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EDITORIAL

VENEREAL DISEASES.

At one of the sessions of the Royal Commission on Venereal Diseases, Sir William Osler stated that statistics of deaths from syphilis gave a very imperfect idea of the real number of deaths from this disease. He said that it caused many deaths that were not reported as due to syphilis. He thought that as a killer syphilis came about third on the list. He favored compulsory notification, and felt that the nation could take the chance that this might cause some cases to be concealed. Gonorrhoea was in his opinion a disease that stood very high as a disabler, and gave rise to a very great deal of morbidity. He thought that medical students should be carefully instructed on these diseases in the out-patient clinics and in hospital wards; but that these diseases should not be made a separate part of the curriculum. In the past sufficient attention had not been given to these diseases.

Dr. J. H. Sequeira stated that at the London Hospital skin clinic at least 13 per cent. of the cases, both in men and women, were due to syphilis. He said that instances of innocent syphilis were quite common, and that the larger number of women were infected after marriage. He said salvarsan and neo-salvarsan were valuable remedies, but that it was necessary to combine them with treatment by mercury. He was afraid that compulsory notification would not succeed; but thought the medical profession should be armed with powers to do something to prevent the spread of venereal diseases, and should be immune from damages if its members exercised their power. He thought there ought to be more hospital accommodation for such cases.

Dr. Dubois Havenith, of Brussels, said that the means of preventing the spreal of infectious diseases were notification, isolation, disinfection, and sanitary measures. Initial sores should be disinfected and soiled articles destroyed or properly cleansed. In the case of syphilis disinfection meant treatment. In the care of syphilis he said the essential things to bear in mind are early diagnosis, efficient treatment, and supervision of the patient. Careless patients should be placed under some system of control.

UNIVERSITY OF TORONTO RESEARCH WORK.

In our previous issue we expressed pleasure at the fact that a start had been made in the direction of establishing a fund for research investigations in connection with the medical faculty of the University of Toronto. We know of nothing that will raise the standing of this department of the university to a higher plane than would a well-organized and ably-conducted laboratory of research.

So far the funds have been contributed by private citizens, and all honor to those who have made gifts for this purpose. But to retain the confidence of these donors, so as to secure further assistance from them, and to win the good-will of others, it will be necessary that the research work be efficiently conducted, and that really good work is being done; for nothing succeeds like success. With this end in view, it is to be hoped that there will be no undue delay in making public the disposition of the funds that have been obtained, the volume and character of the investigations that are being carried on, and the composition of the staff that is entrusted with these researches.

But the work is only in its infancy as yet, and due patience must be shown. It may be some time yet before any report of work actually done can be issued; but an outline of what is proposed or under way should be to hand at an early date. We wish this feature of the university's life every success, and it is for this reason that we think that the scheme should be set out with as much detail as is possible, in order that all who are interested in original work may feel encouraged to lend a helping hand.

MATERNITY BENEFITS.

Australia has set an example of advanced legislation in the way of granting assistance to mothers at the period of confinement. In that portion of the British domains $25 is paid for each child that is borne. This assists the mother to secure what care she may require.

There are no restrictions on the payment. It goes to all classes alike. During the time that the Act has been in operation, now a year and a half, the Commonwealth of Australia has paid out in maternity benefits the substantial sum of $5,000,000. This money has largely been obtained from the wealthy in the form of taxes, and has largely gone to the working classes, as by far the most numerous.

In Britain, under the National Insurance Act, thirty shillings is paid to women coming under the terms of the Act, when children are born. This is a small sum, but it may help many a very poor woman

at a time of need. That it does so is proved by the falling off in the numbers who are seeking charity and free hospital care at such times. The steadily falling birth rate in France has given rise to a good deal of discussion in favor of similar aid.

THE PREVALENCY OF TUBERCULOSIS.

It has been known for many years that a large number of persons have been infected with tuberculosis, and have never shown any symptoms of the disease. One noted German authority stated that at least 95 per cent. of all who reach adult years have been infected.

At the Conference for the Prevention of Tuberculosis, held in Leeds a short time ago, Sir William Osler accentuated this truth in his well-known and forceful style. Among other things he said:

"Tuberculosis may be put into three groups. All of us who are here come in the first. If I had an instrument here with which I could look into the chest or the abdomen of each of you, the probability is that in 90 per cent. of you would be found somewhere a small area of tuberculosis. So widespread is the bacillus that practically all humans by the time they become adults harbor the germ of the disease.

"Why don't you die? Because we are not guinea pigs or rabbits, we have obtained a certain immunity. But the germ is in us, though negative, ond with all of us there is the possibility of slipping into the two other groups.

"The second group comprises those in whom the disease is active enough to produce symptoms, but in whom there is the possibility of arrest or cure, with restoration to working health. Those in the third group are doomed, the disease progresses week by week, month by month, year by year, and from one year to five sees the end.

"When workers have living wages, when the house becomes the home, when the nation spends on food what it spends on drink, then, instead of hundreds of thousands, there will be millions in the first group, with practically immunity. The enemy has been traced to its very stronghold, which is defended by the three allies poverty, bad housing and drink."

Here we have in terse form the essentials of the case. But Sir William went on to emphasize the causes of the disease, and they reduce themselves to three main factors: Drink, bad housing ,and poverty. This really comes to one, as drink is at the bottom of the other two. This does not reckon with the bacillus at all; but what was in the mind

of the distinguished speaker was that if all the living conditions are favorable, the bacillus will be largely disarmed—a sort of prometheus vinctus.

Truth at last prevails. We are reaching a clearer understanding about tuberculosis. We know that the disease is *always* caused by the presence of the germ; but the germ must have a suitable soil to breed in and ways and means of getting at that soil. Reduced vigor makes the soil, and careless habits furnish the means of transportation.

THE LAY PRESS AND MEDICINE.

In some of the newspapers there is a health department, into which are gathered up all sorts of opinions regarding the care of the body and the avoidance of disease. Many of these opinions are of the crudest kind, and are clearly intended to advertise some "pathy" or "ism."

In one of the large dailies the other day appeared some comments on diarrhoea. Let us quote the exact words:

"What is to be done? This severe inflammation and over-activity must be stopped or death from diarrhoea will surely follow. The old system of treatment was to give morphine to stop the pain. This it did, and also stopped the action of the bowels so quickly that in many cases great damage of a permanent nature followed.

"A skilful osteopathic physician will in a few moments inhibit the action of the nerves controlling the peristaltic action of the bowels and thus give immediate relief without harmful after effects. Abstinence from food and the judicious application of cold compresses will give the same satisfactory results, but not so quickly."

Now, if anyone will look at this statement for a moment he will see the absurdity of it. In the first place, it would be just as bad to stop the peristalsis by some magic power of an osteopath as by a dose of morphine. But in the next place no osteopath, or any other person for that matter, has any such power as to inhibit the action of the nerves in a few moments. A great newspaper should not place before its readers such monstrous teaching. If it will conduct a health department, it should place it under the editorship of an educated medical gentleman, who would not allow such a statement as the foregoing to appear, which is quite erroneous and a crude "puff" for osteopathy, one of the most senseless fads that has ever been flaunted before the eyes of the public. It is founded on ignorance, and carried on in defiance of every known advance in anatomy, physiology, therapeutics and

bacteriology. One of the great teachings of this class of practitioners is to put into place some nerve that is, like the mouse in the old poem, "given to roam."

CHANGES IN THE DURATION OF LIFE.

The mean expectation of life at birth in the case of males, as shown by the last English life table (1891-1900), is 44.13 years, as contrasted with 39.91 years' value given in the life table based on the experience of 1838 to 1854.

But we have no proof that this increase is due to any circumstances affecting the conditions of life of adults, because the mean after-life time of persons over 45 in both sexes and over 35 in the case of males, has either remained sensibly constant or even diminished. For instance, in the case of males the expectation of life at the age of 35, as shown in the last life table, is 29.24 years; the 1838-1854 table gives 29.40. At the age of 45 the corresponding figures are 22.20 and 22.76; at the age of 55, 15.79 and 16.45, and at the age of 65, 10.34 and 10.82.

A partial explanation is afforded by the probability that many weaklings who were formerly destroyed by zymotic diseases or tuberculosis in early life now survive to adult age, and that the life table values reflect the consequences of this slackening of selection.

It is evident from these actuarial data that the great saving of life is in the younger decades. Fewer die young and the average duration of life is thereby lengthened. For the decades after mid-life the duration of life is about the same for the recent as for the earlier table. The net result is that while the expectation of life as a whole has been lengthened by 4.22 years, from 35 it has not been lengthened. The lengthening has taken place under 35, by a lowering of the death rate among the young.

AN EXCELLENT MOVEMENT.

The Child Hygiene Division of the Public Health Work of Toronto is doing very praiseworthy work this summer. A series of outings on the Toronto Bay and Lake Ontario have been arranged for delicate young children. The children, with someone in charge of them, are taken out on the water for a cruise of two to three hours every day of the week, except Saturday.

Mr. Lol. Solmon, of the Toronto Ferry Company, has placed the Island Queen, fitted up with every comfort, at the disposal of the

child hygiene movement of the Health Department. The boat has a supply of everything that can be required. There is a doctor on board and nurses to care for the babies and instruct those who are in charge of them.

It is expected that this regular outing on the fresh water will do much for many a delicate baby, and restore to health many a sickly infant. The Health Department is entitled to commendation for this movement, and unstinted praise should be accorded to Mr. Solmon for his share in making this good work a possibility. When a community has such generous minded citizens in its midst there is hope. It is like leaven in the citizen body. The child mortality in Toronto must be reduced, as it has been altogether too high in the past.

The National Conservation Commission, which puts the average value of the baby at $2,900, a figure obtained b ydeducting the average cost of rearing a child from the average earnings of an adult during the average lifetime.

On this basis, it was pointed out, New York lost over $40,000,000 in 1913 and in 1912 approximately $55,000,000.

Now Toronto's infantile death rate is higher than New York, being 144 per thousand, while New York is 102 per thousand. Here in Toronto we have 20,000 babies, with 11,000 under 1 years, so anyone with a head for figures can find out what it would mean to the city in dollars were the death rate to be cut in half, something considerably over seven figures.

Now is it not worth while to save for our country this great wealth? For, after all, a nation's greatest asset is its children. It will be by just such splendid efforts as those now being inaugurated in the new division of the Department of Public Health we may hope to see our high infantile mortality cut down to that of such countries as Norway, Sweden and New Zealand.

It is really now beginning to dawn upon the public conscience that human life is the greatest wealth of a nation. It has been wasted with lavish profusion in the past. We have advocated the value of preventive medicine, and rejoice that our views are making headway. The reduction of infant mortality, the prevention of tuberculosis, safeguarding workmen against accidents are some of the ways of vastly increasing the nation's wealth.

DIFFERENT VIEWPOINTS.

When any new subject rises above the horizon for consideration and discussion there is bound to be marked differences of opinion. Some

will be guided by sentiment, which is a very poor guide in science; some will be guided by ill formed public opinion, and be apt to follow the crowd; while some will be guided by the last and best experiences, arrived at after days and nights of toil. Some are radicals and would go too far; others are too cautious, and would not advance to keep up with the movement of the times, and some, with a clear vision of what is needed and filled with a sense of duty, give new causes the required leadership.

In the matter of teaching young people the importance of the relationships of the sexes, and giving them instruction on sex hygiene, we have with us all classes, expressing all sorts of opinions. We have those who say that all this should be left to the parents. But there are many kinds of parents: Those who give good examples and no teaching; those who add teaching to example; those who set bad examples; those who give no instructions at all to their children; and those who give immoral teaching and set vicious examples. The question then comes up: Are children to be allowed to take chances under these varied conditions?

It is with such conditions staring many in the face that those who are influenced by the moral aspects of the question take strong grounds that children should be taught in the public schools, in high schools, in colleges, and in Sunday schools. At the International Sunday School Association, held in Chicago a few weeks ago, a report was adopted approving of teaching sex hygiene in the Sunday school. Mr. E. K. Mohr in moving the adoption of the report said:

"Sex knowledge will be taught. If not in the home and in the Sunday school it will be taught in the street. Silence is criminal. We cannot remain inactive. We must teach these facts and teach them right, so that knowledge may lead to purity and righteousness."

In the early part of July the National Education Association met in St. Paul. Dr. Charles H. Kean, of Minneapolis, supervisor of hygiene and physical training, in speaking upon this subject, among other things, said:

"We should have nothing but the strongest condemnation for the wealthy, club-going woman who has not time to teach her child the fundamental truths of life, and would throw the responsibility upon a teacher or a football coach. Such shiftlessness is outrageous.

"Sex instruction placed on the same plane with spelling and arithmetic will rob it of its sacredness.

"We talk about the inability of the poorer mothers to teach their children personal hygiene, but it is not for these children that we need to have all the fear.

"Knowledge never will compel purity. Sex instruction in schools will but tend to lower the standard of morality.

"If we take up sex hygiene in our schools the homes of America will continue to lose ground, and will give up the few privileges they now have to train the children."

Here we have two great conventions of similar date taking widely different views. We have always held that knowledge is power; and that the most dangerous thing in the world is ignorance. Where the home is what it ought to be the child will know what is right; but there are very many homes where no sound teaching or example is to be found. To the children of these homes the gospel of light must be carried by the teacher of some school.

AN ONWARD MOVEMENT IN THE CURE OF CANCER.

The Americon Association of Clinical Research and the Clinical Congress of Surgeons of North America held its meetings in New York recently. Dr. T. S. Cullen, a gynæcologist in connection with Johns Hopkins, moved the following resolution, which was concurred in by both associations:

"Resolved, that the time has arrived when, if the surgeons of America are to do their duty to the citizens of this country, a campaign of publicity should be at once undertaken to bring to the attention of every woman in this country that, if the early symptoms of cancer be detected, it can often be cured.

"That this society at once appoint a committee of five to be named by the president to disseminate this information.

"That this committee be instructed to write or have written articles to be published in the daily press, the weekly or monthly magazines, as may prove most expedient."

The committee appointed consists of Dr. Thomas S. Cullen, chairman, associate professor of gynæcology at Johns Hopkins, Baltimore; Dr. Howard C. Taylor, of Columbia; Dr. C. Jeff Miller, of Tulane University, New Orleans; Dr. F. F. Simpson, one of the leading abdominal surgeons of Pittsburg, and Dr. E. C. Dudley, of Chicago.

Cancer need not be a fatal disease. It is known that if treated in its earliest appearance many recoveries are affected. Women are affected mainly in the breast and the uterus. In the case of the former organ the detection is made by feeling a lump. This the person can readily detect, and should at once consult her doctor. With regard to uterine cancer one of the early symptoms is the appearance of bleeding that cannot otherwise be accounted for, and especially if this occurs

after the menopause. The spreading of useful knowledge on these points will, no doubt, direct the attention of women to the need for recognition of the early symptoms and the wisdom of resorting to early treatment. Dr. Cullen declares that 30 per cent. of concer cases can be cured in the early stages.

DUST AND DISEASE.

Quite a discussion was raised by Dr. H. W. Hill, of London, when he read his paper in the public health section of the Canadian Medical Association to the effect that dirt was not a serious factor in the causation of disease. This view met with strong opposition. With the opposition we are in accord.

It is true that children may thrive under apparently very unfavorable conditions. The housing may be poor, and in a dirty condition. But this sort of a negative does not prove a case. The same sort of argument could be advanced to support the use of drink and tobacco, by referring to some heavy smoker or drinker who lived to old age.

A particle of dust that may easily be wafted by the wind to a great distance is a chariot large enough to transport many germs. Thousands of tubercle bacilli could be carried on a little bit of sawdust which a consumptive had contaminated with his sputum; and one bacilli getting into a person's lung under favorable conditions in 24 hours can have a progeny of 17,000,000.

But dirt, apart from being a carrier of infection, has an injurious effect all its own. This is mechanical at first, and then excites morbid changes in the tissues. Steel filings, the hair in a fur factory, particles of glass where such is ground, granite dust in cutting monuments, etc., though perfectly sterile, if inhaled into the lungs, will do much harm. They can set up inflammation, cause irritation, lead to excess of secretion to get rid of the particles, and lay down a good soil for live germs to work on. *Dust* is a *living* danger.

THE PLACE OF RADIUM.

Dr. H. H. Janeway, attending surgeon to the General Memorial Hospital, New York, contributed to the *Journal of the American Medical Tssociation* an article on the value of radium in the treatment of cancer. Dr. Janeway, while careful in his statements, nevertheless admits that this form of treatment is of great value in suitable cases.

Dr. Janeway discusses the results secured with radium at the four principal institutions in Europe where it has been employed under the most favorable conditions, namely: Paris, London, Vienna, and Heidelberg. The reports from each of these European institutes justify the statement that radium exerts a selective and destructive action on the majority of cancers, but that this action never reaches to the more distant extensions of the deeper and more serious forms of the disease. In fact, there is good ground for belief that unless the greatest care is used in the application of radium the more distant portions of the cancer will be stimulated to more active growth. All users of radium emphatically express the belief that no operable cancers except those of the skin should be treated by radium in preference to operation. The true position of radium at present is that it does not cure the disease unless the cancer is superficial or is of a variety particularly susceptible to its influence.

For the last nine years Dr. Wickham, of Paris, has treated 1,000 cancer patients at the Laboratorie Biologique du Radium, and has found that while the influence of radium on all types of cancer is favorable, its effects do not extend to the limits of the disease in any but the most superficial varieties. The Radium Institute of London treated 467 cases during 1912. No patient has been classified as cured, since cancer is not regarded as cured until at least three years have elapsed without recurrence of the disease. Of 101 patients with the slow-growing, benign form of cancer of the skin, 31 were apparently cured, 41 were improved, and 12 did not improve. In cancer of the rest of the body, 15 cases were apparently cured, 156 improved, and 45 did not improve. At the Vienna Radium Institute, of 34 patients treated for all forms of cancer, 6 died during the treatment, 11 were essentially improved, 6 were slightly improved, and 3 were made worse. At the Samaritan Hospital in Heidelberg improvement was produced in about half of the cases, but no patient was cured. The establishment of the fact that we have in radio-activity an agent which will even specifically affect cancer is of very great importance. No other agent has been discovered which in any degree approaches its effectiveness. But from the evidence at hand, it is clear that at present radium may only supplement but not replace surgical treatment.

CANADIAN MEDICAL ASSOCIATION.

The forty-seventh annual meeting of the Canadian Medical Association, at St. John, N.B., July 7th, 8th, 9th and 10th, will be remem-

bered as one of the most successful in the history of the association. The success was due largely to the hearty co-operation of the Maritime members. There was a small attendance from Manitoba and the Western Provinces. The total number of members registered was 278. Ontario was fairly well represented.

The programme was evidently prepared with more than usual care and many of the addresses, papers and discussions were spirited and instructive. The address in medicine, by Dr. Thomas McRae, formerly of Ontario, but now professor of medicine at Jefferson Medical College, Philadelphia, was a most interesting plea for the exercise of care and caution in diagnosis, urging the importance of developing all the faculties of observation and bringing to bear the keennes of perception which in other callings have proved so invaluable. The addresses in surgery and obstetrics were excellent and much appreciated, the former being given by Dr. J. Rutherford Morrison, professor of surgery, Newcastle-on-Tyne, and the latter by Dr. H. Jellett, master, Rotunda Hospital Dublin.

The sections, six in number, were fairly well attended and the papers presented, especially in the sections of surgery and public health, excited great interest. The place selected for the meeting, the new Armory, was well chosen and the appointments and arrangements were excellent.

The credit for the success of the meeting must be largely ascribed to the president, Dr. Murray McLaren, of St. John, who, with his local executive, left nothing undone. The president's address was a highly instructive review of the history of medicine in New Brunswick, together with many recommendations to promote the future welfare of the association. Particular reference was made to the desirability of having a Minister of Health for the Dominion of Canada, and the recommendation was heartily endorsed by the association.

The social events in connection with the meeting were both unique and enjoyable. Probably at no former meeting have the visiting members received greater hospitality and kindness. The visiting ladies were especially well looked after. One of the many entertainments provided which deserves special mention was the clam bake on the seashore, at which liberal supplies were provided of clams, lobsters, salmon and chicken, cooked in sea-weed in stone ovens close to the water's edge. Probably in the history of the Canadian Medical Association there has never been such a unique and pleasant entertainment.

The visitors left St. John with pleasant memories of a successful meeting and with recollections of hospitality that will long remain.

ORIGINAL CONTRIBUTIONS

A STUDY OF SOME OF THE UNSATISFACTORY RESULTS FOLLOWING OPERATIONS UPON THE BILIARY TRACT.*

By J. M. T. Finney, M.D.
Baltimore, Md.

IT has happened every now and then that a patient upon whom I have operated for some affection of the biliary tract would return with the statement that she (for they are usually women) had been a good deal relieved, perhaps entirely so for a time, of the symptoms for which she had previously consulted me and for the relief of which I had operated upon her; but that for some time past she had observed a recurrence, in greater or less degree, of the same or similar symptoms to those for which she had sought relief. Occasionally the patient will state that she had been entirely relieved of her original trouble, but that since the operation she had suffered from conditions which, while somewhat different, are possibly even more annoying, or at least fully as much so, as her original trouble. In other words, it has been my experience to have had a not inconsiderable percentage of recurrences, indeed a greater proportion of unsatisfactory results following operations upon the biliary tract than from any other class of abdominal operations, except possibly gastro-enterostomy. Malignant disease, of course, is excluded. In the term "unsatisfactory results" I mean to include that group of cases in which one has for some reason or other failed to do what he has set out to do. The patient may be fairly well satisfied, indeed not infrequently is, he does not know any better, but, nevertheless, from the surgeon's standpoint, the result remains imperfect. In attempting to find an explanation for this unsatisfactory condition of affairs, I have, with the assistance of my associate, Dr. B. M. Bernheim, undertaken a study of all of the cases of gall-bladder disease that have been operated upon in the Johns Hopkins Hospital up to January 1st, 1914. For permission to use this material, comprising the work of the entire surgical staff of the hospital, I am indebted to Professor W. S. Halsted. This study also includes all similar cases that have been operated upon at the Union Protestant Infirmary, Baltimore, the majority of which occurred in my service.

Total cases, 572.

Total cases cured at time of discharge from hospital, 426—74.4%.

*Read before the Ontario Medical Society in Toronto, May 26, 1914.

Total cases not cured at time of discharge from hospital (persisting sinuses, etc.), 98—17.1%.

Cases heard from or examined for this study, 366.

Cases well after varying lengths of time, 327—89.3%.

Cases not well, 39—10.6%.

Deaths from all causes, 48—8.3%.

Carcinoma cases excluded.

It must be borne in mind that this list includes the very earliest cases operated upon and by different operators, members of the house staff as well as the surgical staff, which may account for the rather high rate of mortality. The rather small number of cases that could be traced out of the total of five hundred and seventy-two, is accounted for by the fact that so large a proportion of them were operated upon so long ago that they had changed their places of residence and could not be found. The last 100 cases showed much more satisfactory results in every way than the first 100.

A glance at the two tables will show that after a period of years the cured cases are almost 15% greater than are shown by the hospital records. A partial explanation of this is that within a few weeks or months after leaving the hospital, a large percentage of the sinuses had closed, the patients remaining well thereafter.

In an effort to discover the cause of failure in the 39 uncured cases, it was important to know what type of operation had been done in each case. In the 39 uncured cases the operations performed were:

Cholecystostomy	32—85.2%
Cholecystectomy	4—10.5%
Choledochotomy	1
Adhesions	1
Unknown (history missing)....	1
	39

When it was discovered that cholecystostomy was largely responsible for the failures (85.2%), it seemed only fair to find out what was the operation of choice in the successes. The exact type of operation was given in only 282 of the 327 cured cases and is as follows:

Cholecystostomy	221—78.3%
Cholecystectomy	45—15.9%
Choledochotomy	16
	282

Cholecystostomy was thus the operation of choice in over three-

fourths of the failures. It was also the operation of choice in over three-fourths of the successes, there being but seven points difference in the actual percentages.

The question at once suggests itself, Would the percentage of failures have been less than 85.2%, and the percentage of successes greater than 78.3%, had cholecystectomy been the operation of choice in the same number of cases as was cholecystostomy? Until a sufficient number of cholecystectomies has been done and sufficient time has elapsed to allow of a thorough study of end results, this question must remain sub judice. The operative mortality of the two operations would have to be considered in any comparison of ultimate results since it is generally agreed that the immediate risk is two to three-fold greater in removal than in simple drainage of the gall-bladder. But when we add to this the mortality of the secondary operations performed after cholecystostomy, the number of which is uldoubtedly greater than after cholecystectomy, there is probably little to choose from in respect of the mortality rate between the two. The probabilities are, however, in the light of wider experience and fuller knowledge that if better judgment is used in deciding which gall-bladder had better be removed and which had better be drained, and if greater care is exercised in carrying out the various steps of the operation and the post-operative treatment, there will arise a mid-path which will at all times be open to the well-balanced, thoughtful surgeon and which will lead to a decreased mortality rate and a lowering of the percentage of unsatisfactory results.

This paper is based largely upon observations and impressions gained from personal experience and from a study of this group of cases. Extended statistical tables have been purposely omitted. I have not attempted to make an exhaustive review of the literature of the subject, but have made full use, in various ways, of the material and observations of other writers upon this subject, especially those of Mayo, Gerster, Ochsner, Crile, Moynihan, Robson, Kehr, Deaver, Riedel and others. It is apparent that our more or less unsatisfactory experience has not been unique, because in the last few years medical literature abounds in articles that have to do with surgery of the gall ducts, through many of which there runs a very evident vein of dissatisfaction with the results that have been obtained. All observers report a relatively high percentage of unsatisfactory results from these operations. These percentages vary in the hands of different operators, but the average of them all is relatively high, estimated by Kehr as about 15%. They also vary according to the pathological conditions for which the operation was performed and the particular operative procedure

employed. It would seem, therefore, as if a study of this group of cases would not be out of place at this time and in a society such as this comprising, as it does, in its membership, both physicians and surgeons, for affections of the gall-bladder and ducts concern both alike, constituting, as they do, one of the border-line subjects which demands at all times, in order to secure the best results, concerted action upon the part of the physician and surgeon. One striking fact that stands out very prominently in studying this group of cases is that the results in the later years are much better than those of earlier periods. This is apparently true of all of the different operators. Why is this? The type of operation until recently has changed very little, cholecystostomy largely predominating all the way through and for all of the different diseased conditions. The improved technique of the operation and the greater skill acquired by the different operators are, in part, responsible for the better results, but more careful diagnosis and earlier reference of the cases to the surgeon by the physician is the real reason for the improved conditions. The gradual recognition by physicians of the fact that the only really curative treatment for the majority of affections of the biliary tract is surgical, is, more than any other factor, responsible for the lessening of the dissatisfaction that has hitherto existed. Moynihan is very insistent that "there is no medical treatment of gallstones" and that "when once a diagnosis of gallstones has been made, operation is always indicated unless there are grave reasons forbidding resort to surgery." A somewhat extreme view, perhaps, but one that has much to commend it. With closer co-operation upon the part of the profession and a more enlightened public, continued improvement in our results may be confidently expected.

In studying this group of cases, as we have from various points of view, we have been impressed with a number of facts which seem to be worthy of further consideration. In the first place, no one particular cause has seemed to be active in every case of unsatisfactory result. A number of factors are frequently at work, some or all of which are responsible to a greater or less degree for the ultimate results. If I were to try to express in one sentence the general impression received from this study as to the principle cause of dissatisfaction, I would say something like this: "Failure to do the proper operation at the proper time and in the proper way was chiefly responsible for our bad results." This at once raises several questions. Should every gall-bladder suspected of disease, other things being equal, be submitted to a surgical operation? What is the right operation in a given case? When is the proper time to perform it, and what is the best way in which it should be done? What is the basis upon which the surgeon is to decide these

important questions? It is at once evident that one can set no hard and fast rule that will hold in every case for any one or all of these propositions. Here, as everywhere else in surgery, comes in that most important of all considerations—surgical judgment. Every case is a law unto itself and should be decided upon its own merits, after a careful survery of all the facts and not by blindly following precedent or the prevailing custom or fashion in surgery established by no matter how eminent authority. If it resolved itself into a simple rule of thumb, it would be easy to decide what is the right operation in a given case, when it should be performed and how. But there are so many factors which must be considered that one can only be guided by the concensus of opinion of those best qualified to judge, and by one's own observations and experience in the management of similar cases. One of the first things that strikes one in looking over this group of cases is the relatively large number that were operated upon either for some suspected biliary affection in which a faulty diagnosis had been made, or for some other supposed condition, gastric or duodenal ulcer, or chronic appendicitis, perhaps, and gall-bladder disease found present. In some of these cases no positive diagnosis had been made before operation. It had been performed largely in the nature of an exploratory incision and sometimes revealed a lesion of the biliary tract and sometimes not. This emphasizes the fact, which is familiar to all observers, that the diagnosis of the various affections of the biliary tract is not always easy. In typical cases, as in the typical case of any class, the diagnosis frequently reqnires the exercise of no great skill, but in other cases, even after the greatest care and most exhaustive study, one is unable to arrive at any definite conclusion, or if such a conclusion is reached, it may subsequently be found to be at variance with the surgical or pathological findings. Nor do I, personally, find it always an easy matter when there is reason for believing that a lesion of the biliary apparatus is present to distinguish between the different affections of that tract.

Attention has been so generally directed to the number and variety of lesions that may occur in the upper right-hand quadrant of the abdomen that it is an old story. Ulcer of the pylorus and duodenum, the various diseases of the gall-bladder and ducts, appendicitis, stones in or affections of the right kidney or ureter, ulceration or malignant disease of the colon, affections of the right lobe of the liver, including malignant disease and lues, referred pains in this region having their origin in the pelvis and elsewhere, various affections of the abdominal wall and diaphragmatic pleurisy are some of the conditions the diagnostician is not infrequently called upon to differentiate—and to add to

his difficulties, as Mayo has pointed out, is the fact that he has to judge as to the truth of certain alleged facts narrated by the patient, not by an examination of the evidence, for at the time the examination is made there may be no signs which might furnish a basis for differentiation, as the symptoms complained of may have long since disappeared. Moynihan, too, has called especial attention to the prominent part played by the stomach in what he terms the "inaugural symptoms." "It is the stomach," he says, "whose sensibilities are tender, that cries out the warning when other organs are suffering attack."

The presence of slight jaundice does not always help in the diagnosis, indeed it may prove misleading, now by its presence and again by its unexplained absence. Chronic appendicitis, floating kidney, marked grades of visceroptosis, cirrhosis of the liver and certain septicæmias are some of the conditions, in the speaker's experience, in which jaundice was present and which when joined to other suggestive symptoms, led to a mistaken diagnosis of gallstones. There is one comfort, however, to the surgeon in the knowledge that the usual affections which he is called upon to differentiate from gall-bladder disease are in themselves definite indications for a surgical operation There are exceptions, however, as included in this list are cases of gumma, cancer and sarcoma of the liver and diaphragmatic pleurisy which were explored with a probable diagnosis of gall-bladder disease and in which operation was not really needed. In spite of all this, however, and after most careful study of a given case, and an operation has been decided upon, either because in no other way can a definite diagnosis be reached or because the indications are so urgent and the failure of medical measures so pronounced that something must be done and that quickly for the relief of the patient, it will now and then happen that for some reason or other, the proper surgical procedure has not been carried out. Let me illustrate: Not long ago, I was called upon to operate upon a man of 35 years who had been under the care of an excellent physician. He had had repeated attacks which though never severe were very suggestive of cholecystitis, either with or without the presence of gallstones. The physician had not been able to differentiate these attacks from recurring appendicitis. One attack more sharp than the preceding, although very similar in character and accompanied by elevation of temperature and localized tenderness at McBurney's point, was so characteristic that the diagnosis which had hitherto been probable cholecystitis, was at once changed to appendicitis. Operation was advised and performed by another surgeon and a somewhat inflamed appendix was found and removed. The fundus of the gall-bladder was palpated and nothing abnormal

made out. It was not found possible through the McBurney incision to explore the ducts. The patient made an excellent recovery, except just before he left the hospital, on the sixth day, he had an attack similar to those he had had previously, which at once raised the question as to whether or not the correct operation had been done. A few months subsequent to this operation, he had a sharp attack accompanied by jaundice with characteristic epigastric pain radiating around under the shoulder-blade, which rendered the diagnosis reasonably certain of obstructive jaundice, probably due to stone. The patient then came into my hands. Operation revealed a single stone lodged in the cystic duct and of such size as to press upon the common duct. It was removed. The gall-bladder appeared relatively normal. I therefore did not remove it, but drained it in the usual way. The patient made an uneventful recovery except a persistent sinus developed which has remained patent ever since, about six months. The question naturally arises, was the proper operation done in the first place—was it done in the second place? If the proper operation was done, was it done in the right way? These are questions of the utmost importance. If the correct diagnosis has not been made in the beginning, it will be largely a matter of chance as to whether or not the proper operation will be done. If the right diagnosis has been made, are we in a position, at the present time, to lay down any hard and fast rules as to proper procedure in a given case? To be perfectly frank, I am not yet clear in my own mind as to just what one ought to do under certain circumstances. It was this feeling, together with the hope of possibly clearing up some doubtful points which prompted the study of our results in this class of case. In the case referred to above should I have done a cholecystectomy? I did not think so at the time, conditions did not seem to warrant it. As careful an examination as I could make convinced me that there was a single stone. Perhaps I overlooked others. I am perfectly sure that for myself I cannot be certain in every case, that I have been able to detect the presence of every stone, or if I have been able to detect them, that I have always been able to remove them. In this case the gall-bladder looked normal. The bile was a little thick and stringy, the mucous membrane presented nothing abnormal to my eye, the ducts seemed normal and patent. Why, then, should the gall-bladder be removed? Are we prepared to accept the dictum of some that the gall-bladder, as the appendix, should be removed every time we see it? Personally, I am not yet ready to accept that proposition. All these procedures are not without danger, not always to life, but they may be to the comfort and well-being of the patient. Even in the best hands, the operation of

cholecystectomy may be attended with grave risks, immediate and remote. Twice have I been called upon to make the attempt to re-establish the continuity of a common duct completely occluded, in both of which cases the gall-bladder had been previously removed by another and supposedly competent surgeon, and there was reason to believe that the obstruction to the duct had resulted directly from faulty methods pursued at the time of its removal. The advocates of cholecystectomy will at once say the methods were faulty, that there was no need of obstruction following. True, but here is a situation which did develop and which might result from other causes, and which when it does occur is an extremely difficult one to handle. Let us consider, then, some of the questions which have just been raised. Failure to remove stones when they exist! Is it possible in every case to remove every stone? Is it possible always to find them when present? My own experience compels me to answer both of these questions in the negative. I have had it happen twice, that upon opening the abdomen and palpating the biliary tract that as much care as I could exercise (and the greatest care should always be exercised) I have surely felt a stone in the common duct. Upon subsequently opening the duct and after the most diligent search, I have not been able to find it again and have been compelled to experience the chagrin of having to close the abdomen and leave the stone. During our manipulation, did it escape into the duodenum, or did it recede into the hepatic duct or liver? A question I cannot answer, but there is good reason for believing that sometimes it follows one and sometimes the other course.

I have a patient in the hospital now who had been operated upon twice before for gallstones. The first operation, performed about three years previously by another surgeon, left a persistent biliary fistula. The second, performed by myself, a cholecystectomy, was followed by complete relief for over a year. Recurring attacks of colic accompanied by pain, chills, fever and jaundice, caused him to return to me again for relief. He had a typical and severe attack in the hospital, the night before the third operation, a month ago. This case well illustrated the difficulty often met with, owing to the absence of the gall-bladder in finding and freeing the common duct, in case a subsequent operation is necessary after a cholecystectomy. After some considerable difficulty in freeing dense adhesions, the duct was exposed and opened. We had confidently expected to find a stone in the ampulla, as the history had been so characteristically that of the type described long ago by Charcot. Greatly to our surprise, a most thorough search of the hepatic and common ducts showed them to be empty. A full-sized uterine sound passed readily into the duodenum showed no

obstruction whatever at the papilla. Very much humiliated, we put a drainage tube into the common duct and closed the abdomen. A careful search of the first stool passed after the operation revealed a stone of considerable size. For the first fortnight the patient, an old and rather weak man, drained bile very freely and during this period presented that peculiar but typical picture of marked mental and physican depression, which promptly cleared up just as soon as the bile began to flow through the proper channels. This complete loss of bile in old and debilitated patients is an important argument against drainage of the common duct or gall-bladder for too long a period.

I have upon more than one occasion, after having satisfied myself that I had removed all the stones from the gall-bladder and ducts, found a few weeks later, upon the removal of the drainage tube from the gall-bladder, a stone lodged in its lumen or have had one or two smaller stones follow its withdrawal. Is there any way of thoroughly exploring and emptying the biliary tract of stones? I know of none. All writers report a small but appreciable percentage of stones overlooked. It is impossible to estimate the exact percentage, but it is probably not far from five per cent. Kehr estimates his own failures at one per cent. I always make it a practice to open every gall-bladder and insert a finger into it. With this finger in the gall-bladder and with two fingers of the other hand, one on either side, strip the ducts in both directions, the hepatic downward, and the common upward, toward the cystic duct. This same procedure is followed out with a uterine sound in the hepatic and common ducts in order thus to identify them without question. But, after all, this care, I have occasionally overlooked small stones. It is, therefore, impossible for the conscientious surgeon, when a case returns to him with recurrence of symptoms suggesting the presence of a stone, to salve his conscience by stating to his patient that stones have surely reformed. That they do occasionally reform, however, there can be no doubt. I have recently operated a second time upon a patient for whom I had operated just a year previously. At that time, the patient, an old lady, with a bad heart and kidneys, was suffering from a much inflamed, thickened and deformed gall-bladder full of stones which I should have excised, but for her poor condition. A year later, after complete relief of her symptoms for about ten months, I was called to see her in an almost identical condition to that which was present when I had first seen her. I operated and found the gall-bladder again full of stones. Had I not thoroughly emptied it at the first operation with my finger in its lumen, I could hardly have believed it possible that so many should have reformed in such a comparatively short time. Deaver reports a case

from which he had removed an hundred or more stones. Two years later, at the second operation, he removed two hundred more. He very naïvely adds that he was aware of the fact that he occasionally overlooked a stone, but that he flattered himself that he could not have overlooked as many as two hundred all at once. All observers seem to agree that stones do reform but that this occurs very seldom and that in the vast majority of cases in which stones have been found and removed at subsequent operations, they have in all probability not reformed, but had been overlooked. Some authors go so far as to say that they have never seen a true recurrence—among them such excellent surgeons as Riedel and Czerny. It is safe to say, however, that there is always an appreciable percentage of recurrences, probably less than one per cent., in the hands of the most experienced surgeons.

We must draw a distinction between that class of affections of the biliary tract associated with the presence of gallstones and that class which is not. In spite of the causes already enumerated which may prevent a satisfactory result, namely, failure to find stones or remove them after they are found, the possibility of their reformation, etc., the problem is a more simple, and, in my experience, a more satisfactory one than where affections of the gall-bladder and ducts exist without the presence of gallstones. It is easy enough, after opening the abdomen, because of the more or less well-defined train of distressing symptoms, and after inspecting and palpating the gall-bladder and finding no stones present, to say, "This is a case of cholecystitis," or on palpating the head of the pancreas and feeling it perhaps enlarged and harder than usual, to say, "This is a case of chronic pencreatitis." But what constitutes cholecystitis or chronic pancreatitis? There is no unanimity of opinion as regards the answers to these two questions. One observer calls pretty much everything "chronic pancreatitis," another will remove a very healthy-looking gall-bladder and call it "cholecystitis."

It not infrequently happens that at the time of operation no adequate cause can be found for the symptoms complained of. Slight thickening of the gall-bladder, a slight turbid or viscid condition of the bile, a few light or dense adhesions binding it to the neighboring structures, may be all that one will find. It happens with such relative frequency in the writer's experience that gallstones are not found when there is ample evidence for suspecting their presence, that he is at times tempted to join the number of those who go so far as never to make a flat-footed diagnosis of gallstone disease, but simply to tell the patient that he has an inflammation of the gall-bladder which needs to be operated upon and that incidentally gallstones may be present.

It would seem better, however, to attempt to make a definite diagnosis and to go on record, win or lose, rather than to follow a course which leads so surely to inaccuracy and carelessness in methods of diagnosis. The speaker has for years opposed the idea of disposing of this class of case by simply calling them indiscriminately cholecystitis, or perhaps chronic pancreatitis. It is easy to satisfy the patient or the patient's friends with such a diagnosis, but it is not always so easy to substantiate it with indisputable evidence. I am glad to see that so competent an authority as W. J. Mayo, in a recent paper, protests against the loose classification under this head of a number of evident pathological conditions which, as yet, are not thoroughly understood. More thorough study of our cases, greater care in making a diagnosis, in differentiating surgical lesions from non-surgical, more close association between physician and surgeon in the study of these cases, will help us, in the future, to classify them more sharply, and thus avoid the chagrin of the surgeon and the needless discomfort and danger attending these operations, slight though it is, upon the part of the patient.

Is not the surgical profession at the present time, in the matter of surgery of the gall-bladder, very much in the position that it occupied some years ago with reference to ovariotomy, movable kidney, and gastro-enterostomy for mucous ulcer of the stomach, and as it now occupies with regard to removal of the big bowell and the tonsil, namely, that a lot of unnecessary and discreditable surgery is being done on insufficient evidence? That there is such a thing as cholecystitis and that it is quite prevalent, more so than was at one time supposed, I am convinced, but that it is necessary or even advisable to remove a great many gall-bladders that are being removed, I cannot admit. That there is such a thing as chronic pancreatitis, also cannot be denied, but that every pancreas that has a somewhat enlarged, possibly indurated or knotted feeling, constitutes a chronically inflamed gland, has not been conclusively shown. After going carefully over the evidence that has been submitted by many observers, and after making due allowances, to an unbiased mind, the Scotch verdict "not proven" seems the only fair one to render.

It would seem as if a good deal more careful and scientific work is necessary in the way of the study of the clinical, bacteriological, chemical and pathological findings in our cases of gall-bladder disease before we are in a position to be dogmatic as regards the relative frequency of cholecystitis and chronic pancreatitis.

So much confusion of terms exists at the present time that this study will be difficult, as what one writer may call "cholecystitis" or

"chronic pancreatitis," another pretty surely would not. As Mayo has well said, "If so much uncertainty can exist with regard to the gall-bladder and its infections, how much more uncertainty must exist as regards the pancreas and its infection? The sense of sight cannot aid in solving the question. . . . The diagnosis must be established by the sense of touch, and a certain amount of intuition on the part of the diagnostician which, unfortunately, aften plays too much of a part in his final judgment." Further on, Mayo, in the course of the same article, states that it has been his practice for years to examine with a gloved hand the entire contents of the abdomen when opened for any purpose and the condition of the patient will permit such manipulation.

He has been "surprised to find how frequently the pancrease showed enlargement, induration and nodulation which would have justified a diagnosis of chronic pancreatitis, if some portion of the biliary tract had been the original lesion, but in which there was no symptomatic evidence whatever that pancreatic disease existed." I would like to add to this an observation which I have many times made and recorded, that not infrequently where the clinical symptoms simulate very closely that syndrome which has been described, and which is generally believed to indicate a chronic pancreatitis, I have been unable to detect any palpable changes in the size, consistency or structure of the pancreas, and had my attention not been called to it, previous to the operation, as a possible explanation of the train of symptoms given by the patient, I should have said the pancreas was perfectly normal. This observation has been verified by Lissauer, who recently reported a series of twenty-four cases in which he emphasizes the association between chronic pancreatitis and alcohol, and brings out the fact that microscopically there was no disease of the pancreas ascertained. An observation of no little importance. As I have said before, the existence of pancreatitis is unquestioned, but I cannot agree with the proposition that it occurs with anything like the frequency, or that it deserves anything like the importance which is attached to it by some writers. It is so easy to say and so satisfying to the patient and his friends to give as an explanation for failure to find any satisfactory cause for the symptoms complained of, but is it not really in many cases just a term used as a cloak for our ignorance? More than ten years ago I called attention to a peculiar-dilatation of the first part of the duodenum, coupled with certain apparent changes in the pancreas. At the same time, the fact was noted that these pancreatic changes were not constant. I felt then and still feel that the only satisfactory explanation of this condition of the duodenum, frequently associated as it is with

atony and thinning of the stomach and duodenal walls, and occurring as it almost invariably does in patients with a marked neurotic taint, and giving rise to a symptom complex which invloves the stomach, duodenum, liver and biliary apparatus, and at times the whole gastro-intestinal tract, has to do chiefly with a derangement of the internal secretion of these organs, if such exists, rather than with any distinguishable or demonstrable pathological lesions.

Is not this ill-defined and little-understood factor largely responsible in a considerable number of our cases for the failure to completely cure our patient? In the present state of our knowledge, no satisfactory answer to this question is as yet forthcoming, but it may well be that some of the indefinite and unaccounted-for symptoms occasionally complained of and now referred to the gall-bladder and pancreas may have their origin here. As indicated above, the most fruitful cause for recurrence of trouble was this group of cases of so-called cholecystitis or pancreatitis. It has been found by pretty universal experience that the ordinary drainage provided by cholecystostomy does not permanently relieve these cases or, at any rate, a considerable proportion of them. Some of them will return sooner or later, with the history of recurrence of the old trouble to a less or even greater degree. Occasionally these cases will show a subsidence of the symptoms, just as long as the gall-bladder remains open, but as soon as it closes, they promptly recur. What is the reason for this recurrence, and what shall we do with this group of troublesome cases? The reason would appear to be chiefly a chronic persistent infection of the gall-bladder, possibly associated with obstruction in the course of the cystic or common duct possibly at the ampulla of Vater. As there seems to be at the present time no good way of differentiating these cases, that is, those which need permanent drainage and those which do not, what shall we do in the way of treatment? Shall we content ourselves with merely draining the gall-bladder or shall we perform a cholecystenterostomy, as recommended by some surgeons, or shall we remove the gall-bladder in every case? From a study of our cases and the reported observations of others, it would appear as if those who advocate the last procedure at the present time, have the better of the argument. It is quite as simple an operation as cholecystenterostomy. It has not the advantage of this operation, however, in that it does not provide an additional exit for the bile, as the former does. The great objection to cholecystectomy will always lie in the fact that in cases of subsequent obstruction to the common duct, the other avenue for the pasage of the bile has been cut off.

A study of our group of cases would go to show that in the pres-

ence of possible serious injury to the common or hepatic ducts from chronic inflammation, stones or other trauma, it is certainly not safe to remove the gall-bladder, which might subsequently serve the purpose of affording an outlet for the bile into the intestine through a cholecystenterostomy. Stricture of the common duct or obstruction at the ampulla from any cause are certainly most serious complications. No matter how ingenious the operations are that have been suggested for the repair of the duct, it must always remain a very complicated procedure and one that is attended with a high mortality rate. Crile has lately called attention to the relatively high mortality associated with all operations upon the common duct, particularly in a certain class of case. He discusses the cause of death in these cases, emphasizing the fact that in operations upon the common duct we are dealing with no vital organ. Death, he thinks, can rarely be attributed to loss of bile or to the infection of the peritoneum from bile, but is "due to the gradual development of an asthenic state, characterized by a dullness of the mental and motor reactions, a dry tongue, partial suppression of bile, anorrhexia and scanty urine, together with the impairment of the entire digestive system—a progressive adynamic state which is extremely resistant to any known treatment." This picture, of course, is not exhibited by all common duct cases, but more particularly by those which present technical difficulties of any great degree, either from adhesions, impacted stone, or any other cause that requires much handling or manipulation involving traction upon the duct. He would explain this condition by a traumatic blocking more or less complete of the nerve supply to the liver, which is derived from the sympathetic system and the fibres of which pass along the blood vessels and common duct. The speaker has had his attention called many times to the curious mental and physical state that developed after a more or less complete escape of bile through the fistula in the common duct. This condition has invariably cleared up so promptly after the bile has begun to resume its normal course or some of the escaped bile has been returned into the system of the patient after the rectal injection method of Yates, that he cannot wholly agree with Crile's explanation of the phenomenon observed. He would subscribe most heartily, however, to Crile's injunction that in the manipulation of all of the abdominal viscera involved, the utmost gentleness and sharp dissection should be employed throughout, in order to subject the patient to the least possible amount of trauma. This not only tends to lessen shock and functional disturbances of all sorts, but tends in a large measure to limit the subsequent troublesome post-operative adhesions, for one of the commonest causes of unsatisfactory results following operations upon

the biliary tract, and one for which little or nothing can be done, once they are established, is the formation of painful or obstructive adhesions. This factor plays quite a prominent part in our list. Their presence was characterized by a group of more or less indefinite atypical symptoms, long continuing, nerve-racking and incapacitating. In several cases subsequent operations were performed for their relief, but with only a varying degree of success. I know of but few more discouraging stituations for the operator as well as the patient, owing to the fact that each, as a rule, recognizes pretty clearly the futility of expecting much relief by substituting one set of adhesions for another. There is at present under my care in the Union Protestant Infirmary a woman of forty years of age who had been operated upon ten times by surgeons for almost all abdominal operations in the category, but the last two or three had been done to relieve the adhesions formed by the previous operations. She finally came into my hands for abdominal pains and partial obstruction of the bowels, which completely incapacitated her. After prolonged search, I failed to find any vestige of a peritoneal cavity left, nothing but dense adhesions everywhere. After an experience such as this, who will say that there exists no need for the services of such an organization as the American College of Surgeons? The institution of methods of prevention of adhesions, namely, proper care in the handling of tissues, the discontinuance of the use of great force and roughness in handling retractors, the limiting, as far as possible, the amount of gauze used for drainage and the careful protection of that used by wrapping it in guta percha tissue, the early removal of drains and the careful covering in of all raw surfaces, either by folding them in on themselves or by covering them with omentum, and care in inserting omentum around and between gall-bladder and stomach or gall-bladder and duodenum, in fact, between all more or less fixed viscera which are likely to become adherent to each other. Tdhesions between these more or less fixed structures are much more likely to be painful adhesions than those between movable tissues. Is there any choice as to the best time for operation on the biliary tract? In order to arrive at a definite answer to this question, one has but to consider the list of causes of the bad results. In looking over our group, we find persistent jaundice, hemorrhage associated with it, infection, pancreatitis, dense adhesions, impacted stones, carcinoma, involvement of the neighboring organs by dense adhesions, all of them without exception late complications. Could anything speak more eloquently in favor of early operation? These facts are either not known by the average physician or are not thoroughly understood by him, for how frequently is it true that patients come to the surgeon

with a history of years of treatment by cathartics, diet, salines, sweet oil, periodic trips to well-known watering places, etc., until they are forced by increasing disability resulting from more frequent or more severe attacks or some other intercurrent complication to seek relief. The surgeon is thus not infrequently compelled by the exigencies of the case to operate upon his patient at an unfavorable time and in the face of aggravated and serious conditions, which could have been avoided by earlier operation under more favorable conditions. One cannot emphasize this point too strongly. All cases of gallstone diseases are probably not surgical, Moynihan's dictum to the contrary notwithstanding—some of them, for one reason or another, surely are not. They ought to be seen by the physician and surgeon together. It is not fair to the patient and it is not fair to the surgeon who has the entire responsibility of the operation not to be allowed to have a voice in deciding as to the proper time for it. In looking over our cases, it is very evident that the mortality rate is very materially influenced, especially in the case of operations on the common duct and where persistent jaundice is present, by the stage of the disease in which the operation is performed, that is, whether the disease is quiescent or whether the jaundice is becoming progressively deeper. That group of cases in which the operation was done early shows a lower mortality rate and a much lower percentage of unsatisfactory symptoms developing subsequently. The only thing that can in fairness be urged against early operation in cases where the symptoms are sufficiently constant and severe is the undoubted fact that well-marked cases in some mysterious way occasionally spontaneously recover, and when this relief does occur, the question can always with justice be asked, was it because of or in spite of treatment?

Every surgeon of experience will agree, I think, to the proposition that a gall-bladder denuded of its mucous membrane, its walls thickened and distorted by chronic inflammation or by adhesions to surrounding structures, its ducts occluded or permanently obstructed, in other words, a structure that is functionally down and out, can only be a source of continued irritation and possible danger from a variety of causes, not the least of which is the development of cancer, and should be removed unless there are very strong contra indications to so doing. Even so, it is at times an exhibition of far better judgment to leave such a gall-bladder in a weak and debilitated person and content oneself with simple drainage and the prospect of a possible secondary operation at some future time, rather than to stretch to the breaking-point the already overtaxed strength of the patient.

As opposed also to the indiscriminate removal of the gall-bladder

in every case, one should bear in mind the possible additional functions to those already mentioned that the gall-bladder may perform under certain circumstances either naturally or artificially. Flexner, Opie and others have called attention to the fact that the mucous secreted by the gall-bladder may serve a good purpose by mixing with the bile and so lessening in a measure possible bad effects upon the pancreas in cases where by obstruction or from whatever cause the bile may be forced into the pancreatic duct. McArthur a few years ago called attention to the therapeutic possibilities of biliary fistulæ as an indirect route to the duodenum and upper bowel, thus permitting the surgeon, if he so desires, to furnish an abundant supply of water or medicated and nutrient fluids to the organism—at the most critical period of the disease when the mere drainage of septic or toxic products from the liver is insufficient to relieve the strain imposed on the eliminating organs by the general toxæmia. Matas more recently has emphasized the advantages that may accrue from this method. He reports several cures of fistulæ of the biliary tract by catheterization of the ducts by means of a large uretral catheter pushed through into the duodenum. He also corroborates McArthur's recommendation of this method as especially indicated in cases of chronic obstructive jaundice associated with nephritis incident to the toxic effects of cholæmia. In these cases it seems to act well in starting promptly an active secretion of urine, thus minimizing the patient's danger.

With regard to fistula, a study of those observed in our series have usually arranged themselves into two classes, the acute and the chronic, that is, those which spontaneously healed in a comparatively short time and those which persist indefinitely.

Attention has already been called to the fact that many of the cases which left the hospital with a discharging fistula, subsequently reported themselves as healed, the fistula having closed spontaneously, usually in a few weeks at most. Occasionally it remained open longer and then closed with the discharge of a stone, but this was rare. The rule was that if it did not close promptly it did not close at all. There were, however, a few marked exceptions. A considerable number of our cases were secondary operations, to close persistent fistulæ. The cause for the persistent fistula was invariably found to be obstruction somewhere in the cystic or common duct, and usually in the form of a stone, removal of which was followed by prompt closure.

A fact that should not be overlooked in an enumeration of the unsatisfactory features of operation upon the biliary tract is the rather marked tendency that these cases have toward the development of that condition known as acute dilatation of the stomach. Post-operative

nausea and vomiting are perhaps more pronounced after these operations than in any group of laparotomies for any other cause, save, perhaps, those associated with well-marked peritonitis. Prompt and persistent use of the stomach tube upon the slightest indication of trouble is an excellent routine practice, both as a preventive and cure.

Hemorrhage occurred to a greater or less extent in a fraction of one per cent. of our list of deeply jaundiced cases. It occurred with greatest frequency in the cases where the jaundice was due to cancer of the head, of the pancreas, or of the papilla. The coagulation time, as tested, was not always a reliable index as to the danger from hemorrhage. In some cases where the coagulation test was found to be delayed, no trouble was encountered. On the other hand, in a few cases, where there was little variation from the normal, severe or even fatal hemorrhage followed. The administration of calcium lactate was of doubtful value. Fresh rabbit serum apparently saved one case and helped others. Transfusion was employed three times with only temporary improvement. The usual result, once the bleeding had begun, was a constant steady ooze that could not be controlled. The presence of subcutaneous ecchymoses and mucous oozing in connection with jaundice is highly significant and should not be disregarded.

It is interesting to note that two of the cases presented that unusual and interesting phenomenon, colorless bile discharging from the common duct while the patient was deeply jaundiced. Both cases showed cancer of the papilla.

From the nature of the operation, drainage being almost universally used, there will always be an appreciable percentage of post-operative herniæ, but owing to improved methods, this percentage was relatively much lower in the later than in the earlier cases.

In conclusion, a study of this group of cases leads one to believe that there are a considerable number of unpleasant symptoms that have been observed following operation upon the biliary tract, that are not inseparable from it and that greater care, wider experience, an improved technique and a riper judgment will gradually render them one after another preventable, or eliminate them altogether.

THE USE AND ABUSE OF THE OBSTETRIC FORCEPS.*

By B. P. Watson, M.D., Ch.B., F.R.C.S.E.

MY first duty must be to thank you for the honor done me in being asked to address you to-night. I accepted the invitation with a feeling of great misgiving as to my ability adequately to discharge the duties required of me, and I must confess that this feeling did not diminish as my address began to take shape, and that perhaps it reaches its acme at the present moment, as I face this audience of my fellow practitioners.

In choosing a subject I had to bear in mind that it should be one of general interest, and at the same time one not too hackneyed. When I tell you that I propose to speak on the use of the obstetric forceps you may think that whilst the first condition is fulfilled, the second is hardly met. Yet it holds in obstetrics, as in other departments of medicine, that a review of the commoner lines of treatment is required from time to time. This is necessary, not only because our conception of the indications for such treatment becomes modified, but also because more modern methods may offer better and safer means of arriving at the desired result.

In no department of medicine is custom and routine so difficult to overcome as in obstetrics. We are afraid to step aside from the beaten path, lest if things go wrong we be blamed. The public requires to be educated, and the public is slow to learn. For these reasons therefore it is well that at such gatherings as this we should consider critically some of the commoner and more ordinary procedures, and enquire whether we are getting from them all that they are capable of giving; whether recent advances may not have given us something which will better meet the case.

The obstetric forceps have been in use since the seventeenth century. There is no more fascinating story in the history of medicine than that telling of their invention and modification. Peter Chamlerlen, who died in London in 1631, is generally given credit for their introduction. He was a member of a remarkable family of barber-surgeons and man-midwives, who were accoucheurs successively to the wives of Charles I., CharlesII., James II. and William III. The secret of the forceps was carefully guarded in this family for a number of years, but was finally sold in Holland by a grand-nephew of the inventor.

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*Address in Obstetrics, read before the Ontario Medical Association, June, 1914.
Professor of Obstetrics and Gynaecology, University of Toronto.

These first instruments were very crude. In the intervening years they have been modified and improved, first by the addition of a pelvic curve, which enabled them to be used whilst the head was still high in the pelvic cavity, and later by the introduction of axis traction, by which the force exerted could be accurately directed. So that we have to-day in the modern axis traction forceps an instrument well nigh perfect for the work required of it. This very efficiency of the instrument is indeed one of its dangers, in that we may be led to expect too much of it.

There is demanded of every obstetrical operative procedure, first safety to the life of the mother, and a minimum of injury or bad after-results, and secondly, the safety of the child. The operation we select in a given case demands in all instances the most careful consideration, and we must possess an accurate knowledge of its scope and limitations. The indications for forceps are so many, and they are so frequently employed, that in the exceptional case we are apt to expect too much of them, and so over-step the margin of safety above defined.

Let us consider some of the limitations which this margin of safety imposes. The first and most obvious contra-indication to their use is the absence of full dilation of the cervix. The forceps is an instrument for the second stage of labor; it has no place at all in the first. This is a rule laid down in every text-book of obstetrics, yet sometimes transgressed. The bad results of this too early applicatipon of the instrument may not be apparent at the time, but those of us who practise gynaecology are only too familiar with them. There can be no doubt that the vast majority of deep lacerations of the servix are produced in this way. A certain amount of laceration occurs in every first labor, and occasionally a deep tear may occur in an otherwise normal delivery. But a careful history of the previous obstetrical experiences of the patients admitted to our gynaecological wards leaves no doubt that the badly torn cervix, in the majority of instances, is the result of premature forceps application.

This is common knowledge, but it is not so generally recognized that other lesions may result, notably retro-displacement of the uterus and prolapse. The normal position of the uterus is maintained to a large extent by the firm tissue in the bases of the broad ligaments, connecting it with the side walls of the pelvis. Any stretching or relaxation of these fascial layers will result in uterine displacement. When forceps are applied to the head through an undilated cervix, and traction exerted, the margins of the cervix tend to contract. The pull is therefore exerted, not only on the child's head, but also on the uterus. Before the cervix gives way a very considerable strain may have been

put on the fascia of the pelvis, which later manifests itself in uterine displacement. In this way is produced the clinical picture so often presented, torn perineum, torn cervix, prolapsed vaginal walls, and retro-displacement of the uterus.

Knowing the results likely to follow, are we then ever justified in applying forceps through the cervix not fully dilated? The answer, I think, must be *no*. If circumstances demand rapid delivery the cervix should first be dilated manually if it is soft and yielding, or incised in the middle line anteriorly or bilaterally, according to Dührssen's procedure, if it is rigid. Such incisions should, of course, be sutured immediately after delivery is effected. Mere prolongation of the first stage of labor, from whatever cause, never justifies forceps application for its completion. The child is seldom in danger in such circumstances. If the mother is becoming exhausted and tired out we have in morphine, combined with scopolamin, the means to give her rest. If the pains are feeble and ineffective pituitrin can generally be relied upon to strengthen them. A judicious exhibition of those three drugs in proper sequence robs the first stage of labor of most of its difficulties.

There has been considerable discussion in the past as to the indications for the application of forceps in the second stage of labor. The frequency with which they are applied varies with the individual operator, and differs in hospital and in private practice. We have lately very considerably diminished the number of forceps applications by the administration of pituitary extract. In 171 cases, delivered up to date in the public ward of the new Burnside Obstetrical Hospital, forceps have been applied only 38 times. Thirty-nine out of a total of 68 semi-private patients in the same hospital were delivered by the forceps operation.

Given certain conditions, there can be no doubt that a timely application of forceps saves the mother much suffering, whilst exposing her to a minimum of immediate injury and later morbid processes, and is not prejudicial to the child. The conditions necessary are that the presentation be a normay one, that there be no disproportion between the pelvis and the fœtal head, and that the head be engaged and well moulded. Under such circumstances labor would be terminated naturally if it were allowed to proceed, but we think it right to interfere in the belief that such interference will result in less injury than would otherwise occur. Provided a rigid asceptic technique is followed, there is practically no danger. If circumstances are such that rigid asepsis cannot be observed the case is better left to nature. That the head is engaged and well moulded implies that the second stage of labor has

been in progress for some time. The moulding of the head is a most important factor in the mechanism, and its absence may make all the difference between a difficult and an easy forceps delivery.

When we have to deal with a case in which there is disproportion between the pelvis and the fœtal head we are faced with a difficult problem. We must be guided by the extent of this disproportion rather than by pelvic measurements. Years ago Barbour pointed out that "the fœtal head is the best pelvimeter." Müller showed us the importance of gauging the size of the pelvic inlet by pressing the head down into it, and later Munro Kerr described his method for ascertaining if there were any over-lapping when this was done. Kerr's method is to anæsthetise the patient, press down the head into the pelvic brim with the left hand, and with two fingers of the right hand in the vagina estimate the amount of engagement, and then ascertain the degree of over-lapping by palpating with the thumb along the pelvic brim.

Careful pelvic measurements must be made in every case, as from them we can form a rough estimate of the amount of difficulty likely to be encountered, and in the major degree of pelvic contraction get a definite indication for the best line of treatment. A conjugate diameter of less than three inches is an absolute indicaiton for the performance of Caesarean section if a living child is to be born. It is in the pelvis with a conjugate diameter of between three inches and three and three-quarters that we may be in doubt as to the best method of treatment to emplay. In such the Müller-Kerr method is most valuable.

Let us look at the results we may expect from forceps delivery in such cases. With that degree of contraction the fœtal head will still be movable above the brim during the first stage and early in the second stage of labor. To apply forceps to the floating head under such circumstances is to invite disaster. It is extremely unlikely that a living child will be delivered, and the risk of injury to the maternal passages is very great. Many authorities hold that forceps should never be applied under any circumstances to the head movable above the brim. Whilst some believe that there may be circumstances under which such a forceps application is justifiable, all are agreed that it is a serious operative procedure, and only to be undertaken under the most favorable auspices.

If, after taking all the conditions into consideration, the practitioner makes up his mind to allow the labor to proceed, and to aid delivery, if necessary, with forceps, it is most important to allow the second stage to be in progress for some time, and to give the head a

chance to engage and mould. In a large proportion the labor will terminate naturally. In Little's series 80 per cent. of labors with a moderate degree of contraction of the pelvis delivered themselves spontaneously; in Schauta's 77 per cent.; in Buerger's 76 per cent. The fœtal mortality in those cases, as pointed out by Boeninghausen, is about 1.5 per cent. for all types of contraction. Contrast these figures with the statistics of the high forceps operation. Munro Kerr, in a series of 130 cases, gives the fœtal mortality as 28 per cent.; Boeninghausen as 44 per cent. Harrar, in 17 cases, had a fœtal mortality of 11.7 per cent. These figures are very striking, and form an irrefutable argument against the early application of forceps where there is some degree of disproportion between head and pelvis.

How then ought we to deal with a case where, owing to pelvic contraction, large size of fœtal head, malposition, or other cause, the head fails to engage? The first point to observe is the most rigid attention to asepsis, and the limitation of the number of vaginal examinations, for we may have to resort to one of the major operations to effect delivery. With the patient under an anæsthetic, a careful examination by the Müller-Kerr method ought to be made. If the head can be pushed down into the brim no great difficulty need be anticipated. If there be only a slight amount of over-lapping a successful tremination without recourse to operation, may be hoped for. If the over-lapping be great delivery of a living child, either spontaneously or with the aid of forceps, will be impossible. In the latter instance resort should be had to Caesarean section unless there is a likelihood that the patient is infected. In certain cases also pubiotomy may be the operation of choice. If the patient has been frequently examined, and especially if attempts have been made at delivery without the strictest precautions, craniotomy, even on a living child is justified.

When, from the absence of or slight degree of over-lapping, there is reason to suppose that delivery can be effected, the patient ought to be allowed to continue in the second stage for several hours. There should be no arbitrary limit to the duration of the second stage of labor. There can be no question that very considerable harm has been done by much of the teaching in the past that the second stage of labor must not be allowed to extend over a certain number of hours. So long as the mother is not becoming exhausted, the lower uterine segment not thinning out, and the fœtal heart not becoming slow, labor may be allowed to proceed. As we have shown, a very large percentage will terminate spontaneously. In others forceps can be applied with ease and safety after the largest diameter of the head has passed the brim, and the head become fixed and moulded in the pelvis. In the flat pelvis this

engagement of the head is greatly helped by placing the patient in the Walcher position.

The advantage of allowing the head time to mould and become fixed is well known by a type of case sometimes admitted to our Obstetrical Hospitals. The case where an application of forceps has been made by the practitioner in the patient's home without success. The patient is transported to the hospital; there forceps are again applied, and a fairly easy delivery effected, not because of any special skill on the part of the operator, but simply because further time has been given for the head to mould.

If, after a number of hours, the head fails to engage, a tentative application of forceps may be made. In some cases a moderate amount of traction may bring it down through the brim. No excessive force must be exerted, for it can only result in the death of the child and extensive laceration of the soft parts of the mother. If the circumstances are favorable pubiotomy may be performed; if not, craniotomy is the likely alternative, as Caesarean section under such circumstances may be contra-indicated, owing to the risk of infection.

Let me illustrate what has been said by short accounts of one or two cases we have recently had in the Burnside Obstetrical Hospital.

Mrs. S., aged 33, primipara, was admitted to the hospital on March 11th in labor. The head was presenting in the right occipito-posterior position, and was not fixed in the pelvic brim. The pelvis was well proportioned and of fair size, with an estimated true conjugate of 10 centimetres. On pressing the head down into the pelvis there was a slight amount of over-lapping. The first stage progressed slowly, and morphine and hyoscine were given on three occasions. The cervix was fully dilated at the end of twenty-four hours. After being five hours in the second stage there was no engagement of the head. Forceps were applied, but the head could not be made to advance. The fœtal heart, after the application of the forceps, could not be heard, and craniotomy was performed. There was some laceration of the vagina and perineum, and the patient had a febrile puerperium, the temperature rising on several occasions to 101 deg.

H. H., aged 13, primipara, admitted to the hospital. Head presentation, R.O.P. position, head movable above the brim. Pelvis slightly contracted, estimated true conjugate of 9.5 centimetres. First stage completed in fourteen hours. Pains continued strongly in the second stage, but after four hours the head was not fixed, and the patient was somewhat exhausted. Forceps were applied, first before and then after rotation of the occiput to the front, but without success. The fœtal heart was still strong, about 130 per minute, and as the patient had

been handled very carefully throughout with a view to preventing the possibility of infection Caesarean section might have been undertaken at this stage. Owing to the youth of the patient, and what we knew regarding the paternity of the child, however, we deemed it unjustifiable. Version was performed, and the birth of the child effected by perforation of the after-coming head. This, in my experience, is sometimes an easier operation than perforation of the fore-coming head. There was some laceration of the perineum and vagina, and the puerperium was slightly febrile.

In contrast with these two unfortunate results of forceps application to the head above the brim, let me cite other two of practically the same type, where a happy result was obtained by Caesarean section.

Mrs. B., aged 23, primipara, two weeks overdue. Seen in consultation on account of non-engagement of the head in spite of strong labor pains. Pelvis normal in configuration; true conjugate estimated at 11 centimetres. The os was fully dilated, membranes unruptured. The head was large, freely movable above the brim, and overlapped when pressed down. The patient had only been examined once, and that with every precaution, before I saw her. Owing to the degree of overlapping Caesarean section was advised, although the pelvic measurements did not seem to justify it. The operation was performed, and resulted in the birth of a healthy living child and a perfectly normal puerperium. The head of the child was large and firmly ossified.

Mrs. F., aged 24, primipara. Admitted to the hospital on April 11th in labor. The head was presenting L.O.A. position, freely movable above the brim. Some overlapping on pressing it down into the pelvis. True conjugate estimated at 10 centimetres. No flattening. The first stage progressed normally, and at twelve noon, the os being fully dilated, the membranes were ruptured. After four hours of strong labor pains the head was still unengaged. Having in mind our previous results with high forceps we elected to do Caesarean section. Mother and child both did well. The cause of the non-engagement of the head was at any rate partly due to the cord being coiled round the neck of the child five times, so preventing descent. Had forceps been applied the death of the child would almost certainly have resulted.

In subsequent labors all of those patients may be delivered naturally, for in none was the amount of pelvic contraction great. It is not only in primiparous patients that we meet with those difficulties at the pelvic brim. They may arise in parous women, who have previously given birth to living children. In them, too, premature applications of the forceps may have disastrous results.

Mrs. C., aged 43, 7-para. Seen in consultation on account of fail-

ure of the doctor to deliver with forceps. The patient's previous labors had terminated naturally. The pelvic measurements were normal; the true conjugate estimated at 10.5 centimetres. The first stage had lasted nearly forty-eight hours, the head was not fixed, and forceps had been applied after manual dilation of the cervix, but the head could not be made to advance. The patient was admitted to hospital, and allowed to continue in labor for two hours. Forceps were then applied, although the head was still movable, because of the exhaustion of the patient. No advance could be made. With the amount of handling which this patient had had the only alternative was carniotomy. The hand was introduced into the uterus, with the intention of performing version, to be followed by perforation of the after-coming head, when it was discovered that the uterus was ruptured through the lower segment. The abdomen was opened, the uterus incised, the child removed dead, and hysterectomy performed. The patient had a somewhat stormy convalescence, the temperature ranging around 101 deg. for several days. Ultimately she made a good recovery.

This is a type of case not infrequently met with in parctice. The patients are usually elderly and stout. Previous pregnancies and labors have resulted in thinning and weakening of the uterine wall. The first stage is apt to be prolonged, so that the second stage pains are ineffective, and the head fails to engage. Thinning of the lower uterine segment readily occurs if there is the slightest disproportion between head and pelvic brim. So that we cannot allow the second stage to proceed for many hours. We are put off our guard by the previous obstetric history, and think that we shall have no difficulty in effecting delivery with forceps. If we are deceived in this, and find that the head will not engage with moderate traction, recourse should at once be had to craniotomy or Caesarean section if circumstances be favorable.

Mention has not been made of version as an alternative to the application of high forceps, or as a means of treatment when the high forceps operation fails to effect delivery. Our experience with this, in common with that of other obstetricians, is that the fœtal mortality is even higher than after the high forceps operation. Harrar reports a fœtal mortality of 13.7 per cent. in 51 versions on living children. Taylor, in 269 cases of pelvic deformity, reports an infant mortality of 46.6 per cent. after version, 25 per cent. after high forceps. We have on two occasions known rupture of the uterus to occur as the result of attempted version after high forceps failed.

Let us then try to sum up the situation in those border-line cases where, with a pelvis normal in size or slightly contracted, there is a

disproportion between the fœtal head and the pelvic brim, and the head has failed to engage at the beginning of the second stage. Immediate application of forceps will result in death of the child in at least one-quarter of the cases, and there will be a maternal mortality of from 1 to 5 per cent., and a morbidity which is difficult to estimate, but which is certainly very high. If the labor be allowed to continue without interference, spontaneous delivery will occur in about 75 or 80 per cent. of the cases, with a fœtal mortality of between 1 and 2 per cent. Caesarean section, performed before any attempt has been made to deliver with forceps, should give a practically negligible fœtal mortality, and a maternal mortality of 2 or 3 per cent. The performance of the operation after one tentative application of the instrument, provided this and all previous manipulations have been done with aseptic precautions, gives almost equally good results.

The conclusion is inevitable that in those cases where the disproportion is slight the best results for mother and child will be obtained by allowing labor to continue until spontaneous delivery occurs, or until the head has entered the pelvic cavity, when forceps may safely be applied. Where the disproportion is greater Caesarean section, performed as early as possible, will give the best results. If spontaneous delivery does not occur, and the head does not enter the brim, one attempt at forceps delivery may be made, but extreme force must not be used. Failure of the head to come through should be followed by Caesarean section, pubiotomy or craniotomy, according to the circumstances of the case.

It ought to be recognized that those are formidable cases to deal with, and the best results can be obtained only if the patient is in a well-equipped hospital, where the practitioner's hand is not forced by the well meant, but unwise, demands of the patient's friends for him to intervene with the object of cutting short her suffering; where he can conduct every manipulation with the strictest asepsis, and where he has facilities for performing instantly any one of the major operations mentioned. Among major operations high forceps ought to be included. Obstetrics is a branch of surgery, and the same care and skill are demanded of the obstetrician as of the surgeon if the best results are to be obtained. If this were more fully recognized by the public and the profession there would result an enormous saving of infant life, a greatly lowered maternal mortality, and a vast diminution in the number of lesions demanding operative treatment at a later stage, and so often resulting in permanent impairment of health and usefulness.

CURRENT MEDICAL LITERATURE

MEDICINE.

THYMOL AS A TENIAFUGE.

Guillon, in *Presse médicale* for August 2, 1913, is credited with the statement that thymol will yield 100 per cent. of successful results in the treatment of tapeworm, and, provided a certain procedure in its administration is followed, it can be substituted with full confidence and even advantage for the teniafuge agents in ordinary use. In the hospitals of Indo-China, where thymol is used extensively, the method employed is as follows: The evening meal on the day before the treatment consists of milk. Next morning, three cachets of thymol (each containing 15 grains or one gram for male adults, 12 grains or 0.75 gram for women, and correspondingly smaller amounts for children) are taken at hourly intervals, followed, three-quarters of an hour after the last cachet, by a saline purgative (one to 1.66 ounce or 30 to 50 grams of sodium sulphate). Alcoholic preparations and oils, including castor oil, are to be strictly avoided at this time. As with other teniafuge agents, the patient should not go to stool until a distinct need is felt. Generally the effects of the treatment are complete two hours after the ingestion of the purgative, and in the afternoon of the same day the patient may take a light meal consisting of milk and eggs, with the ordinary supper in the evening. The only unpleasant effect is occasionally a momentary slight sensation of burning in the epigastrium just after the ingestion of thymol. The efficacy of the treatment was illustrated in the case of a neurotic woman who vomited both the second and third thymol capsules as well as the purgative salt; in spite of the fact that only one capsule had remained in the alimentary tract, the parasite in its entirety was expelled the following night. In another case, four tenias were passed at once, and several months later recovery was still maintained. Guillon holds thymol to be the most reliable, the least dangerous when suitably administered, and the least expensive of all teniafuge remedies.—*New York Med. Jour.*

A CASE OF SPLENO-MEDULLARY LEUKEMIA TREATED WITH BENZOL.

Dr. Victor Fossati, *La Semana Medica,* September 11, 1913, reports the case of a girl, 22 years old, who for a year had noticed a swelling in

her abdominal cavity which increased rapidly in size. She had periodical attacks of fever, intense pain in her left side, lost flesh and strength and became very anæmic. On examination, the spleen was found to be enormously enlarged, but there was no general hypertrophy.

Examination of the blood:

Red cells	2,000,000
Whites	240,000
Hæmoglobin	37
Polys	45
Eosinophiles	3
Lymphocytes	35
Large mononuclears	8
Myelocytes	9

The treatment was started with iron and arsenic and X-Rays. No benefit accrued. On March 9th benzol in creatin coated capsules was given—20 drops a day—increased day by day to 70 drops. The general condition of the patient steadily improved. However the patient suffered greatly from gastro-intestinal symptoms, due to the benzol, and its administration had to be stopped from time to time. The spleen showed no marked reduction in size.

Blood examination, October 6, 1913:

Red cells	3,000,000
Whites	56,000
Polys	59
Eosinophiles	1
Lymphocytes	30
Large mononuclears	3
Myelocytes	6

The pains have ceased, the appetite is good; the patient attends to her ordinary duties and continues to take the benzol.—*Buffalo Medical Jour.*

ORAL SEPSIS AS A GATEWAY OF CRYPTOGENIC INFECTION.

Only recently, and as yet not too generally, oral sepsis of one character or another has come to be recognized by the profession as a possible nidus of infection of an obscure nature. When one stops to think of the many general ravages set up by diseased conditions of the mouth, one stops to wonder why the profession has been so tardy in bestowing a proper amount of attention to disorders of the oral cavity. In medical

schools practically no instruction is given to diseases of the mouth, therefore the student graduates without a proper amount of respect for these disorders, looking upon them as of minor importance and of no great amount of consequence. This apathy should be corrected and no doubt will when the profession is brought to realize the number of lesions of obscure nature which may take their origin from septic conditions seated in the mouth. An article by William H. Haskin in the May number of the *New York Medical Journal* should go a long way in educating the profession concerning the many cryptogenic lesions which are due to infection originating in the alveolar process. He states that the dental profession is now thoroughly alive to this evil and making every effort to educate the public, medical and dental professions as to the possible ill effects upon the body by neglecting infections of the jaw. However, the blame for the present state of oral sepsis must be largely placed upon the medical profession because of its inexcusable ignorance as to existing conditions through lack of finite knowledge of the teeth. This is not surprising when we realize that doctors themselves are most negligent of their mouths. Purulent diseases of the jaws always attack first the membrane lining the teeth sockets, and must start either at the gum margin or at the apex of the root. When it occurs at the apex we get apical abscess, commonly called gum-boil. Everyone knows the great distress caused by abscess here and of the relief incident to its lancing. But how many realize the pathological destruction that occurs? Every apical abscess causes destruction of the alveolus around the apex and almost invariably a perforation of either the lingual or labial plate of bone. This is nothing more or less than an osteomyelitis, and as such is attended with more or less general toxemia from the bacterial poisons generated. After the acute condition subsides the patient believes he is cured. Such usually is the case, but not always, as sometimes very serious conditions follow as the result of toxic absorption from a chronic abscess left as a relic. There is no doubt that many of these acute conditions, when properly handled, heal and leave no sepsis of the jaw. Unfortunately, healing does not always occur, notwithstanding the subsidence of pain, and the patient considers himself cured. Careful examination of the mucous membrane over the apex will often reveal minute fistulous openings through either lingual or labial plate which lead to carious cavities. According to the writer of the above article, fistulous apical abscesses are very common, and will often account for offensive breath, if nothing worse, to say the least a most mortifying affliction. Infection arising in the margin of the gum, constituting pyorrhea alveolaris, or Riggs' disease, is also a most frequent precursor of constitutional disorders of cryptogenic origin. Consequently, in maladies of obscure

nature, especially those which are dependent upon infective processes, thoroughly examine the gums. Infection here can always be found without difficulty if looked for. It begins with a reddening of the margin of the gum, which soon becomes tender and bleeds easily. If not arrested this inflammation spreads up along the roots of the teeth and forms pus sockets, and finally atacks the alveolus itself. If one stops to think that such systemic diseases as rheumatoid arthritis, endocarditis, gastric ulcer, have been definitely proven sequelæ of infected jaws, it is time that we take this subject seriously and bestow upon the teeth and jaws enough time to enable us to recognize alveolitis as readily as bone infection elsewhere.—*Maryland Medical Journal.*

SURGERY

UNDER THE CHARGE OF A. H. PERFECT, M.B., SURGEON TO THE TORONTO WESTERN HOSPITAL

SURGERY OF THE SPLEEN.

Michelsson (*Ergeb. der Chir. und Orthopäd.*, Bd. vi), reviewing the results of modern surgery of the spleen, states that the organ may be removed without any ill effects ensuing. Leucocytosis follows extirpation, and lasts a long time. Other disorders which have been described as following splenectomy are not specific, and are transitory. Injury is the chief indication for operative interference. The spleen is more easily ruptured when it is enlarged or soft. Subcutaneous rupture is immediately followed by symptoms of shock; a latent period succeeds, usually of short duration, but it has been known to last as long as twenty-four hours; this stage is followed by the appearance of symptoms of internal hæmorrhage. Spontaneous arrest of hæmorrhage is due to thrombosis aided by the low blood pressure of shock. Sometimes the omentum has been observed to act as a species of plug. A precise diagnosis is usually not possible. The operation of election is splenectomy; if the spleen is too large for this to be safe, packing. If suture of the rent is attempted, it is easy to overlook small tears which may continue to bleed. Perforating wounds are usually bullet wounds; other important organs besides the spleen are often involved. If exploratory thoracotomy is performed for wounds in the left lower thoracic region, injuries of the spleen are easily missed. Suture is good treatment for perforating incised wounds. Abscesses of the spleen are either multiple, when they are due to pyæmic emboli; or single, these usually being due to hæmato-

genetic infection of a traumatic hæmatoma. Symptoms referable to the spleen do not occur until the capsule is involved. An exploring syringe clinches the diagnosis; its use is by no means without danger, and it should only be employed on the operating table. Incision is the best treatment for abscess; splenectomy has also been done, with good results. Of cysts of the spleen, blood cysts, the sequelæ of encapsuled hæmatomata, are the most important surgically. Their capsules are not lined by epithelium, which distinguishes them from serous cysts. Only large cysts produce symptoms. A diagnosis can rarely be made. If operated upon they may be either incised and drained, or excised. Tapping is to be avoided. Hydatid cysts are best treated by packing off the peritoneal cavity, stitching the spleen up into the wound, and then removing the endocyst. Malignant new growths of the spleen are rare; they are almost always sarcomata. Clinically, new growth causes a tumour of the spleen, rapidly increasing in size, and presenting an irregular bossy surface; the blood count and temperature remain normal; fluctuation cannot be obtained. The treatment is splenectomy; two cases have been reported as remaining well for six and a half and four years respectively after operation. Malarial enlargement of the spleen is usually diagnosed without difficulty. Operation is indicated only when the enlarged paludic spleen causes abdominal symptoms, and its upper pole lies below or only slightly above the costal margin. Primary tuberculosis of the spleen occurs, but is very rare; it has been treated by splenectomy, with an operation mortality of 25 per cent. Enlargement of the spleen due to amyloid disease, venous congestion, and other similar general conditions is not amenable to surgical treatment; such cases hitherto operated upon have all ended fatally. Splenectomy is justifiable in leukæmia when the spleen is so large as to cause distressing abdominal symptoms and the disease is clearly of a chronic type. The removal of the spleen does not affect the progress of the disease. A movable spleen has almost always undergone some previous pathological change; it is found in stout people with loose abdominal walls, and usually in women. Diagnosis is easy, except when the displaced organ has acquired adhesions. The treatment is medical and dietetic, especially in malarial cases. If recourse is had to surgery, the spleen should be removed. Splenopexy is indicated only when the viscus is small and approximately normal in texture; the retroperitoneal route is to be preferred.—*British Med. Jour.*

RESULTS OF RADIUM IN CANCER.

H. H. Janeway, New York (*Journal A. M. A.*, May 30, 1914), reviews the results of treatment of cancer by radium, noting the work of

Wickham of Paris, which seems to indicate that while the influence of radium on all types of cancer is a favorable one, it does not extend to the limits of the disease in any but the most superficial forms. Wickham's works cover 1,000 cancer cases thus treated. The work of the Radium Institute of London covers 460 cases of cancer during 1912, none of which are reported as cures, though some of them may later prove to be such. Out of 101 cases of slow growing benign forms of skin cancer, 31 patients were apparently cured for the time and 41 improved. But in cancer of the rest of the body there were only 15 apparently cured. The results also confirm the observations of Wickham. The less extensive test of radium in cancer at Vienna lead to the same general conclusions. While Wickham's reports show some enthusiasm, the German reports are very conservative and the London Radium Institute is noncommittal. All, however, show a remarkable agreement as regards results. While radium will destroy cancer tissue in a dosage not affecting normal tissues, it does not cure the disease unless the cancer is quite superficial or of a very susceptible type. We may cherish a hope that greater success may be had in the ftuure, but at present radium can only supplement the knife.

MECKEL'S DIVERTICULUM.

J. P. Crozer Criffith, Philadelphia (*Journal A. M. A.*, May 23, 1914), reports a case of ulcerative inflammation of Meckel's diverticulum in which the combination of clinical manifestations and pathologic lesions was very unusual, unexpected and misleading. Persistent slight hæmorrhage from the bowel and severe anemia was present, accompanied by nephritis. The inflammation also extended to the serous layer of the diverticulum, producing a secondary, purulent peritonitis, localized by the matting of the coils of the ileum around the seat of suppuration. The origin and bearing of the nephritis was uncertain. He cites literature on Meckel's diverticulum and reports its occurrence with the types most frequently found.

1. Strangulation of the intestine by the diverticulum or its remains, usually attached to the umbilicus or to some part of the intestine, mesentery or other region. The diverticulum may be either in the form of a fibrous, cord-like remainder of the organ, or may have its lumen still present, through all or a part of its extent. In either case the ileum becomes constructed and strangulated.

2. The persistence of Meckel's diverticulum with an opening at the umbilicus, which is unusual, and the subjects are usually males.

3. Formation of a cystic tumor in which the diverticulum becomes obliterated at both ends.

4. With concretions of various sizes present in the diverticulum.

5. Superinvolution of the diverticulum which narrows the intestine and continues the obliterative process to the ileum.

6. With stenosis of the ileum caused by traction of the diverticulum attached at its distal end.

7. Invagination of the diverticulum, which is often followed by an ileocecal intussusception.

8. Volvulus of the diverticulum, or of the ileum, which occurs most frequently if the distal extremity of the diverticulum is attached.

9. Hernia of the diverticulum is seen occasionally.

10. Inflammation of the diverticulum, which is one of the most infrequent abdominal diseases. In secondary diverticulitis other lesions develop first in the primary diverticulitis a distinction is to be made between the acute and chronic cases and the relationship of diverticulitis to obstruction of the bowel. The causes of diverticulitis are obscure, though it is probably based on infection. Previous digestive disturbances and trauma have some bearing. Diverticulitis is analogous to and may coexist with appendicitis; all grades of inflammation and symptoms may exist. The condition has never been recognized during life, hence the frequency of recurrence is unknown. Spontaneous recovery may take place, but the only practical treatment is operative. Whenever the diverticulum is discovered during operative procedures, it should be removed, as it always constitutes a menace.

BRACHIAL PLEXUS ANESTHESIA.

Supraclavicular anesthetization, a method introduced by Kulenkampff, is described by H. Neuhof, New York (*Journal A. M. A.*, May 23, 1914). He reports a case showing a possible accident from this method, the only one heretofore reported and which attributed to intoxication of the novocain employed or to trauma of the brachial plexus. There were no serious after-effects and the patient was approximately normal in twenty-four hours. The area for injection is the space bounded internally by the subclavian artery and externally and below by the clavicle and in the depths by the opper surface of the first rib. Several guides for the introduction of the needle have been described, but there is no doubt that the subclavian artery should be the one employed, as there may be several variations in its course. The position of the artery having been absolutely determined, the needle is immediately introduced

external to the vessel at a point directly above the clavicle. It is introduced slowly and is directed downward, forward and inward. The best guide, Neuhof says, for the path of the needle is the spinous process of the second dorsal vertebra. The latter should be marked on the skin and the needle be pointed directly toward it. There is one clear indication that the needle is at the plexus; which is that paresthesias appear in the hand and arm, in the medial or radial distribution, or both, and nothing should be injected until they appear. If they appear in the medial distribution alone, the needle should be introduced a few millimeters deeper for the second half of the fluid, as the median is rather superficial at this point. The solution usually employed is 2 per cent. novocain, combined with epinephrin. The anesthesia of the arm is usually complete enough for any operation, though it may be incomplete in about 15 per cent., or less, according to the experience of the operator. It has been used in about 250 cases successfully, but this is hardly sufficient experience to permit sweeping conclusions. Temporary paralysis of the diaphragm has been reported several times, and Neuhof thinks that the method is contra-indicated for patients suffering from pronounced intrathoracic disease. The only other reported complication is a single instance of musculospiral paralysis. Neuhof thinks it will prove a valuable addition to the methods of regional anesthesia when serious complications can be insured against.

GYNÆCOLOGY

UNDER THE CHARGE OF S. M. HAY, M.D., C.M., GYNAECOLOGIST TO THE TORONTO WESTERN HOSPITAL.

THE SURGICAL PRINCIPLES OF HYSTEROPEXY.

Routhier (*Revue de gynéc. et de chir. abdom.*, February, 1914) reviews the various methods of fixing the uterus, and concludes that Doléris's method of drawing the round ligaments through the parietes has proved the safest and most satisfactory. Dragging up the fundus and mooring it to the parietes caused chronic congestion of the uterus, often manifested by hæmorrhages, and even when the round ligaments only are fixed, a narrow-necked pit lies between the fundus and the parietes, which may cause internal strangulation. This fossa, or pit, must be as wide as possible, to minimize the risks of hernia. Routhier directs that the loop of broad ligament should be caught up by a blunt-ended forceps pushed between the two heads of the recti, about one inch above the

pubes, and not lower. The parts are to be exposed by a curved integumental incision, the convexity touching the pubes and the points lying at the level of the outer border of the recti. Then a flap of integument is turned up and the peritoneal cavity opened vertically between the recti. The uterus is then drawn up after exploration of its appendages. The operator slips his fore and middle finger behind the parietes to guide the blunt-pointed forceps when it is pushed between the heads of the recti. The loop of round ligament being drawn out and held by forceps, the opposite round ligament is drawn through the parietes in the same way and held outside by forceps. The vertical incision between the recti is closed by suture, and the two loops of round ligament are united in the middle line in front of the recti by a glover's suture. Another suture is passed between each round ligament and the tissues around the channel through which it has been drawn through the parietes. The curved incision through the integuments is then sutured. Such, Rouhier holds, are the details of the operation, which would seem to ensure all the advantages of hysteropexy, avoiding all the dangers of earlier devised methods.—*Brit. Med. Jour.*

PREGNANCY AND CERVICAL CANCER.

After remarking on the rarity of such a condition and its almost universal fatality R. Y. Sullivan Washington, D.C. (*Journal A. M. A.*, May 30, 1914), reports a case of advanced cervical cancer in a pregnant woman diagnosed as such about the sixth month of gestation. The child was living and vigorous and its interests were considered paramount. Labor ensued at approximately the thirty-second week of pregnancy, cesarean section and amputation of the uterus was performed above the cancerous mass and the cervical stump treated extraperitoneally. The child was still-born and the mother died six weeks after the operation. She was out of bed but her failure in general was very rapid. The natural treatment in such cases would seem to be abdominal cesarean section as giving the best chances for the child and mother, while natural labor with a friable diseased cervix can offer little hope for either.

ADENOMYOMA OF THE VAGINO-RECTAL SEPTUM.

T. S. Cullen, Baltimore (*Journal A.M.A.*, March 14), reports two cases of adenomyoma of the rectovaginal septum of his own observation and also reproduces the accounts of two somewhat similar cases described at the meeting of the Royal Society of Medicine, January 2, 1913, to-

gether with some of the remarks of the discussion following. His own cases are reported in detail, with microscopic examination. The cases are naturally of considerable surgical interest; they are not histologically malignant and do not give rise to metastases. In the early stages, as shown in one of his cases, the growth can be removed without injury to the rectum but when the rectal involvement is extensive, resection will as a rule be needed. The immediate differential diagnosis between the adenomyomas and cancer of the bowel is of the utmost importance. If the uterus contains myomas the probability of an adenomyoma is strengthened. If the growth appears to be muscular, it is still more probable and if it is cystic, it is almost certain. There is no rectal hæmorrhage and the only symptom is pain on defecation. The removal must be complete as portions left will continue to grow and cause complications. The operation for cancer must necessarily be more extensive. The cases reported emphasize the necessity of careful microscopic control of all rectal growths as they might easily be mistaken for carcinomas. He gives directions as to operating, especially the careful isolation of the ureters and the removal of the uterus altogether as in the Wertheim operation. It would be wise, he says, to place a delicate protective drain but to keep it away from the suture line in the bowel. If a large part of the lumen of the bowel is involved, its resection will be necessary. Cullen believes that with careful examination of all rectal or perirectal growths, many similar cases to those reported will be found. The article is illustrated.

PITUITRIN IN OBSTETRICS.

Litzenberg says pituitrin has passed the first stage of neglect by physicians and is now in the second stage of exploitation and he hopes by a few words of timely warning that he will help in preventing the reaction which must inevitably come by too enthusiastic exploitation. He summarizes the findings of many writers who have had varying results and report absolutely contradictory facts.

Litzenberg reports thirty cases of his own with varying results. The reports are so meagre that a good idea of the cases is not obtained. In sixteen of the cases pituitrin acted promptly, slowly in two and no effect in two. Forceps were required in six cases. In one case tetanic contractions occurred; one child was asphyxiated but soon resuscitated; one extensive laceration due to the violent pains produced. Four times the drug was used in the first stage but only once with satisfactory results. In the twenty-two cases in the second stage seventeen responded promptly.

1. He concludes that pituitrin is a valuable stimulant to uterine contractions.

2. That it will not usually produce abortion.

3. That it will sometimes induce premature labor, but that with an undilated cervix it is not to be recommended.

4. That it is most efficacious during the second stage of labor.

5. That it is of some value during the third stage.

6. That after delivery it is of some value but not better than ergot.

7. That its proven value is limited to the second stage.

8. That the knowledge of its action is still limited and its use is not without danger and so must be used with caution.

In the past few years many reports of the use of preparations from the pituitary gland have appeared. The Germans have written much but with contradictory findings. The several pharmacological houses which have put these preparations on the market write most enthusiastically of its use and from the advertisement of one house the physician would gather that there are no contra-indications for its use and that all the problems in obstetrics will be solved if the extract of the pituitary gland is used. The preceding six articles are culled from the recent literature and show the contradictory reports that physicians give in regard to the use of the extract. Melville's enthusiasm based on an experience of eight cases is characteristic of many articles where the physician's apparent one idea is to obtain a delivery with despatch.

The papers based on many cases with a careful analysis of the cases reported show that the extract is most uncertain in its action and at times, not infrequently, is severe damage done. Premature separation of the placenta, tetanic contractions of the uterus, rupture of the uterus, fatal compression of the fetus, all have been reported as following the injection of the extract and yet more than one writer says it is a safe drug!

The consensus of opinion is that to induce premature labor its action is so unreliable that it should not be used. The more conservative and thoughtful physicians demand that it be not used until the os uteri is fully dilated, that there be absolutely no bony resistance to the delivery and that there be no scar tissue present. When these conditions are fulfilled and uterine pains are insufficient to accomplish delivery, then the use of the extract many times will accomplish surprising results.

If it is given, the physician must stay constantly with the patient for as yet there is no way of determining in any given case what action, if any, will result. As one of the above writers truly states the drug is at present being exploited and because of this exploitation much damage

will surely result. The extract is a powerful drug and its indiscriminate use is to be fought. Carefully used it will prove a valuable aid in a small class of cases.—*Boston Med. and Surg. Jour.*

FEMINISM AND THE BIRTH-RATE.

We are not among those who view the advance of the feminist movement with any apprehension on the score of its effect on the birth-rate of the future. With Mr. Joseph Conrad, the eminent novelist, we believe that women will never be able to live up to the wild speculations which some of them "believe they believe." Femininity involves restraint as well as inspiration, and at the same time that it threatens trouble it "prevents them from coming on deck and playing hell with the ship." A low birth-rate is essentially an economic phenomenon. Under decent economic conditions maternity would flourish. Motherhood is necessarily included in the fulfilment of destiny which woman is clamoring for, and under proper conditions would aid and not hamper the development of individuality and the growth of mind and soul. Then it would be the richest of endowments, to be sought eagerly. Then the handicapped woman would be she to whom it might chance to be denied.—*Medical Times.*

AQUEOUS SOLUTIONS OF IODINE IN THE TREATMENT OF GONORRHEA IN WOMEN.

Hartz recommends the use of iodine on account of its ability to penetrate the subepithelial structures and deeper glands. It is also a stimulant, a counterirritant, and an alterative. The aqueous solution (Liquor iodi compositus) is used because of the pain caused by alcoholic tincture. From a study of twenty-five cases, the author concludes that this treatment offers a more rapid, more thorough, and a more permanent improvement than other methods. The gonococci disappear early from the secretions, intrapelvic extension is far less frequent, and there is little pain. The entire course of treatment is comparatively short and causes but little trouble to either patient or physician. In acute and subacute cases, where vaginitis or vulvitis was present, the patient was directed to use one teaspoonful of the solution to two quarts of warm water as a douche twice daily. In the chronic and mildly inflammatory cases the strength was gradually raised from one to two teaspoonfuls, or until the patient began to experience a burning or smarting sensation indicating the limit of increase.—*New York Med. Jour.*

PERSONAL AND NEWS ITEMS

Ontario.

The fourteenth annual graduation of the nurses of the Hamilton Hospital for the Insane took place on the grounds of the institution a short time ago. It was a very successful function.

Dr. Max O. Klotz, Ottawa, president of the College of Physicians of Ontario for the past year, has gone to Europe.

Dr. R. B. Miller has associated himself with the work of the Western University, London, having resigned his position in the staff of McGill medical faculty.

Dr. Alan Brown has located at 44 Avenue Road, Toronto, and will restrict his practice to diseases of infancy.

Dr. and Mrs. Walter W. Wright and family, of Toronto, are now in London. He is taking a special course on diseases of the eye, to which he will limit his practice on his return.

Dr. W. Ewart Ferguson, of 264 College St., Toronto, and associate editor of *The Canada Lancet*, sailed on 15th July for Europe. He will take post-graduate work in Edinburgh, London and Vienna.

Dr. H. G. Clutterbuck, Toronto, is taking a course of post-graduate study in Edinburgh.

Dr. Warren and Mrs. Warren, Toronto, sailed for Edinburgh on the Calgarian on 15th July.

The Canadian Government is investigating the possibility of finding radium in some of the native rocks.

Dr. Bruce Smith, Inspector of Hospitals for Ontario, had a trip through the Maritime Provinces, and attended the meeting of the Canadian Medical Association.

Dr. G. H. Campbell was elected Mayor of Orangeville. The office became vacant by the resignation of Mayor Ireland. The contest between Dr. Campbell and ex-Reeve J. J. White was very keen. Dr. Campbell had a majority of 217.

Dr. C. K. Clarke, superintendent of the General Hospital, and Mrs. Clarke, with their family, have gone to their summer home at Plevna.

It is currently rumored that Dr. David Jamieson, member for South Grey, will be the next Speaker of the Ontario Legislature.

Dr. J. M. Forster, of Queen Street Hospital, and Mrs. Forster, visited Dr. and Mrs. Ernest Young at Rockwood Hospital, Kingston.

Dr. D. J. Bagshaw and Dr. Harold Clarkson have left for a tour of the British Isles.

Dr. and Mrs. T. B. MacDonald took a canoe trip a short time ago in Northern Ontario.

Dr. J. D. Curtis, St. Thomas, and his two children had a miraculous escape from serious injury on 1st July, while crossing Wilson bridge on the way to Pinafore Park. Something went wrong with the steering gear of the auto. Swerving to one side, the machine crashed through the iron railing of the bridge. Luckily, however, the curbing held the rear wheels fast and prevented the car from toppling over into the ravine sixty feet below.

Miss Ethel Clare, daughter of Dr. A. W. Wright and Mrs. Wright, was married July 21st to Mr. Henry Crawford Griffiths, of Ridley College, St. Catharines.

The following doctors have been elected to the Ontario Legislature: Dr. David Jameson, South Grey; Dr. Wm. Jacques, Haldimand; Dr. A. E. Ross, Kingston; Dr. G. J. Musgrove, Niagara Falls; Dr. E. Jessop, St. Catharines; Hon. Dr. R. A. Pyne, North-east Toronto; Dr. R. A. Mason, North Victoria; Dr. A. F. Rykert ,North Wentworth; Dr. F. Godfrey, West York; Dr. S. Ducharme, North Essex; Hon. Dr. R. F. Preston, North Lanark; Dr. J. B. Martin, East Lambton. The follow-doctors were unsuccessful candidates: Dr. P. Poisson, North Essex; Dr. A. H. Macklin, Centre Huron; Dr. C. C. Lumby, West Elgin; Dr. J. E. Davey, W. Hamilton; Dr. D. Marshall, Kenora; Dr. J. P. Sinclair, Leeds; Dr. W. J. Stevenson, London; Dr. Shean, S. Norfolk; Dr. G. Richardson, Parry Sound; Dr. B. E. Mackenzie, North-east Toronto; Dr. E. B. Thompson, South Wentworth.

Drs. N. Beal and G. A. Seaborn, of London, have been elected Fellows of the American College of Surgeons.

Dr. Charles O'Reilly's birthday luncheon was a great success, Sir John Gibson proposing the health of the doctor and his wife, and naming the house "Erin Lodge." Chief Justice Sir Glenholme Falconbridge proposed the health of Dr. Brefney O'Reilly, and Dean Harris also spoke felicitiously. After luncheon, Mr. Archibald Brown gave Mrs. O'Reilly one of his paintings, "The Bridge of Finea," Mr. R. L. Patterson, of "Ferndale," Todmorden, unveiling the picture, which was covered with the Irish flag.

Dr. Angus A. Campbell, formerly house surgeon to the London Ophthalmic Hospital, and to the Ear, Nose and Throat Hospital, Golden Square, has located at 880 College St., Toronto, and will limit his practice to diseases of the eye, ear, nose and throat.

Dr. H. R. McCullough has been appointed Medical Officer of Health for Hamilton.

The Provincial Board of Health for Ontario has had a request to send its tuberculosis exhibit to the International Tuberculosis Convention, to be held at Lyons, France, this year.

Dr. Keith Simon, who has recently been appointed pathologist to Grace Hospital, has opened offices at 653 Bloor St. West. Dr. Simon is prepared to carry out any pathological investigations for the profession.

Quebec.

Mr. G. H. Mines, formerly of the University of Toronto, has been appointed to the Morley Drake chair of physiology in the University of McGill.

Dr. Herbert Stanley Birkett has been made dean of the medical faculty of McGill University, to take the place vacated by Dr. Shepherd. He has been connected with the teaching work of McGill in the department of nose, throat and ear diseases. He was born in 1864.

Sir William Macdonald's donations to the Macdonald College, of Quebec, in affiliation with McGill University, now amount to $7,000,000. He has been elected Chancellor of McGill, to succeed Lord Strathcona.

Dr. G. P. Girdwood, of Montreal, is secretary of a committee of the Royal Society of Canada, consisting of Sir F. G. Roddick, and Drs. R. F. Ruttan, J. J. Mackenzie and G. P. Girdwood, to enquire into the frequency of poisoning by illuminating gas, and to bring the matter before Parliament.

Dr. S. A. Knopf, of New York, has been giving courses of instruction on the diagnosis of tuberculosis at the Bruchesi Institute, Montreal. The fee for the course of 15 days is $15, and six only are admitted to each class.

Western Provinces.

Dr. Harry Morrell, of Regina, has been appointed director of the pathological laboratory of the Regina General Hospital. We congratulate Dr. Morrell, who did good work as editor of the *Western Medical News.*

Dr. R. M. Cook, who practised formerly at Halbrite, Sask., has located in Calgary.

Dr. N. W. Hicks has removed from Halbrite to Shaunavon, Sask., where he has located.

Dr. W. Henderson, of Qu,Appelle, Sask., a lieutenant in the 16th Light Horse, is exchanging to the army corps.

The Saskatchewan Medical Association will meet at Saskatoon on 18th, 19th and 20th of August. Dr. G. R. Peterson, Saskatoon, is president.

The Governors of the Moose Jaw Hospital are considering further extension of the hospital accommodation in that place.

The following doctors of Saskatchewan took a course of training in the military camp located at Sewell: A. S. Gorrell, 26th Field Battery; E. E. Meek, 95th Saskatchewan Rifles; W. R. Coles, 27th Light Horse; Capt. Munro, 105th Infantry; Harry Morrell, 12 Manitoba Dragoons; P. D. Stewart, 29th Light Horse, and J. Callum, 60th Rifles.

Dr. C. J. Fagan, secretary of the Provincial Board of Health of British Columbia, has resigned, and Dr. Walter Bapty has been selected to fill the position.

The following doctors have been elected members of the Manitoba Legislature: Dr. Thornton, Deloraine; Dr. McFarden, Emerson; Dr. Armstrong, Gladstone; Hon. Dr. Montague, Kildonan; Dr. Clingan, Virden.

The Winnipeg City Council has made a grant of $15,590 to the General Hospital to make up the deficit of last year.

The Calgary Council has made a temporary grant of $15,000 to the General Hospital until complete estimates are passed.

The General Hospital at Regina has found it necessary to increase the fees charged patients, on account of the increase in the cost of living.

The Hugh Waddell Memorial Hospital at Canora has been opened. It was erected by Mrs. Waddell in memory of her husband. It contains 38 beds. Dr. E. H. Gray is in charge of the hospital.

Dr. J. W. McIntosh, of Vancouver, has been appointed associate professor of chemistry and acting head of the British Columbia University.

The fall examinations of the University of Alberta will take place at Edmonton South. Applications for the license to practise in the Province should be made by 15th August, enclosing matriculation certificate, graduation diploma, and the required fee of $50.

Maritime Provinces.

Dr. D. A. Campbell, Halifax, has intimated to the Governors of Dalhousie University, that he would provide $60,000 to endow a chair of anatomy in memory of his son, the late Dr. George, who died of

pneumonia while on his honeymoon. Dr. Campbell has transferred securities to the amount of $30,000 to the Governors for this purpose and stated that $30,000 more had been provided for.

From Abroad.

The *Medical Press and Circular* in a recent issue speaks of the militant section of the suffragettes as maintaining its reputation as a species of progressive lunacy. The journal thinks that the wealthy women who are supplying the funds to keep up the agitation should be made responsible. It has been openly advocated in Parliament and by the public press that it would be quite proper to permit these militants to die of starvation if they so wish.

It would seem now that the final summing up of the Friedmann treatment of tuberculosis by the injection of the turtle bacilli is a failure. This is the opinion of a number of eminent medical men in Vienna who had given the treatment a careful trial in a number of cases of different forms of tuberculosis.

Professor Dean, who for many years filled the chair of pathology in the University of Aberdeen, died two months ago. He was a distinguished pathologist and an able teacher. He was in his 51st year. Death was largely due to overwork.

The Supreme Court of Wisconsin has reversed the decision of the lower court regarding the eugenic law. The lower court held that the law was ultra vires. The finding of the Supreme Court confirms the Act which now goes into operation. The Act provides that couples intending to marry must furnish a certificate from physicians stating that they are physically fit.

The General Education Board will pay over to Johns Hopkins University $1,500,000 to establish a W. H. Welch research fund.

On June 10th there was unveiled a statue at Oxford of Roger Bacon, who was born in 1214, and who has been regarded as one of the great fathers of experimental research and science. He was a noted student of all the sciences as known in his day. The statue is a handsome full-size standing figure.

Sir Alexander Ogston, K.C.V.O., has been elected president of the British Medical Association for the coming year. He was tendered a luncheon by his former house surgeons at the Grand Hotel, Aberdeen, on 30th July.

The British Patent Office has given a very important ruling with regard to discoveries made by medical research workers that will prevent these being used by unscrupulous persons for gain.

Dr. Amos Lawrence Mason, a very well known physician of Boston, died 5th June, in his 72nd year. He held many public positions.

The American Medical Association, at its recent meeting in Atlantic City, presented Dr. Brig.-Gen. W. C. Gorgas with a gold medal carrying the words: "Presented by the American Medical Association to Brig.-Gen. W. C. Gorgas, Sanitarian, whose genius made possible the construction of the Isthmian Canal."

Dr. William L. Rodman, professor of surgery in the Medical College of the University of Louisville, Ky., was elected president of the American Medical Association for the current year. The meeting of 1915 will be in San Francisco.

The Yale Medical School has received from the Brady family a gift of $125,000. It is said that the Brady family purpose giving the school $500,000 in all. The Yale Medical School proposes to raise $2,000,000, and President Hadley recently announced that he had subscriptions amounting to $1,725,000.

The hospital ship, the Maine, which was presented to the British navy at the time of the South African war, by American women, was wrecked a short time ago off the coast at the Firth of Lorne. All the patients were placed in the ship's boats and rescued by the aid of wireless messages. The vessel had capacity for 210 beds.

The late James Campbell, of St. Louis, left an estate of $35,000,000 to go to the St. Louis University after the death of his wife and daughter, for the purpose of building, equipping and maintaining a hospital, and for the advancement of the science of medicine and surgery for ever. This is the largest single gift ever made for such a purpose.

The late Dr. Everett Herrick, of New York, left $140,000 to institutions and charities. The American Academy of Medicine receives $50,000, and other objects varying smaller amounts.

Harris C. Fahnstock, a New York banker, has bequeathed $100,000 to each of the following: The Presbyterian Hospital, St. Luke's Hospital, the Post-Graduate Hospital and Medical School, the Charity Organization Hospital, and the Association for Improving the condition of the Poor.

A memorial tablet was recently unveiled at Hastings to Mrs. Elizabeth Blackwell, the well-known pioneer woman doctor. The ceremony was performed by Mrs. Millicent Garrett Fawcet, M.D.

Sir Hector C. Cameron, who delivered the opening lecture at the Medical Faculty of Toronto two years ago, will deliver a memorial address on Lister at the University of Glasgow on Commemoration Day.

Professor Benjamin Moore, F.R.S., has resigned the chair of biochemistry in the University of Liverpool to take up the work of conducting the research laboratory at Mount Vernon, Hampstead, under the National Insurance Act.

Dr. John Macpherson, president of the Edinburgh branch of the Conference on Child Study, said that boys were not as mature and well developed mentally now as they were a century ago.

The Drapers' Company presented to Cambridge University a building and equipment for a school of physiology, costing $115,000.

The late Lady Anna Chandos-Poole bequeathed to her physician, Dr. Thomas Brown, £30,000, in recognition of his great kindness to her during several illnesses.

Dr. Jacques Loeb, of the Rockefeller Institute for Medical Research, has been elected a corresponding member of the section of anatomy and zoology of the Paris Academy of Sciences.

Dr. Baron Henri de Rothchild, the well-known medical research worker of Paris, was fired at by an assassin recently, but he was not seriously wounded.

Sir William Osler, of Oxford, has been elected foreign associate of the Paris Academy of Medicine.

The Royal Geographical Society, of Britain, has conferred upon Dr. A. H. Rice, of Boston, its medal for his explorations of the Amazon and Orinoco Rivers.

Dr. Ernest Engelhorn and Dr. Hermann Wilitz have isolated a substance from the placenta, which they have called placentin. They claim that if this is used in the same way as tuberculin in Von Pirquet's reaction it will give positive results in pregnant women.

The American Medical Association has issued a letter to editors of medical journals asking them to give careful attention to the expressions employed in articles describing experiments in animals and new methods of diagnosis and treatment on persons, with a view to safeguarding the profession against the attacks made on experimental research.

Sir Charles Tupper, a well-known Canadian doctor and statesman, celebrated his 93rd birthday in London on 2nd July. He received many congratulations. He is living at Mount Bexley, where he is glad to have Canadians call upon him.

Manchuria and 11 of the eighteen provinces forming China proper are declared to be free of opium, and the British Government, satisfied that this declaration is correct, has agreed that, according to a previous arrangement, no Indian opium hereafter shall be permitted to enter these provinces. The Chinese Government has sent instructions to the Governors of the remaining provinces in the Republic to put down the use of opium and prohibit the cultivation of the poppy before the end of the year.

The New South Wales Parliament has under consideration a Government measure for the abolition of the death penalty.

Up to date John D. Rockefeller has given $140,000,000 to science, education and various charitable objects. Rockefeller is a generous giver, even in proportion to his colossal wealth.

The danger that threatened the medical library at Washington of being absorbed into the general library at Washington has been averted, and the proposed change has been dropped.

The Surgeon-General of the United States has issued a letter to the effect that sailors on the lakes may have free anti-typhoid fever vaccination by applying to any of the stations. The results have been so good in the army that it is hoped in this way to extend the advantages to the sailors, as there have been many cases of typhoid fever among them.

Sir Rickman Godlee has inaugurated a movement for an association of surgeons in Britain. Sir W. Osler a few years ago organized a similar association for physicians.

In Britain the death rate from many infectious diseases has very materially declined. That from tuberculosis is 32 per cent. lower than it was a few years ago, and yet it was responsible last year for 35,000 deaths.

OBITUARY

A. E. BARLOW.

Dr. A. E. Barlow, a popular doctor of Montreal, lost his life in the sinking of the Empress of Ireland.

JAMES S. MORRIS.

Dr. Morris, of Grimsby, died in the latter part of May. He was a graduate of the University of Toronto, and had practised continuously at Grimsby. He was in his 41st year.

GEORGE J. GLADMAN.

Dr. Gladman, a native of Lindsay, Ont., and a graduate of McGill of 1886, died suddenly at his residence in New York, where he has been in practice since his graduation. He was connected with a number of private sanitaria.

ALBERT ROBERTS PYNE.

Dr. A. R. Pyne died at his home in Toronto on 6th July, at the age of 65 years. He was named after his cousin, Field Marshall Lord Roberts. His grandfather, father, uncle, brother, and three cousins were all doctors. He was a grandnephew of Sir Samuel Roberts, who commanded the lake squadron in 1815, at the taking of Mackinac. He came to this country while quite young, with his parents, who were from Watford, Ireland. He was educated at Newmarket, and the University of Toronto, from which he graduated in 1875. He taught in a number of public schools of Toronto till 1887, when he settled down in the practice of his profession. He held the position of Dominion analyst for many years. He is survived by his widow and one daugh ter. Dr. R. A. Pyne, Minister of Education, is a brother.

CHARLES ALFRED COLEMAN.

Dr. Coleman died recently at Epsom, England. He was a native of Halifax, N.S., but had lived in England for thirty years, and for many years followed his profession at Streatham. He was 65 years of age.

FREDERICK PARKER.

Dr. Parker, Stratford, aged 50 years, fell dead in his car on 11th July, while watching a game of basebal between Stratford and Woodstock. He was born in Ellice, in Perth County. He had practised at Sault Ste. Marie and Milverton before locating in Stratford. He was victim of heart disease.

J. B. COLERIDGE.

Dr. James Bruce Coleridge, three times Mayor of Ingersoll and one of the best-known men in Western Ontario, died 7th July of Bright's disease, in his 36th year. The deceased was a political orator of repute, and accompanied Premier Borden in his tour of the West

during the reciprocity campaign of 1911. He declined Provincial and Federal nominations for South Oxford on several occasions, giving way at the last moment in the recent Provincial campaign to V. A. Sinclair, of Tillsonburg, on account of the illness which brought on his death. He is survived by his wife and one son.

M. J. GLASS.

Dr. M. J. Glass, 65 years of age, a practising physician at the village of Poplar Hill, near Strathroy, for many years, died 5th July after a lingering illness. The deceased was prominent in fraternal circles.

MURDOCK ALEXANDER LINDSAY.

Dr. M. A. Lindsay was one of those who lost his life in the sinking of the Empress of Ireland. He was on his way to England to be married. He was in his 32nd year, and was educated at the Halifax Academy, and secured his B.Sc. from Dalhousie University. After spending two years in the Medical College at Halifax, he went to Edinburgh, where he pursued his studies for three years, obtaining his M.B., Ch.B., in 1908. He secured several prizes, and had clinical experience in Edinburgh, Liverpool and Leeds. For a time he was assistant pathologist to the General Hospital in Birmingham. He was recently appointed professor of pathology in Dalhousie University.

BOOK REVIEWS

ROVSING'S ABDOMINAL SURGERY.

Abdominal Surgery, Clinical Lectures for Students and Physicians. By Thorkild Rovsing, Professor of Clinical Surgery at the University of Copenhagen. Edited by Paul Monroe Pilcher, A.M., M.D., Brooklyn, N.Y. Philadelphia and London: J. B. Lippincott Company. Canadian Agent, Charles Roberts, 201 Unity Building, Montreal.

This work will not take long in making its way to the attention of that branch of the medical profession devoting attention to surgery, and especially to abdominal surgery. The author has a thorough command of his subject, and the science and art of abdominal surgery are well expressed in this volume. The author has adopted the clinical lecture form of stating his methods of operating and advancing the grounds

for arriving at certain diagnosis and giving reasons for following up any line of treatment. There are in all twenty-five lectures, one hundred and thirty-six illustrations, and nine plates. The volume is got up in a very attractive form, and the paper and type are excellent. We wish to invite special attention to the illustrations and plates, which are both excellent in art and the very best in scientific accuracy. There need be no hesitation in recommending this volume, as it cannot but give complete satisfaction to all who peruse its pages. It is one of the very best books that has appeared of recent years.

INTERNATIONAL CLINICS.

A Quarterly of Illustrated Clinical Lectures and Especially Prepared Original Articles on Treatment, Medicine, Surgery, Neurology, etc,, etc., Edited by Henry W. Cattell, A.M., M.D., Philadelphia, and John A. Witherspoon, M.D., Nashville. Vol. II. of 24th Series. 1914. Philadelphia and London: J. B. Lippincott Company.

In this volume there are six articles on diagnosis and treatment, three on medicine, eleven on surgery, two on obstetrics, and one on child welfare. There are a number of excellent plates and figures throughout the pages. The subjects discussed are of importance and timely enough, and by professional gentlemen of high standing. Among the contributors we find such names as J. W. Ballantyne, C. B. Ball, Henry Wade, W. B. Snow, George E. Pfahler, Dyce Duckworth, A. P. Francine, J. J. Walsh, J. F. Mitchell, G. S. Foster, E. M. Corner, E. G. Beck, Louis Frank, W. M. Harsha, C. M. Jacobs, C. G. Cumston, Frank Martin, W. A. Steel, W. S. Hall and Maria M. Vinton. Among the subjects treated of are eugenics, prostatism, syphilis, and the nervous system, arthritis, X-rays, senility, insomnia, immunity, pyloric stenosis, gastric and duodenal ulcer, bismuth paste in hip disease, gall stones, tuberculous joint disease, fixation of fractures, the obstetric forceps, a unique embryo, and teaching sex hygiene. This is a very large assortment of topics, and as they are all well handled the book is well calculated to afford both pleasure and profit to those who read it.

LYNCH ON DISEASES OF THE RECTUM AND COLON.

Diseases of the Rectum and Colon and their Surgical Treatment. By Jerome M. Lynch, M.D., Professor of Rectal and Intestinal Surgery, New York Polyclinic; Attending Surgeon, Cornell Dispensary; Fellow of the American Proctologic Society, New York Gastro-Enterological Society, etc. Octavo, 583 pages, with 228 engravings and 9 colored plates. Cloth, $5.00 net. Philadelphia and New York: Lea & Febiger, Publishers, 1914.

Lynch on Diseases of the Rectum and Colon will undoubtedly take its place as the leading work on this subject in the Engish language.

Its text is excellent throughout, and presents much that is new and useful. The systematic arrangement and the use of heavy type for centre and side headings make it easy to find any subject quickly. Its numerous illustrations are unusually large and clear, and are evidently the work of an artist of rare ability. The volume has a sumptuous appearance, which is in keeping with the high literary standard of the work. The author has addressed his book particularly to those who have not attained well-rounded experience in rectal and colonic surgery, and, as the needs of each reader are different, in order to cover them all, he has embraced the entire field, and has discussed the subject in full detail. He has endeavored to prepare the reader in advance to meet those many things which, though apparently trifling, are generally left to his resourcefulness, and may either make or mar an operation. The book also includes the preparation of the patient, the after-treatment, complications that may occur and how to handle them. It also gives cautionary advice as to mishaps to be avoided. In short, it is a literary and pictorial presentation of the best modern technique, and will be of great value to both the practitioner and specialist. We have much pleasure in recommending this new work on diseases of the rectum. It will certainly meet the needs of all who consult its pages.

MISCELLANEOUS MEDICAL NEWS

THE ONTARIO MEDICAL COUNCIL.

The Medical Council held its annual meeting from 6th to 10th July. The following officers were elected: President, Dr. James McArthur, London; Registrar, Dr. J. L. Bray, Toronto; Solicitor and Counsel, H. S. Osler, K.C., Toronto; Public Prosecutor, John Fyfe, Toronto; Official Stenographer, George Angus, Toronto; Treasurer, Dr. Wilberforce Aikins, Toronto.

The following committees were appointed: Registration Committee, Drs. Cruickshank, Vardon, McColl, Jarvis, Ferguson; Rules and Regulations, Vardon, Klotz, Emmerson, Hart, Addison, Becker, Sir James Grant; Finance: J. McCallum, King, Merritt, Bascom, Stewart; Printing: Emmerson, Welford, Crane, Young, Routledge; Education: Ryan, Gibson, Stewart, Addison, Ferguson, Spankie, Hart, J. McCallum, Wickens; Property: Johnson, Routledge, S. MacCallum, Crane, Bascom; Complaints; Stewart, Hart, Welford, Becker, Johnson.

The only delegate to the Council who was not present proved to be Dr. Klotz, who is in Germany.

The Council received several applications from physicians asking for reinstatement.

A resolution of condolence was passed to Hon. Dr. R. A. Pyne, sympathizing with him in the death of his brother, Dr. A. R. Pyne, who was a member of the association. A similar motion was passed in connection with the bereavement of Dr. E. A. King, whose daughter passed away recently.

It was urged by several of its members at the opening of its annual meeting to endeavor once again to secure legislation defining the phrase, "the practice of medicine," as used in the law of the Province. A joint committee, consisting of the members of the Executive Committee, and representatives of the teaching bodies, was therefore appointed to take up the question and to report at the present session of the council.

The discusion of the subject arose after Dr. J. L. Bray, the registrar, had read a letter from a young man who had been asked to become a student at a college of "Mano-Therapy" at Hamilton, which was said to have the approval of the Ontario Medical Council. It was said that the institution had a charter, but that it had not been endorsed by the Council. Dr. Ryan declared that it was imperative to have a clear legal definition of "the practice of medicine." He said that some bodies were seeking to practise medicine without any real knowledge of anatomy or of medicine.

He therefore thought that, although former applications to the Legislature had led to nothing, another effort should be made to secure legislation. Dr. Hart thereupon moved for the appointment of a committee to consider the question, and his motion was carried.

Recommendation that physicians formulate a series of lectures to be delivered before schools on the evils of alcohol was mode by Sir James Grant, of Ottawa. Sir James declared that drink and tuberculosis caused a very large percentage of human deaths in the world. A resolution favoring the recommendation and providing for the printing of circulars to be distributed under the auspices of the Council was seconded by Dr. T. W. H. Young ond unanimously carried.

That every person should submit to physical examination by a doctor at least once a year as a safeguard against disease was the suggestion of Sir James, speaking at the morning session. A resolution that such action "would seem a very wise provision towards the preserva-

tion of human life'' was carried. The object of the resolution, the document continued, ''is so that any disease or bodily ill could be detected before they advanced to a dangerous stage.''

There was considerable discussion regarding the Workman's Compensation Act. A number of the members thought that the Act would prove a hardship on the medical profession. There was a general feeling expressed that doctors were not often paid in these emergency and accident cases. The opinion was that a further effort should be made to secure an amendment to the Act that would secure for the attending physicians and surgeons their fees.

Mr. Hinsdale, who has had much experience in the working out of such an Act in the State of Washington, addressed the Council. He pointed out that under the Act all the compensation would go to the workman. In this way he would be in a better position to pay his medical attendant. He pointed out that under the Act there would be disputes on the ground of liability, He estimated that $3,000,000 would be paid annually to workmen instead of about $600,000 as in the past. This would improve the doctors' chances. He thought the more medical men studied the Act the more they would be satisfied with it.

The report of the committee was to the effect that as the Act gets under way provision will be made for first aid services.

The Council fixed the date of the fall examinations in Toronto for the first Tuesday in November, and the spring examinations at Toronto, Kingston and London for the first Tuesday in May, 1915.

The Finance Committee reported a balance of $6,000.

Dr. Arthur Jukes Johnson announced that complaints had been made against Dr. C. W. W. Walker, Ontario Medical Institute; Dr. Turofsky, Spadina Avenue, and Dr. A. D. MacArthur, of Blackstock. The complaints were left to the executive to deal with, that affecting Dr. Walker, alleging that he employed persons for work for which they were not qualified.

The Medical Council believes that the description of a person professing to practice medicine is not clearly enough set forth in the statute, and so to give strength to the restrictive powers of the statute, the following amendment to the Medical Act was drawn up, to be submitted to the Legislature:

''Any person shall be held to practise of medicine within the meaning of this Act, who shall:

''(a) By advertising, sign a statement of any kind, allege ability or willingness to diagnose or treat any human disease, ills, deformities, defects, or injuries.

"(b) Or who shall advertise or claim ability or willingness to prescribe or administer any drug, medicine, treatment, or perform any operation, manipulation, or apply any apparatus or appliance for the cure or treatment of any human disease, defect, deformity, or injury.

"(c). Act as agent, assistant, or associate of any person, firm, or corporation in the practice of medicine as hereinbefore set out.

"Provided always that this section shall not apply to the practice of dentistry, or pharmacy, or to the usual business of opticians, or vendors of dental or surgical instruments, apparatus, or appliances, or to the ordinary calling of nursing, or to the ordinary business of chiropodist, or bath attendant or proprietor of such bath."

After some discussion. in which Drs. Ryan, Gibson and Merritt supported the resolution, and Drs. Becker and Addison opposed it, it was carried.

Another motion was adopted by the Council, altering the provisions of the Examination Act, which says that no teacher can examine a student in any subject of which he is the teacher. The carrying of the motion means that now a teacher can examine in any subject.

On motion of Dr. Ferguson, seconded by Dr. J. M. McCallum, the representatives of the Ontario Medical Council were requested to urge upon the Canadian Medical Council the propriety of making Toronto an examination centre alternatively with Montreal, irrespective of the examination centres in the Western Provinces. The motion carried unanimously.

The Council adjourned to meet on July 6th, 1915.

CANADIAN NURSES ELECT OFFICERS.

Miss Wright, of New Westminster, B.C., was elected president of the Canadian National Association of Trained Nurses at the convention in Halifax on 10th July. Miss Wright is the school nurse of Westminster.

Other officers elected were: First vice-president, Miss V. Kirke, Halifax; second vice-president, Miss Goodhue, Montreal; treasurer, Miss D. Brisay, Montreal; secretary, Miss Gunn, Toronto; councillors, Miss Jean Brown, Miss Randall, Vancouver; Mrs. Hill, Winnipeg; Miss McPheban, Calgary.

FRENCH BIRTH RATE DROPS.

In France 5,221 fewer babies were born in 1913 than in 1912, ac-

cording to official figures. This is the lowest birth rate ever recorded in the country except in 1911. The number of births for every 100,000 inhabitants in 1913 was 188, compared with 190 in 1912; 187 in 1911, and 196 in 1910. The number of living children born in 1913 totalled 745,539, while in 1872 the total was 945,000.

Births exceeded deaths in 1913 by 41,901, or an average of 10 births in excess of deaths for every 10,000 inhabitants. This compares with an excess of births over deaths in Germany of 127 for every 10,000, in Austria of 107, in Italy of 140, and in Hungary of 130.

There were 298,760 marriages in France in 1913, or 13,169 fewer than in 1912. At the same time divorces increased from 14,999 in 1912 to 15,,076 in 1913.

The Temps remarks that the population of Germany increased by about 800,000 in 1913, or about 20 times as much as that of France, which was augmented by only 41,901.

ONTARIO'S NEW DOCTORS.

The following candidates have passed the final examinations of the College of Physicians and Surgeons of Ontario, the names being given in alphabetical order:

George Chambers Anglin, Toronto; James Priestly Austin, Windsor.

Charles Clarke Ballantyne, Toronto; Albert Frederick Bastedo, Bracebridge; John Reginald Beaven, Hespeler; William Ker Bell, Meaford; James Ernest Bond, Toronto; John Murray Bremner, Camilla; Charles Hulse Brereton, Toronto; Harold Ernest Brown, Peterboro; Howard Hampden Burnham, Toronto.

George Leonard Caldwell, Shanty Bay; Keith Wilson Cameron, Toronto; William Arthur Cardwell, Toronto; John Harold Cascaden, Toronto; Michael Joseph Casserly, Hamilton; Harold Carke, Toronto; Frank Robert Clegg, London; Ernest James Clifford, Toronto; Hartly Robert Conn, Thornbury; Harold Edward Connelly, Ottawa; Lorne Hall Cook, Toronto; Albert Joseph Couillard, Ottawa; Richard Edwin Crane, Toronto.

Oswald John Day, Orillia; Herbert Knutsen Detweiler, Berlin; Harry Dingle, Greenbank, Sidmoult, Devon, England; Hamnett Townley Douglas, Montreal; Harry Dover, Ottawa.

Francis Louis Eberhart, Seaforth.

Percival Elmore Faed, Woodville; George Murray Flock, Burlington; Gordon Sutcliffe Foulds, Toronto.

William Lawrence Gaboury, Lafaivre; William John Gardiner, Mount Forest; George Clarence Gliddon, Union; Malcolm David Graham, Arnprior; Benjamin Leslie Guyatt, Binbrook.

William Hamilton, Toronto; Beverley Hannah, Toronto; Russell E. Harty, Seaforth; Ivan Dwight Hayes, Toronto; Harold Heffering, Toronto; Earl Darius Hubbell, Thamesville; John Joseph Hurley, Toronto.

Howard Brown Jeffs, Toronto; Samuel Orville Hughes Jones, London.

Charles Otto Earle Kister, Chippewa; James Edward Knox, Toronto.

Jean Marie Laframboise, St. Eugene; Arthur Elgin Lidstone, Kingston; William Thomas Little, Owen Sound.

Horace Roy Macintyre, Kincardine; Charles Clifford Macklin, Milliken; Harold Sanderson Martin, Hamilton; John Cotton Maynard, Stratford; Charles Richard Llewellyn Morgan, Hamilton; Duncan Arnold Morrison, Maxville; Patrick Gannon Mulloy, Inkerman; Alexander Muterer, Ingersoll; Vincent Arthur McDonough, Nashville; Hugh Alexander McKay, Toronto; Kenneth George McKenzie, Monkton; Walter Wake McKenzie, Toronto; Alan Ernest McKibbon, Chelsea; William John McLean, Belgrave.

Laurel Cole Palmer, Toronto; Murray Hulme Paterson, Chatham; Leslie Gladstone Pearce, Brantford; Robin Pearse, Toronto; John Wilmer Peck, Seaforth; Orlando William Pickard, Sandwich; John Melancthon Pollock, Berwick.

Douglas Absalom Quick, Harrow.

Lee Anderson Richmond, London; Ernest Fulton Risdon, Toronto.

Frank Ramsay Scott, Toronto; James Douglas Shields ,Mount Albert; Richard James Shute, Holland Centre; William Ewing Sinclair, Meaford; Robert Franklin Slater, St. Mary's; Morley Thomas Smith, Greenbush; Roy Stanley Smith, Hamilton; Damien St. Pierre, Moose Creek; Robert Gordon Struthers, Galt.

Addison Taylor, Lynedoch; James Grant Turnbull, Sarnia.

Thomas Gebbes Wilson, Wingham; Charles Stuart Wynne, Toronto.

TO SPECIALISTS AND MEDICAL LIBRARIES.

The Index Office is about to undertake, for subscribers, the preparation and publication of a card index to the original articles in the following dermatological journals: Archiv f. Dermatologie, Wien., 3

Nos. a year; in 1913: 41 articles. Dermatologische Wochenschrift, Berlin, weekly; in 1913, 80 articles. Dermatologische Zeitschrift, Hamburg, monthly; in 1913: 31 articles. British Journal of Dermatology, London, monthly; in 1913: 20 articles. Together with articles on dermatology and syphilis, selected by Dr. Frederick G. Harris, of Chicago, from a number of general medical journals.

Briefer notes and transactions of medical societies reported in these journals will not be indexed for the present.

The work will be done by Dr. Audrey Goss, an expert medical indexer, formerly medical reference librarian of the John Crerar Library, now bibliographer of "Surgery, Gynecology and Obstetics." The thoroughness and reliability of the work can therefore be guaranteed.

The cards will be made on the multigraph, producing clear and legible cvopy linke this circular. Each card, in addition to the name of the author and the title of the article recorded, with reference to name, volume, page and date of the journal, will contain correct index headings for filing the cards by subjects.

It is estimated that about 300 articles will be indexed annually. Orders may be given for two cards for each article, or one card for each index heading, with or without an additional card for an author index.

Careful calculation of all elements of cost involved shows that, if 20 subscriptions are received, the cards can be sold at 2½ cents each; if 25 or more, at 2 cents.

For the present it will not be feasible to deliver cards for selected subjects or in any quantity less than the total number currently issued.

Subscriptions are hereby invited on the following basis: A minimum deposit of $10 will be accepted and will be credited to the subscribers's name, and cards will be delivered in weekly instalments as printed, until the deposit is exhausted. Subscribers will be notified of the depletion of their deposits in ample time for renewal without interruption of the service.

The index will begin with the issues for January, 1914.

The Index Office takes pleasure in submitting this project to the medical profession in the belief that it will be recognized as a worthy and much-needed adjunct to scientific efficiency, and as an economy and convenience which will repay many times the slight outlay involved.

It is proposed to extend this service to other branches of medicine and allied fields of scientific research as rapidly as possible.

AKSEL G. S. JOSEPHSON, Secretary.

INSPECTION OF HOTELS AND HEALTH RESORTS.

Officers of the Provincial Board of Health charged with the duty of inspecting the sanitary arrangements at summer resorts in Northern Ontario and on the inland lakes have seen to it that the law was strictly enforced this summer. It has been said that at some resorts all things were made ready for the visit of the inspector and neglected after his departure. Therefore the inspectors went to the various summer places unannounced this year. Dr. George Clinton has already gone to the Kawartha and Stony Lake district and the chief inspector made a tour at the height of the season of all the resorts.

The regulations governing steamships plying on the inland lakes were also rigidly enforced. Such vessels have been required to have tanks wherein sewage can be treated with live steam from the boilers.

THE WELLCOME HISTORICAL MEDICAL MUSEUM.

The Historical Medical Museum, which was founded by Mr. Henry S. Wellcome in connection with the Seventeenth International Congress of Medicine, was reopened on May 28th as a permanent institution in London. It is now known as the "Wellcome Historical Medical Museum," and is open daily from 10 a.m. to 6 p.m., closing at 1 p.m. on Saturday; entrance 54A Wigmore St., Cavendish Square, W. Since closing last October the collections in the Museum have been considerably augmented and entirely rearranged. Many objects of importance and interest have been added, which it is hoped will increase the usefulness of the Museum to those interested in the history of medicine. Members of the medical and kindred professions are admitted on presenting their visiting cards. Tickets of admission may be obtained by others interested in the history of medicine on application to the curator, accompanied by an introduction from a registered medical practitioner. Ladies will be admitted, only if accompanied by a qualified medical man.

THE NEW DRESS OF THE ANNALS OF SURGERY.

Owing to the continually increasing amount of material of value, offering for publication in the *Annals of Surgery*, the publishers have found it necessary beginning with the July, 1914, issue to enlarge the size of the page and also to somewhat reduce the size of type in which

the original contributions have heretofore been printed. The enlarged size will also enable the publishers to make a better display of the illustrations which are such an important feature of the *Annals'* contributions.

Thirty years ago, when the first number of the *Annals of Surgery* appeared, the size and style then shown suited admirably. At that time a siggle number contained only 96 pages. They have continued to increase each year until now the average number of pages to an issue is 164. Special issues have been published, in which the number has been increased to over 300 pages, with the result that the manufacturing of the journal in the former style is not only extremely difficult, but the finished product is unwieldy and cannot be read with the ease and comfort which is due a subscriber. In fact, it required constant pressure on the pages to keep them open.

We believe the new form overcomes this inconvenience and enables the publishers to give the reader more material and greater comfort while reading than it could have been possible for them to present in the former size.

The July issue has a choice collection of important articles of exceptional value to the general practitioner, as well as the surgeon. It is a splendid example of the way this publication continues to set the pace in surgery.

DEFEAT OF THE ANTI-VACCINATION BILL.

The anti-vaccination bill met with an overwhelming defeat in the House (Washington), on May 14. The vote stood 133 to 53. Largely owing to the influence of the Chistian Scientists the contest was fierce and persistent. The Senate had already approved of the measure, 25 to 9, and the sponsors had great expectations of victory.

Great credit is due to Dr. E. H. Bigelow who led the fight in the House. He made the principal speech, exhibited pictures and charts to show the effects of smallpox in contrast to vacination and did much to convince the open-minded members of the advantages to be derived from the operation. The replies of the State Board of Health to a series of questions suggested by Representative Chamberlain, of Springfield, also had their effect. Mr. Moore, of Leominster, and many other public-spirited members of the House deserve the gratitude of the friends of good government for their wise action in defeating the bill.—*Boston Medical and Surgical Journal.*

MEDICAL PREPARATIONS

BACILLUS BULGARICUS IN GASTRO-INTESTINAL DISEASES.

The method of treating intestinal infectious processes by implantation of the bacillus lactis bulgaricus appears to be growing in favor with practitioners. Clock's experience in upward of a hundred cases of infantile diarrhœa at the Babies' Hospital, of the City of New York, as related by him in the *Journal of the American Medical Association* of July 19, 1913, has undoubtedly played a considerable part in facusing attention upon bacillus bulgaricus therapy. In the instance referred to, 117 cases were treated by the out-patient department staff of the hospital, under Clock's personal supervision. Of this number 116 recovered, the one death occurring in a severe case of enterocolitis which had persisted for two weeks before treatment began. Noteworthy among th results of the treatment were the gain in weight by the patients, despite the number of stools; the rapid change of the stools o yellow; the rapid subsidence of fever; absence of mucous and blood from the stools at the end of forty-eight hours. "The implantation method of treatment," declared the author, "has progressed beyond the experimental stage, and the results of its use can no longer be questioned or disputed. The treatment has proved of practical, clinical and scientific value, anad its simplicity should appeal to every practitioner."

Parke, Davis & Co. offer bacillus bulgaricus (a pure culture) in tablets, the form used by Clock and others in the treatment of gastro-intestinal diseases, numerous cases of which have been reported in the medical press. Physicians will do well to write them for literature.

CRAMPS OF CHOLERA MORBUS.

The approaching season of heat, with its following train of stomach and intestinal diseases, emphasizes the proven value of Hayden's Viburnum Compound in Cramps of Cholera Morbus and Muscular Cramps.

H. V. C. is compounded only from selected material, depending for its therapeutic efficiency upon the recognized value of Viburnum Opulus and Dioscorea Villosa, combined with Aromatics.

Dr. Torald Sollman in his text book "Pharmacology" Page 510, recommends Viburnum Opulus in Muscular Cramps.

"King's American Dispensatory," Page 2059, Vol. 2. refers to this same product in like conditions.

Prof. Potter in his "Materia Medica, Pharmacy and Therapeutics," Page 266, recommends the employment of Dioscorea Villosa in Cramps of Cholera Morbus, and Prof. Ellingwood in his text on "Materia Medica and Therapeutics," Page 336, also advises its employment.

Hayden's Viburnum Compound presents Viburnum Opulus and Dioscorea Villosa in their most refined and active state and when given in hot water, a pronounced effect will be observed when employed in Cramps of Cholera Morbus and in Muscular Cramps.

THE DELICATE SCHOOL GIRL.

Even the most robust and generally healthy children show the deleterious results of the modern system of educational "forcing" that prevails in most of our larger cities. The child that starts the school year in excellent physical condition, after the freedom and fresh air of the summer vacation, in many instances, becomes nervous, fidgety, and more or less anæmic, as the term progresses, as the combined result of mental strain and physical confinement in overheated, poorly ventilated school rooms. How much more likely is such a result in the case of the delicate, high strung, sensitively organized, adolescent girl? It is certainly a great mistake to allow such a girl to continue under high mental pressure, at the expense of her physical health and well-being, and every available means should be resorted to to conserve the vitality and prevent a nervous breakdown. Regularity of meals, plenty of sleep, out-of-door exercise without fatigue, open windows at night and plenty of nutritious food, should all be supplied. Just as soon as an anemic pallor is noticeable, it is a good plan to order Pepto-Morgan (Gude) for a week or two, or as long as necessary to bring about an improvement in the blood state, and a restoration of color to the skin and visible mucous membranes. This efficient hematinic is especially serviceable in such cases, because it does not in the least interfere with the digestion nor induc a constipated habit.

NATIONAL FLUID EXTRACTS.

The National Drug and Chemical Company have been persistently advertising their Fluid Extracts, especially National Fluid Extract of Ergot. These products appear to be prepared on scientific lines; the advertisement in this issue is evidence of this fact. If *Ergot* is to be prescribed, a good Fluid Extract should be a good method of administering it.

We refer our readers to the advertisement in this issue on page xviii.