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AND

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VOL. XLVII. TORONTO, SEPTEMBER, 1913 No. 1

EDITORIAL

THE MEDICAL COMMISSION.

Sir James Whitney has announced that the Government of Ontario will appoint a commission to study all the branches of the healing art, and all the various groups who, in some way or other, attempt to relieve man of his diseases and pains. The commission will consider the regular medical profession, and a subsection with a very strange and foolish view of things, known as homoeopathy. It will take into consideration dentistry. Christian science, osteopathy, chiropraxy, and all such ilks are to be made give some proof for the faith that is in them.

Now, commissions may do good or they may do a vast deal of harm according to the wisdom and experience of those who form them. In the reign of King James I., a commission was appointed to look into the subject of witches, and report thereon. The commission did study the subject with great diligence, and reported its belief in witches, and their power to do grievous harm to people. Severe laws followed.

If the commission is not a strong and competent one, the specious arguments of the Christian scientist, the chiropractor, and the osteopathist will appear as sound and worthy of consideration, as the deliberate evidence of the greatest master in medicine or surgery, or a pathologist who knows the ways of disease in all its phases and in all its stages.

Here we are on the very threshold of a real danger. These bodies may secure a recognition to which they are not in the least degree entitled, and one that would be disastrous to the people. The only rule of safety is that all who wish to treat the sick or injured must undergo a thorough course of study. After having done this, they may call themselves by any name they please. That is their own affair; but the affair of the province is to protect the people. It cannot afford to do less. It must be made a criminal offence to give silent and absent treatment to one who is seriously ill, and by one who knows nothing of the anatomy, physiology and pathology of the human body.

One thing seems very certain that the restrictions now thrown around medical practice must not be lowered. There is no use spending vast sums on the up-keep of the medical colleges and hospitals, and then open Troy's, Western Gate, to the Greeks.

The Government's duty is first of all to appoint a superior body of men as the commission. These men must have a wide knowledge of the world of things. They must be able to weigh evidence, they must be able to distinguish between what is real science and what is pure fake—and they must be able to prepare such a report as will be of real service to the Government in the preparation of any statute that may be enacted.

EUGENICS.

This subject comes to the surface like cork. It is like Banquo's ghost, it will not down, and it is proper that it should not. The ablest sociologists of the day have espoused the cause, and man's common sense tells him that it is a good one.

Natural selection is the only way in the free state of nature. Animals recognize no marriage laws, and have no thought of eugenics. But this is no argument to introduce in the conditions of civilized life. The fact that man has, in most countries, become civilized and has risen to new conditions. Civilization brings with it its own new burdens and its special penalties. Among these latter is the tendency for the human race to produce a certain number of degenerates.

Among the belated voices that rise up against the science of eugenics is Alfred Russell Wallace, the one-time noted naturalist. But it should be remembered that it is the same Wallace who garbled facts and figures against vaccination in a small book, and which is the anti-vaccinationists' *Bible*. In this work he has done much harm. In the matter of eugenics, he may do harm, but it is likely better counsel will prevail.

The State of Wisconsin has taken a great step onward. It has recently passed an act demanding that those who propose entering into the married state must produce evidence of health. The other portion of the act provides for the sterilization of the feeble-minded, the epileptic and the criminal insane. The law provides ample safeguards for the rights of the individual.

From time to time the cry goes up, "Do not interfere with natural selection." Just as well say, "Do not interfere with the liberty of the subject and allow the insane to roam at large." The history of the world is full of the terrible examples of the union of the epileptic, the criminal and the degenerate. Generations after generations are born that

cause endless crime and expense. The boy puts his finger in the hole in the Holland Wall and is praised. Why not stop the production of perverts?

The views of Charles B. Davenport have much in them for consideration. But they are like many theories almost impossible of application. He holds that if a man is fit to be at large, he is fit to marry; and if he is not fit to marry, he is not fit to be at large. He contends that all who are not fit to marry should have custodial care, but he does not believe in sterilization.

The last word has not yet been said, but we believe in sterilization of a certain class. It would be good for the individual himself.

A MEASLES HOSPITAL.

Toronto is greatly in need of some place to care for cases of measles. This is now a very large city, and must realize that there are always present in it cases of this disease.

It will not do to admit measles into the general hospitals, where there are sick people, many of whom have not had the disease, and add this affliction to those they already have. It would also spread among the nurses and other employes and cause much disorganization of the work of these institutions. It would not be proper to admit these cases into the Isolation Hospital, as the risk of spreading measles to the diphtheria and scarlet fever patients would be too great, and, further, the measles patients might become the victims of one or other of the foregoing diseases.

In the large hotels and apartment houses, it is very necessary to have some way of removing measles cases. The only course open for the city is to recognize the necessity of a measles hospital and get to work and secure one. The cost is a matter of importance; but the cost comes in for consideration in all we do. It cannot be avoided, it must be met, and may just as well be met now as at some far-off day in the future, after much harm has been done.

THE INTERNATIONAL MEDICAL CONGRESS.

The Seventeenth International Medical Congress is over, but, like all great events in history, the effects continue. They are permanent, eternal. There were over seven thousand delegates present from practi-

cally every civilized country in the world. When the Congress met in London in 1881 there were about half the number present and the work was done in fifteen sections. On this occasion there were twenty-three sections.

The Congress was opened by Prince Arthur of Connaught, who conveyed to the Congress the greetings of His Majesty, the King, and thus we see the highest citizen in the greatest empire in the world, taking an interest in the welfare of mankind where vital interests are most deeply felt.

Sir Edward Grey, in eloquent language, bade the Congress welcome in the name of the Government. He said that "Medicine and Surgery are as near the study of what the lay mind would call the secret of the universe as any conceivable form of science could be."

Sir Thomas Barlow, on rising to deliver his presidential address, was greeted with marked enthusiasm. Many Canadians have met him and know what a rare type of the true gentleman he is. Great as he is as a physician, he is still greater as a man. He dwelt at some length on the great work of Lister and Koch, and showed what the world owed to the practical man on the one hand and the scientist on the other. If these two names be taken together it will be possible to estimate the enormous progress made by medicine and surgery during the past fifty years. Lister gave us antiseptic surgery, and Koch that knowledge of bacteria that has enabled nations to fight successfully many infectious and epidemic diseases.

Another feature that stands out is that the people are now becoming more and more alive to the great advantages of scientific research and wise experiment. At first this was too much for the ordinary mind to grasp, but the "dry light" of science can now be borne by the human eye. So it comes that the wealthy are now endowing research laboratories, where the keenest minds of the day are interrogating nature, and making her divulge her secrets for the good of men.

But, surely, there is another influence from such a congress. Several thousand educated and scientific minds meet. They imbibe new ideas and then they return home. Surely we may expect that they will use their influence, as was urged upon them, to prevent war. The medical profession is for the saving of life and the healing of the nations.

The Right Hon. John Burns, in his great address before the Congress, among other things, thanked the medical profession for what it had done in lowering the death rate. He said:

The doctors were entitled to thanks for the improvements they had effected in the science of the cure and prevention of diseases, emphasized by the result of the combined application of medical and sanitary science

to the problem of healthy living, so that there had been 772,811 fewer deaths in England and Wales in the years from 1909 to 1911 than there would have been had the death rate of two decades earlier continued.

He thought the ideal of the future work of physicians lay in advising the world as to the best means of preventing disease, dissuading people from habits inimical to their health and discovering early symptoms which, if neglected, would produce serious disease.

He considered the prospect of gaining complete control over tuberculosis quite promising and intimated that general medical research was about to receive assistance from the state on a scale not heretofore contemplated. The chief impediment in the way of the government making this expenditure had been wastefulness and one source of waste expenditure—armaments—stood head and shoulders above all others. If that was to be prevented, he continued, gigantic sums would be released for reforms which were waiting to be financed.

DEATHS FROM TYPHOID FEVER.

There were 12,451 deaths from typhoid fever in the registration area of the United States during the year 1911, a slight decrease from the number for the preceding year. The death rate was 21 per 100,000 population for 1911, 23.5 for 1910, and 21.1 for 1909. The rate for 1911 is the lowest from typhoid fever since the institution of the annual reports and probably the lowest on record. This fact and the progressive reduction in the mortality from this disease, from 32 per 100,000 population for the period 1901 to 1905 to 25.6 for the period 1906 to 1910, indicate that the public health officials of the country and the people who support their efforts are awakening to the necessity of wiping out this filth idisease. The mortality from this cause in the United States is still far in excess of that of progressive European countries. If it could be reduced by three-fourths, so that it would be only 5 per 100,000 as in England and Wales, the Netherlands, and Prussia, for 1910, it would represent a saving of nearly 10,000 lives at the period of the greatest usefulness, as a rule.

The cities of 100,000 population and over having the highest death rates from typhoid fever in 1911 were: Atlanta, 66.1; Memphis, 65.4; Nashville, 53.9; Birmingham, 45.5; and Spokane, 35.6—all but the last, cities of the South; while the lowest rates, valuable as evidence that the typhoid mortality of American cities need not exceed that of the well-regulated European cities, are recorded for Cambridge, 2.8, and Bridgeport, 3.8. Chicago and New York had the same rates for the year, 10.9; and several cities, besides Cambridge and Bridgeport, had rates under 10 per 100,000, namely, Worcester, 6; Paterson, 7; Jersey City, 7.2; Lowell, 7.3; and Boston, 8.7.—*The Medical Times.*

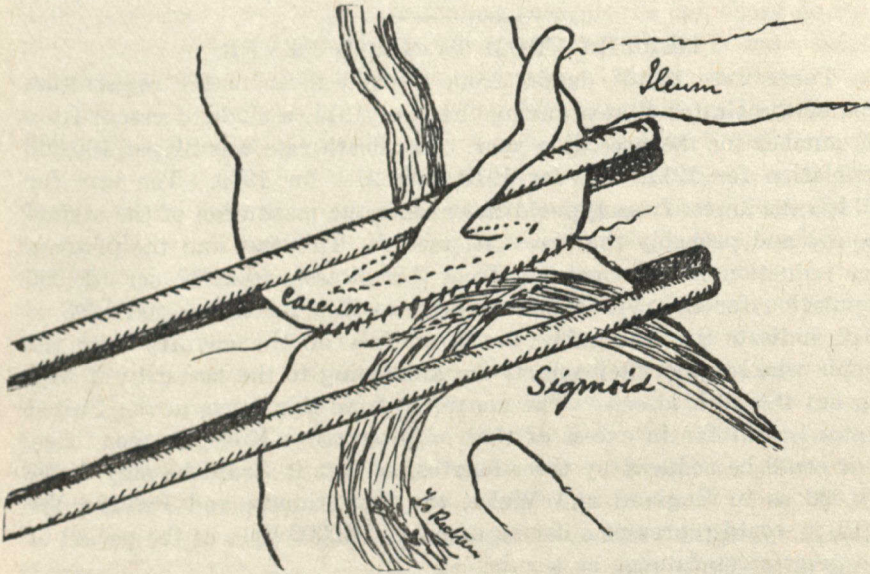
ORIGINAL CONTRIBUTIONS

CAECO-SIGMOIDOSTOMY.

EARNEST A. HALL, M.D., C.M., Vancouver, B.C.

INTESTINAL drainage for stasis and toxic absorption has passed its experimental stage, and is accepted to-day. The minor points as to methods and location of the anastomosis are yet to be discussed.

It is my purpose to present what appears to me to be the ideal location for operation in cases where atony is the chief feature, and where the location is not otherwise determined by gross lesions, as stricture, dense adhesions, or malignant disease.



Caeco-Sigmoid Anastomosis. First course of sutures inserted.
Areas of sections outlined.

In the operation of ileo-sigmoidostomy, which I have done for several years, and which Mr. Lane still adheres to, the function of the ileo-caecal valve is lost, (this may or may not be a substantial loss to our economy, but it is wise to conserve normal structure whenever possible), also some three or four inches of the absorbent surface of the ileum are lost, and although the patients do not seem to suffer from loss of nutrition after these operations, yet the preservation of this much ileum is

a desirable factor. We recognize that the lower part of the ileum is more prone to adhesions. Lane has emphasized kinks, Jackson has eulogized membranes, and we all have found adhesions plentiful. Twenty years ago Joseph Price taught us to always examine the last few inches of the ileum while operating for lesions of the appendix. Lane, in an address recently delivered in New York, admits that an overloaded caecum and ascending colon may, frequently, be the cause of abnormalities in the lower ileum, caused by back pressure. Then why not attack the lion in his den, and give relief by attaching the caecum to the sigmoid, and effectually prevent the accumulation in the ascending colon?

This method has also the advantage of securing drainage, both in the ascending and descending colon, while ileo-sigmoidostomy leaves a cul-de-sac beyond the ileo-caecal valve. This method is easier of application than ileo-sigmoidostomy and has the advantage of removing the appendix without additional effort.

The technique, is the same as that of gastro-enterostomy with clamps except that the appendix is removed when the caecum is opened—an oval incision being made round the base after the mesentery is ligated and detached. There is less diarrhoea after this operation than after that of ileo-sigmoidostomy. In a week or two the bowel action becomes normal.

Intestinal drainage is to be considered in practically all chronic toxic states. Especially can I recommend it in insufficiency of the kidneys.

ANAESTHESIA AND THE FORCEPS IN LABOR.*

BY DR. ADAM H. WRIGHT, B.A., M.D., Toronto.

IN this paper no reference will be made to any anaesthetics excepting chloroform and ether. For many years it was generally supposed that chloroform was eminently suited for women in labor, and its use was almost universal. In many quarters now, however, ether is considered the safer and better anaesthetic for both mother and babe in forceps and Caesarian operation. The arguments that have been advanced in favor of ether and chloroform, respectively, are very interesting; but we have not time to consider them now.

This may be said, however: When ether is administered properly there is, as a rule, no "respiratory irritation," no "excessive secretion of mucus," no marked "cyanosis," no "sterterous breathing." In expressing this opinion I am influenced chiefly by Dr. Samuel Johnston,

* Read at the Meeting of the Canadian Medical Association, London, June, 1913.

who has anaesthetized a large portion of my patients for obstetrical operations during the last few years. So far as I understand his methods I may say: He commences by giving slowly diluted vapor—the patient gets accustomed to the ether without any irritation or secretion of mucus. Then he gradually increases the density of the vapor until the patient is surgically anaesthetized.

We have been accustomed to use the terms “obstetrical” and “surgical” degree. When giving the anaesthetic to the “obstetrical degree” we desire simply to dull the sensibility during the uterine contractions without producing complete loss of consciousness. For this purpose chloroform has generally been preferred. Occasionally anaesthesia to the obstetrical degree is satisfactory, and relieves pain without stopping the uterine contractions. Unfortunately, in the majority of cases the administration of the anaesthetic causes such a weakening of the uterine contractions that the application of the forceps becomes necessary.

Women want an anaesthetic administered. “Doctor, I want you to give me enough chloroform to prevent me from feeling any pain” is what many of them tell us. “If you don’t promise to do that, I should prefer Dr. Jones, because he always gives chloroform.” The patient’s mother frequently appeals to the doctor, “Don’t let her suffer, give her plenty of chloroform.” The husband frequently has something to say, “Don’t let my wife suffer, give her plenty of chloroform.” The doctor is also anxious for the comfort of his patient and would like to prevent pain as far as possible. It is all a very old story; and what are the results? The administration of anaesthetics is too common, and the forceps are applied too frequently. There is great reason to fear that lacerations of the pelvic floor, and all the serious evils resulting therefrom, are as common now as they were thirty years ago. The importance of immediate repair is fortunately more generally recognized now than formerly, but still not sufficiently.

What does anaesthesia to the obstetrical degree accomplish? In the great majority of cases it lessens uterine contractions, and necessitates the use of the forceps. The remote dangers of haemorrhage, etc., will not be considered now, but they exist. Is one correct in saying that in the majority of cases women in labor would be better without the administration of any anaesthetic? Many obstetricians will say “Yes,” but how can we overcome the prejudices of our patients who want painless labor.

The difficulties involved are serious, and hard to overcome. Do the majority of physicians make any effort to overcome them? I do not happen to know exactly what efforts are being made in that direction; but I fear they are not numerous nor strenuous. During the last few

years I have endeavored to educate my patients, and I have had a fair amount of success. I may briefly indicate what I mean by relating a case. A young primipara, small, weighing about one hundred pounds, with a slightly contracted pelvis, had a normal labor up to a certain time. The parts were dilating well, the head appeared to be moulding in a satisfactory way. The patient asked for something to relieve pain. A doctor was summoned to give an anaesthetic if required. Now, I said to my patient: "We will give you something if you say it is necessary; or anything of that kind." I find it very important to say something about the babe. Such an appeal to the motherly instincts often works wonders. She said, "All right, doctor, I'll try." Labor went on satisfactorily and a healthy child $7\frac{3}{4}$ lbs. was born without any laceration, for her "pluck," and she was proud and pleased. I may say incidentally that I sometimes give morphine hypodermically (never less than half a grain) and chloral (frequently by the bowel), but I cannot go into details about that. I may say, however, that I do not now use scopolomine.

And now a few words about the use of the forceps. It appears convenient to speak of the instrument in the plural because there are two blades. It appears to me that the forceps are used too frequently in this country. The use of the forceps when the head is high and not engaged in the brim of the pelvis is certainly more dangerous than Caesarian section. This fact is now generally conceded, and need not be discussed.

When one has decided on forceps delivery the question of anaesthetization comes up. Can one deliver without any anaesthetic? Yes, in certain cases he can, and it might be well if this were done more frequently. Let it be considered, however, that in the majority of cases the anaesthetic should be administered not simply to the so-called obstetrical degree, but always to the surgical degree. Anything like a half administration involves serious danger to the patient. As to the choice of an anaesthetic, I desire to express my positive opinion that ether should be used. As before remarked, the supposed dangers and drawbacks do not exist under proper administration.

As to the choice of forceps, it is impossible to recommend with absolute confidence any instrument now available as the best (in my opinion). The following axis traction instruments are good: Neville's, Dewees', Milne Murray and Porter Mathew. All have their good points and also drawbacks. The Porter Mathew has *too much harness*, and the harness is apt to get out of order. The Neville and Dewees are perhaps a little easier to manage than the Milne Murray, especially for the beginner, but taken all in all these three instruments may be considered equally good. It seems to me, however, that the blades of all three are

too heavy, and towards the tips slightly too wide, and when the blades are applied there is too much width between the shanks. During the last two years I have been using a short forceps with a slight pelvic curve. It is an old instrument which I used for a time, but discarded when I commenced to use the Milne Murray forceps about twenty years ago.

Having found that the wide shanks of the axis traction instruments sometimes tore the fourchette and a portion of the perinaeum before the head pressed on the pelvic floor, and that the wide blades frequently cut through the pelvic floor as the head was approaching the vulva, I have lately found that the old Sawyer was less apt to cause these two forms of laceration. In certain cases I have first applied the Dewees blades when the head was fairly high in the pelvis, and after a little advancement have applied the Sawyer blades to complete delivery.

Let us now leave the short forceps out of the question and consider some points in connection with traction with the three kinds recommended. Can the tearing of the fourchette and a portion of the perinaeum be prevented? Perhaps not always, but very careful, gentle and slow traction will tend to prevent it; but more will be said about this important point later. One of the most important events in connection with the delivery of the head is the rotation which takes place while it is being dragged from the upper portion of the pelvis towards the outlet. Sometimes this rotation, though perceptible, is so slight that it may not be deemed important. Really, however, it is very important, because this slight rotary movement frequently, if not generally, causes the wide long blades to produce a very serious laceration of the pelvic floor. To prevent this the blades should always be removed and re-applied. I may say, incidentally, that it is in such cases as this that I remove the Dewees blade and apply the Sawyer.

Let us now consider, perhaps, the most important point in connection with forceps delivery. The most serious fault nowadays is undue, and unnatural, haste in extracting the head. It is not unlikely that this has been the most serious fault since the Chamberlin times. When the blades are applied while the head is about the middle of the pelvis, how long should it take to extract the head? I have seen some men accomplish it in five minutes with the result that there has always been serious, and sometimes terrible laceration. Others will take a longer time, ten, fifteen or twenty minutes. But even the twenty minutes extraction generally means more or less laceration. Twenty minutes seem a long time to the zealous operator, especially if he is not carefully watching the time by clock or watch. It is, of course, impossible to name an exact time limit, but it will be nearly correct to say that when the head is in

the middle of the pelvis it should take from one to two hours to complete delivery; and, when the head is close to, or pressing on the pelvic floor, it should take from twenty to forty minutes. These figures are, of course, only approximate, and apply especially to normal labors in primipara. Sometimes it happens that the parts below the head are so thoroughly dilated or dilatable that delivery may be safely accomplished in a shorter time. Again, in certain conditions, such as eclampsia, etc., the emptying of the uterus may be so important that rapid delivery, even with the risks involved, may be properly considered necessary.

Let us go back to the consideration of details in delivery when the head is in the middle pelvis. An assistant is administering ether. Should the patient be kept under the influence of the anaesthetic for one or two hours? No, I think not. The following outline of directions or suggestions may be found useful as a guide:

After the patient is completely anaesthetized, place her in position on her back or on her side, as you prefer. It is probably easier for the operator and safer for the patient to place her on her back across the bed or on an operating table. The expert operator may, however, choose for himself, and it must be acknowledged that there is much to be said in favor of placing the patient on her side.

Apply the forceps, and use intermittent traction for fifteen or twenty minutes, as follows: Pull for one minute without using undue force; then allow an interval of one to two minutes before pulling again. After continuing the alternate pulling and resting a little progress will probably have been made. Perhaps the head will be pressing on the pelvic floor. If so, the accoucheur will have reason to be well satisfied.

Remove the blades and allow the patient to "come out" of the anaesthesia, and wait for half to one hour. If the uterine contractions become strong enough to complete delivery without further assistance, as they frequently do, the best thing possible will have been accomplished. If further interference is necessary have the patient again anaesthetized, if considered necessary, and re-apply the blades, or, if you like, do as I have frequently done lately, apply the smaller Sawyer (or similar) blades. I supposed at one time that one could drag the head out over the pelvic floor and perinaeal body more safely with the axis traction instrument than with the ordinary short forceps, but I don't think so now.

If some of you who have not formerly made use of this method of procedure, try it in the future and you will probably be surprised to find a great change for the better in the condition of the soft structure has taken place during the interval. They will be found softer, more yielding, more dilatable, and thus delivery is made much more easy, and much more safe for both mother and child. I am pleased to tell you that this

procedure was first demonstrated to me something like fifteen years ago by Dr. W. J. Greig, of Toronto, when he was a young general practitioner and I was Professor of Obstetrics; and I am somewhat ashamed to say that I never fully realized the important lesson he taught me until within the last three, or four years. I may say that this is only one of many lessons I have learned from men younger and less experienced than myself, and this perhaps accounts in part for my well-known fondness for "the boys."

It may be considered awkward and expensive to keep the anaesthetist in the house for half to one hour doing nothing. It appears to me that an extra ten dollars may be considered a small matter when compared with the risk of the patient being crippled for life by strong traction and rapid delivery. However, if money must be saved, the accoucheur can help by abstaining from the use of forceps as long as possible with the hope that nature will be able to complete delivery. Of course, it should be understood that the use of forceps must not be too long delayed.

In conclusion, the following summary of the paper may be given:

- (1) Chloroform administered to the obstetrical degree seldom produces satisfactory results.
- (2) When anaesthesia to the "surgical" degree is required, ether is better than chloroform.
- (3) Forceps delivery is far too frequent.
- (4) In many or most varieties of forceps now popular, the blades are too heavy, too wide and perhaps too long.
- (5) Unduly rapid extraction with forceps is too frequent, and the injuries inflicted because of the rapid methods are serious and lasting.

SOME REMARKS ON UNRESOLVED PNEUMONIA.*

BY JAMES NEWALL, PH.B., M.D., WATFORD, ONT.

PNEUMONIA is an acute infectious disease caused by the invasion of the lung by bacteria. The most common one is the diplococcus pneumoniae of Fraenkel. Other micro organisms may, however, cause the disease, such as the pneumococcus of Friedlander, the bacillus typhosus, bacillus influenzae, the staphylococcus, the streptococcus, etc.

The term pneumonia does not imply one, but several forms of pulmonary inflammation, such as fibrinous or true pneumonia, broncho-pneumonia, interstitial or fibrous pneumonia. There are other forms of pneumonia which refined diagnosis has shown to exist. The most im-

portant being the tubercular or cheesy pneumonia. By the phrase "unresolved pneumonia" is meant a pneumonia of any kind, in which the lesions persist, and fail to terminate either by crisis or lysis in the usual time, and with the non-absorption of the exudate. Such cases fall into the class known as "chronic pneumonia," very often involving the pleura, and characterized by the development of fibrous tissue. They have been notwithstanding their various primary forms, classified or grouped together under the name "pseudo-tuberculosis," a name which is erroneous and often misleading. While it is true that a certain number of these cases do terminate in tuberculosis, many of them go on to their end without becoming such. No doubt, however, many cases in old people labelled "chronic bronchitis," is an infection of the bacillus tuberculosis of a mild, benignant type of germ, and they have gone on spreading the disease to innocent persons, till death has terminated their struggle for existence. All such cases should have the sputum carefully and repeatedly examined for the specific germ, so that when found proper and effective measures may be taken to prevent spreading the infection to others.

In order that we may clearly and understandingly grasp the process of resolution in a pneumonic lung, it is necessary for us to know the various phrases which occur in the pathogenesis of a case of pneumonia. By the term "pneumonia," unless otherwise designated, I mean fibrinous pneumonia (the true or lobar pneumonia) caused by infection of the diplococcus pneumoniae of Fraenkel. It has been frequently stated as a fact, that pneumonia is a local manifestation in the lung, of systemic infection. To this I am not prepared to assent, as many confuse the diplococcus, with the toxæmia caused by the pneumo-toxin, or poison, which it produces. When it effects a lodgement in its selective nidus, the mucous lining of the terminal bronchioles and air cells. It but rarely causes disease of other tissues; however the germ may cause a general systemic infection producing what is known as pneumococic septicaemia, just as the bacillus typhosus may also in rare instances, by producing a what are the channels by which the germ of pneumonia gains admission to the air cells. It is quite well known that many healthy persons carry a supply of the diplococcus in their air passages, but so long as it is confined to those parts lined by ciliated epithelium it does not find a soil favorable to its growth and multiplication, and so long as the cilia remain active the germ is not irritating, and its passage towards the air cell which is lined by pavement epithelium is constantly opposed. When this protection fails, the way is opened for the intrusion of the germ into the congenial nidus afforded by the air visicle, lined by its pavement epithelium, and it then starts up a process which may involve a large area of lung tissue.

There are three channels by which the germ or germs gain entrance to lung:

(1) By the upper respiratory tract through the bronchi, bronchogenic pneumonia.

(2) From some other part of the body through the blood, hemogenic pneumonia.

(3) From the pleura by direct extension through the lymph channels, pleuro-genic pneumonia.

It is a well known fact that in the various forms of lung inflammation, especially when it becomes chronic, there are similar co-existing diseases of the pleura causing a development or growth of connective tissue.

The localization of diseases in the lungs, such as pneumonia, does not prove that the primary invasion has been through the respiratory tract. The casual agents in many respiratory diseases are now believed to enter through the adenoid or lymphatic tissues, found in the nose and throat, or by way of the thoracic duct from the gastro intestinal or other remote tracts.

The resulting inflammation, owing to its varying origins, the different infecting germs, and whether single or mixed infection, presents itself in widely varying forms both in respect to its distribution and the nature of the pathologic changes in the pulmonary structure.

In many instances, localized patches of fibrinous pneumonia will be found in larger areas of catarrhal pneumonia, distinctly purulent exudation will be met with in many cases of fibrinous or catarrhal pneumonia, and more or less productive inflammation, or as it is pathologically known, of fibrous pneumonia, causing an overgrowth of fibrous tissue in the inflamed area. Such a condition may be met with in any of the varieties of pneumonia.

When the invading germ has reached the air cell or alveolus the general pathologic process is as follows: There is a migration of leucocytes, a delicate reticular exudate, rich in fibrin, which in fibrinous pneumonia are red blood cells, there are also numerous cast off alveolar cells in various stages of degeneration. In catarrhal pneumonia the exudate is albuminous, and in fibrous or productive pneumonia, the overgrowth of fibrous connective tissue in the leading characteristic. The diplococcus or other associated germs can be demonstrated by the microscope in these exudates. When in these cases Resolution occurs, it is accomplished by a process of liquefaction and fatty degeneration of the exudate, rendering it competent for the absorbents and blood vessels to take up the products, so that they are carried away, and got rid of from the system through the various eliminating and emunctory organs. The

inflamed lung areas thus return to, and assume their normal condition and regain their function and normal status. This resolution is brought about by the action of certain substances found in the blood, the products of the body cells, known as enzymes. When foreign and pathogenic agents, such as bacteria, gain entrance to the blood, special bodies called receptors or immune bodies are generated and thrown off by the cells and enter the circulation. This immune body does not attack or affect the bacteria, but acts as a go between, linking them, the bacteria, to a second substance found in the blood of animals, and known as complementary body or alexin. This second body, the complement, when joined or linked to the foreign cells, the bacteria, produces liquefaction and fatty degeneration of the pathogenic germs, and also of the inflammatory exudate. As has been already stated the germs and exudate are brought into a state of liquefaction and are thus put into a form to be absorbed, and, finally, got rid of by the various emunctories and eliminating organs of the body.

REMARKS ON THE STOMACH.*

(*An Abstract.*)

BY A. MCPHEDRAN, M.B.,

PROFESSOR OF MEDICINE, UNIVERSITY OF TORONTO.

DR. MCPHEDRAN pointed out that our knowledge of the pathology of the digestive organs had so much advanced that we could judge better of the conditions and the treatment that should be adopted. The older statistics had lost much of their value. Even yet misconceptions regarding the functions of the stomach are prevalent. When physicians had to depend solely upon clinical evidence the abdomen was a hidden cavity. The name abdomen, which means concealed, was well chosen, and all practitioners have met with cases in which there were either no symptoms, or in which these bore little relationship to the disease afterwards found to be present.

Pathological anatomy has enabled us to make much progress in grasping the problems of the abdomen. But the histological changes found after death differ from those during the early period of the disease, as judged from the symptoms.

The functional relations of the abdominal organs are very complex, and one organ may simulate disease of another. On this aspect of the study of the abdomen, much good work has been done by physiologists,

* Read at the meeting of the Canadian Medical Association.

and the advance in abdominal surgery has enabled us to observe the pathological conditions in the living subject and their relationship to the symptoms present.

Of all the organs in the body, the stomach has the most complex relationships. It is connected with all the other organs in the abdomen, and also with the heart and brain. It is, therefore, subjected to a wide range of influences, both physical and psychical, functional and organic. This accounts for much of the difficulty in distinguishing between disease of the stomach and referred disturbances.

The stomach has a very rich nerve supply from both autonomic and cerebro-spinal systems. The other abdominal organs have a plentiful supply from the autonomic, but little from the cerebro-spinal. The stomach, through the pneumogastric, is connected with the basal ganglia of the brain, and, in this way, is subject to psychical impressions. The spinal nerves from the 6th to the 9th send supply to the stomach. It is by means of these sensory fibres that we are made aware of organic or referred diseases of the organ. It is through this nerve supply that sensations in the stomach are distributed to the epigastrium. After a cold drink there may be a feeling of coldness over this same area, and in the case of ulcer there is often pain and tenderness in the epigastrium.

As the cerebro-spinal nervous system becomes developed in animal evolution, the stomach also becomes more developed and larger, as food is now taken at intervals. As the scale of animal life rises the stomach comes more under the influence of the nervous system and psychical impressions.

The pylorus and all the intestinal tract are under the control of the automatic system. The sphincter action of the pylorus is controlled by the duodenum. It may be closed for a time by any serious damage to other abdominal organs. In case of a sudden perforation of intestine as a gunshot wound, the pylorus closes and peristalsis ceases, so that the contents of the stomach may not find their way into the peritoneal cavity. It is closed in severe pain anywhere in the intestinal tract. To this and the referred irritation is due the vomiting that occurs in perforation, acute appendicitis, etc. Recurrent attacks of pain cause recurrent closure of the pylorus and may cause retention of food in the stomach and indigestion.

The reflex disturbances of the stomach are well nigh innumerable. These gastric symptoms are met with in abdominal diseases; in many chronic diseases, functional and organic, in intra-cranial diseases, as tumors and abscesses, in cases of tabes; in failing circulation, the stomach may be the only organ affected; loss of appetite and distress after food may be the leading symptoms in arteriosclerosis and renal disease; the stomach may be the first organ to show the outset of tuberculosis; and

neurasthenia may first and mainly reveal itself by gastric disturbances. The associated psychical depression accounts for many of these gastric symptoms. The case of a young woman is cited to show the influence of the mind over the stomach in deranging digestion. She was assured she would be able to go a certain journey by a given time, and induced to eat and ignore her symptoms. She made a rapid recovery.

Continued irritation from food in excess or of an unsuitable kind may so affect the nerve supply that a set of symptoms are caused that resemble organic disease. They may require a gastro-enterostomy. These cases may become neurasthenic and complain of tenderness over the gall bladder, the duodenum or the appendix. The symptoms may resemble very closely those of chronic appendicitis, and lead to a useless operation.

In true organic disease of the stomach, the referred pains may overshadow those from the disease itself. The nerves become hyperesthetic and the psychical symptoms then play an important part.

The two chief functions of the stomach are the mechanical and the chemical. The mechanical is the more important. Any thing that deranges this function, whether obstruction of the pylorus or loss of peristalsis, is followed by retention of food and digestive disturbances.

The chemical function is very variable, and is easily affected by extraneous and psychical influences. The gastric secretion may be absent for a time, and no symptoms result if the mechanical function is well performed. In most books too much attention has been given to the chemical aspects of digestion, and not enough to the mechanical work of the stomach. Of late a saner view is prevailing.

It is well to keep in mind the wide nervous connections of the stomach, as a means of explaining its many reflex and referred disturbances. These are caused by local and general diseases, and in both organic and functional disorders psychical influences are very important. The great majority of gastric disturbances are secondary to general conditions or local diseases in other parts, as nervous diseases, organic or functional. Renal and cardiac diseases and faulty hygiene may also give rise to many stomach symptoms. A minority of these reflex cases arise from diseases in the appendix, gall bladder, duodenum, pancreas or other abdominal organ. When all these general and local conditions are set aside, there will be left only a very small percentage of cases due to organic disease of the stomach.

It will require the utmost care to distinguish between the reflex and the organic cases. This can only be done in most cases by a very careful study of all the symptoms and the past history. At the best there will be doubt in some cases, and a positive diagnosis between the functional and organic cannot always be made.

CURRENT MEDICAL LITERATURE

MEDICINE

UNDER THE CHARGE OF A. J. MACKENZIE, B.A., M.B., TORONTO

CEREBROSPINAL FLUID.

The laboratory methods of the examination of the cerebrospinal fluid in mental and nervous diseases are detailed and compared by M. J. Karpas, New York (*Journal A. M. A.*, July 26), who also describes the methods and indications and contra-indications of lumbar puncture. It is indicated in all forms of meningitis, syphilitic and metasyphilitic disorders of the central nervous system, tumors of cord, poliomyelitis and other conditions in which differentiation from specific conditions are needed. It is contra-indicated in extreme exhaustive states, advanced cardiac affections and arterial sclerosis and cerebral tumors of the posterior fossa. In such cases withdrawal of fluid is preferable if the patient is not too sick, but it is important that he should be put in bed immediately after to avoid untoward effects. Chronic alcoholics and neurasthenics do not bear puncture very well. The after effects in such cases are headache, nausea, vomiting and pain with some cervical rigidity. Not more than five or ten c.c. should be removed by lumbar puncture in any one sitting and all necessary precautions should be taken. The second puncture should not be attempted under ten days. The most striking pathologic phenomenon is a lymphocytic reaction, which invariably indicates an inflammatory meningitic process; and the greater the lymphocytosis the more intense is the condition. The increase of globulin is another important feature usually present. Fehling's fluid is reduced in all cases except in epidemic meningitis. Cholin is usually demonstrable in pathologic states. Taking up the different diseases; in general paralysis, the cerebrospinal fluid is increased and at times may be slightly turbid; lymphocytosis (usually of the small variety) is present in ninety-eight to one-hundred per cent., ranging from 12 to 300 cells per c.c. Plasma cells and a few polyneuclear cells are often seen. The Wassermann is, as a rule, present in fluid and blood, though exceptionally it is absent. In cerebral syphilis the pathologic findings vary, according to the type of infection. In acute exudative meningitis the lymphocytosis is very marked. In gummatous conditions with some meningeal involvement, the cell count may average from forty to one one hundred. In the endarteritic inflammations with relatively little meningitis, the lymphocytes may be as slow as from three to five cells per centimeter but the globulin

is usually in excess. The Wassermann in the blood is positive, but may be negative in the fluid. In tuberculous meningitis the lymphocytosis is very high and the polynuclear relatively well marked. The Wassermann reaction is usually negative and tubercle bacilli can be demonstrated in the often turbid fluid. In other forms of meningitis, the other laboratory tests and clinical symptoms are necessary to differentiate from tuberculous meningitis. In skull fracture and cerebral hemorrhage, blood in the fluid and high pressure are apt to be present. In arterial sclerotic and senile insanity the cerebrospinal content is not pathologic. In the majority of tabetics a varying degree of lymphocytosis is usually seen. In poliomyelitis the findings are pathologic, but not pathognomonic, and they are not especially important in epilepsy or tumor of the cord of brain. In compression of the spinal column, the globulin count is increased without lymphocytosis. In other conditions generally, the content of the cerebrospinal fluid is of no great pathologic significance, but it is interesting to note that it may show certain pathologic changes in the secondary stage of syphilis before symptoms of the organic affection of the nervous system appear. According to some authors lymphocytosis is present in 50 per cent. of cases. In conclusion, Karpas says, "It cannot be too highly emphasized that the importance of the examinations of the cerebrospinal fluid lies in the fact that we, invariably, can either determine or exclude of tuberculous or other form. It should be borne in mind that the cytologic reaction with excess of globulin content is of profound significance and is of greater value than the Wassermann test. In order to make a complete report of neurologic or psychiatric validity, it is essential to examine the blood and fluid for complement deviations, and in addition to this, cytologic and chemical tests of the cerebrospinal fluid should be made. An examination of the blood alone will throw no light on the psychiatric or neurologic diagnosis. It must also be emphasized that, in suspicious cases, several examinations of the blood and fluid should be made. A lumbar puncture under proper precautions and performed by a competent physician is absolutely harmless."

NATURE AND TREATMENT OF HEAT STROKE.

Hiller (*Deutsche Med. Wochenschrift*), June 19th, discusses this subject from the viewpoint of a German army officer. Victims of heat stroke are most psychoneurotic. In addition to the duplex picture of relaxation and exhaustion, they present many hysterical and neurasthenic symptoms. The heat swoon is the simplest type of heat stroke, and in a sound subject the treatment—that for ordinary syncope—is quite sufficient. A

psychopath on the other hand may suffer for several days with paresthesias, motor pareses or disturbances of special senses. These usually yield to a few doses of aspirin. Among soldiers, where many suffer from heat stroke while marching we find special types peculiar to the men concerned. The mildest type is one of relaxation, which is a preliminary to the severe forms, and hence serves as a warning. When these men are placed at rest the breathing and cardiac action becomes quiescent, and in from half an hour to an hour. There need be no treatment. With recovery there is profuse perspiration, which should be encouraged by freely drinking. Strong coffee is greedily drunk. The next degree or asphyctic form is that most commonly encountered. Since the soldier is making great exertions in a hot and humid atmosphere, and his respiration and circulation alike suffer, with resulting cyanosis. He falls and is found apparently lifeless and cyanosed. No time should be lost with other measures, but one must proceed at once to artificial respiration, maintained if necessary for two hours. Under this management some of the most desperate cases have recovered. Cold affusions are mentioned but nothing of cooling the temperature with ice. The heart stimuli preferred are digitalis, strophanthus and caffeine. A third from a heat stroke in troops is the so-called dysreric-paralytic. This occurs in those who have not been prostrated by the forms already mentioned. The most characteristic symptom is abolition of the perspiratory function. These are the cases of extreme temperatures (44° C). The term dysreric refers to the altered state of the blood. Aside from dry skin and fever, we note anuria, coma and convulsions (epileptiform, vomiting, motor pareses. While other measures are useful, a copious venesection is lifesaving. Next in order is saline infusion.—*Med. Record.*

SURGERY

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

THE MECHANICS OF PROSTATIC OBSTRUCTION.

Dr. Edward L. Keyes, Jr., of New York, read this paper. There were two clinical types of prostatic retention, chronic incomplete or complete retention and acute complete retention; prostatic retention represented the interaction of two forces, the bladder muscle and the obstruction. The action of the bladder muscle was influenced by the condition of the muscle itself, the condition of the nervous system and the condition of the will. The strength of the bladder muscle played

a large part in prostatic retention; and when the obstruction was slight and muscular weakness was the predominant cause of retention, removal of the obstacle at the bladder neck must be more thorough than when the bladder muscle had retained its strength. Not more than half the men whose prostates were enlarged suffered from prostatic retention, and some of those who suffered from prostatic retention had no hypertrophy of the prostate. The size of the prostate had no bearing upon the amount of residual urine. The mere fact of hypertrophy of the prostate was not of itself sufficient cause for prostatic retention. In order to cause prostatic retention prostatic hypertrophy must interfere with the outflow of urine from the bladder. This interference might be due to deformity of the bladder neck, or to an actual compression of the urethra within the hypertrophied gland. Even the lateral compression of greatly enlarged lateral prostatic lobes probably had little or no effect in interfering with the outflow of urine. Acute complete retention was due to a congestion and spasm at the bladder neck of such intensity as to apply the posterior lip of the sphincter against the anterior even when the bladder was full. The practical deductions were: Prostatic retention might sometimes be relieved by removal of the obstacle at the bladder neck without any attention to the prostate, even when it was hypertrophied. Yet when the prostate was considerably enlarged, it was obviously futile to satisfy oneself with division or excision of the bar or middle lobe. The problem of prostatic retention was a mechanical problem; the bladder neck and especially the elevation of its inferior lip was the important mechanical obstruction; prostatectomy; suprapubic or perineal, total, subtotal or partial, should be performed for the purpose of obliterating this obstacle at the bladder neck.—*Boston Medical and Surgical Journal*.

THE TREATMENT OF EPITHELIOMA.

Ravogli (*Amer. Journ. of Surgery*, May, 1913), starting from the base that epithelioma is a local affection remaining on the locality for years without producing any apparent infection, considers the local treatment by chemo-therapeutic means for the destruction of the growth. Previous investigations with formaldehyde had shown it to act as a powerful parasiticide, the epithelial cells becoming dry, losing their keratine and falling off necrotized, and since 1899 local applications of formalin have produced very satisfactory results. Further observations showed that pure lysol had a beneficial action on lupus, etc., due to the coagulation of the serum in the connective tissue elements and in the plasma cells which form the body of the tuberculous tissues, and are

found also around the cancerous growths. By mixing the two remedies in equal parts—formalin to destroy the parasitic elements and disorganize the epithelial infiltrating cells and lysol to affect the hypertrophic connective tissues surrounding the epithelial cells—satisfactory results were obtained, especially when perchloride of iron was also added to stop the bleeding. The formula for the mixture, which has to be prepared at the time of using, is: Formaldehyde 2 parts, lysol 2 parts, ferric perchloride 1 part, and this forms a thick greenish mixture which can be applied on a piece of cotton twisted on an applicator, care being taken that the fluid does not splash on to healthy skin, and also when operating near the eyes, nose, or mouth that these parts are protected with gauze to prevent irritation from the fumes of formaldehyde. The surface of the epithelioma having been previously thoroughly washed with green soap and water, and all crusts and secretions removed, a 5 per cent. solution of cocaine is applied. The epithelioma is then scraped off with a sharp curette until the surface of the wound is felt to be perfectly smooth, care being taken to remove every hard particle at the edges. After another application of cocaine for two or three minutes the surface is dried, and a tampon saturated with the above mixture is applied for about five minutes, the time varying with the depth and extent of the growth, five minutes being usually sufficient to destroy all the remaining infiltration. The surface is then washed with alcohol, which removes the mixture and relieves the burning sensation, and on the following day there is an abundant yellowish necrotic mass covering it, which after eight to fourteen days sloughs off gradually from the periphery towards the centre while the surface is healing. There is no formation of pus, the secretion being due to serum mixed with detritus of the necrotic tissues. Occasionally, as a precautionary measure, the application is repeated at the end of ten days, until the surface has perfectly healed. The wound can be dressed with ichthyol and unguentum diachylon Hebrae, in equal parts, spread on gauze. When, however, the disease affects loose, subcutaneous tissues with lymphatic involvement, a radical surgical operation is the only line of treatment. The author states that the above mixture, which is cheap and effective, has given good results in cases of epithelioma and incipient cutaneous carcinoma, being equal, if not superior to, other physical expensive means.—*British Medical Journal*.

RATIONAL TREATMENT OF TETANUS, WITH A REPORT
OF TWENTY-THREE CASES FROM THE EPISCOPAL
HOSPITAL, PHILADELPHIA.

Astley P. C. Ashhurst and Rutherford L. John in the (*Am. J. of Med.*

Sciences, June, 1913), agree that tetanus is a pure toxemia. The bacilli or their spores may exist indefinitely in the tissues, and no symptoms will appear unless toxins are formed, and if the toxin is introduced into the system, the characteristic symptoms of tetanus will be produced, even though no bacilli are present. The toxin ascends the nerves through the axis cylinders (perhaps by means of a centripetal protoplasmic current), and in this way can produce a severe tetanus, ascends; the toxin may be transmitted through the perineurium and endoneurium, and be a factor in producing local tetanus; the toxin also spreads to neighboring parts of the cord, invading its sensory portions, and also entering the circulation (this last eventually reaches the cord and produces descending tetanus). The most important feature in prophylaxis is the early and efficient care of the wound, and the prophylactic use of antitoxin at once a second injection about the eighth or tenth day; and a third during the third week, in each case to be made as near to the wound as possible, so as flood the tissues, and deep, so as to permit its rapid absorption; while if any nerves are exposed in the wound they should be injected. The prophylactic dose should be 1,500 units.

SURGERY OF THE LARGE INTESTINE.

Moynihan (*Lancet*, July 5th), points out the surgery of the large intestine is chiefly concerned with three diseases—cancer, tuberculous tumors, and those simple inflammatory disorders which are grouped under the not very accurate or appropriate title, “diverticulitis.” The merely technical aspects of this interesting subject have undergone notable improvements. Tumors of the large bowel can now be removed more widely, with greater safety, and with a higher degree of permanent success than would have been deemed possible a few years ago. It is rare for patients suffering from a growth in the large intestine to complain of pain; there is more usually a sense of discomfort, of turmoil, of erratic and uneasy movements, with griping, accompanied by the noise of gas and fluid rolling about within the bowel. The borborygmi in the late cases may be very loud, so that they may easily be heard many feet away from the patient. It is a remarkable feature in cases of carcinoma of the colon that the patient is often able to localize the seat of the obstruction. He will describe the accumulation of flatus at a certain point in the intestine where the difficulty seems to lie, and may say also that a trickle of escaping fluid and gas is felt to be followed at once by relief. Alterations of the feces are usual in all cases. Blood is often present. In cases

of carcinomatous growths in the ascending colon, and more rarely when the growth invades the cecum or the first part of the transverse colon, the presence of anemia may be observed. The anemia is stealthy in onset, steady in progression, and may often be very pronounced before any other symptoms have attracted attention. X-ray examination is a valuable aid to diagnosis. Of the conditions which imitate malignant disease very closely the most interesting is that now known as diverticulitis ("sacculitis" would be a better term).

OSTEOPLASTY.

By Jnh. B. Murphy, Surg., Gyn. and Obstretics, May, 1913. The author believes that it is now possible as a result of much experimental and clinical work to formulate the principles that lie at the basis of successful osteoplasty.

Transplantation periosteum, if osteoblasts remain adherent to it, may produce a permanent bone deposit in the same individual. In another individual of the same species, it rarely if ever produces permanent bone. Strips of periosteum left attached to bone at one end usually produce bone at the osteo-periosteal angle if osteoblasts are attached to it. Periosteum transplanted to another individual of the same species and attached at one end to freshened bone rarely ever produces bone even at the point of attachment.

Bone with its periosteum transplated into soft tissues of the same individual is sooner or later absorbed, except in infants or very young children. When transplated into another species it is always absorbed.

Bone, with or without periosteum, transplated in the same individual and having contact with living bone at one or both ends always unites with the living bone and acts as a scaffolding for the reproduction of new bone if asepsis is maintained. The new bone grows to approximately the same size and shape as the original bone and may form an effective joint surface. The author believes that the transplated bone itself is always absorbed after it has served its purpose of a mechanical support for the reproduction of new bone from the contacting living bone at one or both ends. In other words, the graft does not possess osteogenetic power, it only conducts the new bone formation. (Other observers differ from the author in respect to this point.)

When transplanted bone is to enter into the formation of a joint, the adjoining muscles should be sutured to it in their normal relations if normal functions of joint and limb are to be secured.

A bone covered at the ends by cartilage and on the sides by periosteum dies even if in contact with living bone.

The author outlines various indications for bone transplantation :

1. To correct deformities resulting from defective development.
2. To effect union in ununited fractures.
3. To replace bone destroyed by disease.
4. To replace parts of bones that have been destroyed in fractures.
5. To replace bone removed because of a non-malignant growth or because of an encapsulated malignant neoplasm.

The author usually takes his transplant from the crest of the tibia of the patient. The tibia soon is restored to its normal size and shape.

The various above mentioned indications for bone transplantation are then discussed in considerable detail and are illustrated by reports of numerous cases and skiagrams.

GYNÆCOLOGY

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

UTERINE FIBROIDS.

Robert Bell, of the Cancer Research Work, Battersea Hospital, in concluding his article in the *Medical Times*, London, states as follows :

In fibromata of the uterus, the treatment is directed, in the main, towards the restoration of the tone of the uterine walls, and it goes without saying that this can best be accomplished by combining the specific treatment with that which will tend to improve the general health of the patient. The diet should be so regulated as to assist digestion in every possible way, and at the same time promote a healthy evacuation of the bowels every day. The patient should live as much as possible in the open air, and, in well ventilated rooms both night and day. She should abstain from the flesh of dead animals, as this always militates against healthy cell metabolism by promoting the development of the most virulent of the fauna of the intestinal track, at the same time inducing constipation, thus permitting the undue retention of toxic material in the colon, and so favoring autotoxæmia.

Every physiologist is aware of the intimate relationship which exists between the uterus and the mammæ, and in cases of post partum hæmorrhage how rapidly uterine contractions and arrest of the metrorrhagia speedily is accomplished by putting the new-born babe to the breast. This fact led me to the conclusion—which proved to be correct—that, if the reflex action, which the mammæ exerted upon the uterus, could be fortified in some way, this might prove of service in promoting a healthier

condition of the uterine walls by so increasing and maintaining a tonic condition, which previously had been absent, and indeed had been replaced by a flaccid condition of the muscular structure. I argued that if this tonic condition, which previously had been in abeyance, could be restored, and possibly accentuated, the vascular supply to the tumor would be materially interfered with, and, by the constricting effect of the reinforced muscular tissue, gradual atrophy, by absorption, of the neoplasm would take place, its complete disappearance being the ultimate result. Now, an experience of seventeen years, during which period it has been my privilege to receive ample proof of the correctness of my theory, inasmuch that not only I, but many of my confreres, have been able to record numerous instances where the administration of mammary gland extract in the form of palatinoids, administered three or four times a day, have, in conjunction with the dietetic measures I have indicated, proved in every way satisfactory in the treatment of not only fibromata of the uterus, but in that of adenomata of the mamma. Of course, it goes without saying that the treatment will extend over a considerable period, but it is safe, which is an advantage..

THE PROGNOSTIC VALUE OF THE LEUKOCYTE COUNT IN PELVIC SUPPURATIVE CONDITIONS.

Smith (*Surgery, Gynecology and Obstetrics*, April, 1913) asks the pertinent question as to whether the degree of leukocytosis, as an indication of the gravity of a case, is to be put on a par with the temperature, the pulse, and the general clinical symptoms. When these various factors disagree, is it wise to be influenced by the leukocytosis more, or less, than by the fever and the other signs and symptoms? In the textbooks no satisfactory answer to these questions are found. Of course, all state that a high leukocyte count indicates pus; but the general opinion seems to be that the count in pelvic cases is variable—that large amounts of pus may occur with quite low counts, while little or no pus may be found in cases in which the leukocytes are the most numerous. The books generally state that the leukocytosis is largely controlled by factors which we cannot accurately measure, such as the sterility or virulence of the pus, the completeness of the walling-off, the nature of the organism involved, and the opsonic index of the patient's blood. Without more exact knowledge of these points, the books say that it is impossible to estimate correctly the value of the leukocyte count obtained, and the implication is that the count itself is of little value in such pelvic suppurative conditions.

Smith, therefore, attempts to answer the following questions: "Are

the leukocytes themselves a measure of the virulence, the walling-off, et cetera?" "If so, do they offer a good method of measuring the very factors which determine why one patient gets well with rapidity and ease, whereas another has a very tedious or even precarious convalescence?"

In order to answer these points, Smith takes, at random, one hundred cases from the records of the Lakeside Hospital. These cases consisted of widely different forms of pelvic suppuration. It is of course not possible to compare a simple gonococcus pyosalpinx with a large streptococcus abscess, but Smith takes the point that frequently a preoperative diagnosis cannot be made between them. These one hundred cases are then divided into groups and the various groups compared. In the first are fifty-three cases having a leukocyte count of over 14,000 in which seventy-five per cent. had a temperature of over 101 degrees, a pulse of over 120 in sixty-six per cent., and a mortality of eleven per cent. Contrasted are forty-seven cases with a leukocytosis under 14,000, with forty per cent. having a temperature over 101 degrees, thirty-four per cent. having a pulse over 120, and no mortality.

The second contrast was between twenty-four cases having a high leukocytosis and a high fever with sixteen per cent. mortality, and thirty-three cases having a low leukocyte count and a low fever in which the mortality was nil.

These figures, Smith says, are about what would be expected. When, however, the leukocytes are high and the pulse and temperature are low, as in twenty-seven cases, there was eight per cent. mortality. When the leukocytes were low and the fever high there was no mortality. These figures suggest that when the leukocyte count and the pulse and temperature do not agree the number of the leukocytes is more important than the degree of the fever and the rapidity of the pulse in arriving at a prognosis.

Seven patients developed severe postoperative complications. Only two of them had a preoperative temperature above 101 degrees, but they all, with one exception, showed a leukocytosis above 14,000.

Six of the one hundred patients died. Of these the preoperative temperature ranged from 90 degrees to 103 degrees, but the lowest leukocyte count was 19,000, the others ranging from 20,000 to 33,600 on admission.

When the records of all the patients in the service who had died following operations for pelvic inflammatory trouble were examined, it was found that only ten per cent. had a count below 14,000.

Smith draws the following conclusions:

(1) Leukocyte counts in pelvic suppurative conditions are extremely variable.

(2) In a series of one hundred such cases, the leukocyte counts were decidedly of more prognostic value than the preoperative temperatures.

(3) With pus in the pelvis and a leukocytosis above 14,000 some trouble arose during the convalescence in a majority of the series of one hundred cases.

(4) With pus in the pelvis and a white count of less than 14,000, trouble developed after the operation in a small minority.—*The Physician and Surgeon.*

LARYNGOLOGY

PERRY G. GOLDSMITH, LARYNGOLOGIST TO TORONTO GENERAL HOSPITAL

THE RESULTS OF TONSILLECTOMY UNDER LOCAL ANESTHESIA.

Bryan DeForest Sheedy, M.D., of New York, read a paper on this subject at the last meeting of the A.M.A. in Minneapolis.

All of the one hundred cases reported upon by the author were examined several months after operation and no patient under fourteen years of age was operated upon under local anesthesia. There was no grouping of the patients examined as to whether the throat conditions were the result of operation under local or general anesthesia. The enucleation of the tonsils had been performed by some of the many methods in vogue for the last few years for the complete removal of the gland and as the operations were performed in practically all the public institutions in New York City many men of prominence in laryngology were the operators so that the results could not be attributed to poor technique on the part of one man.

The author arrived at the conclusion that tonsillectomy, so far as removing pathological tonsils is concerned, is a better operation than the old time tonsillotomy, but pointed out that many of the throat defects following the operation of enucleation are due to clumsy and non-surgical technique.

He also pointed out the normal relation of the surrounding parts to the tonsil and put up a strong argument against the use of sharp instruments for the dissection of the tonsil from its bed, that being the cause of injury to the muscles with resulting deformities.

Of the one hundred cases examined months after operation more than 80 per cent. of the patients had deformed throats. The 20 per cent. of patients, with what appeared to be normal throats following the operation, were inconvenienced in no way at any time following the operation. Of the eighty patients thirty-four complained of speech defects

for from one to three weeks after operation, sixteen complained of speech defects for more than three months after operation, while four had practically lost the singing voice. About 25 per cent. of the patients stated that their throats felt better and that they could speak and sing better after operation than before. Inability to use certain words had continued with 5 per cent. of the patients for more than six months after operation.

The variety of deformities following enucleation were classified as follows:

(1) The pillars on both sides had disappeared with the soft palate tightened to such an extent that the opening at the nasopharynx was narrowed.

(2) The pillars on both sides had grown together.

(3) The anterior pillar had wholly disappeared with a large amount of cicatricial tissue deposited on the posterior pillar.

In the four patients whose singing voice had been seriously affected the posterior pillar had disappeared through amalgamation with the anterior or with the lateral wall of the pharynx.

The reader emphasized the fact that he did not think the last word had been said in regard to tonsil enucleation and proposed as a remedy for preventing the unsatisfactory throat results an operation for removing the tonsil by what he called the "Eversion Method" and with charts and diagrams pointed out that the capsule of the tonsil is simply a bag, the bottom of which may be pulled through its mouth so that its inner surface becomes the outer and that if the capsule with its glandular tissue is everted and a snare placed on, removing the tonsil with its capsule complete (there being no dissection and therefore no injury to the muscles surrounding) there would be no deformities.

The exceptions to the rule presented, viz., that the tonsil will evert on traction, were:

(1) Those cases in which the capsule was bound down to the surrounding tissues by previous attacks of inflammation.

(2) Those cases where the capsule was very much contracted and contained cicatricial tissue only.

(3) Those cases of hypertrophied tonsils which had everted themselves and the tonsil was found everted when the patient applied for treatment.

The points advanced in favor of the procedure were:

(1) Simplicity of the operation.

(2) Practically no hemorrhage.

(3) Little or no deformity following the procedure.

(4) Only three instruments necessary for the operation, viz., tonsil tenaculum, blunt pointed tonsil knife, tying snare.—*Medical Times*.

INTERNATIONAL MEDICAL CONGRESS

THE SEVENTEENTH INTERNATIONAL MEDICAL CONGRESS.

The meeting this year was held in London from the 6th to the 12th of August. It is estimated that some ten thousand medical men and scientists were present from all parts of the world, and speaking almost every known language. The meetings were presided over by Sir Thomas Barlow. The great Congress was opened by Prince Arthur of Connaught, who brought to the gathering the King's message of welcome and wish for the success of the meeting and the great work it had in hand.

The previous Congress held in Britain was in 1881, when the late Lord Lister was president. On that occasion were present Koch, Pasteur, Virchow, Helinholtz, De Lesseps, and many others of world-wide fame.

In the great gathering on this occasion were many who have achieved a very high standing. In the large audience were to be seen many varieties of academic robes, and the brilliant and attractive military uniforms of Germany, France, Italy and Austria were markedly in evidence. On the platform were many unique uniforms, and none more conspicuous than the heliotrope robe of Mr. Landouzy, of Paris.

At the appointed moment, Prince Arthur, Sir Edward Grey, Secretary of Foreign Affairs, Sir Thomas Barlow, and several heads of colleges and learned bodies, entered Albert Hall and were given an ovation. As they walked up the centre to take their seats on the platform, the immense audience rose to its feet. Prince Arthur at once addressed the Congress and was heartily cheered. This was followed by an eloquent welcome on behalf of the government delivered by Sir Edward Grey. Sir Thomas Barlow then gave his able presidential oration. These speeches were followed by many others from distinguished foreigners.

PRINCE ARTHUR'S ADDRESS.

I FEEL that it is hardly necessary for me to assure you what very great pleasure it affords me to be present on this occasion to welcome in our midst, in the name of the King, the representatives of all branches of medical science from every quarter of the globe, who are gathered here together to-day. (Cheers.)

His Majesty, your patron, has graciously been pleased to command me to give expression to his earnest hope that such international meetings may conduce to the advancement of the great science of medicine and to the general well-being of mankind. (Cheers.)

His late Majesty, King Edward VII., as Prince of Wales, opened this congress in 1881—(cheers)—and it is a source of peculiar satisfaction to myself that it is my privilege to follow in his footsteps and to open this world-wide congress on this occasion. (Cheers.)

In 1881 Sir James Paget was president, and M. Pasteur, to whose wonderful discoveries the whole world is so much indebted, was present. Marvellous as these discoveries were considered at that time, the discovery of Rontgen rays and radium within the last few years has furnished the medical world with powerful weapons for the diagnosis and treatment of disease, and I feel sure that I am voicing the opinion of all present here to-day when I say that we have worthy successors of the president and representatives of the 1881 congress in the persons of Sir Thomas Barlow and the representatives from foreign countries and the British Dominions beyond the seas assembled here to-day, (Cheers,)

May I remind you that, although this congress is meeting in London, it is not England alone which is the host. Canada, Australia, New Zealand, South Africa, and India are represented on the various committees, together with Englishmen—(cheers)—so it is really the Empire and not the United Kingdom which is giving this congress, thereby forging another link in the Imperial ideal. (Cheers.)

I think I may claim to have had some slight experience in international exhibitions, and I am fully sensible of the good that they do and have done in promoting relations with foreign countries, and, therefore, I am convinced that even greater and more far-reaching international benefits may result from such a congress as this one, which affords opportunities for its members of acquiring and imparting knowledge to one another in a mutual exchange of ideas and discoveries.

A congress with a membership of some 8,000 persons constitutes a meeting of huge dimensions, and must surely appeal to the imagination, and, although much of the work must necessarily be of a technical character, there will be subjects of much general interest, and the best men from all over the world have been chosen to introduce them. (Cheers.)

I will not dwell on the various problems to be discussed, which will be explained by Sir Thomas Barlow, but I take this opportunity of congratulating the Reception Committee on the success of their labors, of which we have such evident proof to-day, and I have no doubt that, at the close of the congress, they will feel most fully repaid. (Cheers.)

In conclusion, I have the greatest pleasure in welcoming you here to-day, and I am further desired to inform you that his Majesty the King is very pleased that you are to be his guests at Windsor—(cheers)—and I venture to hope that you will find yourselves as much at home in this country as at your own homes, which, in some cases, are so far

away. (Cheers.) I have much pleasure, in the name of the King, in declaring this congress to be open. (Cheers.)

THE GOVERNMENT'S WELCOME.

SIR E. GREY'S TRIBUTE.

IT is my most agreeable duty to offer to this congress just opened by his Royal Highness a welcome on behalf of his Majesty's Government.

I need scarcely say that that welcome is whole-hearted and sincere. Lord Morley has already expressed the feelings of the Government in words more eloquent and more thoughtful than mine can be, and I associate myself entirely with his tribute of respect and admiration for the work to which the congress is devoted, and for the wonderful advance which your science has made within living memory.

The congress includes so many men of great distinction that we feel it an honour to have you assembled amongst us.

Besides, we welcome you because we know this to be a congress that, while it accepts our welcome, cannot possibly have occasion to invite our intervention.

Science is, in the true sense of the word, international. It has its controversies, but they are not national controversies. Men of all nations who have risen to the plane of knowledge, thought, and research, that is worthy to be called science, are not separated in their work on that plane by political or national rivalries, however much individually they may share the politics and feelings of their respective nationalities or parties in other departments of life than that of science. (Cheers.)

In regard to the science of medicine and surgery, we all have an individual interest in your work to an extent that hardly exists in the case of any other science. To some sciences we look for much to add to the variety or amenity of life; but to your science we have learnt to look for something that comes home to all of us individually still more. To your science we have learnt to look for relief of suffering, which takes from life one of its greatest terrors. And if we have that individual interest not less is it true that the science of medicine and surgery appeal also to the general thought of mankind and the highest thought of mankind in no less degree than any other science.

Medicine and surgery are, I suppose, in their scientific work at least as near to the study of what a lay mind would call the secret of life, or the secret of the universe, as any conceivable form of science can be. The imagination of men waits upon your work with the expectation that at any moment you may stimulate the thought and quicken the pulse of

mankind by lifting still further a little corner of the veil and showing us yet a little more of what has hitherto been mysterious, unexplained, and unintelligible. (Cheers.)

As far as the public mind is concerned, science is in one respect fortunate to-day; the rock of lay ignorance is no longer so intractable as it was in earlier generations. So far as the public is concerned, opposition to scientific discoveries has given way to expectation. We are more ready to welcome a new discovery than to oppose it with an old error. (Cheers.) At least I think that this is so with regard to those forms of science with which this congress is especially concerned. I will not speak with the same certainty with regard to all sciences. If, for instance, politics is included as a science I should speak with considerable hesitation, for no one is very teachable in a subject which everyone thinks that he understands. (Laughter.) But as regards the science of medicine and surgery, I do claim that the public is teachable, and not only well disposed, but grateful.

The Sovereign, the Government, and the nation would like to welcome you here with the greatest cordiality. We are all unfeignedly glad that London should be honoured as the meeting-place of the congress, and by the presence of so many men of world-wide distinction, who have come from abroad to attend this congress and to join in adding knowledge, lustre, and fame to its discussions. (Cheers.)

PRESIDENT'S ADDRESS—BY SIR T. BARLOW.

MY first duty is to express our gratitude to his Majesty the King for graciously consenting to be patron of the congress. (Cheers.) My second duty is to thank his Royal Highness Prince Arthur for representing his Majesty on this occasion in the inauguration of the congress, and for the important and suggestive address which he has given us. (Cheers.) My third duty is to acknowledge the kindness and consideration of Sir Edward Grey, the Minister of Foreign Affairs of this country, in the official welcome, and I may say the hearty welcome, which he has given to our foreign members. (Cheers.)

A whole generation has passed away, since the International Medical Congress last met in London. What a magnificent galaxy of talent in medicine, surgery, and pathology was gathered round the Prince of Wales, who was our Royal patron at that time! It is fitting that we should follow the admonition of Ecclesiasticus, and praise famous men and the fathers that begat us. Our president, Sir James Paget, was a great clinical pathologist. His mind was stored with all that was then known of the morbid anatomy of surgical disease and injury, and of the family relationships of the different diatheses. He was a splendid teacher,

and possessed a lucid eloquence and a moral fervour not excelled by any of his contemporaries. Jenner and Gull, Wilks and Gairdner were our great teachers of clinical medicine. Each of them based his knowledge on the sure foundation of the post-mortem-room and the hospital wards.

We shall not see their like again, for their careers began before the days of specialization, and they were amongst the last of the great general physicians of our time. Hughlings Jackson was the philosophical exponent of the new neurology. Many of his forecasts were verified by the experiments of David Ferrier, of which I may say there was a remarkable demonstration at the 1881 congress. Jonathan Hutchinson was the patient, accurate recorder of the natural history of disease in multitudinous departments, and, characteristically enough, he was the organizer of our congress clinical and pathological museum. The pioneers of abdominal surgery—Spencer Wells, Thomas Keith, and Lawson Tait were with us. Huxley, the most brilliant expositor of natural science of his time, discoursed to us on the relations of medicine and biology. William Bowman, whose work on the minute anatomy of the eye was the foundation of modern English ophthalmology, was one of our most useful members. Last of all the Englishmen who I will mention was our great Lister, then in the zenith of his grand career. He has but lately been taken from us in the fulness of years, and we commemorate him to-day in the medal of our congress.

Our foreign brethren were not less illustrious in the bede-roll of medical and surgical achievement. Virchow, the Nestor of morbid anatomy, honoured and beloved by us as by his own countrymen, delivered a fine historical discourse on the value of pathological experiments. Volkman gave a critical survey of the recent advances of surgery. Robert Koch gave what may truly be called a path-breaking demonstration of the microbial findings in several morbid conditions, and he illustrated their characteristic growth on different organic media. Von Langenbeck and Esmarch spoke for military surgery; Donders and Snellen for ophthalmology. Baccelli, Muri, and Pantaleoni represented Italian medicine. From the United States came Austin Flint, the accomplished physician and master of physical examination; Billings, prince of medical bibliographers; and Bigelow, the famous surgeon.

The great French school was represented by Brown-Sequard and Charcot, Lancereau and Bouchard and Verneuil and a host of others; but there was one great Frenchman with us who towered aloft amongst all his contemporaries, and who, though not a medical man, exercised by his discoveries a profound influence on the medicine of the world, and that was Louis Pasteur. (Cheers.) In his address on vaccination in relation to chicken cholera and splenic fever, he gracefully linked his most recent

researches with the time-honoured labours of Edward Jenner on cow pox. Time fails me to speak of other great and honoured names, but surely we may say there were giants in those days.

Now let us realize to ourselves that the congress of 1881 marked not the parting of the ways, but emphasized the notable fact that the parting of the ways had already been passed. The times of superstition, of empiricism, and of transcendental speculation had vanished. But what of the period of accurate and detailed observation? That was neither superseded nor completed, but it was already supplemented and redirected into more fruitful channels by the new development of experimental methods.

If it had not been for the work of Pasteur, Lister, and Koch, which was expounded to us thirty years ago, how poverty-stricken would have been the output of medicine and surgery in this our congress of 1913! (Cheers.) The great men—both observers and experimenters—of whom I have spoken were like mountain peaks towering above the plain of ordinary medical humanity, and we sometimes sadly ask where are the mountain peaks now? That is a shallow and unenlightened question. For indeed, thanks to the unremitting labours of workers in multitudinous paths, we have attained a glorious heritage—not of high mountain peaks and deep valleys—but a lofty and magnificent table-land of well-ordered and correlated knowledge. (Cheers.)

Consider the bare fact that the fifteen sections of the 1881 congress have, by the inevitable specialization and concentration of work, become twenty-three sections and three sub-sections in 1913, but so imperative is the demand for mutual conference that we have no fewer than fourteen meetings arranged in which sections have found it desirable to discuss various problems in joint session. In what ways have we pursued and expanded the work of our fathers? First, unquestionably, in the development and application of bacteriology. Koch's great discovery of the life history of the tubercle bacillus was published in the year after the London congress, and what an enormous body of knowledge has grown out of that discovery! We are learning to discriminate between the essential and casual factors of disease and the concomitants, such as combined and terminal infections. The by-products and the antibodies developed to neutralize bacterial life, of which we see the benefit role in Nature's own cure of an acute specific disease, have been made to yield their share in two important methods of treatment—namely, serotherapy and vaccinetheapy.

We have also faced the problem of strengthening the phagocytosis of the patient. I need not dwell on the history of the Kleb-Loeffler bacillus and the causation of diphtheria, nor on the indubitable efficacy of

the most important of all the anti-toxins, nor on the singular parallelism between the bacteriological findings in atypical throat exudations with the ambiguous symptomology which clinical observation reveals. Nor need I dwell on the extension of bacteriological investigation of typhoid fever, which has been fruitful in new measures of prophylaxis and defence of the community. We have learnt something about the natural history of the ultra-minute organisms which as "filter passers" elude our microscopic investigation.

There are still great gaps in our knowledge of the bacteriology of the acute specific diseases, but it is a gain to have learnt from the study of recent epidemics that infantile paralysis must be grouped with the infective diseases, and, thanks to Flexner, we know many of the reactions of its elusive organism. Great advances have been made in protozoology, in helminthology, and, indeed, in the whole subject of the relation of parasites to the diseases of man and animals. In tropical diseases these studies, as well as bacteriology, have brought about a rich harvest. Malta fever, plague, malaria, sleeping sickness have all yielded more or less of their secrets. Sometimes the whole cycle of the disease has been discovered, rationalized in every respect, and its successful treatment has been evolved.

In other cases, as in malaria, sleeping sickness, and yellow fever, where only parts of the natural history of the disease have been elucidated, nevertheless enough real knowledge has been acquired to enable important, though sometimes costly, hygienic measures to be successfully employed. Here it is fitting that we should offer our homage to our American brethren for their splendid hygienic work in Cuba, in Panama, in the Philippines, and in Costa Rica, and for the efforts which they are organizing for a world-wide crusade against ankylostoma disease. Chemical pathology has widened our knowledge and our resources, and the mystery of immunity has been to some extent illuminated.

The detailed examination of the morphological elements and the chemical characters of the blood and of other body fluids has eventuated in the re-writing of some of our physiology, and the pathological extension of the knowledge thus gained has improved the diagnosis and the treatment of several diseases. Thirty years ago Ord demonstrated to the congress of that time examples of the disease which he had defined as myxoedema, but which, with surer instinct, Gull had described as a cretinoid state in adults. The gradual evolution of the doctrine of thyroid insufficiency and of its therapeutics is a model of induction; and this important discovery has given a great impetus to the whole study of internal secretions, as well as to the employment of organic extracts of which the last and most interesting is that of the pituitary body.

The empirical and then the experimental study of small variations in the ordinary diets of adults and children and infants in different social strata and in different countries has been fruitful in many unexpected ways. The great milk problem is still with us, but we have learnt the blunders of our early generalizations. Cleanliness in the milk supply from start to finish has a far more exhaustive meaning than in days gone by. The curious disease beri-beri, which some of us have long thought had parallelisms with scurvy, has been shown, at all events amongst rice-eating people, to depend on the loss of the nutritive material just internal to the pericarp, which the ordinary process of milling removes. The patient study of chronic alcoholism has opened up a new chapter in nervous diseases. The routine traditional employment of alcohol in disease has happily been largely discredited. The open-air treatment of all forms of tuberculous lesions has had a wide indirect influence, not only on the treatment of other chronic ailments, but on the daily life of the people. The recognition and radical treatment of oral sepsis due to damage to the gums in consequence of various disorders of the teeth has been followed by remarkable benefit. A strong case has been made out for intestinal stasis as a cause of various forms of mal-nutrition and for operative measures in dealing with slight mechanical obstructions; on this subject we hope for further evidence. The additions to diagnosis yielded by X-ray exploration are like the creation of a fifth sense, and its curative applications and those of radium are the opening of a new chapter of therapeutics. (Cheers.) I ventured to hint that medicine had now and then led to the rewriting of some chapters of physiology, and I may add that recent researches on diseases of the heart have led to the re-editing of neglected knowledge of the minute structure of heart muscle, and of orderly and disorderly mechanism of its movements.

Of the magnificent triumphs of the surgery of this generation it is beyond my power adequately to speak, but I can refer to the wide fields opened up through the beneficent protection of Listerism. (Cheers.) We are staggered by the reasoned and calculated audacity of our brethren when sinuses of the skull are drained, cerebral abscesses evacuated, cerebral tumours removed, the pituitary body even being investigated, when pleuro-pericardial adhesions are freed, to the great relief of the heart, when different parts of the alimentary canal are short-circuited, and when one or other damaged viscus is removed either entirely or in part. The active co-operation of surgeons and physicians has gained for us some knowledge of what Moynihan and others have happily described as "living pathology," and we gratefully acknowledge the invaluable information of correlated symptoms, signs, and morbid conditions, and the statistics of comparative frequency which surgical experience has brought

to the common store. The sumprime gain after all is that many more useful lives are saved than in the last generation, that the realm of grave and hitherto incurable disease is invaded on every side, and that the danger of operation qua operation is retreating to a vanishing point. (Cheers.)

It is impossible even to enumerate the varied ways in which medicine has co-operated with economics, social legislation, and philanthropy, which we sum up briefly as public health. The school house and the scholars, the home of the poor, the colliery and the factory, the dangerous occupations, the sunless life of the mentally deficient, have benefited, and will benefit still more, by its friendly invasions. And I venture to foretell that not many years hence, every department of life and work shall be strengthened and purified and brightened by its genial and penetrating influence. (Cheers.) Surely I have said more than enough to justify my contention that we have come into a goodly heritage, and that that heritage is like a lofty and magnificent tableland of knowledge and efficiency. (Cheers.) The gaps are being filled; we are no longer isolated, but are working side by side on adjacent areas which are inseparably connected. Every day we gain fresh help from the auxiliary sciences, and we realize more and more the unity and the universality of medicine. (Cheers.)

Brethren from foreign lands, we thank you for the treasures, new and old, of observation and experiment, and of a ripe experience, which you have brought to this congress for the common weal. I venture to affirm that the output of work of the congress week in its twenty-three goodly volumes will astonish civilized countries by its amount and its solid worth. I welcome you to our dear country, this ancient home of freedom, and I speak not only for the medical men of the British Isles but for our brethren of the Overseas Dominions, who join with us in our cordial greeting. May this congress add to the common store of fruitful and useful knowledge; may it increase our good fellowship, our mutual understanding and co-operation, and may it help to break down the barriers of race and country in the onward beneficent march of world medicine. (Cheers.)

THE VALUE OF PROGNOSTICS.

One of the leading features of the first public meeting was the address of Professor A. Chauffard, of Paris, on "Medical Prognostics." The salient features of his address were as follows:

Prognostic was a matter that had confronted the profession daily since the origin of medicine. Diagnostic and prognostic could not be separated; their progress had been interdependent. There had, how-

ever, been a transformation in the conception of prognostic and of the definition of its limitations, and this was a favorable moment to consider the stage it had reached, the ground that had been won, and the deficiencies that remained.

The Hippocratic period placed the researches of prognostic in the front rank, and resorted to a minute study of the general conditions and of objective signs, which was the only means it had of discovering data from which to form judgments. It laid down as a principle that the body should always be considered as a whole, and that everything should be judged from a study of signs, and a comparison of their reciprocal value.

Only in modern times, in consequence of Avenbrugger's, Corvisart's, Laennec's, and Richard Bright's discoveries, had the adjuvant of analytical methods been brought to this first trial at synthesis. Study of symptoms, search for lesions on the live body and on the corpse—such was the Organician school; work having for its corollary the anatomical prognostic. With Claude Bernard diagnostic and prognostic sought novel cases in the study of functional disorders, and it was still in the same direction that we were advancing from day to day.

With our modern methods we tried to make diagnostic as precise as possible a representation of the pathological condition of the system considered as regards its genesis, its present equilibrium, and its future evolution, and a diagnostic so established amounted almost to scientific prognostic. At any rate, the two were very proximate ways of considering the same facts. But immediate prognostic should be completed by research of remote prognostic—an all-important idea introduced into science by Bouilland's discovery of rheumatic endocarditis.

The department of chronic infection, syphilis, and tuberculosis, provided forcible evidence of the importance of the remote consequences of disease. One could almost say, indeed, that nothing was forgotten in the system. The most striking demonstration of that fact was afforded by Charles Richet's discovery of anaphylaxy. The individual prognostic, present or future, was completed by notions about the family, the collective prognostic, the social prognostic. It was the latter that justified our law-enforced measures of prophylaxy and preventive vaccination; it was from it that Sir Francis Galton's labors evolved the new science, eugenics, the first Congress of which was held in London a year ago.

Medical prognostic had, therefore, now become more comprehensive. At the same time, it had been prodigiously modified, and our therapeutic progresses ceaselessly operated to diminish its severity alike in acute or chronic diseases, troubles of nutrition, and morbid growths. All along the line, under the combined efforts of therapeutics and hygiæ, prog-

nostic preserved its evolution, and opened out new hopeful prospects.

Medical practice was full of surprises. The local determination of infections and toxic fixation, the anatomical degree of deep visceral lesions, the varied reactions of the nervous system, and above all, the value of the affected system or organism—all these were elements of prognostic difficult to appreciate and weigh. While theoretically efficient, our prognostic remained weak in practice. But every day saw progression, and brought us nearer the distant and often clouded summit. Prognostic ought to benefit by every advance in medical science.

WORK IN SECTIONS.

The various section meetings were well attended and settled down at once to active work. Sir James MacKenzie presided over that of Radiology; Sir David Ferrier, Nervous Diseases; Mr. Arthur Cheatle, Diseases of the Ear; Sir L. Gubbins, Medico-Legal Discussions; Sir W. Osler, General Medicine; Prof. Shattock, Pathology; Sir L. Brunton, Therapeutics; Sir W. W. Cheyne, Surgery; and other sections, as Diseases of Children, Eye Diseases, Skin Diseases, with Sir M. Morris presiding, etc.

A MEDICO-LEGAL SENATE.

A most important discussion was held in the section of Medico-Legal Medicine, on the Subject of establishing a Medico-Legal Senate to take the place of expert witnesses, as had been done in Hungary. The following is a condensed synopsis of what was said:

Professor Harvey Littlejohn, who presided, said it was an honor and a great pleasure to him to welcome such distinguished scientists as Professor Strassmann, of Berlin; Professor Thoinot, of Paris; Professor Puppe, of Königsberg; Professor McTaggart, of Montreal; Mr. Max Schacter, of Budapest; Professor Ziemke, of Kiel; Dr. Corrado, of Naples; Dr. Scott, and Dr. Treadwell. The following distinguished scientists had written expressing their regret at not being able to be present: Professor Lacassagne, Dr. Balthazard, Professor Lesser, Professor Harberda, Professor Reuter, and Dr. Leers.

He pointed out that the International Congress still performed one of its most important functions, and that was to make their customs, habits, and their countries better known to each other, and also to express that fellowship which, he thought, was always to be found among the medical profession, from whatever part of the world its members came. (Hear, hear.)

At the last conference in London forensic medicine was combined with hygiene. Since then the subject of public health and hygiene had

developed enormously, and had become a most important science in itself. But forensic medicine had developed no less, and had fully justified its position as a separate section of any international congress. Without detracting in any way from the work of those distinguished men in the past who had led the way in forensic medicine up to the end of the last century, he might say that at no period had the subject occupied a more flourishing and prominent place than it did at the present time, and at no time had it included in its ranks so many able investigators in each department of the subject.

Commenting on Dr. M. Schachter's paper on "The Royal Medico-Legal Senate in Hungary," which was afterwards read by the writer, Professor Littlejohn said he saw very great difficulties in adopting what in all respects seemed an admirable suggestion, viz., in place of the conflict of expert evidence such as those who read the English and American papers knew existed in this country and the States, to set up some such institution as the Royal Medico-Legal Senate of Hungary.

But he feared that so far as the criminal law in this country was concerned it would be impossible to have such a senate to decide scientific questions without a very great change in the law of the land. They were aware that when a man was being tried for his life in this country no evidence (with one or two exceptions) was admissible against him which was not of an oral character, the reason being that there must be the opportunity of testing the truth by cross-examination.

Dr. Schachter in the course of his paper said that at the International Medical Congress in Madrid the same subject was discussed by him in the section for forensic medicine. There it was decided to put a resolution before the congress to the effect that the Governments of all civilized countries should be invited to call into existence similar institutions to that already existing in Hungary for thirteen years, which should act as the highest arbitrating councils on medico-legal questions. The congress passed the resolution, but still no effect had been given to it.

The Medico-Legal Senate in Hungary had been working for twenty-three years. The Senate, consisted of the president, the vice-president, and twenty members, representing all branches of medical science. The questions submitted to the Senate by the Law Courts for arbitration were reported on by the various members of the Senate delegated for that purpose by the president, at the sittings of the Senate. After the points had been discussed the report was considered as expressing also the opinion of the Senate, if approved of by the majority.

On questions of particular importance two members were delegated to report on the same subject, and to give their opinion independently of each other. If the details supplied by the Law Courts were not suffi-

cient for the Senate to make up its mind, then, if possible, further particulars were furnished, permission was given to the member delegated by the Senate to examine directly the person concerned, or exhumation was ordered to take place, etc.

It was to be regretted that of late part of the criminal cases were tried by jury, and it had been but seldom that jurymen asked for the super-arbitration of the senate, as, on the whole, only a few of them were able to gauge the importance of the medical opinion. On this account many important criminal cases in which the opinion pronounced by the senate should have been considered as the decisive factor for returning a verdict were withdrawn from the jurisdiction of the senate; on the other hand the number of cases was on the increase in which the senate was called upon to pronounce an opinion on actions brought against insurance companies or on actions for damages.

The esteem enjoyed by the decisions of the senate in the public mind was steadily growing; even in sensational political lawsuits the activity of the senate was now less assailed by public opinion, as expressed by newspapers, than it was before.

The tenets of Herbert Spencer concerning evolution, differentiation, and integration had held good in the case of the Medico-Legal Senate in Hungary. In the twenty-three years of its existence it had not only grown, but its development had been an upward one.

THE CONGRESS MUSEUM.

Special mention must be made of the extraordinary collection of medical specimens which has been brought together at the Royal Imperial College of Science, South Kensington. This occupies the laboratories on the top floor of that building, and is probably unique. It is usual at all scientific conferences to have a temporary museum arranged, illustrative of the work of the meeting if possible, but the assembly of exhibits now placed before the members of the International Congress appears to surpass anything of the kind that has been attempted previously. When the arrangements for the conference were taken in hand, the task of forming the 1913 museum was entrusted to a comparatively small committee under the direction of Professor Arthur Keith, M.D., F.R.C.S., the curator of the famous collection of the Royal College of Surgeons in Lincoln's Innfields; the responsible duties of secretary being entrusted to Mr. H. W. Armit, M.R.C.S. A truly remarkable success has followed upon their exertions.

Indeed, the collection is of such magnitude that anyone interested in medical science and hygiene could profitably spend two or three days going through the museum. Unfortunately, the members of the Congress

have so much to occupy them one way and another that they will scarcely be able to do full justice to it. However, the wise division of the museum into some twenty odd sections, corresponding to the sectional meetings, will readily enable the doctors to view those specimens illustrating their own specialty, and it is quite certain that every interest has been catered for. Wherever one looks the walls appear to be literally papered with diagrams, photographs, and drawings, most of which must be extremely valuable in themselves, and many quite irreplaceable; whilst bench after bench is set out with microscopes and other costly apparatus.

RADIUM IN MALIGNANT DISEASE.

Radiology again drew a large and interested gathering of doctors and specialists at the School of Mines when Dr. Robert Abbé, of New York, read a paper on "The Use of Radium in Malignant Disease." He said that, while universal testimony was agreed that the vast majority of superficial, and some internal, cancers could be cured by radium, there were failures which needed explanation.

This explanation he had found in returning to the experimental study of plants grown after being exposed to radium at different distances, and for different periods. The lecturer produced some photographs of plant growth to show that the close application of radium destroyed life, but within the range of half an inch to an inch and a half the radium rays excited and stimulated growth, while beyond that radius the rays, which were so-called gamma rays, were all successful in preventing growth. These were the only valuable ones in reducing malignant tumors. It had been proved by French scientists that heavy lead plate would shut out the harmful rays, and permit the useful Gamma rays to go through slowly and destroy malignant tumors. But by the new plan of "distance filtration" without lead plate the same, or better, results were obtained in a quarter of the time or less, the radium being held one and one-half inches away, which excluded the undesirable rays.

The lecturer gave illustrations of the wonders worked by radium, numerous cases of tumors on the vocal cords—destructive of singing and speaking—being cured by one strong application for thirty minutes. The tumors disappeared in eight weeks. Another remarkable illustration was that of a gentleman on whose head malignant tumors appeared. One application of radium by the new method of distance filtration caused the complete disappearance of the tumors in twelve days. Dr. Abbé also gave illustrations of bone tumors cured by burying radium in them, together with the restoration of the bone. Radium had, in fact, established its claim as a cure for the early stages of malignant disease in contrast to surgery, cautery, and caustics.

In conclusion, Dr. Abbé spoke enthusiastically of the great work of the British Radium Institute, and of the recent work of German and French pioneers.

"Can Radium Help Surgery in the Treatment of Malignant Tumors?" was the question propounded before the members of the surgery section by Dr. Louis Wickham and Dr. Paul Degrais (Paris). Their answer was in the affirmative.

After having pointed out cases of cancer in various parts of the body, showing the quite possible and useful co-operation of radium and surgery, the authors admitted that radium had only a local and palliative effect. Still, in certain cases of cancer a state of apparent cure remained during several years in such conditions that one wondered if the elements concerned were not entirely and materially transformed.

Drs. Wickham and Degrais, in conclusion, emphasized the point that if radium could help surgery special conditions must occur to render this aid possible. Among them was the absolute necessity for all parts of the tumor to be irradiated for the same lapse of time and in the most homogeneous way possible. The base and the periphery must be totally irradiated. Finally, and above all, the dose of radium must be sufficient, and must correspond with the greater or less resistance of the cells, according to the energy of the radium employed.

One of the most notable series of drawing and photographs is that showing the progress that has been made in the treatment of cancer by radium and X-rays. So lifelike are the illustrations that they could readily be used to replace the living patient in the instruction of students. Here may be seen the graphic portrayal of the dread disease from its first appearance to the time when scientific experiment has triumphed and the curative rays have begun to overcome the growth, and, finally, a still greater victory for the radiologist, evidenced by the complete disappearance of the malignant tissue and its replacement by healthy skin. Many of these photographs come from the laboratories of Drs. Wickham and Degrais, whose work in Paris has done so much to open up the possibilities of radium in attacking even large and supposedly incurable cancers. Certainly, the triumphs of radium over small growths may be numbered among the historic victories of modern medicine, and the clever models now being exhibited clearly demonstrate the fact that advances may yet be made in this connection that will bring hope and relief to thousands of sufferers in the future.

As further illustrating the effects of radium on living organisms, a most interesting series of photographs of oats and flowers which have been exposed to its powerful rays are also on view. Here one sees that in moderate doses the radio-active energizes the growing plant, so that it

becomes abnormally fine and strong, whilst too much of the rays devitalizes the delicate tissues, so that it droops and dies. Similarly, the bulbs of narcissi have been exposed to radium, and the results on the developing plant carefully noted. All of which information has its bearing on the effects of radium on human organs. Looking at these remarkable pictures, one cannot help wondering whether, in days to come, the radiologist will not be able to stimulate flagging individuals, and give health to the weakly, by treating them with a scientifically-graduated dose of radium, just as he is now confidently and with certain hand influencing the growth of more lowly organizations. Close by is a further series of plant photographs showing how cancer attacks the vegetable world. Much important work has lately been done in this field, and doctors attending the congress have an exceptional opportunity of gaining information in regard to it.

X-RAYS IN CONSUMPTION.

Dr. Sydney H. Owen (London) read an important paper on "The value of X-rays in the early diagnosis of tuberculosis of the lungs from the standpoint of the physician."

He said that, the respiratory tract being, in the adult at any rate, one of the easier routes by which the tubercle bacillus gained access to the body, any investigation which conceivably might assist in the determination at the earliest possible moment of changes in the respiratory organs should demand their most careful consideration. Radiography of the lungs, in his opinion, opened up a wide field of investigation.

The subject was a very vexed one. Certain objections had to be met. There were at least two schools of thought. There were those who maintained that radiography could be of little assistance in the detection of tuberculosis of the lungs. This school maintained that similar appearances were found in bronchitis, broncho-pneumonia, silicosis, etc. It was stated, too, that the frequency of the lesions excluded tuberculosis as a cause. Then there were those who believed that systematic radiography could be of considerable assistance in the early detection of tuberculosis.

From the standpoint of the physician it would appear to be extremely difficult to diagnose—he did not say to suspect—tuberculosis in its very early stages for at least two reasons—(1) the lesion in the lung being very small, the physical signs were, so to speak, "ultra-clinical;" and (2) the patient, being unconscious of ill-health, did not seek advice at this very early date.

This initial difficulty was increased where patients did not seek advice until some serious symptom of ill-health, e.g., hæmoptysis, obtruded itself upon their consciousness. In more favorable cases, where patients

sought advice early, a systematic use of the rays in this early stage of slight symptoms with slight, doubtful signs would show enlarged caseous glands, and possibly, too, densities in the lungs. To those who believed caseous bronchial glands might be the first stage in the invasion of the lungs in patients who manifested ill-health for which no other adequate cause could be determined, such knowledge was of profound importance.

CHILDREN'S AILMENTS.

A large number of specimens illustrating advances made in the treatment of certain prevalent disorders of child life deserve particular notice, especially in relation to the science of orthopædics, which is chiefly concerned with the relief of crippled children. Tuberculosis and various forms of paralysis are responsible for a vast amount of deformity that was practically untreated a few years ago. Lately, however, an important branch of surgery has been developed to deal with these matters, and splendid orthopædic hospitals have arisen both in London and on the Continent. There are some who think that Continental surgeons are still far ahead in the scientific relief of crippling maladies, but, whether this is so or not, the doctors of all nations now can see at a glance the great work in the alleviation of crippled children that is being carried out throughout the world, particularly in Germany and America. The congress museum contains an ample series of models and photographs illustrating the recent acquisitions to practical knowledge that have been made in orthopædics, and the general dissemination of this valuable knowledge must inevitably be for the good of suffering children throughout the world.

The waste of infant life is brought prominently before the visitor who studies for a few moments the charts illustrating the main causes of excessive infant mortality in the big cities throughout the world. Intestinal troubles due to careless feeding and impure food are shown clearly to play, perhaps, the chief part in this waste of life, so that the diagrams exhibited urge upon every doctor who sees them the need for a further educational campaign for improved home hygiene and cleaner living in squalid neighborhoods. How consumption is bred in dark and noisome houses is shown by the excellent models of "back-to-back" habitations copied from one of our largest centres of population, demonstrating not so much the virulence of the tuberculosis germ as the encouragement given it by human beings themselves. The marvel is how children can be born and live in such homes and yet be ever free from disease.

The extent of the noteworthy collection is well shown by the circumstance that the catalogue alone is a bulky volume of some 200 pages, so that more than a cursory view of its contents would be impossible. The

pity is that this museum must be scattered after a few days; but, of course, many of the valuable specimens are the private property of individual doctors, whilst some come from public institutions. Models and skeletal preparations, illustrative of prehistoric man, preparations showing the disorders that attack the brain and nervous system, old-fashioned instruments contrasted with their modern representatives, specimens showing the marvels of the eye and ear, contributions from tropical laboratories—all are worthy of more than passing mention. It is quite certain that many of our scientific visitors will take away with them an impression of the congress museum that will not be quickly effaced from their minds.

The treatment of tuberculosis in children formed the subject of an interesting discussion.

Dr. Harold J. Stiles (Edinburgh), who dealt with the necessity for a more thorough control of the milk supply in combatting surgical tuberculosis, said that, as the result of his clinical experience in the Royal Edinburgh Hospital for Sick Children, he had for many years been convinced that Koch and his disciples committed a serious error in practically disregarding the milk as a source of tuberculous infection in children. He could adduce many instances from his own personal observation where the etiological relationship between the disease and the "milk history" of the child was so closely associated as to amount almost to proof that the bovine bacillus was the source of infection.

Having regard to the present inadequacy of the control of the milk supply, it had always been a matter of surprise to him that the medical profession in this country should still encourage the use of raw milk in the bringing up of infants and young children. Professor Délépine has shown that at least ten per cent. of the milk supply of our large cities was tuberculous. There could be no doubt, therefore, that under the present unsatisfactory legislative control of bovine tuberculosis and of the milk supply, sterilization of the milk was the only reliable prophylactic measure we possessed if we wished to safeguard our children against acquiring bovine tuberculosis.

He had long been convinced that the reason why surgical tuberculosis was so prevalent amongst the children in this country was (1) because of the prevalence of tuberculosis amongst dairy cows, and (2) because it was the exception rather than the rule to sterilize the milk.

In his opinion the stamping out of bovine tuberculosis amongst dairy cows would, in the long run, prove to be a more economical method of dealing with surgical tuberculosis than the building of special hospitals.

Unfortunately, the stamping out of bovine tuberculosis would take time, and until we had a more perfect system of segregation of human

consumptives we should still have to make provision for the treatment of surgical tuberculosis due to the human bacillus. It was to be hoped, therefore, that an adequate proportion of the money provided by the National Insurance Act for treating tuberculosis would be devoted to providing country hospitals for the treatment of surgical tuberculosis by conservative means. Moreover, there should be an endeavor made to co-ordinate the work done in such institutions with that which would still remain to be done in our large general and childrens' hospitals.

"Infant Mortality in the First Four Weeks of Life" formed the topic for consideration at a joint sitting of three sections of the congress, namely, Hygiene and Preventive Medicine, Obstetrics and Gynæcology, and Diseases of Children. An audience large enough to fill the Jehangir Hall of the University of London testified to the interest taken in the subject.

Dr. Arthur Newsholme, in a brief introductory address from the chair, said that in the returns of the Local Government Board the question of mortality during the first month of life had been carefully studied from the statistical point of view. One outstanding result, so far as statistics were concerned, was that there was an enormous variation in the death-rate per 1,000 births in various parts of the country; this variation occurred in a very erratic manner, which could not be satisfactorily explained at present by variations in the industrial occupations of women or any similar factor. At one end of the scale they had towns with rates of 61, 57, and 55 per 1,000, and at the other end were places, also urban in character, where the rate was just about one-half of those already referred to.

Sir Francis Champneys, London, expressed the hope that these discussions would prove the beginning of better things in this country, for, unfortunately, they had not done much more in England than begin to consider the subject from the State point of view. They ought to try and make it fashionable for mothers to nurse their infants. (Cheers.) His experience was that all mothers who were in what they would call good society were not as bad as they were made out to be. He had known many mothers leading an active life in good society who nursed their children regularly. Sometimes it was the husband who prevented their wives from nursing their children, from a desire to take them out into society; but if the wife was a wise woman she would go out with her husband and nurse her child as well.

A very common mistake made by nurses acting under the supervision of doctors was to begin feeding a child with milk from the time of its birth. He was convinced that many infant lives were lost through starting to feed the child with cow's milk as soon as it was born. Many nurses

seemed afraid to give a child water to drink, assuming that when it cried it was sure to be hungry, whereas in reality it was, perhaps, suffering from a plethora of milk. They might as well give beefsteak to a man suffering from indigestion. In this country they were starting schools for mothers. That was a most important thing. He had no doubt that the State might spend money very economically in teaching its mothers how to nurse their children. Money spent to that end would be repaid fourfold.

MEDIAVAL MYTHS.

In the section of the History of Medicine a number of interesting papers were read.

Dr. Norman Moore delivered his presidential address to the section dealing with the "History of Medicine," and took as his subject the history of medicine in England. He welcomed the visitors to the congress, and congratulated them that their subject had been brought under the ægis of the congress.

The first important treatise on the history of medicine, he said, was written in the Tower of London, by Dr. John Friend, when he was imprisoned there in 1722. He wrote with a warder sitting in his room, and completed his work after his release.

Continuing, Dr. Moore referred to the historical idea that Julius Cæsar was an epileptic. This idea was based on a passage in Plutarch and one in Suetonius, but more probably what took place was that Cæsar fainted from exhaustion, due to great mental strain. Who had ever seen an epileptic with a head like Cæsar's, or known one of such transcendent mental ability? And, applying the same observations, was not the belief in the epilepsy of Cæsar the sole origin of the idea of epilepsy in Napoleon?

The first book treating in any way of medicine which was mentioned in England was the poem of Lucretius. The true birth of medicine here was the foundation of the College of Physicians by Thomas Linacre, in 1518. From the study of the observations of nature in Hippocrates and Galen, the college was directed to experimental research, of which the first great result was Gilbert's discovery of the magnetism of the earth, and the next Harvey's discovery of the circulation of the blood.

In conclusion, the speaker pointed out how well the list of papers to be read in this section demonstrated the many directions which the history of medicine might take, and the vast variety of learning which might be brought to bear upon it.

Miss Stawell read a paper on "St. Luke and Virgil," in which she argued that St. Luke was an amateur physician, who was influenced by credulity and practised without fee. The speaker also dealt with the

influence of Virgil on the writings of St. Luke, and expressed doubts as to whether the apostle was a Greek, pointing out the possibility of his being a member of an ancient Roman family.

Professor Sudhoff, in a paper on the origin of syphilis, declared that the idea that this disease was introduced into Europe by the followers of Christopher Columbus, followed by an outbreak at Naples in 1493, was quite erroneous and a myth. Syphilis was almost as old as civilization itself, and investigation showed that it was more probably introduced by the Crusaders on their return from the Crusades.

Professor Richard Caton read an interesting paper, illustrated with photographs, on the temples, hospital, and medical school of Cos, the scene of the labors of Hippocrates. It was dedicated to Asklepios, whose worship was the most enduring form of paganism, and gave much trouble to the ancient Christian missionaries. Hippocrates devoted his life to the sick and the maimed, and, probably, while he revered the supreme gods, he believed more in rest, pure air, exercise, diet, the use of remedies, and in the curative powers of Nature than in the direct interposition of Asklepios and the sacred serpents.

On this island of Cos it would seem that medicine, perhaps for the first time, arose as a great and beneficial agency, based on a practical and scientific foundation, for the relief of the suffering of mankind. How great was the debt we owed to those Greek priest-physicians, and especially to Hippocrates, the father of medicine!

In the course of an address on "Some historical questions in the light of our modern medical knowledge," Dr. Walsh referred to the many deaths that were supposed to have been caused by poison in the Middle Ages. As a matter of fact, there was reason to suppose that the cause of death was really appendicitis, ulcers of the stomach, or other abdominal troubles, and the deaths, which would very often take place after a meal, would be put down to poison by people who were ignorant of these diseases.

People in modern times were prone to think that the physicians of mediæval times knew nothing about medicine. As a matter of fact, they knew a good deal, and the surgery of the fourteenth century was almost as good as ours. They had also a knowledge of anæsthetics and antiseptics. Their knowledge of poisons, for instance, was very extensive, and we were largely dependent on their knowledge of the subject at the present time.

There was a period of decadency in medicine at the end of the eighteenth century, when our hospitals were the worst in the world, and we were accustomed to congratulate ourselves on the advance we had made since that time, forgetting what had happened in the centuries before.

The Borgias were supposed to have been terrible creatures, and yet Richard Garnett in his book had pointed out that only one death which she was supposed to have caused could be at all attributed to poison, and that was doubtful. These tales about poisons were traditions. In those days people used to pretend to have all sorts of poisons to sell to people who wanted to get rid of somebody. They were like our patent medicine advertisements, which pretended to cure every ailment there was. But what would the world two centuries hence think when they read those advertisements, and yet we called the Middle Ages superstitious? The people of those days were not the ignorant, superstitious, malicious people they were so often supposed to have been.

Referring to the influence of disease on national life, Dr. Walsh pointed out how malaria came to Athens, and was followed by the decadence of Greece. Recently the book-worm (or lazy disease) had been discovered. Was it not possible that the "ups and downs" of ancient Egypt might be attributed to that malady?

Dr. Lebard, in the course of a paper dealing with the color illustrations of medical works to the end of the seventeenth century, remarked that the earliest examples of color printing were to be found in medical books. The three-color process was not a modern invention, as was usually supposed, but dated back to 1710, the inventor being James Christopher Le Blanc.

The history and powers of the famous barber-surgeon company in England was recalled by Dr. Parker. The position between the famous surgical specialists of to-day and the comparatively humble barber-surgeon of mediæval times, who was only permitted to exercise skill under the direction of a physician, needs no emphasis.

VALUE OF EXPERIMENTS.

There was a very large attendance at the general session held in the afternoon at the Albert Hall, the special feature being an address on the progress of surgery by Professor Harvey Cushing, of Harvard University. Sir Thomas Barlow presided.

Professor Cushing, who wore his academic robe, recalled that a few years before the last congress in London, thirty-two years ago, the profession of medicine, and particularly those concerned with its basic science, physiology, had been called upon in this city to defend itself against the public charge of cruelty in its pursuit of knowledge. There had been no striking practical demonstration of the value to the common weal of animal experimentation, such as an enlightened public demanded, and, indeed, such as an enlightened profession expected.

The defence was based chiefly on the need, even at the cost of animal

life, of increased knowledge concerning the functions of the human body, but despite the warnings and protests of Huxley and a few others restrictive legislation was passed. Since then, in the British Isles, and consequently in other British-speaking countries, medicine had been placed in the absurd position of defending the character of the labors necessary for its advancement.

Was it not due solely to legislative restraint upon the freedom of investigation that in these thirty years this country, which had continued to produce the greatest of names in experimental science free from statutory restrictions, had given us few instead of many notable successors of Cheselden, Cooper, Pott, Brodie, Bell, and Lister? It would seem, indeed, that the restrictions placed upon animal experimentation had debarred the physician and the surgeon from productive laboratory investigations far more than the physiologist, whose inclinations towards research the statutes of 1876 were expressly designed to hold in check. The spirit of investigation, all too rare, ought generously to subsidize rather than tax, to encourage rather than hamper.

The output of the experiments of one participant in the congress of 1881 was said to have saved enough for France to enable her to pay the heavy indemnity which a war had imposed upon her. Nature was loath to give up the secrets she was known to possess; discoveries did not come by chance; they only came to those who industriously sought them; and the inquisitorial methods of those who sought the light through experimentation, misjudged as cruel, were necessarily stern and persistent, whether the investigator dealt with inanimate objects or with animate beings.

The congress now met again in London under circumstances strangely similar to those of a generation ago. Again, a legislative inquiry had just been forced upon British medicine by those who would abolish experimentation upon animals. But how different was the testimony now. It bared to the public gaze the science of medicine, which in thirty years had become transformed throughout the world as the result of the very activities the commissioners were called upon to investigate.

Medicine no longer was looked upon as uncommunicative, consulted in a back room, as though it had something to conceal from the patient and the family. The patient and the family were invited to join in the struggle against disease. Great funds were devoted to the purpose, great corporations were held responsible for the health of their people; what were formerly uninhabitable zones of the globe were being rid of their plagues; governments, civic, state and national, not only employed the weapons of attack and defence forged in the laboratories whose methods were in question a generation ago, but expected their medical officers to

make progressive contribution to further research. In this great movement, of which Huxley and Virchow and Pasteur had some foresight, was the expression of the new alignments taking place, which affected the surgeon no less than the physician.

It has been a seeming paradox that the medical profession had been so consistently endeavoring to make all the world a place where there was constantly lessening need for the doctor. He was, indeed, greatly feeling the effects of these efforts, and as he became more and more the servant of the public health and less and less the prescriber for individual ills, he philosophically accepted, and humanely welcomed, this outcome of medical discoveries which the experimental method had already given, and would increasingly continue to give.

Diseases which gave bread and butter to his predecessors were disappearing. One injection robbed diphtheria of its terrors. Typhoid was becoming a disgrace. Tuberculosis was everywhere coming under State care, and the widespread campaign against the disease in which those outside the profession were taking no insignificant part, was gradually losing its revulsion. The health of children at public schools was supervised by appointed officers. Dr. Pound, of Cure-lane, was being supplanted by Dr. Ounce, of Prevention-street.

To what was in some degree due the expectancy of recovery in consumption? Unquestionably, during experimentation on animals, a most important step forward was taken, although the chief credit would be with the earlier men. There had been nothing hitherto comparable with those relentless, persistent labors, which gave us chemical compounds that at a single dose destroyed the tissue of a dread disease. What would the opponents of animal experimentation of 1876 have thought to themselves could this have been foreseen—this, which was only a beginning, with pneumonia and cancer still to be overcome?

It was declared by some people that the means did not justify the end; that it was unfair to the lower animals, some species of which, with unquestioned cruelty, men sacrificed for adornment, for sport, for coursing, for food—some of which he deliberately mutilated in the process of domestication or in preparation for his table—some of which, like the infected rats and squirrels of plague-ridden districts, he must attempt to exterminate for his self-protection.

But in the search for knowledge the investigator did not exempt himself as a subject of so-called *vivi-section* when the lower animals did not suffice for his purpose; nor would he even hesitate to endanger his life, whatever might be the ethics of the question, if thereby information was likely to be gained concerning some disease fatal to his kind. Men in the London School of Tropical Medicine had not hesitated to submit themselves to experiment.

Would it not have been to the credit of the societies for animal welfare could such discoveries have come through their own efforts rather than through the efforts of those whose methods of research they were prone to question? (Hear, hear.) Large sums of money had been wisely devoted to the prevention of cruelty to animals, and much good had been done in the past; but by a strange process of evolution most of those now entrusted with those funds, instead of grasping the opportunity to advance as might be undertaken for the sake of man, at some expense to animal life.

The future offered a great opportunity for those societies whose capital was now largely expended on the one hand in the wholesale sacrifice of stray and diseased animals, and on the other hand in destructive criticism of the methods of those they called vivisectionists. By constructive investigations, and by the employment of the same methods which had been elaborated by those whose primary object was the study of the diseases of man, they might become as great benefactors of animals, and incidentally of men, as the medical scientists had been of men, and incidentally of animals. There could be no better outlet for the present wasteful methods of many of these organizations than the establishing of veterinary hospitals, in which modern methods of treating disease could be employed, and further investigations be made. There was promise in some countries that this wise step would be taken.

The weakest point in the case of the opponents of experimentation upon animals was the fact that the animals whose preservation they thought so desirable actually benefitted from the experiments as greatly as men. The discovery of the bacterial causes of distemper would have been impossible without such experiments.

It did not seem to be realized by the opponents of such form of research as entailed experimentation upon animals how few individuals undertook it, for the work required elaborate preparation and expensive and delicate apparatus. The opponents of research need have no apprehension on the score of the infliction of pain nowadays.

Proceeding, Professor Cushing said the progress of surgery had served to break down medical sects and systems; it had been one of the greatest factors in the re-alignment of medicine.

Under the new conditions the physician was becoming surgicalized, just as the surgeon was becoming medicalized. The surgical specialists should represent merely grafts of the parent stem. It had been said that the specialist should be a trained physician, a skilled surgeon, and something more. But he was often something else—and some thing less.

As the co-operation of those expert in special lines became more and more necessary, the tendency would grow for conjoint studies of indi-

vidual cases of disease to be carried out in properly equipped hospitals, where the data essential for the diagnosis could be more quickly and effectually accumulated, and the paraphernalia for the treatment kept in smooth running order for constant use.

The more difficult and complicated problems of disease would then graduate to large institutions, where no longer "visiting" appointees, but directors of hospitals united in continuous service, and aided by a correspondingly adapted hospital administration, could uninterruptedly devote themselves to their work without entering into competition with practices beyond the walls of the institution.

Sir Thomas Barlow, moving a vote of thanks to Professor Cushing, said he trusted it would be the keynote of this congress that the remains of the old jealousy between surgery and medicine should part for ever.

Their attention had been drawn to the enormous change in regard to the lay attitude with respect to vivisection. They knew now, to their great satisfaction, that enlightened lay men and women realized, at all events, the importance of many methods of vivisection, and the benefit they conferred upon the human race. But it should be driven home to intelligent laymen that the steps between scientific investigation and their direct utilitarian application to the benefit of mankind were not single steps, but a series of steps, and that in the initial stages of investigation the utility was not at once apparent. The justification of scientific treatment was the advancement of knowledge.

The motion was cordially carried.

GROWTH OF LUNACY.

Sir J. Chichon Browne, who presided over the Psychiatry Section, drew attention in his opening address to the increase of lunacy during the past half-century, and emphasized the need for further investigations.

In nearly all settled countries from which trust-worthy evidence was forthcoming, he said, the number of lunatics was increasing out of proportion to the increase of population. In this country, in 1859 the number of notified insane persons was 36,762; while on the first day of 1913 it was 138,377, an increase of 276.4 per cent., as compared with an increase of population in the same period of only 87.5 per cent.

Various plausible explanations were advanced to account for this enormous increase. No doubt much of it had been due to more accurate registration and to the accumulation in our hospitals of chronic patients whose lives had been prolonged by improved nursing and hospital care. But that would not account for all of it, and the disquieting fact remain-

ed that that increase had gone on, and was going on, while many of the best recognized etiological factors of insanity had been curtailed in their operation.

There seemed to be no good reason why insanity should increase, even in proportion, in a vigorous and expanding race. That it should increase at a rate so vastly in excess of the increase in population, while a notable fall in the death-rate betokened an improvement in the general health of the people, and while a marked amelioration of their condition as regarded feeding, clothing, and sanitation had resulted in a decided increase in the average duration of life, was well calculated to cause anxiety.

The segregation of so large a number of the insane ought to have diminished the propagation of that hereditary predisposition to insanity or neuropathic taint, which was so largely responsible for mental disease. The diminished consumption of alcohol and the increased sobriety of our people ought to have been followed by a reduction in the number of these cases of insanity in which alcohol was a principal cause, just as it had been followed by a reduction in the number of cases of delirium tremens and cirrhosis of the liver.

The fall in the death-rate from tuberculosis, which sent a certain number of patients to our asylums and figured so largely in their mortality, should have entailed a drop in the admission to them. Puerperal sepsis, which was productive of insanity in some women predisposed to it, by reason of inherited instability, was a disappearing quantity, and we should have some corresponding relief in the pressure on our lunatic hospitals. Syphilis, which bulked largely as a cause of insanity in some of its more fatal forms, was a waning disease; but we would look in vain for some abatement of the heavy toll which insanity exacted. Influenza, from which we had enjoyed comparative immunity of recent years—the death-rate from it had not exceeded one-half of what it was in 1900—had been a prolific cause of mental breakdown, and the decline in its prevalence and severity should have been perceptible in some shrinking of our mass of lunacy.

The six indubitable causes of insanity took a primary or contributory part in the production of 47 per cent. of the male and 39.4 per cent. of the female admissions to our institutions for lunatics in this country. All these causes had undergone a material restriction in their range of action of late years, while the admissions to institutions for the insane had undergone no equivalent reduction, but had steadily increased, and the accumulation of chronic lunatics rolled on apace.

It was clear, therefore, that if some of the most potent causes of insanity had become less active than they had been, other causes had be-

come more active or new causes had come into play. There was assuredly an urgent call for an investigation wider and more searching than any that had as yet taken place into the causes of insanity and their correlations and incidence, and such an investigation could not but be facilitated by the interchange at a congress like this.

While the preventive side of psychiatric medicine, founded on the etiological study of insanity, was its most hopeful aspect, its therapeutical side must not be neglected. Notwithstanding the vast sums expended on their construction, and their improved administration, the rate of recovery in our asylums had fallen during the last fifty years. The lowering of the rate was probably in some measure to be ascribed to the cumulation of chronic cases, and to the increased resort to asylums in the case of patients whose age and mental and physical condition precluded all hope of recovery. But, allowing for all that, it was clear that there had been no notable or efficacious advance in the remedial treatment of insanity during the period named, and that there was need for increased strenuousness in that clinical, pathological, and psychological investigation of it which a congress like this must stimulate.

The general health prospect of the country was brightening all round, but over our lunatic asylums there was a settled gloom. Great as had been the progress made, innumerable and momentous problems still solicited attention.

FEEBLE-MINDED CRIMINALS.

Dr. C. F. N. Treadwell (medical officer, His Majesty's Prison, Parkhurst) said that the term "feeble-minded" or "weak-minded" was used in prison parlance to denote all kinds of mental disorder which appeared to indicate lessened responsibility. Excluding such cases of the imbecile type as were readily apparent on a cursory examination, it would, he thought, be found that the conduct of the prisoner in prison was often the first factor to draw attention to his case. This was shown by his apparent inability to conform to prison discipline, the frequency of his reports for misconduct, or his re-action when under punishment, which, instead of deterring him, provoked him to acts of insubordination of a more aggravated character.

When one found the same prisoner continually behaving in a similar manner, re-acting in the same way, and so regardless of the fact that his own self-inflicted discomfort was out of all proportion greater than the annoyance he was causing to others, the question arose whether he was fully responsible; whether his power of controlling his actions was fully up to what should be a normal standard; whether he had an average power of reasoning and judgment at the time; or whether the more

elaborate mental processes engaged in reason and judgment were so slow or perverted that he could not be held to be completely responsible. It was, of course, difficult to justify a plea of partial responsibility, but this concept had become usual in practice, and without doubt had tended to modify the punishment awarded.

That some notice should be taken of these disorders of conduct, and some form of punishment, such as loss of diet, confinement to cell or room, or deprivation of privilege, must be administered would, he felt sure, be admitted by all who had had to deal with this class of criminal. To take no notice of his delinquencies would certainly be put down to weakness by the prisoner himself, and lead to continued acts of insubordination.

During the seven years that the Criminal Asylum at Parkhurst was in existence, out of 226 patients who passed through that establishment 136 had been previously classed as feeble-minded in the prison, that is, 60 per cent. The point was of interest in its bearing on the conduct of this type in the general asylum. It was considered by those responsible for their management very undesirable to have this type in ordinary asylums, and he could well understand the difficulty they created and the undesirable influence they exerted upon well-behaved inmates.

It had been suggested that this type of insane person should be treated in a criminal asylum and not in a general asylum. He was quite in agreement that careful segregation in separate establishments or blocks should be aimed at, upon a classification based upon conduct, and whether in asylums or in prisons or in institutions for the feeble-minded, the more complete the segregation of one class from another the better the conduct of all was likely to be.

"The following point," added Dr. Treadwell, "has perhaps not been fully appreciated. When a feeble-minded criminal of the badly-conducted class is placed amongst those who are well conducted, he is, of necessity, kept under special surveillance, the attendants are constantly watching him, certain forms of labor, if he is of the violent type, are not open to him, privileged positions of trust are necessarily denied him, and he is in a continual state of discontent, brooding over a sense of injustice at the favoritism, as he calls it, which is shown to others. Does not this same treatment follow him everywhere, even to the asylum if he should become insane? His segregation in separate establishments, or blocks, where more equal privileges can be afforded, may lead to less discontent and less disorder of conduct."

THE ORIGIN OF LIFE.

Dr. Charlton Bastian, consulting physician to the University College Hospital and the National Hospital for Nervous Diseases, in Queen

Square, gave a remarkable demonstration of bodies said to be living organisms, and to have been spontaneously generated in the course of some of his experiments. At first sight this claim appears to be simple enough, because the mind scarcely realizes at once the magnitude of its significance. But Dr. Bastian, in fact, told the members of the conference that he had performed certain experiments with chemical fluids, which at the beginning were absolutely free from living forms of any kind, and that during his investigations living beings—minute indeed, but nevertheless alive—came into existence.

This can have only one meaning, namely, that the distinguished investigator believes himself to have witnessed the origin of life itself. He started with chemical solutions from which all living things—even the tiniest microbes—were, as far as possible, rigorously excluded. He continued by sealing his solutions in tubes, to which there could be no entry of life from without. He then exposed them to great heat on three successive days; exposed them to temperatures that must certainly have destroyed all known living things, such as microbes, animalcules, or lowly plants of any kind. Dr. Bastien, indeed, carried out all these precautions with such thoroughness that it cannot be doubted that the sterilizing processes gone through were sufficient to kill any pre-existing living thing. Yet a few months after he is able to demonstrate in his sealed tubes forms of matter that even to experts have the very closest resemblance to elementary forms of vegetable life.

One asks the question, can it be possible that there is no error in the experiment—that, after all, this distinguished savant has found the key to the great origin of life in a small, sealed, glass tube, containing a simple mixture of metallic salts and water? At the British Association meeting, last year, Sir Edward Schafer created a great sensation by expressing the opinion that it is now not unreasonable to forecast the actual creation of new living matter in the laboratory, and he stated that, whilst it was out of the question to suppose that a highly-organized and complex being, such as a worm even, would ever be manufactured by scientific methods, there was no known difference between non-living and living matter from the chemical point of view, such as would make it appear an utterly hopeless task to build up the constitution of protoplasm (the essential basis of all living tissues), from simple chemical substances.

The most elementary forms of life of which we have any knowledge consist of little bodies like jelly, which, seen through the microscope, might be quite inert to those ignorant of their true nature; and it is an accepted theory to-day that even the most complex forms of life, such as the higher animals and man himself, are the product of long eras of

evolution, billions of years, perhaps, being taken up in the advance from one small stage to another. So that the scientist would expect that, should his efforts to create life in the laboratory be rewarded with success, his production will be nothing more than a little jelly, invisible without the aid of a powerful microscope, yet differing from ordinary dead matter, in that it would have powers of reproducing itself, and possibly of some movement. Certainly, it would possess powers of building itself up anew, and replacing waste, from the fluids of its environment.

As Professor Schafer pointed out, up to the time of the great Pasteur many authorities had believed in the constant creation of microscopic germs, and, indeed, believed that that was how microbes and small animal organisms arose—in the course of putrefaction, for example. However, since the brilliant demonstrations of that time showed conclusively that minute spores, literally seeds of microbes, would exist indefinitely in dry form or in liquid solution, resisting even great heat, and that these are the cause of the formation of microbes in solutions supposed to have been freed from them, few persons of eminence up to our own time have adhered to the old beliefs. On the other hand, Dr. Charlton Bastian believes in such new life-generation.

With regard to such alleged forms of life, as shown by him, Professor Schafer has said that he could not possibly believe that there had been no error in experiment. He stated that: "The appearance of organisms in such flasks would not furnish to my mind proof that they were the result of spontaneous generation. Assuming no fault in manipulation or fallacy in observation, I should find it simpler to believe that the germs of such organisms have resisted the effects of prolonged heat than that they became generated spontaneously. If spontaneous generation is possible, we cannot expect it to take the form of living beings, which show so marked a degree of differentiation, both structural and functional, as the organisms which are described as making their appearance in these experimental flasks."

He thus voiced the general scientific opinion of the day that these are mechanical productions taking the shape of living things. In this connection it is interesting to note that a distinguished botanist, unaware of its source, pronounced a certain specimen of Dr. Bastian's "organisms" to be a form of yeast.

The fact remains that Dr. Bastian yesterday not only showed bodies that to all intents and purposes are organisms resembling yeast and other moulds, but he further demonstrated similar specimens taken from other of his previous sealed tubes, which had been placed for several days under favorable conditions for stimulating their growth, and which appear to have multiplied very considerably. Dr. Bastian considers that

his experiments conclusively show the origin of living organisms, which not only grow themselves, but can reproduce their species. He has carried on his experiments year after year in face of great opposition from other leading scientific men of the day, and for his own part is convinced that his theories are correct.

The solutions used by Dr. Bastian in his experiments consist of such simple substances as pernitrate of iron, sodium silicate, and phosphoric acid, mixed in certain proportions and dissolved in distilled water. After the mixing of a solution it is sterilized, and then simply exposed to the action of diffuse sunlight for some weeks or months. Dr. Bastian himself believes that it is light that is the chief agent in the production of his interesting specimens.

SOME ENTERTAINMENTS.

In connection with the International Congress of Medicine, the Royal College of Surgeons conferred the Honorary Fellowship of the College upon the following foreign and Colonial surgeons: Professor R. Bastianelli, Rome; Professor A. Bier, Berlin; Mr. F. D. Baird, Melbourne; Dr. W. G. Crile, Cleveland, United States of America; Dr. H. Cushing, Harvard; Dr. A. F. von Eiselsberg, Vienna; Dr. E. Fuchs, Vienna; Dr. H. Hartmann, Paris; Professor W. Korte, Berlin; Dr. W. J. Mayo, Minneapolis, United States of America; Dr. A. Monprofit, Paris; Dr. J. B. Murphy, Chicago; Dr. J. Nicolaysen, Christiania; Dr. F. J. Shepherd, Montreal; and Professor T. Tuffier, Paris. They were given a dinner in the evening by the College.

While the doctors were at the Albert Hall in the morning, hearing the gracious message of the King conveyed by Prince Arthur, and listening to Sir Edward Grey and Sir Thomas Barlow, numbers of the ladies who had accompanied them assembled at Queen Alexandra House, specially set aside for their accommodation, to start on the various expeditions so thoughtfully arranged by the Ladies' Reception Committee. Parties of 100 went to Westminster Abbey and to Apsley House, parties of fifty were escorted to the Tower of London, St. Paul's Cathedral, the British Museum, and Dorchester House, and smaller groups went to Westminster Cathedral and the Medical Museum.

A garden party was given at Bethlem Hospital for those interested in psychiatry. The hospital was founded by Henry VII. Some 500 were received by Dr. Sir Thomas B. Crosby, president of the hospital.

Notable among the many events was the luncheon given at the London (Royal Free Hospital) School of Medicine for Women to some seventy distinguished members of the congress. Mr. F. D. Acland, M.P., Under-Secretary of State for Foreign Affairs, who is also chairman of

the council of the school, presided, and among the ladies acting as hostesses and all connected with the school, were Miss Aldrich Blake, M.D. (acting dean in the absence of Miss Julia Coch, M.D.), Dr. May Thorne (honorary secretary), Dr. Louisa Garrett Anderson, Dr. May Dickinson Barry, Dr. Elizabeth Bolton, Miss Brook, Dr. Maud Chadburn, Dr. Helen Chambers, Dr. Winifred Cullie, Dr. Louisa Hamilton, Dr. Mary Scharlieb, Dr. Jane Walker, and Dr. Florence Willey. The guests included Sir Clifford Allbutt, Sir Richard Godlee, Dr. Maude Abbott, Dr. Sarah Palmer, Dr. Esther Rosenkrantz, and Dr. Mary Sasonova.

The Dean of the Faculty of Medicine of the University of London and Lady Pearce Gould gave a garden party at the college, Regent's Park, for which some 1,500 guests accepted invitations.

The City welcomed the members of the Congress at a *conversazione* held in their honor at the Guild Hall. The handsome rooms bore their accustomed tone of brilliant coloring, their natural beauty being enhanced by a wealth of the choicest blooms. The numerous guests were received with stately dignity by the Lord Mayor and Sheriffs, after which they viewed the magnificent plate from the Mansion House, displayed for the occasion, and the numerous objects of interest exhibited in the museum. In the Guildhall itself, the band of the Royal Artillery played with their accustomed brilliance, in the library dancing proceeded merrily, whilst for those seeking less active amusement there was a capital entertainment and concert in the Council Chamber. The art gallery attracted large numbers of interested spectators, whilst keen attention was bestowed by many upon the City's ancient charters, dating from the reign of Henry II. Refreshments were served in the crypt. The whole entertainment bore the stamp of thoroughness so characteristic of the City's hospitality.

Other important garden parties were those at St. Bartholomew's Hospital, at which the recent extensions and improvements were duly noticed by the doctors, and that of the ladies' committee of the section of surgery, which took place at the Royal Botanic Gardens. Several sectional dinners and receptions were held in the evening.

A large afternoon party was given at St. Thomas's Hospital, when the numerous guests greatly enjoyed the view from the long terrace of the river and the Houses of Parliament. The treasurer (Mr. J. G. Wainwright), Sir Thomas Watney, the almoners, and members of the staff, with their ladies, received the visitors—among whom were the Lord Mayor and Lady Mayoress—in the Great Hall, through which they passed on to the terrace, where tea was served from long buffets.

Delightfully enjoyable and informal was the garden party at Windsor Castle, given by the King to some 2,000 members of the International Congress of Medicine. Of course, the unavoidable absence of their Majesties, who do not return to town until this evening, detracted from the stateliness of the event, but none more than their guests realized better how fully the King and Queen have earned the rest they are now having on the blue waters of the Solent. Every detail had been carefully planned, so that the company present should see as much as possible, and carry away a splendid memory of the British Sovereign's hospitality.

Sir Thomas Barlow and officers of the Congress held a reception at the Natural History Museum, South Kensington. Several thousands of members and their ladies attended. The gardens were effectively illuminated by electric bulbs, fairy lamps and lanterns.

It was in every way a brilliant gathering. The guests were received in the Central Hall, which had been decorated with palms and flowers, and they then passed to the various rooms, which were specially opened for them by the trustees. In addition to the usual exhibits, there was one in which great interest was taken; it consisted of a series of show-cases illustrating work done in connection with an investigation undertaken by Mr. J. Hartley Durrant and Lieutenant-Colonel W. W. O. Beveridge, on behalf of the British Museum and the War Office, to determine the origin of damage to Army biscuits by insect pests.

In the gardens the band of the Coldstream Guards, and in the museum the band of the Royal Artillery, played selections, and there were concerts in the Shell Room.

Members of the International Congress interested in skin diseases were entertained at St. John's Hospital, Leicester-square, by the Fellows and members of the London Dermatological Society.

One of the principal social events of the Congress was the reception tendered the delegates by Lord Strathcona in the Botanical Gardens. In his address the president of the Congress, Sir Thomas Barlow, said that the members of the Congress were the guests of the British Empire, a graceful recognition of the part the Canadian High Commissioner was playing in the entertainment of the delegates. Lord Strathcona's reception was the only one to which all the members of the Congress and the relatives accompanying them were invited, and Lord Strathcona himself personally greeted a very large number of his twelve thousand guests, the zest and energy which he displayed in their entertainment being the subject of universal comment.

PERSONAL AND NEWS ITEMS

Ontario.

All the smallpox cases were dismissed from the Meaford Isolation Hospital in the early part of August.

An average of five infant deaths each day for the first 26 days of July is shown by the report of the Health Department. Of the 383 deaths during the 26 days, 130 were infants under the age of one year. These figures are exclusive of still births. Dr. Hastings states that while the statistics are not as good as the Health Department would like to see them, they are not alarming considering the hot weather. Ninety per cent. of the 130 were artificially fed babies, and the balance were partly artificially fed.

That Toronto and the Province of Ontario are really making headway in the campaign against tuberculosis is shown by the number of patients in residence at the Hospitals for Consumptives at Muskoka and Weston, 438 patients, the largest number ever cared for in these institutions, being now in residence. Seventy-five patients are in the Muskoka Cottag Sanatorium, the pay institution; 17 in the Muskoka Free Hospital. Forty-eight are already in the new Queen Mary Hospital for Consumptives. Of this total of 445 patients, 306 do not pay anything towards the cost of their own maintenance; 55 pay \$4.00 or less per week; 287 are from the City of Toronto.

It is interesting to note that within a little over two months of the opening of the new Queen Mary Hospital for Consumptive Children 48 patients are being cared for, thus showing the urgent need of this new institution.

Joseph P. Downey, ex-M.P.P., Superintendent of the Orillia Asylum, G. M. MacDonnell, K.C., and Dr. F. Etherington, of Kingston, will form a commission to investigate the administration of jails and penitentiaries.

By permission of the exhibition authorities, the inmates of the Hospital for Incurables was given a free trip through the grounds on the occasion of their annual outing given by the Motor League.

Dr. Dorothea Orr, Toronto, has gone for a visit to the Canadian Northwest and the coast.

Dr. Murray McFarlane, Toronto, is visiting the Paris hospitals at present, and expects to be away from home until September 20.

While no official announcement has been made of the personnel of the Commission on Medical Education, which Sir James Whitney some time ago intimated would be appointed to deal with the question of medical registration in the Province. The Globe was informed that Dr.

Forbes Godfrey, M.P.P for West York, would be chosen to represent the Legislature when the selections are made.

Dr. G. Sterling Ryerson, Toronto, has returned from a vacation at Sturgeon Point, Kawartha Lakes. Mrs. Ryerson and Miss Laura Ryerson will remain for some time longer at "Oakhurst."

Dr. Bentley, District Medical Officer of Health, reported to the police that physicians here are not registering typhoid fever and other cases as required by law. Names and cases were given in the complaint.

Dr. Roberts, Medical Officer of Health, Hamilton, stated that his inspectors were making every effort to put a check to the typhoid fever that is more or less prevalent in the east end. He thinks carelessness is to a large extent responsible for it, and cautions citizens regarding their milk and water supply. He also thinks that boys who bathe in the bay and swallow water, run considerable risk of being infected.

A new warden of the Provincial penitentiary is to be shortly appointed, and Dr. A. E. Ross, M.P., is at present the man the Government has selected for the position. Whether Dr. Ross will accept is not known, but he is being urged to do so. That he would make a good head of the chief prison of the Dominion there is no doubt.

Dr. Robertson, house surgeon at St. Michael's, contracted a light attack of smallpox at the cadet camp at Niagara where he treated three cases which developed among the boys. Not realizing what his case was he stayed in bed three or four days, when he felt out of sorts, on his return to St. Michael's. When it became apparent that smallpox was the trouble, the city health department was notified, and Dr. Hastings had his officers on the spot inside of ten minutes. Dr. Robertson was sent to the Swiss Cottages at once. That his case is not serious may be witnessed by the fact that he is up out of bed after two days' isolation.

The Toronto Hospital for Incurables has much pleasure in acknowledging receipt of \$17.13, being amount of collection taken at the Sunday evening service at "Cottage Resort," Honey Harbor, and greatly appreciates the interests of the friends who are summering in that place.

The plans for the improvements to the City Hospital, Hamilton, were approved by the governor recently, and work will be started with the least possible delay. The alterations will cost \$100,000.

Dr. W. E. George, Provincial District Health Officer, for the North, left on August 19 for Swastika where some cases of smallpox were reported to have occurred among the Chinese.

Miss Robina L. Stewart, for several years the efficient and esteemed Superintendent of Nurses at the Toronto General Hospital, has resigned. Miss Jean Dunn, a distinguished Canadian graduate of the Presbyterian Hospital, New York, and for some time head of the Training School for

Nurses at Memorial Hospital at Morristown, New Jersey, has been appointed to succeed Miss Stewart.

Surgeon-Major Francis Vaux and J. T. Fotheringham have been appointed Esquires of the Order of St. John of Jerusalem, and Mrs. A. E. Gooderham, of Toronto, a Lady of Grace of the Order. After its expulsion from Malta in 1795 the Grand Priory of the Order was reconstituted in England, and a Royal charter was granted to it in 1888 by Queen Victoria, the first Grand Priors being King Edward VII. and King George V., then Prince of Wales.

The International Medical Association has appointed Dr. Clarence Leslie Starr, of Toronto, and Dr. Robert W. Lovett, of Boston, as members of a committee to further the progress of orthopedic surgery in America, and to arrange for an international meeting to discuss the various phases of surgery of this nature. Both physicians appointed are of international reputation, and are considered as leading authorities on these subjects. Word of the appointment was received in Toronto recently.

Dr. James S. Sprague, late of Perth, has removed to Belleville.

Dr. Charles Cuthbertson, Toronto, has removed from 108 Bloor St. West, to Madison Avenue.

Dr. William Oldright, who has been in the West Indies for six months, has returned to Toronto.

Dr. A. M. Rosebrugh has removed his residence to 249 Huron St., Toronto.

Dr. Frank Beemer, of Toronto, was abroad with the late S. H. Janes. He visited China, Japan, India, Ceylon, Australia, New Zealand, Egypt, Norway and Sweden, and England, where he was when Mr. Janes died.

Dr. Pyne, Minister of Education, has been in Britain. He addressed the teachers' convention, and arranged to have the next conference in Toronto.

Dr. H. A. McCallum, London, has been made an honorary member of the Summit County Medical Society at the meeting held at Akron, Ohio.

Quebec.

The infant mortality for the week ending Saturday, July 26th, totalled 169 under five years. Of these 150 died under one year of age. The total deaths were 273, and the total births registered 240, so that the deaths exceeded the births' record by 33, for the first time this year.

An interesting feature of a recent health report for Montreal was the death of a newly born infant from smallpox, contracted from its mother.

Asked what was the main cause of the increase in infant mortality

Dr. Ward, city statistical officer, Montreal, said the heat and diarrhoea, the last being mostly brought on by the heat. Improper feeding has also something to do with it. The remedy, therefore, would be to keep the house or the room where baby is cool.

Montreal Health Officer, Dr. Laberge, will recommend the extension of Government quarantine to inland centres. Now a person who is exposed to infection just before leaving his home port will not develop it till he passes the Dominion quarantine inspectors. The only way to have a neffective, real quarantine is to follow up these persons who arrive, and examine them medically for the second time after they have been some days in the country. So far neither the Quebec nor the Dominion have done anything.

Dr. J. Alex. Hutchison, Montreal, was elected a fellow of the American Surgical Association at the meeting held in Washington a short time ago.

From the McGill Medical Calendars it appears there are at present 365 students in the medical department, and 32 dental students. From Quebec, 95; Ontario, 101; New Brunswick, 27; Nova Scotia, 22; United States, 45; Newfoundland, 10; Prince Edward Island, 10; England, 1; West Indies, 22; Manitoba, 3; British Columbia, 45; South Africa, 1; Alberta and Saskatchewan, 13; British Guiana, 5; and Australia, 1.

Western Provinces.

While suffering from melancholia, Dr. A. T. Watt, superintendent of the quarantine station at William's Head, jumped from a third storey window at St. Joseph's Hospital at an early hour on July 27, and was instantly killed. Several causes combined to unsettle Dr. Watt's nerves, and these had a cumulative effect. His only brother, Herbert, to whom he was greatly attached, died within the past six months. Recently the serious illness of his eldest son, Ernest, necessitated a journey to Toronto to see him.

Dr. L. C. Gray, Ph.D., of Wisconsin University, at present doing research work at the Carnegie Institute at Washington, has been appointed professor of the chair of research at the university here.

From Abroad.

Dr. A. T. Lynn, aged 108 years, the oldest man in Illinois, died at his home near Panan recently. His death came suddenly. He celebrated his 108th anniversary on May 28 last. Dr. Lynn was born in Ohio and had practised medicine for more than 75 years. He leaves 62 grandchildren and 53 great-grand-children.

Europe is discussing the Friedmann consumption cure, and expert opinion there is increasingly unfavorable. Recent messages from Berlin show that almost the entire body of leading experts have become critical

if not pronouncedly hostile. They object strongly to the secrecy which surrounds the origin of the serum. They declare the results so far unsatisfactory, and in some cases not alone negative, but positively harmful.

The problem of providing properly for tuberculates seems as urgent in the large cities of Scotland as elsewhere in the world. In Edinburgh recently the public health committee of the town council recommended the establishment of a municipal dispensary and farm colony for consumptives. At Glasgow, the corporation sub-committee on the prevention of tuberculosis recommended some time ago the erection of a sanatorium for the care of city children predisposed to pulmonary phthisis, and a site has already been selected for that purpose.

Mrs. George William Hooper, of San Francisco, has presented the University of California with \$1,000,000 for the establishment of an institute of medical research. The gift is in memory of a husband, who for years had suffered from a malady that baffled medical skill.

Miss Margaret E. Thompson, a Civil War nurse, died of pneumonia at her home in Detroit on June 8. Deceased was eighty-four years old, having been born in Ann Arbor in 1829, the daughter of Reverend O. C. Thompson, a Congregational minister, who conducted a school for boys in the university city. During the rebellion she served as a nurse in the federal hospital at Alexandria, Virginia, and after the cessation of hostilities was an important witness in the trials of the prison heads at Andersonville and Libby.

Doctor Forbes Winslow, a well known London alienist, died suddenly at his home, June 8, of heart disease. The doctor, who was sixty-nine years of age, was the founder of the British hospital for mental disorders, and had investigated many lunacy cases in England and the United States. Among the studies for which he is most widely known is the exhaustive inquiry into the notorious "Jack the Ripper" crimes which startled London twenty years ago. He was a lineal descendant of Edward Winslow, one of the leaders of the pilgrim fathers and the first governor of New Plymouth.

Mr. George John Fenwick, of Crag Head, Bournemouth, has left free of duty, the sum of £50,000 to the Royal Victoria Infirmary, Newcastle, to be invested as a permanent endowment fund. He has also left a legacy of £1,000 for the general purposes of the Infirmary. Mr. Fenwick was formerly a senior partner in Lambton's Bank, Newcastle.

We regret to record the death, last month, of Dr. William Henry Langley, of the West African Medical Staff, who had won much credit both for himself and his profession, and for the country of his origin. Born in 1868, Dr. Langley received his professional education at Carmichael's College and in the schools of the Royal College of Surgeons in

Ireland, becoming L.R.C.P.I. and L.R.C.S.I. in 1893, and F.R.C.S.I. in 1902. After completing his studies he worked for some years in the neighborhood of Dublin, among other things acting as assistant surgeon at Richmond Hospital. He then accepted an appointment from the African Department of the Colonial Office. Soon after his arrival on the West Coast, he was called upon to take part in the Borgu expedition, for which he received the medal and two clasps, and within three years again saw active service on the occasion of the Kantagoro expedition, being mentioned in dispatches and receiving another medal and clasp. Finally—in the way of service in the field—came the Sokoto operations, for his services in which he was awarded the honor of the Companionship of the Order of St. Michael and St. George.

An active movement has been set on foot to establish a lectureship to the memory of Dr. G. A. Gibson, of Edinburgh. The committee is meeting with marked success in its efforts.

The new Phipps Institute, in connection with the University of Pennsylvania, was opened recently. It is a magnificent building and well equipped.

Britain is somewhat disturbed by the marked increase in mental diseases, as shown by the latest report of the Commissioners in Lunacy. The number of officially recorded insane persons under care in England and Wales on January 1, 1913, was 138,377, an increase during the year of 2,716, which is 275 above that of the annual average of the last ten years, and 257 above that for the last five years. The private patients under care on January 1, 1913, numbered 11,353, of whom 4,852 were males and 6,501 females. Pauper patients numbered 125,841, or 90.9 per cent. of all the reported insane. There were 1,183 criminal insane, of whom 903 were males and 280 females.

It is reported in the press that Dr. Thomas G. McNamara, of New York, offered a friend what he thought was an asperine tablet. The friend said he could not swallow it, and the Doctor did so to show him how. It was a bichloride of mercury tablet, containing $7\frac{1}{2}$ grains. By means of the stomach pump, he recovered.

BOOK REVIEWS

DISEASES OF THE EYE.

Diseases of the Eye. By George E. DeSchweinitz, M.D., Professor of Ophthalmology in the University of Pennsylvania. Seventh Edition. Thoroughly Revised. Octavo of 979 pages, 360 text illustrations, and seven lithographic plates. Philadelphia and London: W. B. Saunders Company, 1913. Cloth, \$5.00 net. Half Morocco \$6.00 net. Sole Canadian agents: The J. F. Hartz Co., Ltd, Toronto.

This work of Dr. DeSchweinitz has been so long and so favorably

known by the medical profession that reviewing it seems like a superfluous work. It has stood the test of time, and one edition after another is called for, and speedily absorbed. There are a number of paragraphs and special articles to bring the volume up to date. Proper attention has been given to vaccine therapeutics. Throughout the text there are 360 illustrations. These have been chosen with much care, so as to aid in elucidating the text. The paper, type and binding are all that one could wish in such a work. We congratulate both author and publishers and wish for the volume a wide circulation. It is a safe guide on Diseases of the Eye.

APPLIED BACTERIOLOGY FOR NURSES.

Applied Bacteriology for Nurses. By Charles F. Bolduan, M.D., Assistant to the General Medical Officer, Department of Health, City of New York and Marie Grund, M.D., Bacteriologist, Department of Health, City of New York. 12mo of 166 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1913. Sole Canadian agents: The J. F. Hartz Co., Ltd., Toronto.

This is the first edition of what will prove to be a very useful book. It is intended for nurses, and gives the information they require on bacteriology. The subject is made quite interesting by the authors. We can very cordially recommend the book.

A REFERENCE HAND-BOOK OF GYNECOLOGY FOR NURSES.

A Reference Hand-Book of Gynecology for Nurses. By Catharine Macfarlane, M.D. Gynecologist to the Woman's Hospital, of Philadelphia. Second Edition, thoroughly revised. 32mo of 156 pages, with original line-drawings. Philadelphia and London: W. B. Saunders Company, 1913. Flexible leather, \$1.25 net. Sole Canadian agent: The J. F. Hartz Co., Ltd., Toronto.

This is an excellent little book for nurses. It gives in clear language, aided by good illustrations, the information that nurses should know regarding this very important branch of their work. Any nurse who will study this book will be a much better nurse for having done so.

BINNIE'S OPERATIVE SURGERY.

Manual of Operative Surgery, by John Fairbairn Binnie, Am. Com. (Abor.) Surgeon to the General Hospital, Kansas City, Mo.; Fellow of the American Surgical Association; Membre de la Societe Internationale de Chirurgie. Sixth Edition, revised and enlarged, with 1,438 illustrations, a number of which are in colors. Philadelphia: P. Blakiston's, Son & Company, 1012 Walnut street. 1913. Price, \$7.00 net.

This superb work on Operative Surgery stands alone in a class by itself. The possessor of this volume needs nothing further on this line of his work, even though he be a surgeon to the manner born. The latest and the best are to be found here, and stated in as perfect a form

as it is possible for the human mind to put things. Every region is covered, and all the operations on these described. The illustrations are both numerous and good. The author has a clear way of describing the various steps in any operation, and this lends a charm to the book and makes its study an agreeable task. The publishers have done their part well. The paper, type and binding is in keeping with the best traditions of the well-known house that issues this volume. We, therefore, have much pleasure in recommending Binnie's Operative Surgery.

MISCELLANEOUS MEDICAL NEWS

HEALTH BOARD ACTS.

Municipalities and individuals who fail to remove unsanitary conditions at the behest of the district officers of health will be brought to time by the Provincial Board of Health. Indeed, some have already learned the power conferred upon that body by the Health Act of the province.

Recently a municipality was instructed to undertake a work in the interest of the public health and remedy a situation which amounted in fact to a nuisance. It was loath to spend money on such an object, and took no action. The Board of Health thereupon, acting upon a section of the Health Act, had the work done. The bill was sent to the municipality in question, and it will have to pay the cost.

Several hotels in outlying districts were faced with an order of the district officers to improve sanitation, and at first demurred. They found, however, that they could not disobey and remain open for business. One proprietor demanded to know how he could be compelled to make improvements, and when shown the law decided to do the work himself as directed. Another was told last fall to make some changes in order to provide healthy surroundings for its patrons. Nothing was done this spring, and the proprietor was given until August 1 to comply with instructions. He has since announced that the work was completed by that date.

VITAL STATISTICS OF TORONTO FOR JULY.

According to official registration figures issued by the City Clerk, the population of Toronto had a natural increase of 753 last month. Births registered numbered 1,283 and deaths 530. While the births registered in the corresponding month last year fall over 260 short of this year's number, the deaths were over 100 more than reported last

month. Despite the rapid growth of the city, population showed a falling off over the same month last year. There were 633 marriages registered in July.

Reports show that the general health of the city during July is much better than prevailing during the same period last year. Deaths reported from contagious diseases were two less last month than in the corresponding month last year. Tuberculosis claimed the greatest number of victims. The following is the report: Tuberculosis, 29; diphtheria, 1; scarlet fever, 1; measles, 3; whooping cough, 3; typhoid, 1.

IMPORTANCE OF STATE MEDICAL DEPARTMENT.

Major Sir Ronald Ross, winner of the Nobel prize for medicine in 1902, and now professor of tropical medicine at the University of Liverpool, in discussing tropical sanitation at one of the sectional meetings of the International Medical Congress advocated the formation of a separate department of State to deal with the health of the community. He denounced the British system of subordinating the sanitary to the medical service, and declared that the precedent introduced by the United States in the Panama Canal zone, making the chief sanitary officer the head of both services, was a far better method. Sir Ronald, who has made a special study of malaria, was in the Indian medical service for many years.

RULES FOR PRESERVING HEALTH.

Prof. Vincenz Czerny, one of the greatest of the Heidelberg surgeons and an authority on cancer, is leaving his post this month, having attained the age of seventy. He has issued a kind of moral statement in the shape of seven injunctions to those who wish to go through life with healthy body and mind.

“1. Look after both body and mind in a rational way; divide the day reasonably between labor and recreation; eat healthy food; observe all rules of cleanliness and live in a dry, sunny and well aired house.

“2. Work eight hours at your calling, take eight hours for recreation, exercise and self-improvement and eight hours for sleep. One gets rest when asleep between two hours before and two hours after midnight. In the other eight hours you may count two for the three meals of the day, two for art or reading, two for family intercourse, or for public works, and two hours for some exercise or sport—walking, climbing, riding, rowing, swimming or gymnastics.

“3. Food must be both sustaining and easily digestible. You should not consume more than a pint of food and drink at each of the

three meals; anything more than this overloads the stomach. In consequence observe moderation.

"4. You must not be a slave of enjoyment. Alcohol, coffee, tea and tobacco have no nutritive qualities, but through the usages of generations they have become almost necessities and are not easily replaced. They are all poisonous, but through customary use they have lost some of their dangers. By injudicious use of them you will shorten your life.

"5. From childhood up see that you are clean. Have at least a sponge down with cold water every day; twice a day clean the teeth and wash both hands and face. Take a hot bath once a week and see that you change your linen and bed linen regularly. Your rooms must be large, dry and sunny and the bedrooms especially must be large and well aired.

"6. Bring only as many children into the world as you can feed and educate; and

"7. When ill do not delay to consult a really capable doctor and follow his advice."

CANADIANS AT INTERNATIONAL CONGRESS.

The following delegates were registered at the International Medical Congress: From Montreal, Maud Abbott, George Adams, Edward Archibald, George Armstrong, Herbert Birkett, Alexander Blackader, Philip Burnett, Gordon Campbell, Thomas Cotton, John Elder, Frederick Finley, Oskar Gruner, James Guerin, David Gurd, Stephen Langevin, Duncan McTaggart, Francis Nagle, Colin Russel, Francis Shepherd, John McCrae, Alexander Stewart, Grant Stewart, J. L. Todde, Edmund Van Eberts, Ernest White, Robert Wilson. From Toronto, W. H. B. Aikins, H. B. Anderson, Herbert Bruce, Frederick Harrison, George Campbell, James Cotton, Colonel Fotheringham, Perry Goldsmith, Andrew Gordon, Duncan Graham, Samuel Johnstone, Ernest Jones, Archibald Macallum, Byron Macallum, Samuel McCoy, John McCullough, Thomas McMahan, J. McMurrich, Alexander McPhedran, Maurice McPhedran, Samuel Moore, William Ogden, Alexander Primrose, Richard Reeve, Robert Rudolf, David Smith, Hugh Smith, I. R. Smith, Bruce Smith, Clarence Starr, John Stenhouse, Benjamin Watson, George Whitmore, David Wilson, Adam Wright. From Winnipeg, Arthur Burridge, A. Campbell, Herbert Galloway, George Hughes, Swale Vincent. From Kingston, J. W. Campbell, James Connell, Edward Ryan, James Third. From Calgary, George Anderson, William Lincoln, Harry Gibson. From Vancouver, William Burnet, Ezra Drier, James Farish, Colin Graham, H. C. Lindsay, John Mellish. From Oshawa, George Carmichael. From Ottawa, John Chabot, Thomas Gibson, Charles Hodgetts, Guy Jones,

Charles Preston. From Alberta, John Collinson. From Brantford, Reginald Digby. From Halifax, David Harris. From Walkerville, C. W. Hoare. From Victoria, Oswald Jones. From Prince Albert, J. J. Labrecque, Buckingham Lapierre. From Drummondville, A. Lassonde. From St. John, Murray Maclaren. From Battleford, James MacNeil. From London, Harry Meek, William Weekes, Hadley Williams, Anthony Ochs. From Quebec, Stuart Ramsey, C. H. Reason. From Mitchell, Arthur Smith. From Detroit, R. Vardy Metcalf, William Wallace. From Edmonton, Robert Wells.

WOMEN AS PHYSICIANS.

Prof. Hochenegg, an eminent Austrian surgeon, has declared it as his opinion that women are not adapted for the work of medical practitioners.

In addressing the Austrian Women's Association recently the professor highly praised the work of women as nurses, and deplored the fact that the remuneration of competent nurses was scarcely superior to that of domestic servants. He said his opinion was shared by many of his colleagues. "A doctor," he declared, "must judge independently and often act rapidly. His whole work demands qualities that are rarely found fully developed in the female sex. Despite the great industry and the high intelligence shown by many of my women students, they are destined to succumb in the struggle, or at least not be able to attain a position corresponding to their work and to their sacrifice of the joys of life. As nurses of the sick and the wounded the conditions are entirely different. In this field women possess special power and fitness, and are not subject to male competition. Here their triumph is assured."

CHRISTIAN SCIENCE.

Christian Science, says an American exchange, holds to the Oriental doctrine that the world and its things are illusory products of the mortal mind. Christian Science is asserted to be the science of Christianity—to reveal the truth about God and the so-called mystery of man. It affirms the infinite spiritual personality of God, and denies all men-made conceptions of Him as a finite being, and declares that the material sense is incapable of comprehending God, and that He can be only spiritually or supersensitively discerned. Mrs. Eddy, the mother of Christian Science, declared also that God is Substance, meaning thereby that the spirit, or mind, is the only imperishable reality. She denied that sin, sickness, or death can exist with the approval of God and asserted that

His laws provide only for life. It is thus reasoned further that sin and its consequences are the unnatural manifestations of the mortal mind, and that sickness and death, which are the natural results of sin, can be controlled and abolished. Every kind of disease is declared to be curable, and the primary cause of sickness to be found in the mental realm. The Messiahship of the Divine Christ is maintained to be the manifested mediatorial link between sinning and suffering mortals and the Divine Soul, God. Pain and suffering are asserted to have no part in the purified life of man, which principle has been one of the chief causes of attack upon Christian Science, it being claimed by its critics to be in direct contradiction to the doctrine of the atonement and the scheme of salvation established by Christ.

CANADIAN RESOLUTIONS.

The Canadian members of the medical profession who have been attending the International Medical Congress at a meeting held at the Imperial Institute on Tuesday morning, August 12th, unanimously passed the following resolutions:

Moved by J. T. Fotheringham, Toronto, seconded by J. M. Elder, Montreal: That we wish to offer to the President, Sir Thomas Barlow, to the Secretary, Dr. W. P. Herringham, and to the whole Committee, our hearty congratulations upon the great success which this meeting of the Congress has attained under their kindly and able administration. But particularly as members of the great British family do we desire to express the sense of familiar, homely intimacy which is felt by all of us, enhanced as it is by the presence of so brilliant a gathering of the savants of other climes and races. For, as Canadians, revisiting the Motherland *coelum non animum mutamus*, we deeply appreciate the real significance of the idea expressed by His Royal Highness Prince Arthur of Connaught in his gracious address of welcome, that all of us of the noted with pleasure the repetition of this idea by the President in his Empire stood together as hosts to all the rest of those attending. We address.

On behalf of the Canadian ladies, we wish to thank the Committee of Ladies here for the profuse and well-ordered hospitality shown by them, and the many arrangements made for the comfort and entertainment of our wives and daughters.

And as we part, each to his own work across the seas, we beg to offer to all our kind hosts and friends in London our cordial felicitations, thanks and good wishes.

Moved by Dr. Jas. Third, Kingston, seconded by Dr. R. A. Reeve, Toronto: That the thanks of the Canadian Section of the International

Medical Congress be tendered Dr. W. H. B. Aikins, Toronto, for his able services as Secretary of the Canadian National Committee during seven years and member of the Executive Committee of the 17th International Medical Congress.

Moved by Dr. H. A. Bruce, Toronto, seconded by Dr. H. J. Hamilton, Toronto: That the Organizing Committee for Canada for the 18th International Medical Congress, to be held in 1917, be constituted as follows: Chairman, Dr. W. H. B. Aikins; Secretary, Dr. H. B. Anderson; the Deans of the Medical Faculties of the Canadian Universities and the Presidents of the Canadian Medical Association for the years 1916, 1917, with power to add to their numbers.

CANADIAN MEDICAL ASSOCIATION, LONDON, JUNE 24 TO 27.

Under the presidency of Dr. H. A. McCallum, of London, several hundred Canadian physicians and surgeons met in London, with the object of advancing medicine as a science, and also improving its usefulness as a social force in the country. Many interesting subjects were discussed.

Dr. T. S. Cullen, of Baltimore, discussed at length the cancer problem. He was glad that the lay press was disseminating knowledge on this disease. He contended that if the public were only educated to the point of submitting early to operative treatment a large percentage of cures would result, even in internal cancer. The medical profession should use its influence to have beyief become prevalent.

There was a lengthy discussion on several papers dealing with venereas. Dr. Halpenny opposed this view. Dr. J. G. Adami, of Montreal, A. Clarkson and R. E. Woodhouse advocated the segregation of vice areas. Dr. Halpenny opposed this view. Dr. Dr. Adami of Montreal, emphasized the need of united action upon the part of doctors, but keeping away from the moralists. They were in sympathy with those who attacked the social evil from the moral side, of course, but they were dealing with a different view of the question—the physical well-being of the race. Dr. Harris of Halifax was satisfied that if they gave the government the facts they had in their possession, legislation would be enacted. Some speakers declared that moral suasion had been a failure, but Dr. Hutchinson of Montreal was still hopeful of that, saying that unless they could get people to lear a better life he did not know what could be done.

The question was referred to a special committee composed of Prof. Harris of Halifax, Dr. Bapty of Victoria, Dr. Halpenny of Winnipeg, Dr. Hill and Dr. E. I. Williams.

In his absence in Edinburgh, Dr. John Stewart, of Halifax, sent on a contribution on school medical inspection.

Dr. Stewart stated that there was need in Canada of a national health service that would properly deal with such questions as immigration, factory sanitation, adulteration of foods, control of disease and medical inspection in the schools. In the discussion that followed, the national health service was favored by most speakers.

As to the health of children, Dr. Bapty advocated a change in school terms, declaring that children were shut up at the very time they should be getting sunlight and fresh air. Dr. Helen MacMurchy of Toronto, who was chairman of this section, coincided with this view, adding that the children were shut up for the best hour of the day. Outdoor work shops provided the solution of the problem, according to Dr. Bapty, who declared that the regular school curriculum could be picked up later. Co-operation between school boards and boards of health was urged by several speakers, and a committee named to bring in a resolution covering the various points discussed.

The Canadian Medical Association again reaffirmed its stand in favor of a Federal Health Department.

Sir James Grant, who has attended forty-three of the forty-six conventions held during the 46 years of the life of the association, was signally honored by being elected a life member.

President Dr. McCallum of the association announced that he had appointed Dr. Hutchinson of Montreal and Dr. Thompson of Regina to the Executive to fill the vacancies caused by the resignations of Dr. Mackid and Dr. Whitelaw.

The following were elected to the Executive Council:—Drs. MacKid, Calgary; Primrose, Toronto; Small, Ottawa; Adami, Montreal; Halpenny, Winnipeg; Mader, Halifax; Whitelaw, Edmonton; Reeve, Toronto; McKechnie, Vancouver; Drake, London; White, St. John; McNeill, Summerside, P.E.I.; Brett, Banff; Park, Edmonton, and Starr, Toronto.

St. John was selected as the next meeting place of the Canadian Medical Association at the final session of the annual convention held here 10-day. Dr. Murray McLaren, of that city, was recommended for the presidency, and his selection was afterwards ratified by the association. The representatives of St. John were well pleased with their success, and promised to entertain the six hundred members of the association.

CHILDREN WITH DEFECTIVE SIGHT.

A letter received by Mr. Gardiner, principal of the Ontario School for the Blind, from the Superintendent of the American Mission School for the Blind at Bombay, India, mentions that the estimated number of blind people in India is 500,000, of whom certainly not more than 500 have had any opportunity for an education or training along industrial lines. Reports from many places in the United States, as well as from several European countries, indicate that blindness is decreasing in the most highly civilized communities, largely as the result of greater knowledge, and more attention to preventive measures, on the part of physicians and nurses. While the returns of the last Dominion census on this subject have not yet been tabulated and published, there is reason to believe that a similar statement is applicable to Canada. Nevertheless, it is probable that there are now—as there always have been—many young people in Ontario who ought to be enrolled as pupils in the School at Brantford, but are not. Some parents of blind children have never heard of the School; others are sensitive about letting it be known that their children are afflicted; many, from what might be described as excessive affection, do not like to be separated from their children, even for the children's good. To get into communication with the parents of those for whose benefit the school is maintained, the principal depends largely upon the kind intervention of neighbours, teachers, ministers and municipal officers and he will be glad to get from any reader of THE LANCET the name and post office address of any person under twenty-one years of age, who is blind, or whose sight is so defective that attendance at the local Public School is not practicable. By the methods in use at Brantford, a good English education can be acquired by the sightless, and instruction is also given in such trades as are available to enable the blind to become self-supporting. There is no charge for board, tuition or books. Address H. F. Gardiner, principal O. S. B., Brantford.

MEDICAL PREPARATIONS, ETC.

THE TEST OF A TONIC.

The field and function of a systemic tonic is generally understood and appreciated by both physician and patient. To stimulate, whip or goad the vital processes is not to "tone," but, on the contrary, to ultimately depress. A real tonic is not a mere "pick-me-up," but some agent that adds genuine strength, force and vigor to the organism. The genuine tonic is a builder or reconstructor of both blood and tissue.

Any agent which will increase the power of the blood to carry and distribute the life-giving oxygen is a tonic in the best and truest sense of the word. Iron in some form is an ideal tonic, as it builds up the vital red cells of the blood and the hemoglobin which is their essential oxygen-carrying element. Of all forms of iron, none is quite as generally acceptable and readily tolerable and assimilable as Pepto-Mangan (Gude). It creates appetite, tones up the absorbents, builds the blood, and thus is a real tonic and reconstructive of high order. It is especially desirable because of its freedom from irritant properties, and because it never causes a constipated habit.

WAMPOLE'S LIQUID FERROSE.

LIQUOR FERRI ALBUMINATI, WAMPOLE.

Liquid Ferrose is a definite compound of iron that exerts no effect on the gastric mucous membrane or digestive fluids, and is not soluble in the acid juices of the stomach, but is entirely soluble in the alkaline pancreatic, biliary and intestinal secretions, as well as readily assimilable in the intestines. It does not precipitate albumin, pepsin, or albumoses, and is entirely free from astringent action upon the mucous membrane of the stomach or intestines.

Liquid Ferrose is particularly valuable in the treatment of those patients whose daily life is conducive not only to anemia, but also to lessened power of digestion or assimilation, or in the treatment of those patients in whom anemia exists without apparent cause, accompanied by nervousness, rapidity and irregularity of the heart's action, breathlessness, vertigo, indigestion, weakness and lack of energy. In these cases iron is needed by the impoverished blood and poorly nourished tissues; but the administration of iron in an organic form is often followed by a great disturbance of the digestive process, and a consequent augmentation of the already depressing symptoms. It is in these cases that LIQUID FERROSE, on account of its presenting iron to the absorbents of the intestinal canal in exactly the same condition in which it exists in the iron-bearing food, causes rapid increase of hemoglobin and of the number of red corpuscles.

DOSE.— For adults, a dessertspoonful four times daily, preferably before each meal and before retiring; for children, one or two teaspoonfuls.

Put up in 16 oz., and half-gallon bottles, and gallon jugs.

HAY FEVER: "DISEASE OF MYSTERY."

Dr. S. Fuller Hogsett, of Pittsburg, in his excellent paper, "An Experimental Therapy in Hay Fever," read at a meeting of the Uni-

versity of Pittsburg Medical Society, and published in the April (1913) issue of *American Medicine*, New York, points to some interesting facts respecting this "disease of mystery," as he not inaptly refers to it. "As far back as the year 1565," says the doctor, "Botallus reported a case. Again, in 1673, Von Halmont, and in 1698 Floyer, of London, called attention to this condition. In Good's 'Study of Medicine' there is reference to a case related by Timaeus in 1667 of an attack of asthmatic nature caused by the odor of roses and ipecac."

Thus it will be seen that hay fever, instead of being a disease of modern origin, as many may have presumed, is in reality centuries old.

Discussing the problems of etiology and treatment, Dr. Hogsett continues: "Many theories have been elaborated, and many forms of treatment have been called to the attention of the medical profession. A strain of pessimism regarding the possibility of a cure in this condition appears in the writings of many authors. No one theory account for all features of the affection and the many etiological factors."

In 1912 Dr. Hogsett treated a number of cases successfully with Mixed Infection Phylacogen. His observations as to methods and results are of interest and value. "In carrying out the Phylacogen treatment," he says, "I have found that the initial dose should be small when given either subcutaneously or intravenously. It has been my procedure to begin with a 2 c.c. dose subcutaneously or one-half c.c. intravenously.

. . . In giving the subcutaneous injection I usually select the insertion of the deltoid or the area just below the scapulae. The latter seems to be the ideal spot, as absorption takes place very readily and the complaints from the local reaction are much less. I repeat my injection either daily or on alternate days, the interval to be determined by the clinical condition of the patient. It is seldom necessary to give more than four to six injections, the symptoms often disappearing after the second or third injection. Almost immediate relief is noted by the patient. The irritating discharges from the eyes and nose are diminished in amount, the sneezing is lessened, the dyspnea is relieved, and the patient usually sleeps comfortably. All cases that I have treated successfully have remained well through the season. I have yet to record only one failure, but I have not had a sufficient number of this class of cases as yet to warrant a positive claim that this remedy will act in all forms of the disease."

Clinical experience with Mixed Infection Phylacogen in the treatment months will undoubtedly tell the story of its applicability to this hitherto intractable disease, and the results of a more extended trial will be watched with a deal of interest.
