject would prove that the "acidity" of the gastric contents is not due to organic acid at all, but that hydrochloric acid will be found to play an important part in it. With regard to muscular rheumatism, we know very little about the etiology of it. Clinically, we have found that muscular rheumatism and gout are in some way related; and in regard to relations of hyperchlorhydria and muscular rheumatism, Dr. Chambers has observed that they are frequently associated, but whether the muscular rheumatism is the result of the hyperchlorhydria, he is at the present time unable to say.

Dr. Bryce discussed the paper.

MEDICAL TREATMENT OF SURGICAL TUBERCULOSIS.

Dr. W. B. Thistle, Toronto, said : It is important to remember this fact, that there is no difference in the nature of the disease, whether considered surgically or medically, and especially is this so when we come to consider treatment. We hear on all sides that it is a curable disease, and complete cure often now happily results from medical treatment. Dr. Thistle has observed that tubercular cases requiring surgical treatment in the great majority receive little or no medical treatment. The subjects of surgical tuberculosis should have the fullest advantage of sunshine and fresh air as well as those suffering from the disease in its medical aspect.

TREATMENT OF POST-OPERATIVE PERITONITIS.

By Walter McKeown, Toronto. The paper suggested that this condition should be treated by the use of decinormal salt solution, either subcutaneously or intravenously, and enemata of strong solutions of sulphate of magnesia. The toxins will dialyze; the anti-toxins will not. If, then, the toxins can be eliminated with sufficient rapidity, the disease will limit itself as a result of the formation of antitoxin together with the plugging of the peritoneal lymphatics. The blood is diluted by the addition of the salt solution, and this is drawn out into the rectum by means of a higher osmotic pressure carrying the toxins with it. He claims that even with a condition of paralysis of the bowel, toxins will dialyze in this way. He suggests that if a patient were placed in a salt bath, the toxins would probably osmose directly through the skin. That osmosis does not take place from without in through the skin, does not prove that the reverse process will not occur. *Osmosis is known to take place much more rapidly in one direction through the shell membrane of the egg than the other.*

SECOND DAY—EVENING SESSION.

Dr. R. A. Pyne, the First Vice-President, occupied the chair.

The Committee on Credentials recommended the following for membership, which was adopted: Dr. R. W. Garrett, Kingston; George Sherk, Cheapside; W. A. Scott, Courtright; Daniel Buchanan, Galt; L. C. Prevost, Ottawa; Milton Baker, Springfield; Donald McGillivray, Toronto; A. E. MacColl, Belleville; Arthur I. Brown, Holstein.

The following constituted the Nominating Committee: Drs. Geo. A. Bingham, A. McPhedran, Burt (of Paris), Powell (of Toronto), Mitchell (of Enniskillen), Harrison (of Selkirk), and Macdonald (of Toronto), Drs. E. Clouse and Price-Brown acting as scrutineers.

This committee reported as follows, which, on motion, was received and adopted:

President, Dr. N. A. Powell, Toronto; First Vice-President, R. Ferguson, London; Second Vice, R. W. Garrett, Kingston; Third, L. C. Prevost, Ottawa; Fourth, R. L. Turnbull, Goderich; General Secretary, Harold C. Parsons, Toronto; Assistant, George Elliott, Toronto; Treasurer, A. R. Gordon, Toronto.

The report of the Committee on Public Health was presented by Dr. Roseburgh, seconded by Dr. William Oldright, and adopted.

That on Tuberculosis, by Dr. W. B. Geikie, seconded by Dr. H. J. Hamilton, and adopted.

That on Hospital Abuse was presented by Dr. Webster, in the absence of the chairman, Dr. W. J. Wilson, seconded by Dr. W. A. Young, and adopted.

The Committee on Inter-Provincial Registration had nothing at the present time to report.

Treasurer's report was presented by Dr. G. H. Carveth, and showed last year's receipts to have been \$376.30, and expenditures \$340.66, leaving a balance of cash in bank of \$35.64. This was audited by Dr. R. D. Rudolf, and, on motion, adopted.

The report on Necrology was presented by Dr. George Bingham. It included the names of C. W. Covernton, Toronto; C. E. Martin, Toronto; J. D. Macdonald, a Past President, Hamilton; J. E. Eakins, Belleville; Isaac Ryall, Hamilton; A. K. Sturgeon, Petrolia; Dixon, Pembroke; Mennie, Toronto; J. A. Watson, Toronto; T. H. Little, Toronto; Jonathan Robinson, Toronto; J. H. Parsons, Toronto; and Irving, St. Mary's.

The Ontario Medical Library was voted \$50, on motion by Dr. R. A. Reeve, seconded by Dr. H. T. Machell.

A notice of motion was given by Dr. Graham Chambers, and seconded by Dr. H. B. Anderson, that the business session at future meetings be held on the evening of the first day. This will be referred to the Committee on By-laws.

Resolution of regret *re* non-payment of the annual \$2.00 fee of the Ontario Medical Council was introduced by Dr. Ferguson, of London, seconded by Dr. Gibson, of Belleville, that some members of the profession in the province had refused payment of this annual fee. This Association regards the imposition of this fee as most reasonable, payment of which should meet with a cheerful response on the part of every member of the profession. This was carried unanimously, amid much applause and without a dissenting voice.

Dr. Wishart, Toronto, chairman of the Special Committee to draw up a resolution *re* vaccination.

Resolved, That the Ontario Medical Association desires hereby to re-assert the opinion of the medical profession of this province:

1st. That the principles of Jennerian vaccination against small-

pox, which have been now attested by the experience of more than a century, are scientifically correct.

2nd. That in order to carry out the protection through vaccination against smallpox it is necessary that the lymph used in the operation be of normal quality, and that this can be shown only by a proper amount of systemic reaction to the vaccine, as determined by the character of the vesicles, and that the absence of a normal reaction, as shown by the presence of vesicles, is no positive evidence of the immunity of the person either against vaccination or smallpox.

3rd. That this Association emphasizes the urgent necessity that the scarification of the skin be sufficiently extensive to secure such reaction, and to this end recommend that from three to five insertions each of a quarter of an inch square be made in each vaccination. This was carried.

Medical Defence Union.—On motion of Dr. J. F. W. Ross, seconded by Dr. A. Primrose, a committee was appointed to inquire into this matter, to report at the next meeting of the Association in 1902.

Votes of thanks were passed to the Minister of Education for the use of the building, and also to the President, Dr. MacKinnon, for his exceedingly able address.

During the progress of the meeting it was addressed by the Honorable the Minister of Education Mr. Harcourt, who advised them strongly to keep up the standards of matriculation and the professional examinations.

Dr. N. A. Powell was then installed in the office of President, and, after brief acknowledgment, the 1901 meeting adjourned.

CANADIAN MEDICAL ASSOCIATION.—WINNIPEG MEETING, AUGUST 28TH TO 31ST, 1901.

The question¹ now seems to be, how is one to make arrangements to get away at the time of the meeting? for it seems to be universally conceded that to attend the Winnipeg meeting is the proper thing to do. The railways, having granted a single return rate to the meeting, have assisted in breaking down one of the barriers, and now one hears from all sides of physicians intending to make Winnipeg the central point of their holiday trip, and Winnipeg is making preparations for a great gathering. Many physicians, it seems, will also take advantage of the offer of the single-fare rate from Winnipeg to points in Manitoba, the North-West, British Columbia and North Dakota, after they have enjoyed the hospitality of the Winnipeg profession.

The question of Dominion Registration will come up for a full

discussion—it is hoped for the last time before this thing to be desired becomes a realization.

The following is a list of some of the papers already promised : "The Address in Medicine," by J. R. Jones, Winnipeg. "The Address in Surgery," by O. M. Jones, Victoria. "The Address in Gynecology," by Thomas S. Cullen, Johns Hopkins, Baltimore. "The Early Diagnosis and Treatment of Pulmonary Tuberculosis," by D. Gilbert Gordon, Toronto. "The Nose and Throat in General Practice," by John Hunter, Toronto. "Remarks on Some Interesting Diseases of the Age," by G. H. Burnham, Toronto. "Orthopedic Treatment of Deformities and Disabilities Resulting from Paralysis," by B. E. McKenzie, Toronto. Title to be announced, D. J. Gibb Wishart, Toronto. "A Practical Way of Distinguishing Between the Human and Animal Blood," by G. Silverthorne, Toronto. "Infectious Pneumonia," by W. S. Muir, Truro, N.S. "Sclerotic Ovaries," by A. L. Smith, Montreal. "Removal of a Large Tumor from Os Uteri after Labor had Set In," by A. Armstrong, Arnprior. "Tuberculosis in Milk," by Professor Russell, University of Wisconsin. "The Present Outbreak of Smallpox in America," by H. M. Bracken, Health Officer, Minnesota. "Hematology of the Blood," by L. H. Warner, New York. "Skin Diseases" (Lantern Demonstration) by F. J. Shepherd, Montreal. "The Treatment of Consumption in Special Institutions," by Dr. Richer, Montreal. "Disposal of Tuberculous Sputum," by J. H. Elliott, Gravenhurst. Title to be announced, G. Chambers, Toronto. "Chronic Ulceration of the Stomach Simulating Cancerous Disease; Relation of a Case of Gastro-enterostomy with Murphy Button; Recovery," by J. F. W. Ross, Toronto. "Report of Cases Treated with the Hot-air Bath," by W. H. Pepler, Toronto. Title to be announced, J. N. Hutchinson, Winnipeg. "Some Forms of Gastric Hyperacidity and Their Treatment," by C. F. Martin, Montreal. "Syphilis as Seen by the Ophthalmic Surgeon," by F. Buller, Montreal. "On the Necessity of a Better Recognition and Isolation of Trochomatus Patients in Canada," by W. Gordon M. Byers, Montreal. Title to be announced, J. L. Bray, Chatham, Ont. "Epidemic Cerebro-Spinal Meningitis: a History of Some Cases," by James McKenty, Gretna, Man. "Pulmonary Tuberculosis: Its Treatment and Prevention," by A. P. Proctor, Kamloops, B.C. "Mild Smallpox," by G. A. Kennedy, Macleod, Alta. Title to be announced, C. J. Fagan, Victoria, B.C.

UP-TO-DATE.—Teacher (analyzing nursery rhyme): "There was an old woman who lived in a shoe; she had so many children she did not know what to do.' Why did she have so many children?"

Bright Pupil: "She did not know what to do."

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EDITORS:

GRAHAM CHAMBERS, B.A., M.B. WALTER McKEOWN, B.A., M.D.

ASSOCIATE EDITOR:

GEORGE ELLIOTT, M.D.

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No. 1.

THE PRESIDENT'S ADDRESS.

The address delivered at the opening of the Ontario Medical Association by its President, Dr. Angus MacKinnon, which we produce in this issue, is of more than ordinary interest. Every subject touched upon is full of present-day importance. Referring to the needs of the Association, he immediately puts his finger upon the weak spot in the organization when he urges his friends from outside the city to take a larger share in the proceedings and deliberations of the Association. There can be no doubt that the attendance of outside members is unreasonably small. It has been suggested, and perhaps rightly, that one of the reasons for this is that the election of officers is left over to the evening of the second day of the meeting, when most of the members not residing in the city have gone home.

Dr. MacKinnon must have had in his mind's eye the new Canadian proprietary medicine company, to which we made reference in our last issue, when referring to the marked increase in the number of such compounds on the market and the new methods devised to push sales. He rightly says: "No medical man should allow anyone to think for him as to what his patient needs; nor should he permit any manufacturing druggist to use him as a sort of advertising agent for his products."

The Christian Scientists are not held in high regard by Dr. MacKinnon. His argument, that for the safety of the public no one unable to recognize contagious diseases should be allowed to treat them, seems to us unanswerable. He might have added that

neither should they be allowed to charge for the treatment of something which they claim does not exist.

The difficulties often met with in getting insane persons admitted to asylums have not been exaggerated. Lack of room in these institutions is not entirely responsible for the delay.

THE STUDY OF CHEMISTRY IN MEDICINE.

The subject of chemistry covers such a wide range that it is difficult for a student in medicine to obtain a strong grasp of even the principles. At the same time there is no subject which more amply repays the time and labor bestowed upon its acquisition. As illustrations of the application of chemistry to medicine, we need only mention the study of diseases of the stomach, kidney, and bladder. Moreover, the field of usefulness of chemistry is extending from day to day. Pathologists are making more use of chemical methods in studying the changes which take place in diseased tissues. The recent advances which have been made in the treatment of diseases of the stomach depend to a great extent upon the application of chemical methods in classifying gastric affections. It is a very simple piece of work to analyze the gastric contents after a test meal, and to determine the potency of the enzymes, but how few medical men avail themselves of the advantage of it. This is all the more to be regretted when those of the medical profession who study gastric affections by these newer methods believe that is one of the greatest advances which has been made in internal medicine in the last decade. Formerly we treated many cases of indigestion in a sort of haphazard manner. We had very little knowledge of the condition of the secretions and of the motility of the stomach, and necessarily could not prescribe in a rational manner.

Chemistry applied to the study of therapeutics, materia medica and pharmacy, is another subject which has not received the attention it deserves. Many practitioners do not know anything of the nature of the newer synthetic organic drugs. Druggists tell us that there are very few good prescription writers among the profession. Prescriptions with incompatible constituents are frequently received. In some cases the druggists report the facts to the doctors, but in the majority of cases they attach a shake label, and dispense the inelegant mixtures.

There is another subject which may be fittingly referred to in this connection, and that is the use of proprietary medicines by the medical profession. The number of these mixtures has greatly increased during the past few years, and there is no doubt that

these "elegant preparations" are displacing to a considerable extent many of the drugs of the pharmacopeia. Why has this change taken place? We believe that the low standard of chemical education is one cause, and the gullability of the profession is another. It is rather interesting to study the evolution of these proprietary remedies. About twelve or fifteen years ago there were only a few of these mixtures on the market. A considerable number of synthetic organic drugs were being introduced, and the chemical names of some of them were complex and difficult to remember. The manufacturers got over this difficulty by giving the substances new names, which they copyrighted. This, we think, was the beginning of the present era. Some enterprising chemists saw opportunities to make money out of the new order of things; they knew the weaknesses of the medical profession. Inexpensive drugs were compounded and copyrighted; names were given to the products. These mixtures were sold to the profession at greatly advanced prices, and in many cases brought great wealth to their promoters. The financial success of some of these companies acted as an impetus to the development of the trade. Elixirs, ointments, emulsions, syrups, etc., were introduced to the profession. In some cases the constituents of the preparations were made known, while in others they were kept secret. The latter, as a rule, met with the greater success. Many medical men considered that it was quite the correct thing not only to use these remedies, but also to give testimonials in order that their medical brethren might reap some of the real or fanciful advantages which they had obtained. However, the trade itself was for the most part in the hands of non-professional men. Medical men did not consider it quite ethical to take stock in drug companies, which expected to make profit out of selling proprietary remedies, although they considered that they were justified in prescribing them. However, a change of view by some members of the profession has recently taken place, as we have noticed that there is a marked increase in the number of medical men who are stockholders in proprietary medicine companies. This is another step in development of the trade, and one which, according to our opinion, will tend to degrade the medical profession. How medical men can persuade themselves that it is ethical to give testimonials to patent medicines, or to take stock in patent medicine companies we cannot understand; but we do believe that the low standard of chemical and pharmaceutical education has something to do with it. If medical men knew more about chemistry and pharmacy, they would not have to depend so much on the manufacturing chemist to compound their prescriptions, and they would be able to form a better opinion of the true worth of any drug placed on the market.

We could enumerate many other instances where the neglect

of the study of chemistry has interfered with the advancement of medical science, and we think there is more need of improvement in the method of teaching chemistry to medical students than in any other medical subject.

At the present time chemistry is taught during the first and second years of the undergraduate's course. During this period the students receive very little, if any, clinical teaching. They study chemistry as a pure science. We believe that the instructors are capable teachers, and the students give the necessary attention and all the time they can spare in order to obtain some knowledge of the subject. At examinations they do appear to have succeeded; but when one meets them a short time afterwards, it is surprising how little they know about the subject.

The longer the time which elapses after the primary examination the less the students know about chemistry. In mathematical language it may be stated that a medical man's knowledge of chemistry varies inversely as the time which has elapsed since he took his second examination. It should be the object of medical faculties to ameliorate this defect. We think that more chemistry should be taught in the third and fourth year, and less in the first and second year. Scientific chemistry should be taught, but it should be scientific chemistry applied to the study of medicine. At the present time most students study chemistry principally for the purpose of passing the primary examination, whereas they should study it for the purpose of better understanding the pathology and treatment of diseases. Wherever there is opportunity of applying chemistry in clinical medicine and therapeutics, as in diseases of stomach, materia medica of new drugs, therapeutics, urinary analysis, etc., it should be adopted, and this work should be done when the student is also studying clinical medicine. If this course be followed it would be much easier for the student to remember his chemistry; and we feel satisfied that the standard of chemical education in the medical profession would be materially raised.

THE FAT-SPLITTING ENZYME OF THE STOMACH.

One of the most interesting of the recent discoveries in physiological chemistry is the detection by P. Volhard, of a fat-splitting ferment in the gastric juice. Volhard (*Zeitschr. f. Klin. Med.*) states that if an emulsified fat, such as the yolk of an egg or milk, be mixed with gastric juice, and the mixture kept at body temperature for about an hour, the emulsion will be broken up, and the fatty acids will be seen floating on the surface of the fluid. Artificial emulsions and non-emulsified fats are only

slightly affected ; a glycerine extract of the stomach has a similar action to the gastric juice, and, like pepsin, the steatolytic ferment appears to be secreted principally by the mucous membrane of the fundus of the stomach. Boiling of the gastric juice or glycerine extract destroys the action of the ferment. The presence of hydrochloric acid and pepsin has also a deterrent influence on the activity of the enzyme.

What practical benefit may result from the discovery of this ferment it is impossible at the present time to say ; but it will no doubt aid us in solving some of the difficulties which we now encounter in dietetics.

News Items.

DIPHTHERIA is epidemic around St. John, N.B.

A MODIFIED milk dispensary has been opened in connection with the Baby Hospital, Montreal.

DR. MCCONNELL, Toronto '95, New Mexico, has been spending a holiday with friends in Toronto.

DR. MACKENTY, McGill '92, has been made a member of the faculty in the New York Post-Graduate Medical School.

DR. ADAM WRIGHT has returned to the city and we are pleased to announce that his trip abroad has greatly improved his health.

MONTREAL is once more free of smallpox and only two or three cases remain in the smallpox hospital ; these are recovering rapidly.

ST. MICHAEL'S HOSPITAL APPOINTMENTS.—Drs. P. W. O'Brien, Toronto ; R. H. Parent, Windsor, and C. R. Elliott, Alvinston.

THE Eastern Ontario Dental Convention met on the 4th of July and decided to ask the Minister of Militia to have a dental corps appointed in connection with the Canadian Militia.

SENATOR VILLENEUVE left by his will \$25,000 to Laval University ; \$5,000 each to Notre Dame Hospital and the Catholic Orphan Asylum. The Home for Incurables will get \$1,000.

INFANT MORTALITY IN MONTREAL.—In one week in Montreal during the hot spell, there were 212 deaths among children under five years of age ; this was out of a total death rate of 273.

TORONTO GENERAL HOSPITAL.—The average number of male patients during the last quarter was 163; female, 78.40. Admitted during the quarter, males, 458; females, 365. Discharged, males, 444; females, 340.

DR. MONTIZAMBERT and Dr. Duncan McEachren, chief veterinary inspector for the Dominion, have been delegated by the Government to attend the Tuberculosis Conference to be held in London, England, July 22nd.

DRUNKENNESS IN ONTARIO.—This bad habit is apparently on the decrease throughout the province of Ontario. In 1889 there was one conviction for drunkenness for every 295 persons; in 1899, one for every 826. The total number of convictions reported in Ontario for 1889 numbered 4,797, while in 1899 there were only 2,905 convictions, a decrease of over 60 per cent.

MONTREAL GENERAL HOSPITAL.—During the month of June 262 were admitted; 256 discharged; fifteen died. The ambulance responded to 113 calls during the month. Trained nurses are said to be in demand in Montreal at the present time, and the Training School for Nurses in connection with the Montreal General Hospital is constantly besieged with inquiries. The graduates of this school now number 180.

LADY MINTO'S COTTAGE HOSPITAL SCHEME.—The special collecting cards in connection with this scheme are proving eminently satisfactory. Over \$20,000 have been collected in this way and the ladies of Montreal by their work have particularly delighted Her Excellency. London is another place where good work is being done. Winnipeg is behind hand, while such places as Regina and Saskatchewan and even the far-off Yukon are sending in subscriptions.

EXECUTIVE HEALTH OFFICERS OF ONTARIO.—The annual meeting of this Association was held at Brantford, Ont., on June 25th and 26th, the president, Dr. W. T. Connell, Kingston, in the chair. The subject of smallpox received careful attention, as also school sanitation. A strong committee was formed, consisting of one member from each county to bring to the attention of local authorities the question of having by-laws submitted to the people with regard to the establishment of county sanatoria. A resolution was also adopted favoring the establishment of a monthly journal as an educator on sanitary matters. The election of officers resulted in Dr. E. E. Kitchen being chosen as President; Vice-President, Mr. Thos. MacFarlane; Secretary, Dr. P. H. Bryce.

MCGILL MEDICAL BUILDINGS.—So great are the improvements in the medical buildings of McGill that a graduate of three years ago would now scarcely recognize the place. In particular have great changes been made in the pathological laboratory, which is now said to be one of the brightest and best equipped of the many departments in the university. A new wing is to be erected during the present summer and will be ready for occupation in September. It will contain the chemical laboratory, eighty feet long by forty-five feet wide, and connected with this room will be another commodious laboratory for research work.

TORONTO GENERAL HOSPITAL APPOINTMENTS.—The house surgeons for the coming year have been appointed, and a new feature is noticeable in that a woman physician is on the list, viz., Dr. Helen McMurchy. From Toronto Medical School, Drs. F. A. Cleland, Meaford; W. H. Cronyn, London; H. S. Hutchison, Toronto; A. J. Macdougall, Toronto; J. H. Trout, Toronto. From Trinity Medical College, Drs. Duncan Anderson, Toronto; James Martin, Langton; W. J. Macdonald, Toronto; E. S. Ryerson, Toronto; W. G. Collison, Morpeth. Dr. W. D. McKitchen, Toronto University and Dr. C. C. Grant, Trinity Medical College were appointed as alternates.

RESEARCH WORK AT MCGILL.—In connection with the research work to be carried on at McGill, under the direct supervision of Professor Agami, and indirectly under the direction of the Rockefeller Institute of Chicago, Dr. W. W. Ford has received the appointment to this new fellowship. He will be engaged on some subject in connection with the study of preventable diseases, but before entering on his duties will spend the coming six months at the Pasteur Institute, Paris. There are thus two fellowships open at McGill, one in pathology, vacated by Dr. John McCrae, and the other in bacteriology, vacated by Dr. Ford. Applications will be received by Dr. Ruttan up to the 17th of August for these.

A BLOOD-THIRSTY YELL.—

Well man, sick man, dead man, stiff—
Cut him up, chop him up. What's the diff?
Humorous, tumorous, blood and gore!
Syracuse Medicos 1904.

Obituaries

DR. WILLIAM IRVING, ST. MARY'S, ONT.

A special despatch to the *Toronto Globe* of June 21st, announced the death of a much respected physician of that section of Ontario. Dr. Irving was born in the township of Scarboro', York County, on February 2nd, 1848. At an early age he evinced an energy to succeed, and it was solely as a result of his own stick-to-it-ive-ness that he was at length graduated in medicine at Toronto. For a while he practised his profession a short distance to the north of this city, thence moving to Exeter, going from there to Kirkton, and finally settling in St. Mary's, where he remained until his death. He had practised in St. Mary's about eight years. The profession in Western Ontario has sustained a distinct loss through his demise.

DR. E. A. GRAVELEY, CORNWALL, ONT.

Dr. E. A. Graveley, one of the best known and most successful physicians in Eastern Ontario, died at Cornwall on the 17th of June. For many years he had been gaol physician of that town. He was born in Cornwall Township over forty years ago and for many years was a prominent and active Conservative.

DR. JOHN GRANT, NAPANEE.

One of the oldest and most respected practitioners of Napanee, Dr. John Grant, died recently in that town, after only a few hours' illness.

Abstracts

THE EFFECT OF VARIATIONS IN DIET ON THE SECRETION OF HYDROCHLORIC ACID AND THE OSMOTIC TENSION OF THE NORMAL HUMAN STOMACH.

T. Justesen (*Zeitschrift für klinische Medizin*) gives the following picture of gastric digestion. A meal whose insoluble carbohydrates have already undergone considerable change through the agency of the salivary ferments reaches the stomach, and immediately a solution of many readily soluble substances takes place and the gastric contents are converted into a more or less "gastro-hypertonic" mass. At once water and hydrochloric acid are secreted, and through osmotic currents various dissolved bodies, such as peptone, sugar, and alcohol, are absorbed. The hydrochloric acid, leaving the ferments out of account, is at once taken up in combination by those organic substances, particularly the albumins, which act as free organic bases. Later on the hydrochloric acid attacks the salts of the weaker organic acids and the carbonates, combines with their bases and converts them into hydrochlorates, and not until then does any of it become manifest, and together with the sodium chloride diffused from the blood begin to equalize the chloride tension. At the same time the molecular concentration of the stomach contents is reduced considerably below that of the blood by the "vital dilution secretions" of the epithelial cells. Meanwhile, at stated intervals portions of the food mass are being carried out through the pylorus, and Hirsch has shown that it is principally the more fluid elements that pass out first, the solid matters remaining behind longest, while Verhaegen has demonstrated, by means of a special tube, that the stomach contents are always more liquid at the pylorus than at the fundus.—*Medical Record*.

GONORRHEAL ARTHRITIS.

J. Stewart (*Montreal Med. Jour.*) has made a careful analysis of 48 cases of gonorrhoeal arthritis, with the following results: Of the 48 cases, only 6 were women. All were young adults, the average age being 30 years, and the only exception a man of 69. No relationship was made out with previous rheumatism, only three cases having a decided rheumatic history. It was, however, shown that one attack predisposed to another if there was fresh infection of the urethra, since 15 cases had a history of previous attacks. As to the gonorrhoea, arthritis was as liable to follow a mild attack as a severe one. Twenty-six cases occurred after the first attack and others after repeated attacks. As to the stage of the gonorrhoea, 18 cases occurred in the acute stage before

the end of the third week; 22 occurred later; in 5 cases the arthritis developed more than a year after the onset of the gonorrhoea, which had become a chronic gleet. In only 4 cases was the urethra normal, all the other cases had acute or subacute gonorrhoea or some form of urethritis when admitted to hospital. The mode of onset differed widely; in some it began like an acute fever, the arthritis appearing a few days later. Other cases began as an acute arthritis, but in the majority the onset was more or less gradual, with pain in one joint usually extending to other joints in succession, but not subsiding in the first joints, as others were involved. The clinical forms of the disease differed greatly. The commonest form was a polyarthritis resembling subacute rheumatism, the inflammation beginning suddenly or gradually in one joint and extending to others, with moderate fever. Most of these cases did well when admitted early, but half were left with partial ankylosis of some of the joints. There were 12 chronic cases, mostly with ankylosed joints, two having hydrarthrosis; these were not much improved by treatment. Seven cases were affected only in the head and soles, the joints being free; these all did well. Lastly, there were 3 septicemic cases with fever and severe constitutional disturbance. Regarding the frequency of affection of different joints, the knees were most often attacked, being involved in 29 cases. Next to this the heel and plantar fascia in 18 cases. Then in order the ankles, the small joints of the feet, elbows, shoulders, wrists, and the small joints of the hands. The joints least often involved were the vertebral in 5 cases, the temporo-maxillary in 4, the sterno-clavicular in 3, and the thyroarytenoid in 1 case. The commonest complication was endocarditis, which occurred in 7 cases. In these there was recent affection of the mitral valve. Of these cases, 5 were polyarthritic and 2 septicemic. There was no case of malignant endocarditis. Iritis occurred in 4 cases, and conjunctivitis in 2. Phlebitis of the left femoral vein was noted in 1 case. All these complications occurred in febrile polyarthritic cases. The results were on the whole unsatisfactory, only 9 cases being cured. Thirty-five cases were improved, and 4 chronic cases did not benefit by treatment. Stewart attributes this result partly to the fact that the cases did not come early enough, all the cured cases having been seen in the early stage. The treatment was as follows: All acute cases were treated with rest in bed and low diet. No internal remedies, such as salicylates, iodides, salol, and alkalis, were of much value. The best results were obtained by the Tallermann hot-air treatment. This was used in 36 cases, daily sittings of half an hour being given at a temperature of 300° F. This treatment caused marked relief of pain and increased mobility *pro tem.*, and an increase of weight of 1 lb. a day. After three or four weeks of this treatment there

was still some stiffness, but, on the whole, the best results were obtained by it. Hot fomentations and blisters also relieved pain, and massage caused increased mobility in some chronic cases. Iodine locally was useless. Numerous clinical and bacteriological investigations go to show that gonorrhoeal arthritis is much more frequent in children than would be supposed *a priori*, and a complete series of articular affections occurring in early life can now be attributed to this cause which before were somewhat unaccountable. Several cases of this nature have been published by Halle (*Rev. des Mal. de l'Enfance*, 1900, and *Journ. de Méd.*, June 25th, 1900). In one case the arthritis occurred in a sterno-clavicular joint—a situation which in the adult would immediately point to a gonorrhoeal origin. The patient was a girl aged 7, suffering from vulvo-vaginitis. The arthritis set in severely, and for some days appeared as if a severe purulent disorganization would take place. The patient recovered completely. In another case the patient was a girl, aged 5, who came into the hospital with signs of arthritis of the hip-joint. This was looked upon as probably tuberculous. There was, however, vulvo-vaginitis and more acuteness of symptoms than in ordinary disease. There was no pain in the knee, nor any period of lameness preceding the onset of hip symptoms. On these grounds a diagnosis of gonorrhoeal arthritis was made, which evidently proved correct. The study of these cases indicates that treatment must be the same in children as in adults. In Halle's cases douching with 1 in 1,000 of permanganate of potash was followed by excellent results.—*Brit. Med. Jour.*

COLOTYPHUS.

Bourdillon describes (*Rev. de Méd.*) a case of typhoid fever in which the lesion affected the large intestine. The writer considers the recognition of such cases important. As a rule, the lesions in the large intestine in typhoid are insignificant though fairly frequent, but cases in which the colon shows the chief and primary ulceration certainly occur. The writer quotes Chantemesse as stating that the cecum is involved in a third of cases of typhoid and the ascending colon in a seventh, but these lesions are generally accessory. They do not give any particular character to the course of the disease, and it is the involvement of the lymphoid tissue in the ileum which is the dominant lesion. In the other class of cases, however, in which the colon is involved there may be no lesion in the ileum, or possibly one or two ulcerations, evidently of later date from those in the colon, and unaccompanied by marked effect on the mesenteric glands, associated with the usual form of enteric. Nor is there any appearance of cicatrising or pigmented ulceration in the ileum. So

far as the large intestine is concerned, it does not differ from the small in the evolution of the ulcerations, except that the case seems to be more prolonged. The prognosis, according to the writer, is somewhat more grave in cases of typhoid involving the large intestine than in the usual form. It is very difficult to ascertain from the symptoms and signs whether the colon is affected alone, or whether the case be one of the ordinary form. It is thought by the writer, and Letulle and Henriot and Mercier, quoted by him, that the least equivocal sign is the diarrhea, which is abundant, profuse, and very fetid. It persists from the beginning to the end of the disease. There may be as many as ten evacuations in the day, often unconscious. Otherwise they present the ordinary character of typhoid stools as a rule. Sometimes they are more watery and less colored. Abdominal pain following the course of the large intestine has been mentioned as fairly constant. Should pain and gurgling be recognised in the left iliac region it is very suggestive of colon ulceration. Meteorism is of no value as a diagnostic sign. The character of the hemorrhage may afford considerable information. If hemorrhage come from the small intestine it is usually intimately mixed with fecal materials, which then have a dark color. Blood, however, having its natural color, may, if evacuated in quantity, come from the ileum, but if a small amount of blood is passed having the ordinary appearance, the strong probability is that it is derived from colon ulceration. Patients suffering from the colon form of typhoid show very pronounced asthenia of a progressive character, with cachexia and great tendency to the formation of bedsores.—*Brit. Med. Jour.*

RESEARCHES ON THE PATHOGENESIS AND HISTOGENESIS OF MALIGNANT GROWTHS.

Brosch (*Virch. Archiv*) in the first part of an article on this subject seeks to formulate more exactly and to establish the hypothesis of the traumatic origin of tumors. He comes to the conclusion that the essence of the process is a destructive influence reacting upon a tissue in which a productive process is going on (the most simple cases may be postulated in this way—trauma-productive process, added trauma, tumor formation). By "productive process" the author understands "the new formation or cells whose number and powers of proliferation overstep the bounds of physiological repair," such as is to be found in wound healing, inflammation, and benign growths. An interesting point to which the author draws attention, although the material available is not sufficient to decisively establish it, is that productive processes complicated by secondary trauma result in carcinoma when the surface is injured, and in sarcoma when the deeper tissues are concerned; in other words carcinoma follows superficial

injuries, especially bruising and burns; sarcoma the more severe injuries—falls, blows, etc. The more frequent occurrence of carcinoma at the higher ages is very possibly to be accounted for by the fact that old people are not so subject to severe injuries as the younger, and that in consequence traumata in their cases are usually superficial. The experimental part of the work consists of observations on a typical epithelial proliferation following the repeated application by rubbing of paraffin into the skin of guinea-pigs. After six to ten weeks there occurred some thickening, which according to Brosch, was microscopically indistinguishable from what Ribbert has pictured as the early stage of skin-carcinoma. He gives no details as to any further development of the changes.—*Brit. Med. Jour.*

SCARLET FEVER IN THE CAT.

Our attention is being drawn more and more in recent years to the lower animals as disseminators of infectious disease. Although most writers on comparative pathology doubt the existence of scarlet fever in the cat, observations are occasionally put on record that would lead one to think these authors in error. One of the arguments put forward by the skeptical is this: The domestic cat comes into such intimate contact with its human companions that, if it were susceptible to the disease, it ought often to become its victim. But, says Dr. E. Rapin (*Progrès Médical*, May 4th), it may well be that scarlet fever occurs frequently in the cat, but is not recognized. The most noticeable manifestation of the disease in this animal, according to M. Rapin, is loss of the hair. Now, almost everybody regards a cat that is losing its hair as "mangy" and to be got rid of as soon as possible; therefore cats that lose their hair in consequence of scarlet fever are lost sight of without any adequate observation of them having been made. Furthermore, he argues, it may be that only very young kittens are susceptible.

M. Rapin states that in 1894 he showed at a meeting of the Medical Society of Geneva a little white kitten that he believed to be in the desquamative stage of scarlet fever. It was only a few weeks old, and it belonged to a family in which it had been the inseparable companion of two little girls who were suffering from the disease. It was soon seen to be very sick, and for three or four days it gave incessant little plaintive cries and was manifestly feverish, its body being of a burning heat, its skin rosy, and its tongue of a bright red. But the author's attention would not have been attracted to the poor little animal but for its abundant loss of hair, which was much the most pronounced on the posterior parts, so that at one time the kitten looked like a miniature lion. The exposed

epidermis looked branny, but there was no positive exfoliation. This kitten finally died.

If we accept the theory that the cat may have scarlet fever, it seems we must admit that in some instances the new growth of hair that takes place after recovery is of much finer appearance than the original coat. M. Rapin tells us that he once found in the room of a patient to whom he had been called a black and white cat with long and abundant hair of striking beauty. Upon his commenting on the fact, the mistress of the house said: "He took on that fine look after his scarlet fever." And she then gave him the history of her little girl's having had the disease and of the cat's having been evidently ill, and subsequently lost its hair. In this instance the process of desquamation ran a course of several weeks' duration.

In the light of such accounts as these, it may be well for practitioners to be on the lookout for "mangy" kittens in families in which there has been scarlet fever. If such kittens are found, it would be interesting to observe what happens to them and to endeavor to inoculate other kittens from them. But the most important point would be, of course, to prevent them from conveying the disease to susceptible human beings.—*Edit. in New York Med. Journ.*

HEPATIC INADEQUACY AND ITS RELATION TO IRREGULAR GOUT.

By "hepatic inadequacy" (Dr. I. B. Yeo, *Brit. Med. Journ.*), the author means such defect or disturbance of the functions of the liver as, while stopping short of causing actual disease of the liver, yet leads to impairment of the general health. He believes that many, if not all, of those cases known as "irregular gout" arise in this way. Uric acid does not cover the whole field of gout; indeed, it spreads widely over other pathological fields that have nothing to do with gout. The beneficial effects of alkaline sodium solutions in cases of irregular gout are well known; they exert their remedial influence by acting on the gastric, intestinal, and hepatic functions, quite irrespective of any direct solvent action on the sodium biurate. The symptoms referable to hepatic inadequacy presented by patients with irregular gout are pallor of faces, constipation or diarrhea, enlargement of the liver, muddiness of the complexion, yellowness of conjunctivæ, and anorexia. The urine is high-colored and of high specific gravity. On boiling and adding nitric acid, various shades of mahogany color are developed. The kidneys are not functionally diseased in these cases, but help in the process of elimination of excrementitious substances which normally pass out with the bile. Apart from individual peculiarities common to the gouty, the safest diet for these patients is the simplest diet. The pounded

lean meat and hot-water diet is about the simplest that can be offered to the feeble digestive organs. A limited amount of simple food means digestive ease and freedom from goutiness. There is more in the quality and cooking of food than in the kind of food. The best wine for patients needing a stimulant is a dry port, long in the wood; the more diuretic it is, the more suitable. The author is opposed to the view that most gouty patients need exercise; his experience has been that it is often difficult to get them to take sufficient rest. In the alkaline sodium salts we have the most valuable and indispensable of hepatic stimulants.—*New York Med. Journ.*

SIX NOTABLE AMERICAN MEDICAL ACHIEVEMENTS.

In an interesting address recently delivered to the graduates of the Medical and Dental Departments of the Columbian University in Washington, Dr. G. E. de Schweinitz picked out for special distinction the work of six American doctors in medicine and surgery. These contributors to science, who have each done some epochal work, are Beaumont, for his work in gastric digestion; Gerhard, for his observations that led to the differentiation of typhoid and typhus fevers; Gross, for his pioneer work on pathological anatomy; Oliver Wendell Holmes, for his recognition of the contagiousness of puerperal fever; H. C. Wood, for his work in therapeutics; and S. Weir Mitchell, for his rest cure. This list might, as Dr. de Schweinitz justly says, be somewhat enlarged, and we should certainly not omit from it the names of Ephraim McDowell, who performed the first ovariectomy, and of that greatest benefactor of all, Morton, to whom the world owes the first practical demonstration of ether anesthesia. As Americans, we cannot too jealously guard the fame of Morton, for there has been at times some tendency to detract from the honor which is his. Dr. de Schweinitz's address was an eloquent plea for the originality of some of the best work that has marked the progress of medicine in America, and was especially appropriate to the occasion. American medical students and graduates cannot be taught too earnestly to respect the work of their own countrymen, and not to look abroad too exclusively for knowledge and initiative.—*Phila. Med. Jour.*

THE ACCIDENTS ACCOMPANYING THE ERUPTION OF THE PERMANENT TEETH.

The condition of the teeth has, in the past, been considered the sole concern of the dentists; but it may be stated with considerable degree of truth that the physician is quite as much interested in the phenomena of dentition as is the dentist. Hunter's articles, which have appeared lately, have called attention to

the relation between oral sepsis and the general health, and now Audy (*Paris Thesis, No. 252, Gaz. Heb. de Med. et de Chirurg.*, May 19, 1901), calls attention to the fact that the oral lesions that accompany the eruption of the permanent teeth, other than the third molars, are frequently of an infectious nature. He points out that in order to cure such lesions the same rules should be followed that apply to the treatment of infected wounds; free incision and local antiseptics. The most rigorous possible buccal asepsis is the only method for the prevention of these infectious complications. Buccal asepsis necessarily includes brushing the teeth of children after they have reached the age of three or four years. We should be inclined, however, to advocate the institution of this sanitary arrangement at an earlier time in life than the third year. The production of painful and congestive lesions of the gums escapes all foresight. Nervous affections of reflex origin, which Audy has seen only imperfectly produced, evidently cannot be influenced by preventive treatment. It is undoubtedly the physician's duty to insist to all his patients—especially those in whom such matters are frequently neglected, upon the importance of the hygiene of the mouth.—*Phila. Med. Jour.*

POST-OPERATIVE HERNIA.

After first noticing a case of post-operative hernia, Jas. E. Moore (*in American Medicine*), gives the following method, which he has used for several years, in closing the abdominal wound. The peritoneum is first closed by a running stitch of medium-weight catgut. Silk-worm gut sutures are next passed through all of the tissues except the peritoneum by means of a full curved needle of a size suited to the thickness of the abdominal wall. The needle passes from without inward through the integument, fascia, muscle and deep fascia, coming out next to the peritoneum. It then passes from within out through the inner fascia, muscle, outer fascia and integument. In a very thin abdominal wall the needle can be passed through both edges of the wound at one sweep, but in most cases it is better to take them separately. These stitches are placed about a half inch apart. The fascia of the external oblique is next united by a running stitch of medium weight catgut. All the ends of the silk-worm gut are now caught and pulled upon at once so that they are made taut, after which they are tied lightly. Extra skin sutures are applied when needed. The advantages are that the peritoneal cavity is closed without delay, and there is no undesirable material left in the tissues to make future trouble. Suturing of the outer fascia gives such support that the silk-worm suture need not be tied so tightly as to cause necrosis. The operation obliterates any dead space and yields permanently satisfactory results.—*Jour. Am. Med. Ass.*

TYPHOID PERFORATION.

Typhoid perforation is discussed by Mark A. Brown in *Cincinnati Lancet Clinic*. It occurs as a rule at the end of the second or beginning of the third week and special attention should be given at this time for its occurrence. The first symptom is pain, sudden in its onset, agonizing in character, though this symptom may be dependent on other causes, even in cases of typhoid. A sudden and decided drop in the temperature usually follows, though not invariably, and it may be so transitory as to escape notice. The pulse usually becomes increased in frequency and decidedly weakened, but not wiry until actual peritonitis has set in. The most important part of the symptomatology is objective. With an opening between the bowel and peritoneal cavity there will be a more or less rapid outpouring of gas and fluid, gradually decreasing as the pressure becomes lessened. This gaseous distention of the abdomen, palpitation signs, etc., are all noticed at length. Auscultation is of little value. A blood examination may reveal slight leucocytosis. The facial expression, sweating and decubitus indicate the passage into the third stage. The combinations of symptoms are, he says, generally so varied that it is almost impossible at times to diagnose the conditions early enough to allow operative interference with any chance of success.—*Jour. Am. Med. Ass.*

DIAGNOSIS OF MENINGITIS.

The various symptoms indicating the presence of meningitis are reviewed by Charles J. Aldrich in *Cleveland Medical Gazette*, according to their various diagnostic values: the widely varying onset, head pains, convulsions, facies, mental state, pulse, temperature, respiration, etc., and he mentions one respiratory change which he has observed so often that he believes it of diagnostic value. In normal inspiration the abdominal walls are expanded, but retracted on expiration. In meningitis, however, there is a retraction of the walls during inspiration and the descent of the diaphragm, probably due to hypertonus of the muscles, which is a constant and early symptom. Vomiting, abdominal symptoms, muscular rigidity, urinary retention, Kernig's sign, cutaneous eruptions, etc., various sensory symptoms, leucocytosis, etc., are mentioned. He believes that in lumbar puncture we have a great step towards accuracy in the diagnosis, and calls attention particularly to a condition of the serum which has been observed by him since 1898. When a test tube containing a column of cerebrospinal fluid from a case of meningitis is allowed to stand from twelve to twenty-four hours without agitation, a thin filament of fibrin forms in the centre of the column of fluid, and seems to be suspended from a delicate pellicle at the top and

extends to the bottom. Lifting out this fibrin with a platinum loop and with it spread out on the cover glass, cells of diplococci were revealed. He thinks that this observation is of special value where the use of the centrifuge, and microscope and culture studies are not available. The same symptom has been noticed by Breuer in Vienna and the same diagnostic importance attributed to it—*Jour. Am. Med. Ass.*

A VENEREAL DISEASE OF HORSES.

The sixteenth Annual Report of the Bureau of Animal Industry, Washington, D.C., contains an interesting account of the "Maladie du Coût" in horses, as observed in Nebraska. The infection in this case was traced in part to a stallion of the Clydesdale breed, which had been used for breeding purposes. A number of autopsies are reported in animals of both sexes which had been killed after the disease was discovered in them. In the male the affection is a local one, beginning in the penis, but involving sometimes the sheath, scrotum and testicles. An edematous swelling extended in one case along the abdomen nearly to the forelimbs. An offensive purulent discharge occurs, and the entire end of the penis may slough away. The local sore is an ulcer, covered with a black scale. A skin eruption, consisting of large white maculae, is observed. The animal emaciates and has to be killed. In the mare the infection may invade the whole genital tract and all the reproductive organs. In one case the white spots were seen on the perineum and mammary glands; the vagina was highly congested; the walls of the uterus were thickened, the inner surface being covered with a thick jelly-like exudate, and the ovaries were swollen to several times their normal size. These organs were the seats of extensive changes. There may be some systemic infection as shown in the mesenteric glands and spleen. This report contains no history of any bacteriological investigations, the accounts of the autopsies being confined to a description of the gross pathological conditions. The disease is evidently transmitted by coitus, and beginning as a local sore gradually extends, and may even invade the general system.—*Phila. Med. Jour.*

ENTEROPTOSIS.

From a study of forty autopsies, Frantz Glénard (*Jour. des Praticiens*) found that when the suspensory ligaments of the stomach and intestines are relaxed, with the descent of these viscera, stenosis will occur; but as the cecum has no suspensory ligaments, it alone will retain its normal shape. The result of the stenosis of the intestines will naturally be a diminution of the tension of the abdominal wall; then the descent of the kidney or liver may follow. The sub-

jective symptoms of enteroptosis are sudden pain in the right lumbar region, weakness, constipation, emptiness, dyspepsia, neurasthenia, emaciation, pallor, etc. The objective symptoms are tenderness in the right lumbar region, diminution in the abdominal tension, movable kidney, the colon felt as a cord, the cecum being normal in size, prolapse of the liver, epigastric pulsation, and perhaps plenoptosis and metroptosis. Saline laxatives are given, and sodium bicarbonate; suppression of all acids, wine, cereals, and fats; a milk diet ordered, then green vegetables, cold bathing, warm alkaline waters. First the intestinal, then the gastric or hepatic, finally the neurasthenic symptoms appear. An abdominal binder must be applied. The movable kidney is not due to corsets, but the constipation and enteroptosis are. This primary enteroptosis occurs commonly in women with confinement or traumatism. Secondary enteroptosis is seen in men, due to gastric atony, probably hepatic in origin, for the liver plays an important role in all cases of secondary enteroptosis. Only after years of treatment do these patients recover their general health. Glénard employs his "belt-test" in the diagnosis of enteroptosis. The physician stands behind the patient, encircling the abdomen with the palms of both hands, supporting and lifting up the patient. If this affords relief, the diagnosis of enteroptosis is confirmed.—[M.O.]—*Phila. Med. Jour.*

CHANGES IN THE SPINAL CORD SECONDARY TO AMPUTATION.

Switalski (*Rev. Neurol.*) reported the results of the microscopical examination of 5 spinal cords taken from patients who had had amputations—namely, 4 cases of amputation of the thigh, and 1 of amputation below the knee, the pathological examination being made at the Bicêtre (laboratory of P. Marie). (1) In every case there was found an atrophy of the half of the spinal cord corresponding to the side of amputation; both white and grey substance participated in the atrophy. (2) In 3 cases the diminution of volume could be traced from the lumbar part of the spinal cord upwards to the dorsal region of the same side, and in 2 cases this was also traceable to the cervical region of the cord. (3) Simultaneously with the atrophy there appeared a sclerosis of the posterior columns. In 3 cases this could be traced in all levels of the cord, in 2 cases it appeared in the cervical region. (4) While the spinal hemiatrophy shows a tendency to diminish from below upwards, the sclerosis of the posterior columns (of Goll and Burdach) becomes more marked than from below upwards. In the discussion which followed the communication of the above (at the Paris Neurological Society), Pierre Marie remarked that whereas the current pathological belief was that in cases of amputation the spinal cord lesion consisted of simple

atrophy, this could no longer be maintained, and that sclerosis occurred to a marked extent. Such sclerosis existed even in the opposite side of the spinal cord, and it was interesting to note that in a case of amputation of the thigh the sclerosis was most marked in the cervical portion of the cord.—*Brit. Med. Jour.*

PRIMARY CANCER OF THE FALLOPIAN TUBE.

Mercelis (*New York Medical Journal*) describes with great care the pathological and clinical history of a case of this affection. The patient was over 35, she seemed to make herself out as younger than she really was; she had been married twice, the second time within three years before observation. She had suffered from lead colic, but later on had three attacks resembling peritonitis. The third attack occurred eighteen months before Mercelis saw her. Menstruation had been irregular and frequent. The diagnosis of early pregnancy and pelvic tumor was made at the third attack, then the swelling subsided. There was pain for fifteen months in the left side, back, and both legs. There was an elastic tumor of the size of an orange to the right of the uterus and behind. Cushier operated in November, 1894. The tumor, or distended right tube, adhered to uterus and intestine; it was removed, as were the left appendages. In June, 1896, recurrent carcinoma was detected in the pelvis; no operation could be done. The tube was carefully examined, and has been re-examined. It was found to be the seat of primary cancer which had invaded the adjacent ovary as in another case described in 1888, but as in that instance the cancer in the ovary was without doubt secondary.—*Brit. Med. Jour.*

MYASTHENIA GRAVIS.

Edwin Bramwell (*The Scottish Medical and Surgical Journal*) describes a case of this disease, the most prominent symptom of which is the facility with which the muscles become fatigued by voluntary effort. A voluntary movement, which is at first perfectly carried out, becomes rapidly feebler each time it is repeated; finally, if persisted in, all power of performing the movement may be temporarily lost. A variable degree of persistent paresis is often present in the affected muscles. The rapidity with which the muscles become fatigued by the faradic current is especially characteristic of this disease; the term myasthenic reaction has been given to this condition. The disease is probably due to a toxin of endogenous origin, and the seat of the lesion in the motor nervous system, probably in the lower motor neuron. Some cases improve, but the disease is often fatal. No specific treatment is known, but the author suggests a number of palliative measures.—*Medical Record.*

Physicians' Library.

A System of Physiologic Therapeutics. A Practical Exposition of the Methods Other than Drug-giving, Useful in the Treatment of the Sick. Edited by SOLOMON SOLIS COHEN, A.M., M.D., Professor of Medicine and Therapeutics in the Philadelphia Polyclinic; Lecturer on Clinical Medicine at Jefferson Medical College; Physician to the Philadelphia and Rush Hospitals; formerly Lecturer on Therapeutics, Dartmouth Medical College. To be issued in eleven compact octavo volumes. Price for set complete, cloth \$22.00. *Electrotherapy* Vol. I. By GEORGE W. JACOBY, M.D., New York, Consulting Neurologist to the German Hospital, to the Infirmary for Women and Children, to the Craig Colony for Epileptics, etc. In two books: Book I., Electrophysics—Apparatus required for the therapeutic and diagnostic use of electricity, with 163 illustrations. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut St. Toronto and Montreal: Chandler and Massey, Limited.

The title "Physiologic Therapeutics" has been adopted for this system by the editor, and those associated with him, in the production of the work. In order to emphasize the fact that the remedial measures: electrotherapy, climatology, prophylaxis, nursing, dietotherapy, mechanotherapy, rest, suggestion, hydrotherapy, pneumotherapy, serotherapy, organotherapy, etc., considered in the work, are in a large degree modifications and adaptations of processes normal to the human body. We think that the name is a good one, but it should not be limited to the foregoing remedies, as there are many drugs which might be placed in the same category.

The subject-matter of the system is a most important part of therapeutics, and one which has been too much neglected by practitioners. Physicians know something about each of the therapeutic methods of this system. They recognise, for example, the use of cold baths in typhoid fever, of the rest cure in neurasthenia, of special climates in pulmonary tuberculosis, of carefully selected diets in gastric affections, etc., but as a rule have not studied the general principles which are the bases of these agencies. We believe that the introduction of this system to the medical profession will supply a distinct want. As far as our knowledge goes there exists no system in English on the same subjects.

The first volume of the series, the one before us, is on electrotherapy. The author presents the subject in a very practical, and readable form. The subject of electrophysics, as presented in some books, is very difficult to understand, but we feel satisfied that very

few physicians will find any difficulty in following the text of this book. We can highly recommend the book to both students and physicians as a text-book on electrophysics.

Saunders' Medical Hand-Atlases.—Atlas and Epitome of the Nervous System and its Diseases. By Prof. Dr. CHR. JAKOB, of Erlangen. From the second revised German edition. Edited by EDWARD D. FISHER, M.D., Professor of Diseases of the Nervous System, University and Bellevue Medical College, New York. With 112 colored lithographic figures and 139 other illustrations, many of them in colors. Cloth, \$3.50 net. Philadelphia and London: W. B. Saunders & Co. Toronto: J. A. Carveth & Co., Canadian Agents.

The best certificate of the value of this work is probably contained in the preface, which was written by Dr. von Strümpell. Dr. Strümpell states that the author has done a great deal of work in studying the diseases of the nervous system, and is therefore in a position to undertake the production of the present atlas. He also states that the illustrations accomplish all that can be expected of illustration, which is saying a good deal, as there is no other subject in medicine in which more benefit can be obtained by a medical atlas. We feel that it is almost impossible for any physician to make any progress in the study of neurology without a fair knowledge of the normal and pathological anatomy of the nervous system. We can highly recommend this book as an excellent aid in studying the subject.

Operative Surgery. By JOSEPH D. BRYANT, M.D., Professor of the Principles and Practice of Surgery, Operative and Clinical Surgery, University and Bellevue Hospital Medical College; Visiting Surgeon to Bellevue and St. Vincent's Hospitals; Surgeon to the Hospital for Ruptured and Crippled, Woman's Hospital, and Manhattan State Hospital for the Insane; Fellow of the American Surgical Association; former President of the New York Academy of Medicine; President of the New York State Medical Association, etc. Vol. II.—Operations on Mouth, Nose, and Esophagus, the Viscera connected with the Peritoneum, the Thorax and Neck, Scrotum and Penis, and Miscellaneous Operations. New York: D. Appleton & Co. Toronto: Geo. N. Morang & Co., Canadian Agents.

The second volume of "Bryant's Operative Surgery" contains 827 illustrations, forty of which are colored. The opening chapter,

which is the thirteenth of the work, deals with operations on the mouth, pharynx, nose and esophagus, and embraces thirty-four pages of the text. Next we have operations on viscera connected with the peritoneum. This is an elaborate chapter, and bears evidence of great and careful work in its preparation; it is extensive and forms one of the most important sections of the whole work. The chapter abounds with illustrations which, while clear will prove extremely helpful in obtaining a thorough grasp of that department of surgery. Chapter XV. deals with operations on the anus and rectum; XVI. with operations on the thorax; XVII. with operations on the urinary bladder; XVIII. with operations on the scrotum and penis, the last half of this chapter being devoted to miscellaneous operations, such as, suture of the patella for fracture, suture of the olecranon process, the union of fractured long bones, operations on the cervical sympathetic nerve, the removal of foreign bodies from the hand, etc. Instruments and implements employed in these operative procedures, also appear in separate illustrations. As was expected, the high standard reached in Vol. I. has been continued in Vol. II., both by the author and publishers. The DOMINION MEDICAL MONTHLY heartily endorses the work, and has no hesitation in recommending it to its many readers in every Province in the Dominion of Canada.

A Reference Hand-Book of the Medical Sciences. Embracing the entire range of Scientific and Practical Medicine and Allied Sciences. By various writers. New edition, completely revised and rewritten. Edited by ALBERT H. BUCK, M.D., New York City. New York: William Wood & Co.

The first edition of this very extensive and valuable work appeared in 1887, the preparation of it occupying a period of three years. Seven years later a supplementary volume was brought out, devoted to the advance in medicine and allied sciences during the intervening period. The editor states that he was doubtful whether it were better to again, in 1900, bring out a second supplementary volume or to issue a new edition. The latter course was decided upon, and the first two volumes of the new edition (from AAC to CHI) are now to hand. All the articles of the existing nine volumes were collected into groups, each group representing a special department of medical knowledge. These groups were referred to men specially versed in the subjects collected, with the request that they determine what portions of the original articles could be advantageously reproduced, with or without revision. It seems extraordinary that the replies received showed that not more than one-half of the text of the first edition could be used. Nothing could better illustrate

the rapid advance in medical knowledge and thought. The work when complete, to judge from the volumes issued, will form an encyclopedia of medicine in its broadest sense, which will be as perfect as human research and labor can make it. It will undoubtedly form in itself a complete medical library. We are glad to notice the number of Canadians who have been honored by being asked to contribute, among others Drs. Charles F. Martin, Frederick G. Finley, the late Dr. George Ross, of Montreal, and Dr. Beaumont Small, of Ottawa.

A Text-Book of Gynecology. Edited by CHARLES A. L. REED, A.M., M.D., President of the American Medical Association 1900-1901; Gynecologist and Clinical Lecturer on Surgical Diseases of Women at the Cincinnati Hospital; Fellow of the American Association of Obstetricians and Gynecologists; Fellow of the British Gynecological Society; Corresponding Member of the National Academy of Medicine of Peru, etc. New York: D. Appleton & Co. Toronto: Geo. N. Morang & Co.

This volume of 800 pages is designed by the editor as a text-book which shall serve as a working manual for practitioners and students. Different topics have been assigned to the writers especially versed on the subject entrusted to them, not at all necessarily gynecologists. The whole has been carefully edited and the contributions arranged so as to avoid making a collection of monographs, the views and ideas of several being often contained in the same chapter. It is profusely and clearly illustrated and is, as claimed by the editor, strictly up to date.