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EDITORIAL

THE KING EDWARD MEMORIAL FUND.

There occurred in Toronto, in the Convocation Hall of the University, on Saturday, 15th February, an event of the most satisfactory and far-reaching character. H.R.H., the Duke of Connaught, was present and was presented with a certified copy of the contributions that made up the Million Dollar Fund in aid of the tuberculosis work of the National Sanitarium Association.

Sir John Gibson, Lieutenant-Governor of Ontario, presided. Mr. W. J. Gage read an address to H.R.H., in which was set forth how the million dollars had been raised. The capital investment, after deducting accounts owing, \$317,819.92; contributions, which include signed promises and cash, \$544,593.84; and the City of Toronto \$200,000, or a grand total of \$1,062,413.76. To this may be added the handsome gift of Mr. John Lumsden of \$75,000, if a sanitarium is established in New Ontario. Mr. Gage stated that since the first sanitarium was opened in Muskoka 17 years ago more than 7,000 patients had been cared for.

H.R.H the Duke of Connaught replied as follows:

"I know that in giving their consent to such a memorial the King and Queen acted as my brother would have wished, for he would have desired no finer monument to his memory, nor could one have been devised more fitly to remind us of one of the greatest interests of his life's work.

"The public can do for themselves," said the Governor-General, returning to the subject of prevention, "what no legislation, compulsory measures, or subscription of funds can do for them. Hospitals and sanatoria can take care of the existing cases; it lies with the public to prevent the occurrence of fresh cases. Canada is directly interested in the increase of her population, and takes a very proper pride in the ever-growing census returns, and every individual can help directly in that

increase by contributing within the limit of his powers to the prevention of tuberculosis.

"This is not the first occasion upon which I have had the pleasure of congratulating the Canadian public on their open-handedness or of thanking them for the support they have given undertakings in which I am deeply interested. I desire to place on record my sense of obligation to the newspapers and to the public authorities who gave such valuable and practical help towards the object in view.

"I thank all those who have contributed to the fund, whether their contributions be large or small, and I wish to assure them that the money could not have been given to a worthier object. It will restore children to their parents, will reunite husbands and wives, and will, in the last resort, alleviate the declining hours of those who are past the help of human skill."

His Highness expressed gratitude to Lord Strathcona for his magnificent gift of \$100,000, and thanked the men who organized the campaign. "It would be invidious to select for special thanks," the Duke went on, "names from the list of prominent gentlemen who form the executive committee of the National Sanitarium Association. I will, therefore, refer by name only to Mr. Gage, chairman of the committee, who not only by his liberal donations, but also by the devotion of his time and energy, has made this great memorial a reality, and to the able secretary, Mr. Hughes. I will ask these gentlemen to accept for themselves personally, as also for the committee, the thanks of the King and Queen, my own expression of deep appreciation of their work, and the gratitude of those poor sufferers who will benefit by the generosity of the public.

"Your citizens have been lavishly generous in financial contributions; I now ask them also to give to the cause their personal effort, interest and example."

Mr. Gage concluded his address as follows:

"In this great memorial to the late King Edward, we have crystallized the love, the honor and the patriotism of the people of this Dominion—love and affectionate remembrances of a sovereign who, by his personal interest in the fight against the white plague, inspired the work now so happily completed; honor and esteem for one whom history has rightly named "King Edward the Peacemaker"; patriotism as expressed in loyalty to throne and Empire that have led the way in all humanitarian work—a memorial that will not only be interpreted by the people of Canada as a token of how a king was loved, but will proclaim to other nations Canada's devotion to the British throne. When monuments of marble have faded with age, this memorial to a beloved sovereign will remain a living, permanent reality, carrying its message

of hope, of health and of happiness to those who suffer.”

Dr. James L. Hughes read letters of regret from Right Hon. R. L. Borden and Sir Wilfrid Laurier. Other speakers were Hon. A. E. Kemp, M.P., on behalf of the Federal Government; Hon. W. J. Hanna, on behalf of the Provincial House; N. W. Rowell, K.C., M.P.P.; Mayor Hocken, Hon. W. A. Charlton, and Hon. I. B. Lucas.

NOVA SCOTIA AND TUBERCULOSIS.

The Province of Nova Scotia is taking a forward step in dealing with the problem of tuberculosis. The Government of the province proposes establishing sanitarium where required. There will also be headquarters in each county to which patients are sent for diagnosis. At these stations there will be every facility for examining and discovering the most incipient cases. The officers in charge of these stations then recommend home or sanitarium treatment, as may best suit the cases.

By this plan it is hoped to detect the disease in its earliest manifestations. The proper separation and supervision of the sick, it is hoped, will, in time, control the spread of the infection. The existence of the disease being known, every effort will be made to cure the curable cases, and to safeguard the health of the public against infection.

This method of dealing with the disease was formulated by the Medical Association of the province. It reflects great credit upon the medical men, as the scheme is a most advanced, radical and thorough-going one. The Government took it up and the plan as outlined shall go into effect. There is every reason to expect much good from it. Three things will follow from the adoption of this course:

1. The disease will be detected in almost every instance.
2. These will be placed under proper treatment in institutions provided by the Government.
3. The public will receive the fullest information about the cause and prevention of tuberculosis.

This is taking hold of the problem in a thorough and business-like manner. It is in accord with what we have been urging for years.

ANOTHER RADICAL ANTI-TUBERCULOSIS MEASURE.

The Government of British Columbia has passed legislation looking towards the suppression of tuberculosis among cattle. The Act provides that all herds must be tested and all animals that are found

diseased must be destroyed, and the owner compensated. This testing is done free. This step on the part of British Columbia is very important as the future of the province is exceedingly promising in the matter of raising cattle.

Every precaution has also been taken to prevent infected animals being imported into the country. Now that it has been settled beyond doubt that man may be infected from bovine sources, the wisdom of destroying all infected animals becomes still more important.

Such measures as those adopted by Nova Scotia and British Columbia will soon become general and find a place in the statute books of all the provinces. When such measures are adopted, the disease will yield and Prometheus will be bound.

COMPULSORY TREATMENT.

In Toronto a new phase of treatment has arisen. The medical inspectors of the public schools report such children as in their opinion should undergo certain forms of treatment. The parents are notified and told to have their children treated in the manner indicated. Some declined to obey these orders, and have been fined or threatened with imprisonment.

This raises the whole subject for discussion. It is held by legal authorities of eminence that the statutes do not bestow upon the authorities such powers. This will, no doubt, be tested in the courts by some parent who will object to having his child forced to have tonsils removed without his consent.

This subject may be approached from several viewpoints. A surgeon sees a person who has met with an accident and is unconscious with a depressed fracture of the skull. No friend can be located to give consent to any suggested operation. Under these conditions the surgeon does what he thinks best on his own initiative. But if some near relative is at hand and refuses his consent to any operation, then, under these circumstances, the hand of the surgeon is stayed.

Take this case: A man is ill with appendicitis and is in his proper mind. Here he differs from the foregoing example. The nature of the operation is explained to him, and its advantages and dangers. If he consents, the surgeon is free to operate; but if he refuses, the surgeon cannot operate.

The case of a person who is of unsound mind is taken ill with appendicitis, and the situation is discussed with the parents or proper guardian. These may consent for the patient, or refuse. The surgeon

may operate in the first position of affairs, but cannot in the second.

A minor in the eyes of the law does not give consent. The parents or guardians do this for the child or minor. They are within their rights when they refuse a given line of surgical treatment. They act in the room and stead of the child.

This is in all cases where the welfare of the public is not at stake. When the disease is of a contagious nature, or such as may properly be held to be dangerous to others, then the officers of the law may interpose, and separate such a person from others, regardless of whether the person be an adult, a minor, or of sound or unsound mind. This is where the liberty of the individual may be entrenched upon for the safety of others .

In the case of a nasal polypus, the presence of adenoids, an enlarged condition of the tonsils, or a strabismus, there is no danger to the public. These conditions affect only the individual afflicted. The right of accepting or rejecting operation remains with the individuals if of mature years and sound mind; and with the parents or guardians if they are minors or of unsound mind.

Should it be ever deemed wise to so amend the statutes that parents and guardians must consent to operative treatment of such conditions as those just mentioned, then some very competent body must be appointed to say the last word. It will not do to have the last word in the power of the medical inspector of the schools, who may be honest, but quite inexperienced in some of these branches of practice.

The last has not been said on this subject. Forced surgical treatment has been raised in an acute form, and, like Banquo's ghost, will not down. If the school authorities decide to insist on compulsory surgical treatment, then the whole question must take the wider position and be dealt with on the broadest basis.

THE GREATEST OF ALL INDUSTRIES.

There is nothing that can engage a people's thought and energy that will yield such handsome profits as that of promoting public health. The lengthening of the years for useful work and the reduction of the amount of sickness are the two highest aims that can be placed before the public attention.

The Duke of Connaught spoke words of weight and value when he said in Toronto a few days ago regarding tuberculosis, that the raising of the million dollar fund and the building of sanitarium were not the solution of the whole problem. The people themselves must

co-operate. They must obey sanitary laws, they must take the proper steps in their own homes to prevent the spread of the disease. This is true of all diseases. There is still land enough in the world to afford room for housing the people, and overcrowding should be made to cease.

The study of the statistics of cities and thickly-peopled countries prove that disease bears a close relationship to density of population. Disease means suffering, loss of time, expense, and an increased death rate. This means a lowered duration of life. The time was in Europe when the expectancy of life was about one-half of what it is to-day. The environment means much, as one can see by looking at what has occurred in the canal zone, under the administration of Dr. Gorgas. He has converted one of the most unhealthy districts in the world into one of the healthiest.

But the question comes up, How can some of the problems of public health be solved? In many instances by the aid of the law. There is no greater public danger to-day than that of overcrowding in large cities. The way to overcome this is to have a law regulating the numbers who may live in a house according to its air space. If it is made impossible to overcrowd a house, the people will find some other place to live in.

This would be a preventive measure of much value. It would be good for the health and morals of the people, and would go a long way to lessen the incidence of infectious diseases. This is just the sort of way in which the law might very justifiably tread upon what is called the rights of the people. It is not interfering with a private right, except as it promotes a public good.

Another way in which the law should do something is that in every province and in every school there should be a manual in the hands of the pupils on the care of the health. Every child should be taught the essentials of how to maintain health. If there is any truth in the old sayings that knowledge is power and truth is mighty and will prevail, then this is the place to begin to lay down the foundations of both.

Teach the child thoroughly what to do. The child is the father of the man or the woman. The results will gradually and steadily appear. Contagious diseases will be less prevalent, the infant mortality will fall, general morbidity will be reduced, and the useful working period of life will be lengthened. Much has been done, but there remains much yet to do.

TWO GREAT MEDICAL GATHERINGS IN BRITAIN.

In July during the week of 21st to 26th, the British Medical Association will hold its annual meeting in Brighton.

The International Medical Congress will meet in London in the week of August 6th to 12th.

These meetings will afford an unusually good opportunity of observing the progress of medicine in all its departments. There is every indication that many Canadians intend visiting Britain this year.

REPORT OF THE LONDON RADIUM INSTITUTE.

The official report of the work carried out at the Radium Institute, London, has just been issued. It covers the work done from August 14th, 1911, to December 31st, 1912. Great care has evidently been exercised in preparing it, for it is very full and complete and the deductions made as to the value of the treatment are eminently sane and impartial.

In all 657 cases have been observed. Of this number 38 were examined, but not treated; 41 had been recently treated and the results not yet noted; 39 received prophylactic treatment only, 53 are apparently cured; 28 are cured; 245 are improved; 70 are not improved; 88 abandoned the treatment, and 55 are dead. It is to be remembered that all kinds of cases were asked for and received for the purpose of study.

In tabulating the results according to the pathological condition present, it is to be noted that in general the findings are much the same as have been observed by other workers in this field, such as Louis Wickham, of Paris; Robert Abbé, of New York, and W. H. B. Aikins and F. C. Harrison, of Toronto. Epitheliomata of the skin and rodent ulcers are agreed by all these observers to be the most amenable of all forms of malignant disease, to the action of radium. Carcinoma of the uterus, when inoperable, under the action of radium, can be vastly improved. "The haemorrhage is arrested, the discharge is diminished in amount, and rendered inoffensive in character, the ulceration is healed and the pain is greatly relieved. The rate of growth is checked, sometimes completely arrested. Several interesting case reports are given bearing out this statement.

In dermatological conditions the Institute has found radium to have a wide sphere of influence, and its action on nevi, keloids, lichens, eczemas, lupus vulgaris, and lupus erythematosus is most beneficial.

Mention is made of prophylactic treatment by radium, that is,

its use to prevent recurrence following operation for malignancy and the results are said to be enough "to justify the routine adoption of post-operative irradiation."

The report of the Chemico-Physical Laboratory connected with the Institute is appended, and gives an interesting insight into the methods of preparation of the apparatus.

Altogether the report shows that the establishment of such an institution was justified, for it is doing good work and is being conducted on the proper lines. It is a satisfaction, too, to have the work done by observers on this side of the Atlantic confirmed in such a striking fashion.

FIGHTING THE WHITE PLAGUE.

Twenty years ago the United States spent nothing on combatting the white plague. In 1912 the sum devoted to this humanitarian cause was \$19,000,000, or \$4,500,000 more than in 1911. Though Germany operates an extensive sanitarium system in connection with its workmen's insurance scheme, and under the British Insurance Act sanitarium benefits are to be provided for the workers, in addition to the many other tuberculosis institutions, the United States has attained the distinction of contributing a larger sum annually for fighting this dread disease than any other nation in the world.

To have so roused public opinion on the vital nature of the tuberculosis problem that nearly a score of millions of dollars is forthcoming in one year is a great triumph for the educational forces at work. For instance, Prof. Irving Fisher, of Yale, recently put the estimated loss to the country from tuberculosis at \$1,250,000,000 a year. It may be remarked here that the estimated loss to Canada is \$72,000,000 yearly. Statistics gleaned from American census reports show that in the registration area during the last decennial period the tuberculosis death rate was reduced 18.7 per cent. The yearly average of deaths decreased in number from 1,969 in each million of population to 1,603 per million. At the same time the general death rate from all diseases declined only 9.7 per cent. That means that the mortality from tuberculosis has been reduced in almost twice the ratio of that from all causes, and that about 27,000 lives are being saved each year that ten years ago would have been lost.

The United States tuberculosis death rate is yet higher than that of Britain and Germany, though below that of other European countries. In England it is 121 per 100,000 of population. The German rate is now estimated at 160. Ontario has a rate of 92, with great promise of further reduction on account of the new medical health service.

ORIGINAL CONTRIBUTIONS

A DIGEST OF THE FIRST ANNUAL REPORT OF THE RADIUM INSTITUTE, LONDON.

By G. STERLING RYERSON, M.D.C.M., L.R.C.S.E., F.R.S.A. LONDON.

THE first report of the Radium Institute, London, has been published by A. E. Hayward Pinch, F.R.C.S., medical superintendent, and appears in the issue of the *British Medical Journal* of Jan. 25th, covering the period from August 14th, 1911 to December 31st, 1912.

The report deals with all cases which have presented themselves during that period. The only cases refused were those who were practically moribund or where radium treatment was obviously unsuited. Equal prominence is given to these cases in which radium was useful and those in which it was not. No cases have been treated but those which were operable or in which operation was declined by the patient which materially modifies the statistical results. The term "apparent cure," used in relation to cases of malignant disease must be interpreted as representing a condition in which all traces of the original lesion has disappeared in which there is no sign of recurrence, and in which the patient is, so far as can be determined by a thorough and careful examination, free from any symptom or indication of the disease. With reference to "abandoned treatment" it must be explained that in not a few instances treatment was given up because the patient was obliged to leave London or was unable to defray the expense of travelling up from the country.

The apparatus. Applicators.—1. Flat varnished square or round. Strength, 2 to 10 mg. Capillary tubes, glass, strength, 7 to 150 mg. *Radium emanation*, collected in glass tubes and used thus or dissolved in weak saline solution and administered by drinking or injection. *Screens.* Aluminum, silver or lead, thickness from 0.01 to 2 mm. *Duration of application*, from three minutes (superficial lesions and strong radium) to 100 hours (deep seated and serious tumors) *Reaction* varied from simple erythema to deep ulceration and eschar, depending upon screens and nature of the case.

RESULTS OF THE TREATMENT OF DISEASE.

Carcinomata. Squamous celled epitheliomata of the skin.—Very different results are obtained with the epitheliomata affecting the glabrous skin as opposed to those involving mucous surfaces, epitheliomata of the face, trunk or extremities, if flat and superficial and accompanied by little or no ulceration, give satisfactory results when treated with one quarter or half strength apparatus, screened with 0.5 mm. of

lead, the exposure varying from six to twelve hours duration, spread over a period of several days. The retrogression is brought about quickly with with little or no scarring results. Ulcerating epitheliomata without much subjacent infiltration treatment with unscreened apparatus, Ulcerating epitheliomata with much infiltration require prolonged treatment with heavily screened applicators.

Epitheliomata of the mucous membrane of the tongue, buccal gingival and pharyngeal surfaces are almost uniformly disappointing in their results. Temporary improvement is often seen.

Carcinoma of the uterus.—In cases of inoperable malignant disease in this locality radium will often bring about results which cannot be obtained by any other known method of treatment. The hemorrhage is arrested, the discharge diminished in amount and rendered inoffensive in character, the ulceration is healed and the pain greatly relieved. The rate of growth is checked and sometimes completely arrested.

Carcinoma of the rectum and alimentary canal.—Radium therapy not infrequently proves of considerable value in the treatment of these carcinomata, but it is extremely difficult to say what are the factors which determine or contribute to the success of the treatment. Speaking in general terms the application of radium results in the arrest of hemorrhage, the healing, of any ulcerated surface, a diminution of the discharge, less pain and a retardation of the rate of progress.

Carcinoma of the Stomach.—A few inoperable cases of cancer of the stomach have been treated by radium, not in the hope of cure, but with the object of checking the growth and alleviating the symptoms. Some slight degree of benefit has been obtained from the application of powerful apparatus screened with 2mm. of lead over the gastric region, the pain being lessened, the frequency of vomiting decreased and the general health improved.

Carcinoma of the Breast.—The results of radium therapy are on the whole encouraging and this is especially the case when the primary growth is of the sclerotic rather than of the medullary type, when the secondary deposits occur in the skin lymphatics and there is no internal metastases.

Paget's Disease.—Two cases, cure in one, improvement in the other.

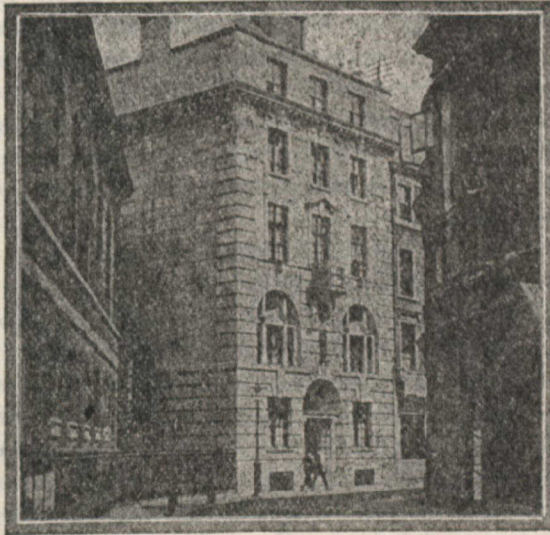
Rodent Ulcer.—This is of all forms of malignant disease the most amenable to radium treatment. Untreated rodent ulcers not exceeding 2cm. in diameter and not affecting mucous membrane cartilage or bone almost invariably yield to one exposure of an hour's duration with a full strength applicator unscreened.

Sarcomata.—Whenever possible, sarcomata are best treated by the insertion into their centre of a tube containing 50 to 100 mg. of radium, with a screen of 0.5 to 1mm. It is left in position twenty to thirty

hours. The application is repeated in a month. This frequently proves most effective; the tumor steadily shrinks in size and becomes replaced by a dense fibrous nodule which shows little or no tendency to grow. If this method is impracticable, flat applicators may be used.

Naevi.—Capillary or "port wine stains." These are the most difficult to treat and much care and patience must be exercised in order to bring about a satisfactory result. A smooth supple white scar will be left.

Cavernous Naevi.—These lesions are particularly suitable for treatment by "cross fire," and in such cases good results may be generally expected.



The Radium Institute, London

Keloid.—The results obtained in the treatment of this condition are admirable. Keloids of recent formation and occurring in young subjects are the most easily cured. The resultant scar is usually quite smooth and supple and shows no further tendency to keloidal formation.

Fibroid Disease and the Uterus.—Only four patients suffering from this condition have as yet been treated with radium, and of these only two have been under observation long enough to enable any opinion to be formed as to the benefit which may be obtained. In both instances distinct improvement has resulted, but the cases are still under treatment.

Parotid Tumors.—These growths appear to be peculiarly susceptible to radium, and in almost every instance distinct improvement, frequently going on to apparent cure, is observed. The treatment must be lengthy and patience and perseverance are needed to bring about a successful result.

Fibromata.—Two cases of fibroma of the penis have been treated and both cured. In both instances all previous treatment had proved ineffective.

Lichenification of the Skin.—This peculiarly intractable form of skin lesion is quickly cured by short exposures and relief afforded to the intolerable irritation is often marked within twenty-four hours. Cases so treated show little or no tendency to relapse.

Pruritis.—Radium is undoubtedly of great use in this condition, especially if it be of long standing and associated with leukoplakia and hyperkeratosis. When no lesion exists and the trouble is purely nervous in character the results are not so satisfactory.

Chronic Eczemas Psoriasis.—These conditions generally yield to short screened exposures. With chronic eczema the cure may be permanent, but in psoriasis the patches may tend to recur sooner or later and require further treatment.

Lupus Vulgaris.—Treatment with Finsen light is to be preferred and wherever possible should be adopted.

Lupus Erythematosus.—This very intractable condition, which so often defies all treatment, is usually greatly improved by radium.

Tuberculous Adenitis.—Prolonged exposures of from twenty to thirty hours' duration, with ultra penetrant rays, will generally bring about a steady diminution in size of the infected glands without causing suppuration or surface irritation.

Arthritis Deformans.—This extremely obstinate, progressive and crippling malady is not infrequently strikingly benefited by the daily drinking of 250 c.c.m. of radium emanation solution. The treatment must be persisted in for quite a long time, and at least six weeks are likely to elapse before any change is noted. In favorable cases the articular and muscular pains are lessened and disappear, the movements of the joints become freer, the muscles regain tone and the general health is greatly improved. Up to the present time twenty-one patients have been treated, and the results obtained are sufficient to warrant the hope that the radium solution will prove a most valuable addition to the routine medical treatment.

Granulomata and Papilomata.—Cases are cited showing that these growths rapidly disappear under radium treatment.

Prophylactic Treatment.—Thirty-nine patients who had recently undergone operation for malignant disease received post-operative ir-

radiation. Only seven recurrences had been reported up to Dec. 31st, 1912.

Statistical Summary.

Examined and not treated	38
Recently treated, results not yet noted	41
Received prophylactic irradiation only	39
Cured	53
Improved	245
Not improved	70
Abandoned treatment	88
Dead	55
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Total	657

The report is accompanied by elaborate statistical summaries and by a very full and carefully written report of the Chemico-physiological Laboratory, by W. L. S. Alton, F.I.C., director of the laboratory, as well as by detailed histories of a considerable number of cases.

TUBERCULOSIS.

BY JOHN FERGUSON, M.A., M.D.,

Senior Physician, Toronto Western Hospital.

WHEN one bears in mind that the tubercle bacillus is the active agent in setting in operation pathological changes in the human body that are responsible for ten per cent. of the death-rate for all ages, and a very much higher percentage of the death-rate among children, there need be no apology offered for taking up this subject. Within recent years there have been very extensive investigations made; and, as a result of these, statements can now be made that would have been impossible a short time ago. An attempt shall be made in this article to gather up all that is trustworthy and of value on the etiology, pathology and treatment of this most ubiquitous disease.

If one turns to Britain some valuable lessons may very speedily be learned. The death rate in England and Wales for all forms of tuberculosis, per million persons, is thus given in the returns of the registrar. From 1861-70 it was 3,239, from 1871 to 1880 it was 2,862, from 1881 to 1890 it fell to 2,429, and from 1891 to 1900 it was reduced to 2,020. In Scotland for the same periods the rate was 3,620, 3,470, 2,750, and 2,370 for the same number of living persons. For the same decennial periods and for the same number of living persons, the death rate from pulmonary tuberculosis was, for England and Wales, 2,545,

2,190, 1,775 and 1,391, and for Scotland it was 2,560, 2,390, 2,000 and 1,690. The death rate in England and Wales during the same periods per 1,000 was 2.68, 2.12, 1.72 and 1.46. During the same periods the death rate from other respiratory diseases per 1,000 of the living was 3.02, 3.90, 3.73 and 3.74. It will be noticed from these figures that while there was a marked reduction in the death rate due to tuberculosis in general, and to pulmonary tuberculosis in particular, the mortality from other diseases of the respiratory organs underwent practically no change. These figures are most instructing and encouraging. In the rural districts in Scotland, per 1,000 living, the rate from phthisis was 1.108, while in the burghs it was 1.441. These figures go to prove that tuberculosis prevails in an increasing degree with the density of the population, and also that as sanitation improves the death rate declines, both in rural and urban districts.

The effect of overcrowding in houses is well shown by the data obtained from Glasgow. Among families who lived in one apartment the rate was 2.4 per 1,000 living; in two apartments 1.8. Among those who had three rooms it was 1.2, while those occupying four rooms it was only 0.7. For the whole city it was 1.8. What is true for phthisis was also true for other diseases, as these were heaviest in proportion to the overcrowding. This teaches a most valuable lesson. As the restriction of the space and the viciated state of the air increase so does the morbidity and mortality from disease, particularly tuberculosis. One of the first steps, therefore, in the control of this disease is to enforce rules against overcrowding.

Without going into too great detail, in Britain one-fourth of all the deaths among males between the ages of 25 and 55 is due to tuberculosis. It has been estimated that the loss to Britain is about \$75,000,000 annually. In Ontario, with a population of 2,523,274, during the year 1911, there were 2,353 deaths from tuberculosis. This gives a ratio of 0.92 per 1,000 of the living. This places it second in the list, as diseases of the heart caused 2,433 deaths in Ontario in 1911. On the unit of value adopted by the British and United States statisticians of \$1,234 for each life on the average, this would represent for Ontario in the year referred to a sum of \$2,903,542. To this large sum must be added the monetary loss due to sickness, both on those who died and the large number ill with the disease, but who did not die during the year. During the past thirty years there have been 83,119 deaths from this disease in Ontario, or an average of 2,770 a year. Last year it was 2,353. This goes to show the marked reduction in the death rate, for while the total population has been steadily increasing, the rate has been falling. On the percentage basis this means a decrease from 11 to 6.85 during the past ten years. Here is not only a ray, but a whole beam of light.

Looking at the figures from Ireland some interesting facts are revealed. For the past ten years the average annual death rate for 1,000 living was 2.00, while for the year 1911 it was 1.73. Putting this against the average for the ten years, it will be seen that there is a marked drop. If the subject be viewed from the age standpoint the following facts come out: For every 1,000 the death rate is given in year periods. From 0 to 5 it was 0.49; 5 to 10, 0.24; 10 to 15, 0.69, 15 to 20, 1.85; 20 to 25, 2.66; 25 to 35, 3.21; 35 to 45, 3.06; 45 to 55, 1.85; 55 to 65, 1.26; 65 to 75, 1.12, and 75 and over, 0.35. It will be seen that the heaviest death rate was in the periods from 25 to 35 years. In England and Wales the maximum for females is from 35 to 45, and for males from 45 to 55. The greatest incidence of the disease occurs at an earlier age in Ireland than in England and Wales. In Ireland for 1911 the total deaths from all forms of tuberculosis were 9,623, and from pulmonary tuberculosis 7,584, leaving 2,039 for all forms other than pulmonary. In England and Wales there were 74,370 deaths from tuberculosis. Of these 51,467 occurred from the pulmonary form, and 22,903 from other forms. In Scotland the total deaths from this disease in 1910 were 5,450 and from phthisis 6,760, leaving 1,720 for other from than phthisis. In Ontario out of the 2,353 deaths due to tuberculosis, 2,035 were of the pulmonary type and 318 of all other organs. Here we have overwhelming evidence of the frequency of the pulmonary form of the disease. This is not without its meaning, as this is the form that is most prone to throw off the infection, and it also proves the lungs to be the organs infected by far the most frequently, at least to a fatal extent.

Much has been said as to whether human and bovine tuberculosis be the same or not, and whether or not man can be infected from a bovine source. In 1882, the late Professor Koch announced his discovery of the bacillus. This organism is now admitted as the actual cause of the disease, all other causes playing a subordinate or predisposing part only. No bacillus, no tuberculosis. Research soon proved that bacilli were found in all cases of human, bovine, avian, and piscian tuberculosis. This led to the conclusion that man might be infected from these animals. In London in 1901 Professor Koch made the statement in his memorable address that the bovine and human bacilli were non-identical. The late Lord Lister at once made a statement of dissent from this view. The question was felt to be one of such vast importance that the British Government appointed a Royal Commission composed of able savants. This commission has reported, and informs us that the disease in man and cattle is the same and that the latter can infect the former. Among other things the report states that "beyond all doubt human tuberculosis cannot be dis-

tinguished from bovine tuberculosis"; and again "that there can be no doubt but that in a certain number of cases the tuberculosis occurring in the human subject, especially in children, is the direct result of the introduction into the human body of the bacillus of bovine tuberculosis; and there can also be no doubt that in the majority at least, of these cases the bacillus is introduced through cows' milk. Cows' milk containing bovine tubercle bacillus is clearly a cause of tuberculosis, and of fatal tuberculosis in man. Our results clearly point to the necessity of measures more stringent than those at present in force, being taken to prevent the sale or the consumption of such milk."

Having settled in the affirmative that bovine and human tuberculosis are interchangeable from man to cattle and from cattle to man, some remarks on the frequency of the disease in cattle herds may not be amiss. In Germany it has been found that in various districts the number of infected cattle ranged from 3.5 to 37.0 per cent. In France from a little over 9 to 25 per cent. In Holland from 8 to 27 per cent. In Britain the percentage has ranged from 0.31 in calves to 25 in cows. Milk taken off the ordinary market has yielded to tests for tubercle bacilli all the way from nearly a negative result to 50 per cent. and over. While discussing the subject of human and bovine bacilli, attention should be called to some of the differences that have been recognized by careful observation. The human type of bacillus is less virulent to cattle than the bovine type. When, however, a calf has been infected by the human type it is easier to infect a second calf from this one than it was to infect the first one with the human strain, and easier, again, to infect a third from the second than it was to infect the second from the first. It is very likely that this same condition exists when man is infected with bacilli of bovine origin, though this cannot be made the subject of experiment.

A vast amount of research has been expended upon the life history of the tubercle bacilli. As a result of this work it is now held by many competent observers that the organism does not always assume the same form, or in other words, it passes through other phases that may be detected in old cultures and in the disease experimentally produced. It is this change of form that may explain its marked resistance, and the extreme chronicity it may assume in establishing diseased states in the body. The bacilli may live for months in dried sputum, and may be obtained from the dust of rooms in a sufficiently active form to infect susceptible animals. The fluids and ferments of the alimentary canal do not destroy the bacilli, nor does the process of decomposition of fluids and tissues in which they may be located. Direct sunlight destroys them in a few hours. The importance of these facts cannot be overestimated, as they lie at the very foundation of

every movement looking towards the prevention of the disease.

It is now admitted on all sides that the disease is caused by the living bacilli. No matter what the proclivity of the individual may be, the organisms must make an entry into the body. But it will not do to forget the influence of heredity on the one hand, and evil effects of poor food, dirty dwelling, and overcrowding in rooms. Insurance companies have collected and tabulated data to show that of their policy holders in whose family histories there is no trace of tuberculosis, there will be a mortality of 15 per cent. from this disease. Among the policyholders whose family histories give one case of the disease there will be a mortality of 22 per cent. When there are two instances in the family histories the death rate will be 26 per cent. from this cause; and if there be three examples of it, than the death rate from tuberculosis rises to about 35 per cent. Some of these deaths might be due to infection; it must be remembered that most of these policyholders are adult and away from home, and coming under the conditions common to all. This, however, only establishes *tendency* and not *disease*. No bacilli, no tuberculosis may be accepted as the only working rule. It has also been settled that man may be infected by bacilli obtained from man and cattle. Both the bovine and the human treuble bacilli will produce the disease in monkeys, guinea-pigs and other animals.

The next thing to be considered is the mode of entry of the bacilli into the body. Here all authorities are agreed upon three routes as practically covering the ground. The first of these is by inhalations, the second by ingestion into the alimentary tract, and the third is through the skin. It may be taken now as settled that infection of the foetus through the placenta scarcely exists. If it does so, it is so rare as not to be a factor in the study of the etiology of the disease. With regard to contracting the disease by inhalation, it may be said with confidence that the expired air of a patient suffering with pulmonary tuberculosis does not contain the bacilli. But it is quite a different condition when the person coughs, speaks, sings, or sneezes. In such acts large numbers of the bacilli may be projected into space for some distance, and inhaled by any one who may be in the area of the contaminated air. This is specially true of advanced cases. The sputum, particularly in advanced cases contain the organisms; and, if it be permitted to lie in dirty and badly ventilated places, it may be carried into the air with floating particles and pass into the respiratory organs. There need be no further time wasted in discussing this method of infection, as it is accepted by the best teachers. What has been said of sputum may also be said of other discharges containing the bacilli; such as pus, urine, faeces, or, according to some, the perspi-

ration. The disease can be acquired by swallowing some infected food or drink. Under-cooked meats may contain active bacilli. The main danger is in the use of milk from diseased cows. It has been found that the dairy herds in Britain have from 20 to 30 per cent, of their numbers infected. It is not necessary that this infection be limited to the udders. The milk may be diseased though the cow suffers from tuberculosis trouble in other parts of her body. A further point should be borne in mind. The person may inhale the infected dust into his nostrils or open mouth from which places it may be swallowed and thereby infect through the digestive organs. The hands, too, may become infected as in the case of one attending a tuberculosis patient or a child creeping about on the floor. In this way the infection may be conveyed to the mouth. Infection into the glands of the neck by way of the tonsils must not be forgotten. Infection by the skin is rare, but does occur as in the cases of lupus. Thus to sum up we have the modes of infection as follows: 1, through the air passages; 2, through the digestive tract; 3, through the skin (though rare); 4, and very rarely, directly from the parent before the birth of the child.

The distribution of the bacilli in the body should receive some attention. As has been stated they find their way through the mouth or the nostrils in the vast majority of instances. If there be an open surface they may enter through it, but it is now known that the bacillus can pass through a healthy mucous membrane. Thus the bacillus may enter the system through the mucous membrane of the tonsils, the bronchial tubes, or the intestinal canal. Once they have passed beyond the mucous membrane they may be carried by the blood vessels and lymphatics to distant parts of the body.

This naturally leads up to the readiness with which some persons are infected while others resist. Apart from the subject of general predisposition as revealed by the family history, there is that of acquired predisposition, both local and general. Any condition of the environment that lowers the health, and any disease condition that has the same effect acts as factors in the etiology of tuberculosis. Among these one might mention alcoholic abuses, infections, insufficient food, over-fatigue mental or physical, and worry. There are certain local predispositions that should be borne in mind. Mechanical injury to a part, impairing the vitality of tissue by infection, or any cause that interferes with the circulation of a part, are all factors. Then there are certain organs of the body that are specially predisposed to the disease. Among these the lungs take first rank. Any contraction of the chest especially the upper portion, has a marked effect in favoring the development of the disease. This condition impairs the circulation of the apices and impedes the entry of air. But, further, the

inspired air carries the bacilli to the smallest bronchioles where there is least movement. The lungs also receive venous blood and lymph from all parts of the body, and in this way are liable to become infected in addition to the risk through the inspired air. The intestinal glands, especially of children, the meninges of the brain, the urinary organs, and some of the joints evince much of this local predisposition. On the subject of predisposition it may be well to mention that northern races are less prone to the disease than those of temperate and southern climates. It is also well established that the disease is very severe when it appears for the first time in a given race and will spread like fire in stubble. This is also true of some other infections. Under the topic of immunity it may be mentioned that when the disease runs a chronic and mild form in the adult it is probably due to the fact that the person had recovered from an infection at an earlier period of life.

Tuberculosis was recognized by the ancients, Hippocrates gave a good description of phthisis 400 years B.C. To what he said, Celsus, Aretæus and Galen added some observations. Sylvius drew attention to the nodules in the lungs in the disease that had been described as phthisis. Morgagni and Baillie corrected some of the views taught by Sylvius. Bayle was the first to recognize the connection between miliary tubercle and general tuberculosis. Laennec separated pulmonary tuberculosis from such diseases as cancer and gangrene of the lungs. Broussais, Andral and Virchow held to a duality of the disease in the lungs in the forms of caseous pneumonia and tubercle nodules; but this, again, was corrected, and the unity of the disease established in 1882, when Dr. Robert Koch discovered the bacillus. This brings us to the truly modern period.

The opinion that the disease is contagious is not a new one. It was held by Valsalva and Morgagni who were afraid to dissect the bodies of those who had died of this disease. About 1790, a regulation was promulgated in Italy to the effect that the clothes and bedding of those who died of phthisis must be burned. Kencke and Villemin communicated the disease from one animal to another by experiment. These views did not meet with general acceptance until the discovery of the bacillus by Koch. Thus, after long centuries of doubting, the medical profession arrived at the truth.

In recent years a good deal has been said on the route by which the lungs are infected. Calmette, Whitla, Cautley and many others have advanced weighty arguments for the view that the bacilli first enter the alimentary tract and from there are conveyed to the lungs, either by the blood or lymph streams. The arguments for this view are supported by strong clinical and experimental proofs. In the dis-

cussion of this phase of the general subject of tuberculosis it must be borne in mind that there is also weighty reasons for believing that the disease does enter via the respiratory channels. It is admitted on all hands that dust laden with the bacilli is constantly being inhaled. It is also admitted that there are many cases of pulmonary tuberculosis without any indication of initial disease or lesion of the throat or intestinal canal to indicate that the disease had entered by either of these channels. Pulmonary disease is also common in some places where milk is not used. But the most important point is that in pulmonary tuberculosis the bacilli are almost invariably of the human type. This would not be the case if the disease of the lungs was usually the result of infection through the alimentary tract, especially in the cases of children. It must be remembered, however, that bacilli taken into the mouth and nostrils by inhalation may be swallowed. So with children creeping about and constantly getting the bacilli on their hands. In these ways the lungs might be infected with the human strain of bacilli by the digestive canal route. The probability is that there is truth in both views.

Through the blood stream, or by the lymphatics indirectly infecting the blood, any organ of the body may be attacked. This has already received sufficient attention. There is one aspect of tuberculosis, however, on which a few remarks should be made. The blood stream may be invaded by such large numbers of bacilli that a general condition of the disease is the result. This has been produced experimentally by feeding an animal with large doses of heavily infected sputum. It should be remembered that the usual manner of causing general miliary tuberculosis is by the softening of a caseous mass. In this way the breaking down of an internal tuberculosis gland, a diseased bone, or an infected joint may throw so many bacilli into the blood, that the disease becomes general, or, at all events, general in the organ attacked.

The vital question is that of prevention. All infected discharges should be destroyed. This means that sputum, pus, the urine and faeces of those with disease of the urinary or intestinal tracts, must be properly disposed of. No half measures will do. Then the utmost care must be given to the dairy and the health of the cattle used for meat supply. One tuberculous cow may cause the death of many human beings. The next great thing to attend to is the health of the individual. Insanitary conditions should be corrected, diseases of the respiratory and digestive apparatus should receive due attention. A person whose resistance is high may succeed in arresting the invasion at the mucous membranes, the glands, or even if it reaches the blood. But the problem of destroying all infection on the one hand, and maintaining

the entire community up to a point of high resistance on the other hand, is a weighty one; and cannot be fully solved for a long time. There will ever be those who will not destroy infected discharges; whereas the poor, the dirty, the ignorant are likely to be with us for a long time to come. Eternal vigilance is the price that must be paid for liberty.

Second only in importance to prevention is the treatment of those who are infected. It may be said that the medical profession do not do as much for their tuberculosis patients as it ought to do. This is due to several causes. In the first place there is the widespread belief in the incurability of the disease. This has come down from the past and is a sort of tradition. In the second place many members of the profession have not the facilities for the most approved methods of treatment. And in the last place many of these patients go about from one person to another looking for a cure. But there is much that can be done and ought to be done. The treatment may be summarized as follows:—

1. Early Treatment.—While it is true that some advanced cases do fairly well under proper treatment, and some incipient cases do very badly, however well cared for, the general rule is that the earlier in the disease that treatment is commenced, the better the prospects are. An early diagnosis is all important, and when there is the slightest reason to suspect the disease, and before physical signs reveal its waiting for the more pronounced and frank conditions of the disease to appear. In the very incipient stages much could be done for the patient.

2. The Environment.—This in many instances is bad, and must be remedied if there is to be any hope of improvement. The patient being so placed as to receive the maximum of fresh air and sunlight. Windy localities are unfavorable to treatment. As a general rule patients should be treated in the climate they must continue afterwards to live in. Moist and damp areas should be avoided; and, so far, no special advantage has been discovered to accrue to consumptives from living in high altitudes. Cold climates are better than hot ones. A climate may be ideal if the sufferer lives out of doors, whereas it may afford no relief if he follows an indoor occupation. The best temperature for the patient to live in is about 60 F. This gives rise to least expenditure of energy. There should be facilities to furnish artificial heat should the temperature fall much below that just mentioned. All cases with good digestion, active circulation, and fair lung capacity should yield to a cool, bracing, and stimulating climate. Sea voyages have fallen into disfavor, and, most think, justly so. Those who have had hæmoptysis in the early stage may go to high altitudes, but

those with hemorrhage in the late stage should not. High altitudes are not suited to those who are sensitive to cold. For laryngitis and pharyngitis a moderately warm and moist atmosphere does best. In case of tubercular rhinitis a dry air is the one to select. Patients with bronchitis but slight expectoration should seek a dry locality. This is true also for bronchiectasis. When there is much emphysema the sufferer should reside in the lower and warmer places.

3. Diet.—The diet is a subject of the utmost importance. The main object is to raise the body weight up to the standard of the person before he became ill, but care should be taken not to bring about too marked an increase, as such a condition adds seriously to the work of the circulation, and may prove too much for the lungs to maintain proper oxidation. The diet should be increased by about one-third, and principally by the addition of proteins and fats, such as meats, eggs and milk. Raw meats have a special value in raising the resistance of the body to the tubercle bacilli. Fats should be increased by one-third, and the best forms are butter, milk, cream, yolk of eggs, and cold fat meat. The patient must be given to understand that much depends upon taking this extra amount of food; and it should be given in three good meals, with two light ones in between these. When there is dyspepsia the best result will be secured by placing the patient in the open air, in the sunshine, under good sanitary conditions, and at perfect rest, and encouragement to take the foregoing full dietary. There are cases that cannot tolerate a bulky diet, and these must be fed upon concentrated foods, that yield the full nutritive value in small compass.

4. The Sanatorium.—The sanatorium has had its strong advocates and also those who have said harsh things against it. It may be said that a well managed sanatorium represents the best that has been learned of the treatment of tuberculosis during the past fifty years. Early cases are improved to a remarkable extent, while late cases are often arrested and an afebrile condition secured with much increase in body weight. The patients learn how to take care of themselves and, how to take their own temperatures and thereby regulate their exercises. They also become acquainted with the proper manner of dieting themselves and the best food to use. They also learn the value of sanitation, fresh air and sunlight. They learn how important it is to avoid reinfecting themselves, the importance of destroying sputum, and the need for rest in the febrile period to avoid charging the system too heavily with toxins. There is in a sanatorium a continuous supervision over the patients that is very educative. Patients should remain under treatment until exercise does not cause fever by auto-intoxication. The completeness and permanency of the recovery de-

pend upon the patient's resistance and the care after leaving the sanatorium. A return to unfavorable surroundings may readily cause the disease to become active again. Such relapses should not be charged up against sanatorium treatment. Recovery from tuberculosis is usually a conditional one rather than an absolute one, and much depends upon the after care.

5. Rest and Exercise.—Patients must be taught that there is a time for rest and a time for exercise. They should be fully instructed in the use of the thermometer, and the need for absolute rest if the temperature is 100 F. or higher. Rest must also be enjoined if the pulse is weak and frequent and the general health poor. As the temperature remains steadily under 100 F., the pulse becomes stronger, and the general health improves, a moderate amount of exercise may be indulged in. Walking, bowling, light golf, easy out-door games may be permitted, when they do not give rise to auto-intoxication. Patients should either take light exercise or rest, they should not loaf around. Injudicious exercise may cause such marked auto-intoxication as to wipe out any chance of improvement. It will thus be seen that rest and exercise are real therapeutic agents, and must not be ordered in any haphazard manner. It may be laid down as a safe rule that if the medical attendant is in doubt whether to order rest or exercise, it is well to enjoy rest until the proper course becomes clear.

6. Drugs.—Few diseases have had so many drugs recommended for it as tuberculosis. No drug can destroy the germ, but some drugs improve the patient's resistance or lower the activity of the bacillus. Among these may be mentioned sodium cinnamate which should be injected into a muscle once or twice a week in doses of 1 to 4 c.c. of a 10 per cent. solution. Two drugs have enjoyed a high reputation, namely creosote and guaiacol, or their carbonates. Extensive experience has shown that they are of considerable value, especially over the catarrhal condition of the respiratory passages. They allay cough and diminish expectoration. Wood tar acts in much the same way. Formic aldehyde has been highly praised by some. It is employed in two ways. The first is to give intra venous injections of a 0.05 per cent. solution amounting to 50 c.c. daily. The other method is to place formaline tablets on a tray over a spirit lamp and filling the room with the vapor, which is inhaled for an hour or two. Inhaling the steam from boiling water containing 1 to 10,000 perchloride of mercury has been found of use both as preventive and cure for laryngeal phthisis. Certain essential oils and balsams are recommended by some. These are terebene, terpene hydrate, oleum pini, oleum terebinthinae eugenol, oil of cinnamon, oil of eucalyptus, oleum alii, and balsams of Peru and Tolu. The hypodermic injections of nuclein or nucleinic acid have the effect

of increasing the number of leucocytes, a condition which will last for two days. The usual preparation is sodium nucleinate in doses of 1 c.c. of a 5 per cent. solution. Cod liver oil is more of a food than a drug, but may be mentioned here. Phosphorons compounds are of use in the manufacture of lecithin. Tonics and symptomatic treatment have their useful places. Quinine lessens protein breakdown, and arsenic acts as a factor in adding body weight, especially fat. Sodium hypophosphite in doses of 10 to 20 grains three times a day for six months will sometimes effect a marked improvement.

7. Inhalation.—The treatment of consumption by inhalation has been before the medical profession for many years, but it has not received the attention it merits. Various drugs have been recommended such as creosote, tincture of iodine, menthol, rectified spirit, pumiline pine, formaldehyde, gnaicol, terebene, chloroform, and such like. There is an advantage in changing the formula occasionally. The inhalation should be for a few hours each day at first and gradually more continuous, until it is used for at least six hours in the day time and for several hours each night. Several of the foregoing drugs may be combined. A light perforated zinc appliance that covers the mouth and nose may be used. In this is placed some gauze or absorbent cotton carrying some of the liquid. This treatment has yielded some very excellent results.

8. Tuberculin.—The treatment of tuberculosis by the several forms of tuberculin fell into discredit owing to many evil results of their improper administration. But the dosage and the selection of the patients are now better understood, and it would appear that this method of treatment is coming into greater favor again. Some of our highest authorities are now speaking in very laudatory terms of its value and claiming from its employment most excellent results. It is most desirable that it should prove useful. There are many cases of tuberculosis that are not amenable to surgical treatment, that cannot be reached by inhalation, and over which fresh air and sunlight can only have an indirect effect. For all such it may yet turn out that tuberculin will prove the most serviceable of our remedial measures.

SMALLPOX EPIDEMIC PASSED.

Waterloo, Ont., Feb. 26.—The order of the local Board of Health forbidding the holding of public gatherings in churches and public halls, which has been in force for nearly four weeks, has been rescinded. It is reported that the smallpox epidemic is past.

CURRENT MEDICAL LITERATURE

MEDICINE

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

INTRAVENOUS SERUM TREATMENT OF PNEUMONIA.

W. Weitz (*Wien. med. Klin.*, No. 26, 1912) describes the treatment of pneumonia by intravenous injections of Neufeld-Händel pneumococcus serum. Neufeld and Händel found in experiments on animals that in pneumococcus infections only in large doses of serum could be depended upon against large amounts of culture; smaller doses had no corresponding value for weaker infections, and on further diminution of the dose the serum soon ceased to have any effect. They therefore recommend that intravenous injections of large amounts of serum should be substituted for subcutaneous injections, because by the subcutaneous method only small quantities of the antibodies gradually enter the circulation. The author has treated 38 cases—3 women and 35 men—on these lines. The men were usually of the labouring class; many of them hard drinkers. No children were treated, and only two patients of more than 60 years of age, otherwise the patients were fairly evenly distributed amongst the different age-periods. The injections were made into the cutaneous veins of the forearm, after anaphylaxis had been guarded against by ascertaining that the patients had not perviously received serum treatment. The single dose of serum was usually from 20 to 30 c.cm., and later 40 c.cm. was frequently given as an initial dose; occasionally only 10 c.cm. was given. In three cases a single injection only was made, but usually two or three injections at twelve-hour intervals, and in some of the more protracted cases as many as ten injections were made. No harmful effect of the serum on heart or respiration was observed. Serum rashes occurred in six cases, but were never severe. The ordinary treatment of pneumonia was given in addition to the serum treatment. One patient was subjected to the injections on the first day of illness. In this case the doses given were inadequate to prevent steep rises of temperature succeeding the falls of temperature which followed the injections, but the temperature became finally normal at the end of the fifth day of illness. In this case the doses given were inadequate to prevent steep rises of temperature succeeding the falls of temperature which followed the injections, but the temperature became finally normal at the end of the

fifth day of illness. In 16 cases the treatment was begun on the second day; 12 of these ran a clearly abortive course, the temperature beginning to fall steadily on the third day, and becoming normal usually on the fourth; in two cases the temperature was already normal on the morning of the third day of illness, in one after a single injection of 30 c.cm. of serum, in the other after a single one of 20 c.cm. The effect of the serum was specially noticeable in the case of a man 65 years of age who was admitted to hospital showing signs of dangerous cardiac weakness, of an exceedingly stout woman 50 years of age, and of a man 57 years of age with severe diabetes—all three of them cases in which spontaneous recovery was unlikely to occur. One case only in which the injections were begun on the second day ended fatally, and in this the action of the serum was shown in the disappearance of pneumococci from the blood and in a very marked destruction of the pneumococci in the affected lung. In three of the "second-day" cases there appeared to be no cutting short of the illness as a result of the serum treatment. In two cases in which treatment was begun on the second day, one of them being a case which had run an abortive course, and in one case in which treatment was begun on the third day, exudative pleurisy developed. In six cases treatment was begun on the third day; five recovered, four of them running an abortive course, one died from a streptococcus sepsis, the origin of which was not very clear. In eight cases treatment was begun on the fourth day; two had died, both of them cases of mixed infection. In five of the eight the temperature was favorably affected by treatment and became normal on the sixth day of illness—that is, two days after the beginning of treatment. As a rule, the serum treatment was not begun later than the fourth day. In five very severe cases it was tried as late as the fifth day, but four out of the five patients died. In two cases it was begun on the sixth day, both patients being free from fever on the eighth day. The author's conclusion is that the Neufeld-Händel pneumococcus serum injected into the veins has a specific action in a majority of cases of pneumonia, and should be extensively made use of, especially in early cases.—*B.M.J.* Feb. 1st.

FRIEDMANN'S ALLEGED TUBERCULOSIS CURE.

Friedmann's cultivation of a race of tubercle bacilli endowed with immunizing qualities and relatively devoid of noxious effects as regards antigen, and derived from the turtle, is the latest and most startling phase of the world-wide effort to devise a cure for our worst scourge. This "benevolent" strain of tubercle bacilli is said to cause no reaction when administered, and the curative results so far obtained are declared to be striking. A thorough investigation of the inventor's claims

is now under way in Germany, carried on by Friedmann's colleagues. The scheme is excitative of the keenest interest. We must divest ourselves of skepticism, at least of the unjudicial sort, and study with an open mind this new development in the field of therapeutics, indeed we should pray for its success.

As regards Friedmann's chariness about details different attitudes will, of course, be taken. Many will applaud his departure from the lofty altruism which has usually marked medical discoveries, believing that there is a righteous and wholly defensible self-interest to be conserved, bound up with which is a certain safeguarding of the public as regards commercial exploitation with its possible evil results. A sinister connotation need not necessarily be entertained.—*The Medical Times*.

RADIUM IN MALIGNANT DISEASES.

At the last meeting of the Surgical Society, Paris, several reports on the treatment of malignant disease by radium were read and discussed. M. Regnier reported the case of a patient who was admitted to hospital in January last with a sarcoma of the femur the size of a fetal head, attended by considerable oedema of the leg. An aperture was made into the tumor by means of a trocar, and the tube of radium was left in the tumor for forty-eight hours. After the first application the tumor diminished considerably in size, the pains disappeared, and the oedema diminished. At intervals of some weeks three further applications of radium were made, and the tumor decreased until it was a small hard sclerosed mass of the size of a walnut. M. Chiffolian then removed this small tumor, which was adherent to the femoral vein. On microscopic examination it was found to consist of fibrous tissue and deformed tumor cells. A second case reported by M. Regnier was one of inoperable cancer of the uterus. Four applications of radium were made with great amelioration in the patient's general condition, as well as in the diseased uterus. The patient's weight increased from 53 to 63 kilos, the sanguineous discharge stopped and the tumor diminished in size. There was, however, a large mass of secondary growth in the abdomen, and though the patient was greatly improved temporarily, recovery could not be looked for. M. Sieur reported a case of epithelioma of the larynx treated with good result. M. Schwartz related a case of sarcoma of the forearm greatly benefited by radium treatment; and M. Hartmann stated that he had seen very good results from radium in the treatment of lymphosarcoma. Radium must be introduced into the tumor mass to obtain beneficial results and not merely laid on the tumor.

INTERLOBAR PLEURISY.

Widal (*Journ. des praticiens*, November 9th, 1912) relates the case of a man who was found to be suffering from this complaint. The patient was aged 37, and had a history of previous good health. After suffering from a chill he continued to work. Cough became severe and expectoration abundant, as well as very fetid. Haemoptysis also occurred. The character of the expectoration was very like that which occurs in gangrene of the lung. The patient's general condition remained good and there was no apparent loss of flesh—this fact rendering gangrene unlikely. The fetid character of the expectoration, however, suggested a septic focus somewhere. No evidence of bronchiectasis was present. The short duration of the complaint negated this, added to which there had been no history of whooping-cough, or of repeated attacks of bronchitis. On percussion, dullness was found at the base of the right lung, most marked as the vertebral column was approached. There were scattered crepitant and subcrepitant rales both on inspiration and expiration. A radioscopic examination showed a dark band following the line of the interlobar septum, the image being seen best in the antero-posterior direction. The diagnosis was that this represented an encysted loculus of limited size. The difficulty of diagnosis in such cases is enhanced by the liability of such a lesion to bring about secondary attacks of pulmonary congestion in conjunction with it. The patient in such a case is not immediately and gravely menaced as to life, but the risk of bronchopneumonia is considerable. The treatment available is very limited and consists chiefly in hygienic measures, with inhalations of eucalyptus and tincture of benzoin to lessen the fetid character of the expectoration.—*British Medical Journal*.

TREATMENT OF CATARRHAL JAUNDICE.

Lereboullet, (*Paris Medical*, Sept. 14th) places hygiene and diet first in his recommendations as to treatment, ordering the patient to bed and putting him on milk diet. Intestinal poisoning is thus combated. About three quarts of skim milk daily are prescribed, but kefir or lagourth may be substituted. Full diet is resumed very gradually, eggs being cautiously added and only the white meats used at first. Grapes are thought to be a powerful hepatic stimulant, and lemon juice has its partisans. Plenty of water is given to help diuresis; this is important, and mild mineral waters may be used. Cold enemata, twice a day, are advised. Benzonaphthol and salacetol are given to combat the

intestinal sepsis; a calomel purge follows at the end of the first week, then opotherapy by means of half a dozen daily capsules of bile. Pills of extract of liver are sometimes substituted. At the end of the third or fourth week, urotropin and sodium salicylate are indicated. If the liver remains enlarged the patient is ordered to one of the mineral spring resorts, or a powder may be given of sodium bicarbonate, eight grammes, sodium phosphate, four grammes, dry sodium sulphate, two grammes, dissolved in a quart of hot water and taken three times daily one hour before meals. Remember that jaundice is often a sign of infection. If it persists, repeated calomel purges are given, the bile opotherapy is continued, also the cold enemata. As to secondary symptoms, itchiness of the skin is best combated by very hot lotions containing alcohol or vinegar or dilute a small proportion of menthol. Hemorrhage is met with calcium chloride and the opotherapy already mentioned. Prognosis should always be guarded, although the majority of cases terminate favorably.

DANGERS AND AFTER-EFFECTS OF ANESTHESIA.

Buxton, in the *Clinical Journal*, mentions briefly some of the more common complications. In referring to vomiting he believes it necessary for us to trace to its source the origin of vomiting. Vomiting may be either a slight complication, or it may be a very grave complication indeed, leading eventually to death. Vomiting is due to either irritation of the mucous membrane of the stomach arising from the entrance of the anesthetic condensed from its vapor into the stomach or to interference with metabolism—we will call it gastric vomiting—or it may be due to brain conditions, and, of course, it may arise from renal conditions. When vomiting arises from cerebral or cerebellar conditions it is believed, Buxton thinks, upon sufficient evidence, that this vomiting is caused by interference with the circulation in the central nervous system during the prolonged operation. This may be due to the head having been kept at too low a level. We are in the habit of teaching that in order to avoid syncope the head should be kept low. We have now to face the question of the vomiting, and to be told that if the head is too low there will be a greater amount of vomiting. Buxton thinks it is true that unless there is obvious ischemia of the brain, prolonged depression of the head, especially in plethoric persons, will tend to produce post-anesthetic sickness. And the treatment of it, Buxton thinks, is that as soon as the patient has come through the operation, if he is not greatly collapsed he should be kept fairly

raised so that the head may not be subjected to the danger of congestive conditions.

The actual vomiting from the stomach may be due to imperfect preparation of the patient. Take a case of this kind: A patient is starved for a long time. He then has a violent purge, and the result of the purge given immediately before the anesthetic is to produce a very considerable degree of hepatic catarrh. As a result he vomits, and vomits bilious material for a long time. If the patient is carefully prepared, has no purge for two days previously to the operation, and has the bowels properly regulated, such vomiting is avoided. In the case of a person who is known to be inclined to vomit, the best plan is to feed by the rectum for twenty-four hours before the anesthetic and to allow copious libations of hot water for three days before; in this way we will avoid this after-effect. With regard to the renal vomiting, that is a very-very serious condition. It is due, not directly to the anesthetic, but to the operation, and while it is primarily due to the operation it may be also due to too much anesthetic having been given.

Nearly all the after-effects—vomiting, headache, acute mania—result from over-stimulation even more than from the anesthetic itself. There has been too much of the anesthetic given. This may arise in two ways: the anesthetic has been given either in too concentrated a vapor, or the narcosis has been kept at the same level throughout a prolonged operation. We have yet to appreciate the fact that in order to remedy or prevent after-effects we must lessen the amount of the anesthetic throughout the operation, and do so in proportion to the actual requirements of the patient and the surgeon. If we do this—i. e., eliminate the anesthetic, which is the crux of the matter so far as the patient is concerned, during the first twelve hours after the operation—we lessen the amount of work which has to be carried out by the lungs, by the kidneys, and by the tissues in general. But further, there is one important question which arises in regard to vomiting, and that is the condition which is spoken of as “delayed chloroform poisoning,” or acidosis, the cardinal symptoms of which are restlessness, delirium followed by excessive vomiting, and death within forty-eight hours, as a rule from exhaustion. The most conspicuous symptom is the presence of B. oxybutyric acid or diacetic acid in the urine. This puzzling state we find is in many respects similar to the cyclic vomiting in children. In those cases we know that the vomiting is apparently related to changes of diet. Now in the same way in post-chloroform vomiting, we know it follows not only chloroform, but all other anesthetics, and appears to have very little relation to the actual amount of anesthetic taken. Hence we arrive at the conclusion that the patient has died as a result of narcosis, although other factors have been at work. *The*

obvious treatment is to prevent starvation while we combat the symptoms. The old treatment was to give alkalies, but that line of action no longer appears convincing. We know the disease is due to exhaustion of the liver and to damaged tissue, so the treatment is to give glucose, if possible by the mouth, or failing this, by rectal injection; treated in this way, these cases do, as a rule, extremely well.

In conclusion, he impresses upon our memory that anesthetics first produce anesthesia; if they are given in excess, they produce damage to the tissues of the body, and so arise deleterious "after-effects." When after-effects show themselves, seek to ascertain the exact cause and origin of their symptoms, and try to remove the cause and assist nature to regain her balance of power. Remember that a patient's vitality is lowered after undergoing an operation under an anesthetic, and so is extremely susceptible to malign influences such as cold, infection, and so on; hence it is our duty to protect him from the influence of such deleterious agencies. In this, as in all other cases, prevention is better than cure.

CONJUGAL GENERAL PARESIS.

Laignel-Levastine and Mercier, in presenting to the Société de psychiatrie at Paris on November 21st, (*Presse médicale*, November 27, 1912), a married couple suffering from general paresis of the insane, remarked on the rarity of the double condition, greater even than is generally believed. In the case under discussion it was the wife who had infected the husband and, in the opinion of the presenters, this was the usual order of things in conjugal paresis.—*New York Medical Journal*.

METCHNIKOFF ON TUBERCLE IMMUNISATION.

A large audience awaited Professor Metchnikoff at the Royal Society of Medicine. He discoursed in lucid and polished style upon man's warfare against tuberculosis. It was interesting to hear from this veteran of science an account of his first grim struggle with the disease. At twenty-three years of age he married a lady of the same age, who suffered from consumption. He tended her closely for four years—until she died—but did not contract the disease. This immunity he attributes to the fact that he had in his childhood been inoculated with the infection in a mild form. "Unconscious inoculation," he said, "by mild or benign strains of the tubercle bacillus is

known to occur naturally and to lead to immunity." Some assumption of this kind seems necessary to explain the facts presented to us on all sides. The learned Professor did not hesitate to push his view to its logical conclusion, for he claimed that the diminution of the death-rate from tuberculosis in London, Hamburg and Copenhagen was probably due to such immunisation. In a fine peroration he expressed a hope that in the not far distant future the great animal *homo sapiens* would triumph over the microscopic plant *bacillus tuberculosis*.—*Medical Press*.

X-RAYS IN DIAGNOSIS OF DISEASE IN THE RIGHT HYPOCHONDRIUM.

Prof. Pfahler in an article in the *New York Medical Journal* draws the following conclusions:—

1. Practically all pathological conditions in the chest which may cause pain in the right upper quadrant of the abdomen can be demonstrated by the Roentgen rays.
2. Subdiaphragmatic abscess can usually be demonstrated.
3. Biliary calculi can be shown in some cases.
4. Duodenal, gastric and colonic adhesions can practically always be demonstrated by their effects on the position and movements of these organs.
5. Gastric ulcer can be shown only when it has perforated, and can be suspected by spasmodic contractions which may be present in the stomach.
6. Duodenal ulcer may be suspected if spasmodic constrictions are present in the duodenum.
7. Gastric carcinoma can almost always be demonstrated.
8. Renal calculus can be demonstrated in about ninety-eight per cent. of the cases.
9. Renal abscess can often be demonstrated by combined cystoscopic and roent-genoscopic examinations.
10. Perinephric abscess can be demonstrated when it is large enough to produce a palpable tumor, or when it displaces neighboring organs.
1. Colonic kinks and constrictions can be demonstrated.
12. Each of these conditions requires careful technic and study in the sequence of the various steps during the examination and usually requires not only a fluoroscopic examination but a number of plates.—*American Medicine*.

SURGERY

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

CLINICAL REMARKS ON INTRACTABLE CONSTIPATION
TREATED BY OPERATION.

P. Lockhart Mumery, London.—As it is not a disease, constipation can have no distinctive pathology; we can recognize three distinct types: (1) obstructive constipation, in which some definite obstruction exist to the passage of fecal material along the colon; (2) atonic constipation, in which the peristaltic and expulsion power of the colon is deficient; (3) undue solidity of the fecal material interfering with its passage along the colon.

Undue retention of fecal material within the body is not in itself of importance. It is rather the results of this retention which cause trouble, and to prevent which a surgical treatment is sometimes called for.

Of the extremely poisonous nature of the toxins which are produced in the bowel as the result of the retention of fecal material in the colon we have good evidence in cases of intestinal obstruction. In cases of acute intestinal obstruction the cause of death is almost without exception a profound toxemia rather than any direct result of the obstruction.

Clairmont and Ranzi found by experiment that while the filtrate from the contents of the normal intestine produced no harmful effects when injected into animals, a similar filtrate prepared from the contents of a loop of strangulated bowel produced serious, and often fatal results when injected. One of the most marked serious symptoms caused from chronic constipation is a progressive loss of weight. Discoloration of the skin is another characteristic symptom in bad cases. Usually the skin becomes a dull earthy color, while in a few cases the author has seen large patches of brown discoloration which caused considerable disfigurement. Other symptoms, such as headache, neuralgia, sleeplessness, loss of vitality are well known. Not infrequently the most serious aspect of the case is the mental depression which accompanies the toxemia. The presence of adhesions involving the pelvic colon and causing a kink is readily diagnosed by means of the sigmoidoscope. The author advises caution in accepting the X-rays, with the bismuth meal and injected into the colon, for diagnosis of kinks. There must be normally a very large number of kinks in the alimentary canal. A kink can only produce partial obstruction when the bowel is so fixed that the kink cannot be straightened out. The so-called iliac kink is, the author thinks, open to grave suspicion as a pathological cause of

constipation. Food naturally accumulates in the terminal coils of the small bowel lying in the pelvis and there must be a kink in the ileum where it joins the more fixed cecum. He advises caution in the observation of the rate of passage of a bismuth meal. Bismuth in large doses is one of the best known drugs for producing constipation, varies greatly in its effect upon different individuals.

Adhesions was one of the commonest causes in his present series. Adhesions usually cause chronic obstruction by producing a kink in the bowel which interferes with the passage of anything but fluid feces along its lumen. Cases due to adhesions are generally characterized by well-localized pain in the abdomen, which is especially noticed at the time when peristalsis is active. "Blood clot left in the abdomen" is one of the causes given of adhesions. Operation is the only treatment that offers any probability of permanent cure of partial obstruction due to adhesions. All raw surfaces left by division of the adhesions must be completely covered so as to leave no raw surfaces uncovered by peritoneum, and the most absolute asepticity and hemostasis are *sine qua non*.

Stricture.—There were seven cases of stricture, all due to pericolicitis.

Foreign body.—One case was due to foreign body.

Congenital dilation was the cause of one case.

Kinks or volvulus was the cause of two cases.

Visceroptosis and atony of the bowel.—Cases of this class were the least satisfactory. There were 8 of them, and with one exception were all women between the age of 30 and 45. Curiously enough there was no marked weakness of the abdominal wall in most of the cases, while in several the abdominal muscles were quite up to the normal.

The author does not believe that the serious delay in the passage of the food residue through the colon which occurs in these cases is due to the abnormal position of the colon, or to any increase in the flexures at the hepatic and splenic angles, as has often been suggested, but that it is due to a general loss of tone in the muscular walls of the colon itself. So far as my experience goes there is no surgical treatment which can be depended upon to cure these cases. Appendicectomy, by enabling the bowel to be kept empty, gets rid of the auto-intoxication, which is one of their most serious symptoms. Two of my cases are not able to dispense with the opening after the lapse of three years in one case, and one-and-a-half years in the other.

Pressure upon the bowel from the outside.—There were only two.

Enterospasm.—In two cases the cause of constipation appeared to be a local spasm of the colon which caused severe pain and symptoms of obstruction.—*The Lancet*, London.

BILIARY PERITONITIS WITHOUT PERFORATION OF THE BILIARY SYSTEM.

The escape of bile into the peritoneum without any gross lesion of the biliary system is discussed by F. Wolff (*Berl. klin. Woch.*, December 9th., 1912), who has observed three such cases. One patient who had suffered from typhoid fever three years earlier, suddenly developed violent abdominal pain. When admitted to hospital, fifteen hours later, his abdomen was distended, rigid, and tender. As the pain was most severe in the region of the appendix, the abdomen was opened at this point. More than one litre of mucous, dark-green bile escaped from the peritoneal cavity, both the parietal and visceral linings of which were somewhat inflamed. After the healthy appendix had been excised the abdominal wound was enlarged upwards to facilitate the exploration of the gall bladder and ducts. The former was filled with bile, its serous coat was normal, its walls were not thickened, and it contained no stones. Palpation of the biliary passages revealed nothing abnormal. The operation was hastily completed owing to the patient's weakness. A tube and a gauze tampon were inserted near the common bile duct, on the assumption that a perforation might have occurred in it or in the duodenum. The patient recovered. Another patient, who had suffered for some time from abdominal symptoms, suddenly developed violent pain in the abdomen. Twenty hours later he was admitted to hospital, where symptoms of appendicitis led to an exploratory laparotomy. Several litres of mucous, dark-green bile escaped from the peritoneal cavity. After the removal of the healthy appendix the other organs were examined, and a small perforation, of the size of a lentil, and covered by a fibrinous deposit, was found on the anterior surface of the duodenum, a few centimetres from the pylorus. Apart from slight inflammation, the gall bladder and bile ducts were normal. The perforation was closed, a drain was inserted, and an uneventful recovery was effected. A third patient had suffered for two days from vomiting and abdominal pain when seen by the author. There was retention of flatus and faeces, and the abdomen was much distended. Perforation of the appendix and peritonitis were diagnosed; but when the abdomen was opened a large quantity of cloudy, bile-stained, purulent fluid escaped, and the appendix proved to be healthy. The gall bladder contained many stones, and between it, the liver, and duodenum were many adhesions. Nowhere, however, could a perforation be found. The gall bladder was freed from adhesions, sutured to a small opening in the abdominal wall, opened, and drained. Death followed two days later. At the necropsy the stomach and the upper portion of the small intestine

were found much dilated. A coil of the ileum was rotated on its own axis, and lay compressed within the pelvis. The gall bladder and cystic duct contained many small stones, but neither of these organs nor the common bile duct showed any ulceration. The stomach and intestine showed no perforation. The author recognizes two forms of biliary peritonitis. In the one bile oozes through the wall of a diseased gall bladder; in the other it escapes through a perforation in the biliary system or in such organs as the duodenum and stomach, into which bile may flow. In the first form the process is obscure. Simple catarrh or chronic inflammation alone is insufficient to cause biliary peritonitis, for while the former is common, the latter is very rare. For the same reason stasis alone cannot account for the condition; and though gall stones were found in the author's third case they caused no obstruction. Doberauer holds that the gall bladder after recovery from typhoid fever may become permeable to bile; but the author discredits this view, even in his first case, in which he thinks the bile must have escaped through a perforated duodenum. This explanation applies also to the second case. In the third case the author doubts whether the peritonitis was caused by the state of the biliary system, or vice versa. He inclines to the latter view, though he cannot show how a primary peritonitis can cause a transudation of bile through the walls of the biliary system.—*B. M. J.*, February 1st.

DRAINAGE OF THE ABDOMEN.

A. E. Barker in the *B. M. J.*, Jan. 18th, believes that abdominal drainage has been employed too much as a routine procedure particularly in cases of inflamed appendices, and that more discrimination is desirable. After the removal of the inflamed organ and the septic products around it as far as possible by careful mopping, one might perhaps with advantage in some cases stitch up the abdominal opening after cleaning its edges, and obtain primary union with all its advantages. Here, of course, some traces of the septic matter would be left behind within the abdomen; but this can be disposed of by the defensive powers of the peritoneum. So far as can be seen from clinical and experimental observation, a very considerable amount of septic matter is tolerated by the peritoneal surfaces, and can be prevented by them from doing irremediable injury when not in too great amount or overpoweringly virulent. In many cases of perforated gastric ulcer drainage is of no use if not actually injurious. If on opening the abdomen a pyosalpinx with localized peritonitis is found, there need be

less hesitation. Here the immediate closure of the wound may be done in the large majority of cases. The pus from pyosalpinx is sterile in about 50 per cent. of ordinary cases. In this group there is no special reason for drainage if oozing from adhesions can be quite controlled. But in the other half of the cases the virulence of the bacteria mitigated by long residence in the body is low, as indicated by the plastic exudation and the absence of inflamed and paretic intestines, and a carefully sutured wound will heal *per primam* in the majority of cases in spite of the pus. Again, in another class of lesions the same question has to be considered. The author alludes to gangrene of the gut from internal strangulation. Here, except where there has been perforation and fecal extravasation, drainage should be avoided after removal of the damaged portion. The plastic processes appear to be more perfect without a drain, which may prevent the apposition of healthy structures around the line of suture.—*Med. Record.*

CONSERVATIVE TREATMENT OF CANCER.

R. H. Boggs (*N.Y. Med. Journal*, Jan. 25th) believes that a more conservative treatment of malignant growths should be practised in order that one may secure more positive results in curable cases and effect greater palliation in hopeless cases. The degree and location of malignancy should determine the treatment. Good results follow early operations if the tumor is favorably situated. Postoperative Röntgen treatment even in these early operations, decreases recurrences. Some unfavorable cases can be made more favorable for operation by antepoperative treatment. Hopeless cases which have not been operated upon derive more benefit when compared with hopeless recurrent cases. With many the Röntgen ray is superseding all other methods, even excision radically performed, in the treatment of epithelioma, unless it involves mucous membrane.

CONTRACTURE OF THE NECK OF THE BLADDER.

C. H. Chetwood in the *J. A. M. A.*, Jan. 25, states that there may occur circular sphincteric and prostatic stenoses with partial or complete urinary retention. Contracture of the neck of the bladder may occur in young or old with or without prostatic enlargement, may be confined to the internal sphincter or encroach on the prostatic urethra,

and is amenable to surgical relief. There are reports in the literature of numerous cases of vesical atony attributed to arteriosclerosis, circulatory disturbances, senile changes, degeneration of bladder muscle, local nervous diseases and infection. The author believes a prolonged inflammation or congestion may have antedated some of these causes. He reports a case in which the removal of the sphincteric orifice and prostatic urethra at autopsy showed the urethral outlet vigorously contracted, and histological examination showed a pronounced inflammatory process as its basis. The reported cases of bladder atony, the causes of which are neither neurological nor mechanical so far as ascertained, are, according to the author's view, sometimes of specific origin, and he mentions a case in which specific treatment relieved the condition. The mystery surrounding some of the cases might possibly be cleared up if one had a better knowledge of the functional mechanism of the vesical prostatic outlet than one can gain by cystoscopic observation. A slight valvular abnormality might account for some while others may be due to some abnormality in the central nervous system. In the mechanical cases surgery is the only relief. The author's method is to use the galvanocautery through a small perineal cut of the vesical constriction on one or both sides, according to the case. He considers this very much better than any intravesical operation.

IMPERMEABLE STRICTURE OF URETHRA.

J. B. Deaver in the *J. A. M. A.*, Jan. 25th, notes that the membranous urethra is the seat of inflammatory stricture, though ordinarily the bulbous urethra is involved in deep stricture. He reviews the methods of attacking impermeable stricture and condemns the blind perineal section. Incision exposing the urethra anterior to the stricture, which is the method most used, has the disadvantage that one is often unable to pass any instrument through the exposed strictured area and one must either make a perineal dissection or carefully dissect backward to the dilated portion of the urethra until the stricture is laid open. Young's operation consists in incising the urethra through the tissue of the apex of the prostate after its exposure by the perineal method. This has undoubted advantages, being carried out on definite and anatomical lines and is the simplest procedure of all. Primary or secondary suprapubic incision into the bladder as a preliminary to urethrotomy behind the stricture, is also condemned. As regards the treatment of the stricture area after it has been exposed, the older teaching was to drain and dilate. The more modern methods of excising the entire area and

reuniting the severed urethra over a catheter or supplying the excised tissue from other parts, is too time-consuming to be used in many cases. There is no reason, however, why one should not remove as much as possible of the dense organized scar tissue. It is a help to nature's reparative powers, and there is less tendency to new contraction than with mere incision and drainage. Another point emphasized is that a perineal drain should be left after a perineal operation. It is the author's plan, after establishing a passageway, having excised all the dense scar tissue and having placed a catheter inside the bladder closed over with what tissue he can find in layers, to always bring the catheter out of the urethra anterior to the point of stricture and fasten it to the anterior angle of the skin incision in the perineum. Whether another catheter is to be placed in the anterior penile urethra and brought out through the same wound is a matter for the judgment of the surgeon. The author has had good results both with and without this addition.

HYGIENE OF SYPHILIS.

Dr. Oscar Dowling, New Orleans, pointed out that as a preventive measure, segregation of the prostitute class, while unsatisfactory and undoubtedly a legalization of vice, afforded opportunity for medical supervision and treatment. Stringent, practical regulations, humane, adapted to local conditions, and rigidly enforced, would give results worth the effort involved. But to be effective there should be no favor, no laxity, no escape. Certainty and justice should be the keynotes. The best means of getting rid of syphilis or any similar disease was to educate the people by energetic, practical work daily. Vigilance in the control of bad practices, activity in the practical things pertaining to home life, enforcement of every health ordinance and regulation were means which spread the gospel of cleanliness and health. The hygiene of syphilis was the same as the hygiene of other contagious diseases. From its nature, specific work should be done to enlighten everyone as to its origin and to correct the false notion that it was contracted only in one way.—*Med. Record.*

SYPHILIS OF THE EAR.

Dr. N. M. Heggie, Jacksonville, Florida, had seen only eight cases of primary labyrinthine deafness within the year, two of which were

probably due to mumps and one to traumatism, leaving but five to be classified as syphilitic. In view of the fact that labyrinthine syphilis was not amenable to local treatment, he would advise patients to avail themselves of the treatment recommended by a syphilographer, just as readily as were the lesions of another organ.—*Med. Record.*

THE EFFECT OF ANTI-SYPHILITIC REMEDIES ON THE WASSERMANN REACTION.

Dr. William Litterer, Nashville, Tennessee, drew the following conclusions: 1. From the serologic point of view, injections of the biiodide of mercury gave better results, while the protiodide pills were the least satisfactory. 2. Apparently there was no very great difference serologically between the administration of salvarsan intravenously or intramuscularly in treating secondary syphilis. 3. Neosalvarsan appeared to be more efficacious than salvarsan. 4. In the primary stage of lues, especially before the appearance of a positive Wassermann and chancre excised, repeated intravenous injections of salvarsan or neosalvarsan gave promise of aborting the disease in quite a number of cases. 5. Serologically a combination of mercury and salvarsan appeared to have a distinct advantage over the administration of either of the drugs. 6. The Wassermann test as a therapeutic guide in the treatment of syphilis was paramount if one wished to carry it to a successful termination; in fact, it was the only method available of controlling the external manifestations of the disease.—*Med. Record.*

SYPHILIS OF THE EYE.

Dr. Dunbar Roy, Atlanta, Georgia, said the longer he practised ophthalmology and the more extensive became his experience, the more he realized the importance of considering syphilis as the most important factor in connection with ocular diseases. Diffused interstitial keratitis was exceedingly rare in the acquired forms of syphilis, and yet a number of cases had been reported. Iritis in various forms was by no means infrequent during the secondary stage of syphilis, less frequently during the so-called tertiary stages. Paralysis of the various muscles of the eye was frequently caused by syphilis. Ophthalmoplegia interna or paralysis of the sphincter of the pupil, usually unilateral, was by no means an infrequent form of syphilis. According to Alexander, three-fourths of such cases were due to syphilis, while, according to Uthoff, only one-fourth. Disease of the eye due to congenital syphilis frequently showed many of the symptoms which were seen in the acquired variety. Usually those cases of the congenital variety were comparatively mild because the severe ones died either *in utero* or soon after birth.—*Med. Record.*

SYPHILIS OF THE NOSE AND THROAT.

Dr. H. H. Martin, Savannah, Georgia, said the secondary lesions occurring in the nose and throat were interesting, and sometimes troublesome, but were usually self-limited and seldom caused serious or permanent damage. They were of considerable diagnostic value and furnished fairly accurate indications of the progress or arrest of the disease. The tertiary lesions, on the contrary, played havoc with the bones, cartilages, mucous membranes and fibrous tissues of the nose and throat, and since they most often made their appearance some years after all active symptoms of the disease had disappeared, we must be constantly on our guard against them. In the nose a tertiary lesion might exhibit merely the symptoms of a bad cold, but the secretions very rapidly became purulent and offensive, and a careful inspection would reveal the lesion in the form of a more or less diffuse infiltration, or in a periosteal or perichondral abscess. The treatment of syphilis of the nose and throat was essentially constitutional, but there were some local measures which had proven valuable in his hands, and among them the mixture of calomel and lime water, known as "black wash." This could be used as a douche, a spray, or a gargle, and was especially valuable in the specific coryza of the new-born, in ulceration and in necrosis. The tincture of iodine was very useful in treating ulcerations when they were accessible. The secondary lesions required no local treatment and were best left alone.—*Med. Record.*

THE SENSIBILITY OF THE PERITONEUM.

In a trial lecture at the surgical clinic at Heidelberg for the "License to Lecture," Carl Franke Spoke in some detail of the sensibility of the peritoneum (*Berl. klin. Woch.*, October 14th, 1912). The nervous system in the mid-brain, the medulla, the dorsal cord, and the automatic system of the abdominal organs is derived from the central upper part of the lumbar cord. The lecturer divided the system into four parts: (1) The mid-brain autonome, represented by the third cranial nerve; (2) the bulbar autonome, the seventh, ninth, and tenth cranial nerves; (3) the sympathetic, and (4) the sacral autonomes. He proceeded to describe the direction of the fibres issuing from these groups. Each fibre is provided between the spinal cord and its peripheral end with one ganglion cell. They only possess a centrifugal conduction power, and when the organs supplied contain sensory nerves the latter are derived from the cerebro-spinal system and have no con-

nection with the autonomic system. The abdominal organs are innervated by the vagus, the sacral autonomic and the sympathetic. Under ordinary conditions the abdominal organs do not reveal the least sensation, but under certain circumstances they may be the seat of severe pain, which, according to Fröhlich and Meyer, is due to the stimulation of ordinary spinal nerves issuing from the posterior spinal roots. The vagus, the splanchnics, and the hypogastric nerves are free from any sensory fibres. Approaching the subject from the experimental side, he finds that some difficulty is experienced when utilizing animals for the purpose. Local anaesthetics have to be avoided, as they induce a general insensitiveness, and it is obvious that cold air produces a loss of sensibility in regard to the abdominal organs. He, however, came to the conclusion from the reliable evidence available, that mechanical stimuli to the intestines produce pain in the lower animals, but not when applied to the liver, spleen, or pancreas. Dogs are more susceptible than cats or rabbits. It appears, further, that the stomach of these animals is insensitive, but tying of vessels in connection with the organs is associated with pain. Turning to the human subject, the experience of local anaesthetics permits of a number of deductions. The parietal peritoneum is extremely sensitive, and has the power of localization to some extent. The liver is absolutely insensitive to mechanical stimuli, which explains the painlessness to hepatic affections until the process involves the surface, and thus the peritoneal covering. He could not find any records with regard to the sensibility of the human spleen or pancreas. The oesophagus possesses sensation for pain, warmth, cold, and for pressure. This sensibility decreases downwards. Further, he had no hesitation in stating that pain is felt in the mesentery, right up to the intestine. He discusses at some length the question whether the intestine is sensitive or not, and comes finally to the conclusion that normally the gastro-intestinal canal is insensitive, in contrast to the case of animals. He shows that the pain of supposed hyperacidity of the stomach is in reality due to a gastric ulcer. He follows this up with an analytical discussion of the pain of colic, etc., and referred this pain to pulling on the mesentery, giving a detailed account of the mode of production. Various theories were discussed. He states that the gall bladder is wholly insensitive to mechanical stimuli, but that the pain associated with biliary colic, etc., is due to the pulling on the nerves in the neck of the bladder; this is supported by the fact that ligature of the cystic artery and the neck of the gall bladder are painful procedures. The same is true of the kidneys. The urinary bladder is sensitive, especially in the trigone, and the floor is certainly sensitive to heat. He further speaks of the sensibility of the urethra, rectum, etc.—*British Medical Journal*.

CANCER OF THE ŒSOPHAGUS.

Prof. Liebmeister has recently shown by radiography and examination of anatomical specimens that absolute stenosis does not exist in cancer of the œsophagus and of the cardia. No matter to what degree the stenosis exists there remains always a small canal to allow liquids to pass. Real and absolute stenosis occurs only when the canal is blocked by food insufficiently divided or the products of the tumour in a necrotic condition. In these cases M. Liebmeister gives a solution of oxygen water of from 1 to 3 per cent. by tablespoonfuls every hour.

In less than 24 hours the stenosis disappears, and at the end of a few days the patient, who previously could swallow nothing, can take food more or less liquid, and even solids. Several patients thus treated finished not only by eating quite easily, but even took on flesh and returned to an appearance of health. In a case of carcinoma of the cardia the weight increased by 16 lbs., and in another of enormous carcinoma of the stomach the gain was 8 lbs.

A patient was brought to the hospital presenting absolute stenosis of the œsophagus. A few hours after admission, and under the treatment of oxygen water, he was able to take liquids, and two days after thick soup passed, and a week later he could take solid food. In a month he gained 12 lbs. and left the hospital, but continued to use the solution. After a time he left it off for several weeks, when he was simply put on the same treatment, and a fortnight after he had gained 14 lbs. At the end of some weeks he was admitted to the hospital for the third time, but now he was much wasted; nevertheless, after recommencing the treatment he gained 4 lbs. It is needless to say that all the cases terminated fatally, but life was considerably prolonged and suffering much relieved, facts of no small importance. The method has the advantage of being simple and presents no danger or inconvenience, and is capable of rendering great service in inoperable cancer.—*Medical Press.*

GYNÆCOLOGY

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

ADNEXAL INFECTION.

De Boris (*La sem. méd.*, No. 48), in a paper on adnexal complications following confinement, describes a condition which he calls lymphangitis of the superior border of the broad ligament. Clinically there

are three forms—the algescic, the exudative, and the suppurative. The first is characterized by a slight rise of temperature on the third day, offensive lochia which are not at first discolored, and moderate pain in the right iliac fossa. The condition clears up in two or three days. The second form is characterized by the presence of a tumor, generally on the right side; the onset is similar to that of the first form, though the fever is more marked; shivering is rare, and constitutional disturbance is slight. The uterus always remains mobile, but involution is delayed. The lochia, generally offensive, become chocolate colored on the fifth day and eventually purulent—a state of things which the author considers is not due to salpingitis. In from eight days to a month and a half the exudation is completely absorbed. The third form differs from the second in that the tumor is larger, the lochia are fetid, the temperature is markedly remittent, and there are rigors. At the same time the general state is relatively little altered as compared with a septicaemic infection. Pathologically and clinically the conditions resemble the classic entity of phlegmon of the broad ligament or peri-uterine phlegmon, but there is a difference; the uterus in the conditions under consideration preserves its mobility, and the infection seeks for choice the upper part of the broad ligament; in periuterine phlegmon the infection is localized at the base. The diagnosis is easy, but on the right side there may be confusion with appendicitis; however, an appendicitis giving rise to so large a tumor would probably be accompanied by vomiting, meteorism, and violet pains. As regards treatment, one has to guard against operating simply because there is a tumor; most of the cases will clear up under medical treatment, of which the most essential item is the application of ice to the abdomen.

A COMMON ABUSE IN THE PRACTICE OF GYNECOLOGY.

W. A. Wade (in the *Internat. Jour. of Surgery*) considers that curettage is performed with unnecessary frequency. He believes it has been amply demonstrated that the uterus cannot be curetted thoroughly, and that a pathologist can only rarely find in the scrapings a difference between normal and inflamed endometrium. In view of the changes which take place in the endometrium in connection with the menstrual cycle it is easy to understand that normal changes in the mucosa have frequently been mistaken for hypertrophic and interstitial endometritis.

Curettage when the uterus is actually inflamed is dangerous to life.

In chronic endometritis hysterotomy, followed by excision of the diseased glands with a small sharp curette, is proper practice. Erosions

of the cervix are best treated by the actual cautery or by amputation of the cervix.

Curettage prior to plastic operations on the cervix and perineum is wrong, both in theory and practice.

The curette should not be used for the delivery of portions of placenta or fetus in post partum and post abortum cases, rather should one use the gloved finger, a sponge holder, or placental forceps, and this should be followed by the light packing of the uterine cavity with gauze moistened with tincture of iodine diluted one-half. Curettage is not indicated for such conditions as congestion of the endometrium resulting from ovarian activity.

The curette is of assistance in making a diagnosis as to malignant disease of the uterus, but as a therapeutic agent it has little value.

Probably few gynecologists of experience will agree with the opinion which has been thus expressed.

Undoubtedly the curette has been shamefully abused and many crimes have been committed with it, but in the hands of one who is skillful and experienced there is no instrument in the gynecologist's armamentarium which could be less readily dispensed with. It is well to sound a note of warning, certainly, to the unskillful and the injudicious who have done much damage by their rashness. The unfortunate teaching that curettage is a simple operation which anybody can do, has led many ignorant and unskillful physicians to attempt it, often to the undoing of their patients.

OBSTETRICS AND DISEASES OF CHILDREN

PITUITRIN AS AN OXYTOXIC.

Malinowsky (*Zentralbl. f. Gynäk.*, No. 43, 1912) reports very favorably on pituitrin, and publishes charts showing the rhythm of uterine contractions—normal, violent, and tetanic—excited by doses of this material. His researches were conducted in the Obstetrical Department of the University of Kasan. In suitable doses pituitrin acts promptly on the uterine musculature. Intrauterine pressure rises greatly after injection, the action of the body beginning in about five minutes; it does not matter whether the upper arm, thigh, or the abdominal wall be chosen. The effects of 1 c.cm. of pituitrin last for about one hour. The duration of each pain is perceptibly diminished, and so are the intervals between the pains. After a moderate dose the pains show a normal rhythm—increment, acme, and subsidence. “*Sturmwehen*,” however, are noted after almost every administration of pituitrin, and are violent according to the amount injected; these tetanoid contrac-

tions last for about eleven minutes, but Malinowsky seems to consider them to be a physiological curiosity, as he has never found them to do any harm to mother or child. Pituitrin acts most favorably in the second stage of labor and at the end of the first. In the earlier state of dilation of the cervix pituitrin sets up true tetanic contractions, lasting over one-quarter of an hour in certain cases under observation. They were primiparae with membranes unruptured and cervix but little dilated, or multiparae with marked rigidity of the os externum. Yet in both types the uterine contractions returned to their normal character and rhythm as labor advanced. In primiparae after rupture of the membranes tetanus of the uterus was not observed. The fetal heart sounds during the tetanic spasms fell to 60-50 beats per minute, but rose as labor progressed, and the child was born alive without any signs of asphyxia. One cubic centimetre is quite enough for a dose; repeated smaller doses are less satisfactory. The strongest dose not liable to produce ill effects is about 13 c.cm. The dose can always be repeated; the second, whether given whilst the effects of the first persist or after they have subsided, never fails to act on the uterine muscle. The third stage is, as a rule, uncomplicated; "the placenta was always expelled spontaneously," and atony of the uterus after delivery was not observed in the cases under Malinowsky's care. Pituitrin appears to be contra-indicated where the mother is subject to cardiac and renal disease. Altogether Malinowsky considers pituitrin to be an excellent oxytocic, and the injection is painless. But, he repeats, caution is necessary in the earliest stage of labor and in cases of rigid os, independently of pelvic contraction or impediments due to the fetus.—*B. M. J.*, Jan. 18th.

THE METHOD OF DELIVERY IN DIFFICULT AND DANGEROUS LABORS.

Miller in the *Journal of the American Medical Association* of September 7, 1912, expresses his views on this subject as follows:

1. The normal progress of labor should be interfered with only when mother or child seems to be in danger.
2. Judgment of each individual case should be carefully formed, apply all the known methods for measuring the pelvis, the size of the child's head, and placing special importance on the possibility of engagement or non-engagement as the result of pressing on the uterus and using the finger in the vagina, and the paw-like grip over the child's head.
3. Due consideration should be given to the fact that a competent obstetrician has previously had difficulty and has secured a dead

child from high application of forceps.

4. As labor progresses, the border-line cases must be so conducted and at such a place as to permit of Caesarean section in preference to an application of high forceps, in case progress is not satisfactory and there seems to be a reason for hastening delivery.

5. These cases should be considered largely by abdominal palpation, judging by the descent by this method in preference to frequent and many times unnecessary vaginal examinations.

6. In the absolute indications for Caesarean sections, they should be preferably done as soon as the patient fairly enters labor, accepting as evidence of the opening of the os some slight vaginal discharge, or, if necessary, one examination. In the relative indications for Caesarean section they should be done prior to the time that the patient shows an unusual degree of exhaustion, and preferably prior to the rupture of the membrane.

7. In elderly primiparae the possibility of a senile uterus must frequently be the determining factor between spontaneous delivery, high forceps, and Caesarean section.

8. High forceps should be applied only in cases in which the surroundings of the patient do not justify an abdominal Caesarean. The physician must be prepared to accept an infantile mortality in excess of 15 per cent., with a material mortality equal to elective Caesarean section, plus a not inconsiderable morbidity.

9. Pubiotomies should be done only when sufficient assistance is at hand to prevent undue separation of the pelvic bones, and in cases in which a very slight increase of the conjugata vera is known to be sufficient to permit the passage of a living fetus.

10. It should always be kept in mind that craniotomy has no place in obstetrics on a living child, and the physician should avoid putting himself in the position of having to sacrifice one life to save the other when both should have been saved.—*Therapeutic Gazette*.

CONGENITAL SYPHILIS AND MENTAL DISEASE.

H. R. Dean classifies the cases in which congenital syphilis is the cause of disease of the nervous system into three groups: (1) The first group includes infants who are born with marked evidence of syphilis. In these cases the brain, together with other organs of the body, is the seat of marked change. These children as a rule die within a short time of their birth. (2) This group includes children who appear to be healthy at birth, but which develop mental defects at the time of

the second dentition or at puberty. To this group belong the cases of juvenile general paralysis. (3) In this group may be placed those cases of mental deficiency, imbecility and idiocy in many of which the Wassermann reaction constitutes the sole evidence of a syphilitic origin.—*British Journal of Children's Diseases.*

THE INTOLERANCE OF CHILDREN TO MORPHINE.

A. Ravenna reports the case of a 17-months-old infant that received for its paroxysms of pertussis a subcutaneous injection of morphine. As a result of an error in the preparation of the solution, the latter contained 0.01 gram instead of 0.001 gram as was intended. The injection was followed by severe collapse with subnormal temperature, coma and extreme miosis, from all of which the infant slowly recovered in response to stimulation. This case indicates that although the child is quite susceptible to the influence of morphine, one need not be too anxious in administering this drug to children.—*Rivista di Clinic Pediatrica.*

SCARLET FEVER.

Koessler (*Jour. Amer. Med. Assoc.*, 1912, x. p 1528), in a review of the ætiology of scarlet fever, acknowledges that the streptococcus has an intimate biological and clinical relation to the disease. This has been proved by (1) the constant presence of the streptococcus in large numbers in the throat and on the tonsils; (2) the frequency with which it is found in the blood during life and in most of the organs after death; (3) the fact that by far the greater majority of complications in the disease and of deaths in scarlet fever are to be attributed to the invasion of this microbe, and (4) the evidence of systemic reaction to the streptococcus by the presence of antibodies in the blood. The author's researches, however, with the complement-deviation method, using an appropriate antigen, have led him to the conclusion that the streptococcus must be discarded as the ætiological factor of scarlet fever. He finds that the serum of scarlet fever patients contains specific antibodies for an unknown virus, and that this virus seems to be present especially in the cervical lymphatic glands. The experimental transmission of scarlet fever to apes and monkeys also substantiates this statement.—*B. J. Children's Diseases.*

GLANDULAR DISEASES IN CHILDREN.

D. Ssokolow (*Arch. f. Kinderheilk.*, 1912, 1, p. 103) discusses extensively the literature of this subject with eighty-eight references and comes to the following conclusions: (1) It is the most frequent form of disease in childhood and the lymphatic glands are chiefly affected, especially the submaxillary and cervical glands. (2) Affections of the lymphatics of the organs are rarer; the mediastinal and tracheo-bronchial glands are more often diseased than the abdominal. (3) The disease may be acute, chronic or subacute, and develops from the penetration into the glands of non-bacterial or bacterial organisms, most frequently the tubercle bacillus, but the staphylococcus, streptococcus, pneumococcus, etc., are not uncommon. (4) The diagnosis of disease of the peripheral glands is generally easy since swelling and pain on pressure are usually present. (5) The diagnosis of the deeper-lying glands is more difficult, as there may be no objective data to rely upon save a rise in temperature, which may in any form of glandular disease set in acutely, with marked elevation, or be altogether absent. In some cases the fever may be slight and last for months or years. (6) The treatment should be conservative, and rubbing massage or extirpation should be avoided, save in the presence of well-marked purulent inflammation, when the pus should be removed. Where the glands are accessible warm applications should be employed. If the glands of the respiratory system are affected, pure cold air is essential, and in cases of abdominal glandular mischief a non-exciting, non-fermentative diet is of especial importance.—*B.J., Children's Diseases.*

THERAPEUTICS

TREATMENT OF URTICARIA.

Graucher and Druelle point out that, whatever the cause of the urticaria, there are a certain number of measures which tend to allay the intense irritation set up by the eruption. These are lotions, powders, ointments, and wrapping up in cotton-wool. *Baths*, such as starch baths or alkaline baths, are of more harm than good in urticaria. On the other hand, *lotions* made with hot water to which has been added one-third part of vinegar, or with a 1 per cent. solution of carbolic acid containing one-fourth of glycerine, or with a solution of choral, soothe the patient fairly well. If they are not enough, analgesic powders may

be used alone or associated with the lotions. In the latter case, the powder is applied without drying the surface of the body. These powders are: Fresh starch powder, tale, zinc oxide, and bismuth sub-nitrate; with these may be mixed a little powdered camphor or menthol.

℞ Pulveris camphoræ vel menthol ʒss.
 Pulveris amyli
 Pulveris talei ana ʒiijss.

Misce. Fiat pulvis.

Ointments, composed of a vaseline basis with a tenth part of zinc oxide or bismuth subnitrate, also allay irritation; 1 per cent. of menthol may be added.

In some circumstances, spraying with the following solution has been found very useful:

℞ Chloroformi,
 Spiritus camphoræ,
 Ætheris ana ʒj.
 Menthol ʒiiss.

Misce. Fiat mistura.

When local treatment is not sufficient to cause the disappearance of, or decrease, the irritation, it is advisable to quiet the nervous condition by using a valerian preparation, ʒss. to i. of extract of valerian, in an enema night and morning, or in pills of gr. iij., taking two every hour, or the valerianate of ammonia in a daily dose of from gr. iss. to ij. The following is a favorite prescription of Gaucher and Druelle:

℞ Ammonia valerianatis ʒss.
 Tincturæ valerianæ ʒiiss.
 Aquam menthæ piperitæ ad ʒiv.

Misce. Fiat mistura.

“Take one teaspoonful night and morning, in a glassful of infusion of tilia.”

This prescription may also be given with advantage:

℞ Extracti valerianæ fluidi ʒiiss.
 Tincturæ valerianæ
 Syrupi menthæ ana ʒss.
 Syrupi ʒj.

Misce. Fiat haustus.

“Take 2 or 3 teaspoonfuls a day.”

Finally, sleep must be procured by help of hypnotics, such as opiates, chloral, bromide of potash, or trional; the last two mentioned may, however, cause eruption. When the eruption affects the mucous membranes of the larynx, emollient gargles must be ordered. If it spreads to the larynx and bronchi, æther is given, and, in some cases, acetate of ammonia in draughts.

As to chronic pimmented urticaria the nature of it is quite unknown and it must be treated symptomatically.—*Revue des Hôpitaux. and Practitioner.*

TREATMENT OF NERVOUS SYMPTOMS IN INFLUENZA.

T. H. Evans (*Medical Times*) enumerates as possible nervous symptoms in influenza, prostration, pain, hyperesthesia, paresthesia, lessened motor or sympathetic functions, insomnia and slight psychic reactions, as in neurotic individuals, who become inclined to suspicions or disorders of memory or imagination. All these conditions can be overcome, if promptly treated. In the first place, the emunctories should be stimulated. In uncomplicated cases the following may be given:

℞ Hydrargyri chloridi mitis	gr. 3-40
Phenylis salicylatis	grs. xxxviiss
Acetanilidi	grs. viiss
Potassii nitritis	gr. ¼
Carbonis ligni	grs. viiss

M. Pone in capsulas No. xii. Sig.; One capsule every two hours.

When the next visit is made, the following is to be used, if purgation has been effected:

℞ Strychninæ sulphatis	gr. 1-100
Phenylis salicylatis	grs. xxiiss
Acetanilidi	grs. xxiiss

M. Pone in capsulas No. xvi. Sig.; One capsule each hour.

Rest in bed with an absolute milk diet, or milk toast and soft boiled eggs, will accomplish a great deal. The patient should be fed at intervals of two hours in the part of the attack, the remedies given at the same time, and the patient allowed to sleep, or rest, in the intervals.

For insomnia the hot, wet pack and purgation should be employed. The following should also be given:

℞ Strontii bromidi	grs. lxxv
Elixiris cinchonæ (N. F.)	ʒi
Essentiæ pepsini (N.F.)	ʒi

M. Sig.; Shake well. One or two tablepoonfuls in water each hour.

Where pain is a prominent symptom, Dover's powder acts well, especially when associated with laxatives, and phenyl or other salicylates.

The diet should be made generous as soon as the emunctories are satisfactorily at work. Nervous symptoms, especially tremor and pros-

tration, are best managed by rest in bed and an ample diet. Strychnine is invaluable, though some cases of an epileptoid nature do not do well with it. In these the diet, with some remedial combination such as the following, will meet all indications:

℞ Oleoresinæ capsici ℥ii
 Extracti gentianæ grs. xvi
 Pepsini grs. xvi

M. Fiat massa et divide in pilulas No. xvi. Sig.; One pill every three hours.—*N. Y. Med. Jour.*

ACNE ROSACEA.

Where acne indurata associated, incise popules and pustules, scarify distended nasal capillaries, and apply Bier's cup for some time to individual lesions. Have patient apply hot compresses freely to face and at night following ointment: Salicylic acid, 0.6 (gr. x); precipitated sulphur, 4.0 (ʒj); white petrolatum, 30.0 (ʒj).—*Aronstam.*

GONORRHOËAL RHEUMATISM.

The treatment of gonorrhœal tenosynovitis, or gonorrhœal rheumatism in its mildest form, consists (C. G. Curnston, *N. Y. Med. Jour.*) in rest of the parts affected. If the pain is intense, local bloodletting is often extremely effective. Over the involved tendons the limb should be covered with the following paste, itself retained by a flannel roller bandage:

℞ Methylis salicylatis, ʒiiss (10 Gm.)
 Zinci oxidi, gr. xlv (3 Gm.)
 Adipis lanæ, ʒiiss (50 Gm.)

M. et ft. ungu.

Phenyl salicylate, given subcutaneously, appeared in the author's experience to hasten the cure.

℞ Phenylis salicylatis, gr. xv (1 Gm.)
 Chloroformi, ℥xv (1 Gm.)
 Olei amygdalæ expressi, fʒij (8 Gm.)

M. Sig.; Ten c.c. four times daily in subcutaneous injection.

When the acute symptoms have subsided, massage will complete the cure, preventing the formation of adhesions.—*Monthly Cyclopedia.*

TREATMENT OF BURNS.

Dry open-air treatment of extensive burns recommended. After thorough cleansing with soap and water and gasoline (under anesthesia,

if necessary), dust burn lightly with zinc stearate powder. Give morphine to relieve pain. Once daily remove all heavy crusts, wipe off exudate with dry sponges, and dust on thin coating of powder. Never allow exudate to accumulate under crust over twenty-four hours. Success of treatment lies in constant absolute exposure of the burn.—

SUPPOSITORIES FOR FREQUENT URINATION.

℞ Extr. bella donae
Codeinae
Extr, nucis vomicae aa gr. ss
Ol. theobromates q. s. ad.
M. et ft. suppositor. Sig.; one at
bedtime; one before arising.

METHOD OF PRESCRIBING ASSAFOETIDA.

℞ Asafatida ʒv
Syrupus Tolutani ʒiii
Tinct. Vanillae ʒii
Aqua Cinnamomi q. s. ad. ʒxvi
An average dose of this mixture would be one tablespoonful.

ARSENIC IN ASTHMA.

Try Fowler's solution in increasing doses to the limit of tolerance in those asthmatics who suffer from very frequent paroxysms. Begin with one minim doses directly after meals *in a lot of water*—half to one full tumbler full. Add a drop to the doses every day until you get the t. i. t. dose up to about 15 minims. Watch for edema about the eyes, diarrhea, nausea, cramps, vomiting, neuritis, etc.

CACODYLATE OF SODA.

The administration of cacodylate of soda by the mouth or by the rectum is frequently accompanied by divers accidents. Gautier attributes these accidents to the reduction of cacodylic acid in the digestive tract and the setting free of oxide of cacodyle. This last, of a strong garlic odor and very poisonous, determines frequently, even in small doses, a garlic odor of the breath, the fæces and sweat, noticed particularly by those who approach the patient. Other authors have reported

symptoms of intolerance, such as cramps in the stomach, dryness of the mouth, loss of strength and appetite, etc. For these reasons, Levrat, of Lyon, says the *Monde Medical*, sought to render more practicable the administration, by the hypodermic method, of cacodylate of soda. M. Levrat treated over 1,000 patients suffering from pulmonary tuberculosis during ten years by injections of cacodylate of soda in progressively increasing doses, arriving thus at injecting much stronger doses than usually recommended. In every appropriate case where the caverns were not infected and the extension of the malady not too rapid, he found that the appetite was much increased as well as the weight of the subject, while there was a manifest and general improvement in the strength of the patient. His formula is:

Hydrechl. of cocaine, 0.05.

Hydrechl. of morphia, 0.10.

Cacodylate of soda, 15 grm.

Sol. phenic acid (5 per cent.), 4 drops.

Water, 100 grm.

This solution can keep for a long time and is completely painless. Each syringe contains 3 gr. of cacodylate, and 6 gr. may be given (adult) at the one time and repeated three times a week, but the dose may be double—that is to say, 12 gr., according to the tolerance of the subject. Dr. Patry gives the full dose (12 gr.) three times a week, and never had any accident.

ERYSIPELAS OF THE FACE.

In this condition Castaigne and Fernet (*Jour. de Méd. et de Chir. prat.*) believe ichthyol is most useful when mixed with equal parts of traumaticine and swabbed over the affected part three or four times a day, the application to be continued for forty-eight hours after all local symptoms had disappeared. Ichthyol may be applied pure, diluted with half its volume of boiled water, freely bathing the parts every day or twice a day. As it dries it forms a thick scab, thus rendering the use of successive dressings unnecessary. When all active symptoms have subsided it may be applied in an ointment. In the case of severe inflammation with oozing and suppuration it is better, for the first twenty-four or forty-eight hours to apply dressings moistened with a 1 in 10, or 1 in 20 solution, applying the pure ichthyol at a later stage. In an ointment it is not so active, and should only be used in cases with little inflammation.

R	Ichthyolis	3ss
	Zinci Oxidi	3ij
	Adepis Lanæ	3ij
	Paraffini Mollis	ad 3i

Misce. Fiat unguentum.

This is an excellent application when inflammation has disappeared. It should be used while redness persists, or the following cream may be substituted:

℞ Amyli ʒj
 Zinci Oxidi ʒij
 Adipis Lanæ,
 Paraffini Mollis ana ʒij
 Liquorisi Hydrogeni Peroxidi ʒss
 Misc. Fiat cremor.

Should any telangiectasis persist the following ointment will be found more effective:

℞ Solutions Adrenalini Chloridi (1-1000) ʒss
 Zinci Oxidi ʒij
 Adipis Lanæ ʒij
 Paraffini Mollis ad ʒi
 Misc. Fiat unguentum.

—*Medical Times.*

TREATMENT OF SCALP AND HAIR AFTER SCARLET FEVER.

Itching of the scalp during the first three weeks is treated and prevented by washing with alcohol. This should be followed by rubbing in a small amount of white petrolatum. At the end of the fourth week and twice during the fifth and sixth weeks the hair and scalp are washed with tar soap, then with the following hair lotion:

℞ Hydrargyri chloridi corrosivi gr. iv
 Boricii acidi gr. ci
 Glycerini ʒ ½
 Alcoholis ʒ iv
 Aquæ q. s. ad ʒ viij

The hair and scalp are then dried thoroughly and the following

Olei bergamottæ ggt. v
 ℞ Quinine sulphatis gr. lx
 hair tonic well rubbed in:

Olei ricini ʒj

The eyes are protected by boracic acid compresses and exclusion from light.—*Medical Times.*

PERSONAL AND NEWS ITEMS

Ontario.

Drs. J. A. Robertson and Lorne Robertson of Stratford, have gone to Egypt for a trip.

Dr. R. W. Forrest, formerly of Mount Albert, has located in Toronto, where he intends enjoying a rest from practice.

Dr. Charles O'Reilly, of Toronto, sailed for Liverpool on 1st month. He will visit London and Ireland.

Dr. George McDonagh, of Toronto, has gone for a trip to Australia and New Zealand. Expects to return early in April.

The City of Toronto has agreed to advance the rate from 70 cents to \$1 per day on charity patients in the hospitals.

The Toronto Academy of Medicine held a very interesting meeting recently, when Dr. Ramon Guiteros, of New York, gave a lecture on Urinary Surgery. The lecture was illustrated by many lantern slides. Dr. W. H. B. Aikins entertained a large number of the fellows to dinner at the York Club in the evening.

Dr. C. O. Fairbank, of Petrolea, has entered the field of Federal politics in East Lambton.

Dr. W. A. Mearns, of Hanover, was elected warden of the County of Grey.

At a recent meeting of the Elora Council, Dr. Robertson was appointed medical health officer.

It will be learned with much pleasure that Dr. A. R. Pyne, brother of the Hon. Dr. Pyne, is improving in health.

Orders have been issued that all school children in Niagara Falls must be vaccinated. The schools were closed for a short period on account of the appearance of several cases of smallpox in that city. All suspected places have been fumigated, and a few have been closed.

Dr. W. Harley Smith, of Toronto, and Honorary Secretary of the Toronto Academy of Medicine, has been made a Chevalier of the Order of the Crown of Italy. He has been Italian Consul for a number of years. All will congratulate the doctor on his distinction.

A car containing the Ontario Government Health Exhibit has started on a tour through a number of towns. The car contains exhibits of the methods of fighting contagious diseases. Special stress will be laid on infant mortality and tuberculosis. Lectures will be given where the car stops. The trip is expected to occupy about two months.

At the monthly meeting of the Toronto House of Industry it was reported that some 314 new families had been assisted during the month, making a total of 1,118 families on the books of the house.

Fourteen citizens of Waterloo, including two aldermen, appeared in the police court at Berlin recently, charged with not complying with the order of the Board of Health, which called for a general vaccination within a certain period, owing to the smallpox epidemic. Three citizens were able to show certificates of successful vaccination and their cases were dismissed.

Dr. W. B. Ferrier, an aged physician of Toronto, was seriously injured on 19th February by being struck by a street car and thrown into a ten-foot-deep excavation in the street.

Dr. Duncan, chief of the house staff, and a dozen nurses of Victoria Hospital, London, were recently under quarantine and the institution closed to the public because of an outbreak of measles of somewhat serious proportions. It was claimed that the members of the staff contracted the disease from outside the building and visitors were accordingly being rigidly excluded.

A most interesting drawing-room meeting was held in the interests of the Lodhiana Medical School, India, at the residence of Mrs. Dunlop. Dr. Margaret Mackellar, who has had twenty-two years' experience as a missionary, gave an account of Zenana life and of the need of medical women. The Lodhiana school is the only one in India where women alone may receive a medical education, and it may be seen that it is appreciated from the fact that nine mother tongues are now spoken among the students. The graduates of the school give medical attention to over half a million women annually, but when it is realized that there are 154,000,000 women in that vast land, it will be seen that the need is still very great.

The Heather Club Chapter, Daughters of the Empire, held their annual meeting a week ago at the Nurses' Home, Hospital for Sick Children, with Dr. J. H. Elliott in the chair. Highly interesting addresses were given by Rev. Mr. Southam and Dr. Harold Parsons. Reference was made to the new preventorium, and a vote of thanks to Col. and Mrs. A. E. Gooderham, who made it possible to open the new institution so soon was adopted. The officers were then elected.

In the research work of the University of Toronto the following appointments have been made: Dr. C. Imrie, Dr. Fletcher Mc-Pedran, Dr. R. D. Armour and Dr. A. H. Caulfield. This energetic body of workers will no doubt, give a good account of themselves.

The Canadian Medical Association meets this year in London on 24th, 25th, 26th and 27th June. Dr. H. A. McCallum is president.

Mr. John Lumsden has given his hotel worth \$55,000 to the National Sanitarium Association. The hotel is situated on Lake Temiskaming, and can be fitted up so as to suit patients.

The hospital for smallpox, now in course of erection on Porter's Island, and for patients from Ottawa, is nearing completion.

Dr. A. B. Macallum, of Toronto, son of Professor A. B. Macallum, has been awarded the Beit Scholarship. He is at present working in Munich. The fellowship is worth \$1,250 a year for three years.

Mr. George Frost, of Plainfield, N.Y., has promised \$15,000 to an endowment fund for the Chamber's Memorial Hospital in Smith's Falls.

The Welland County Hospital Trust has decided to erect a building for tuberculosis patients at Fonthill, as the conditions are specially favorable.

The by-law for a filtration plant for Ottawa was defeated. This leaves the water problem of that city unsolved.

Fort William proposes giving \$15,000 for improvements to the McKellar Hospital there.

Quebec.

The City of Montreal has acquired power to inspect tenements and refuges at night. This will go a long way to correct the evils of overcrowding.

The Montreal food inspectors were busy last year, and did good work. They confiscated a large amount of meat, fruit and fish.

The deaths in Montreal for 1911 were 9,974, and for 1912, 9,685. This gives a rate of 19.99 for 1911 and 21.09 for 1912.

An appeal for funds to the Montreal Maternity Hospital is being made. The building must be greatly enlarged to cope with the demands made upon it.

The Quebec Board of Health has made the following district health appointments; Dr. J. A. Sirois for Metapedia, Dr. Savard for Fraser-ville, Dr. Coullard for Quebec, Dr. L. Parizeau for Sherbrooke, Dr. J. R. Gauthier for Valleyfield, Dr. Corsin for Montreal, and Dr. Savary for Three Rivers.

Western Provinces.

Dr. R. T. Rutherford, who practised for a number of years in Strathclair, Man., has been appointed inspector of immigration for Canada at New York.

On 5th February the hospital at Big River, some 95 miles north of Prince Albert, Sask., was destroyed by fire. It is not known how the fire originated. All the patients were removed in safety to homes

in the vicinity. The temperature at the time was 30 degrees below zero.

Practically the whole town of Big River, 100 miles north of Prince Albert is under quarantine from small pox, following an outbreak among the lumber jacks in surrounding camps. There are thirty cases. Dr. Russell, Assistant Provincial Health Commissioner, has the epidemic well in hand. Local men, who went to Big River on business have been refused permission to return.

It is announced that the presidency of the new British Columbia University, to be established as Vancouver, will go to Prof. Frank Fairchild Westbrook, a graduate of the University of Manitoba, McGill, and also of Cambridge University. Prof. Westbrook is at present dean of the faculty of medicine at the University of Minnesota, Minneapolis. A Canadian, Prof. Westbrook was born in Brant County in 1868. He took his degree in arts at the University of Manitoba at the age of twenty-one, and from there went to McGill University to study medicine. From 1892 to 1895 he was occupied in a special course in pathology and physiology at Cambridge, and later studied in a number of hospitals in London and Germany, going thence to Minneapolis. Returning to Canada, he took the degrees of M.A., M.D., C.M., at the University of Manitoba in 1900. Prof. Westbrook's connection with the University of Minnesota dates back to 1895, when he occupied the chair of pathology and bacteriology. He has held his present position there since 1906.

The following have passed the examinations of the Saskatchewan Medical Council: H. E. Alexander, W. N. Anderson, G. L. Cook, H. W. Dunnet, S. C. Falardeau, E. L. Finnerty, J. G. Forsythe, A. G. Gardiner, O. Goodwin, H. Grey, G. W. Kells, W. N. Lavoire, H. H. Mitchell, R. W. McDonald, C. E. McCutcheon, R. S. Stirrett, C. G. Sutherland, A. L. Wickware, R. H. Burrill, E. R. L. Ireland, W. J. Johns and S. Ross.

Four claims were made on the City of Saskatoon by parties who could not obtain admission to the hospitals there. The city paid the claims.

The sum of 450,000 is to be spent for additional hospital accommodation in Saskatoon.

The health in Lethbridge is in a satisfactory condition. There has been a marked fall in the typhoid fever there.

The medical men of Edmonton propose establishing a library. This is a wise move and should be gone on with.

Calgary has decided to compel every child to be vaccinated or leave the school.

Red Deer Memorial Hospital doubled its accommodation during

1912.

Dr. W. A. Lincoln, medical superintendent of the General Hospital, Calgary, has resigned to take up post graduate study.

There were 474 cases of contagious diseases in South Vancouver last year and 16 deaths.

The Provincial Board of Health for British Columbia has decided to pay the medical inspectors of schools 50 cents for each child examined and 50 cents mileage for travelling.

Good progress is being made with the new hospital in New Westminster. The building will accommodate 200 patients and will cost \$250,000.

The citizens of South Vancouver are urging for a hospital in their portion of the city.

From Abroad.

Dr. Friederich Friedmann, of Berlin, who has been so much before the public of late, on account of his claims to having discovered a cure for tuberculosis, sailed for America on 18th February.

Dr. Wilson perished along with Captain Scott. The history of adventure has abundantly proven that the doctor of medicine is usually among the pioneers in all discoveries in remote regions, and braves with the bravest all dangers.

A meeting of the representative committee in connection with the Dr. David Livingstone centenary celebration in Glasgow was held on January 15th in the City Chambers. The Lord Provost presided, and among those present were Principal Sir Donald MacAlister, K.C.B., Professor Glaister, M.D., Dr. Macintyre, Mr. A. E. Maylard, and representatives of several public bodies interested in the commemoration. It was unanimously agreed that fund be inaugurated for the purpose of establishing a permanent memorial of Dr. Livingstone, and there was a full discussion as to the form which this should take.

At a recent meeting of the Society of Mental Medicine a discussion on the cocaine habit in Paris was raised by Drs. Briand and Bensart, who cited examples in which persons addicted to cocaine had presented various hallucinations and delusions due to the habit. Dr. Provost described the various methods of administration employed, but spoke principally of the "snuff" method. Among the evil consequences of this method was, he said, perforation and ulceration of the septum nasi. Cocaine cannot legally be obtained in France without a qualified medical man's certificate; but, in spite of this, a great amount is

sold in the Montmartre quarter. The drug can be obtained in some of the cafés where, after a certain hour of the night, it is sold almost openly; and as many of the clients of these cocaine dens belong to the demimondaine class, this accounts for the fact that many of this class take to cocaine drugging.

We regret to have to report the death of Dr. George A. Gibson, of Edinburgh, which occurred at his residence, 3 Drumsheugh Gardens, early on Saturday morning, January 18th. He took an active part in the work of the annual meeting of the British Medical Association in Liverpool last year, for he not only gave the address in Medicine on the Relations of the Circulation, but also introduced a discussion on non-valvular cardiac disease. He had himself suffered for several years from cardiac disease, and in August last his health broke down, and, though he struggled bravely and hopefully on, the end has come before he had reached 59 years. He was well known in Toronto, as he was out in 1906 with the British Medical Association.

During the month of November, 1912, in the Canal Zone, the total number of deaths from all causes among employees was 48, of which 32 were due to disease and 16 to violence, making an annual average death rate of 10.96 per thousand. This is a slight increase over the same month of 1911, when the rate was 9.75. The death rate among the entire civil population in Panama, Colon, and the Canal Zone was also increased during the month, being 25.46 in 1912, and 20.29 in 1911. As usual, no cases of yellow fever, smallpox, or plague originated on or were brought to the Isthmus during the month.

Major Sir Ronald Ross, F. R. S., who is at present professor of tropical sanitation at the University of Liverpool, has recently been appointed physician for tropical diseases to King's College Hospital, London, where he will assume his new duties next fall.

The annual number of illegitimate children born in France is 75,000, and of these 15,000 are born in Paris.

From the investigations of Drs. Flexner and Noguchi, of the Rockefeller Institution, it appears that the stable fly carries the infection of infantile paralysis.

News comes to the effect that the mines in South Cornwall are to be worked for radium. It is claimed that there is a considerable quantity to be found in these mines. It is doubtful, however, if the price will be reduced.

According to a recent report from Philadelphia, twenty-nine boys, inmates of the St. Francis Industrial School at Eddington, Pa., were operated upon for appendicitis within the past ten days. Sixteen appendectomies were performed in one day and the others at intervals in the succeeding nine days. The cause of the epidemic, according to

the same report was the overeating of cheese.

Two men, brothers, one a druggist, the other a dentist, were sentenced on January 30 in Brooklyn to fines of \$1,000 each and to imprisonment for having sold cocaine illicitly. In the case of the druggist, who pleaded guilty to the charge of having sold 140 ounces of the drug during the past two years, a sentence of one year's imprisonment besides the fine was imposed, while the dentist, who pleaded guilty only to an attempt to sell cocaine, received a sentence of imprisonment for half the time.

Plans for improvements and additions to Mt. Sinai Hospital, New York, costing \$1,350,000 in all, have been prepared and half of the amount necessary has already been subscribed. The proposed additions include a pathological building to house all the laboratory work of the institution in pathology, bacteriology, chemistry, etc., two wards of one hundred beds each, dormitories for the nurses and other employees, and a special building for the children's services.

The present law governing the sale of cocaine in New York having proved ineffectual in putting an end to the traffic, another bill has been drafted and will be shortly introduced in the State Legislature. The new bill makes the sale of the drug by an unauthorized person a felony, and the mere possession of it a misdemeanor, and provides that a druggist shall not have more than five ounces of the drug in his store at any one time, that a record of every sale shall be kept, that the drug shall be sold only in a solution or ointment not over one ounce and containing not over four per cent. of cocaine, and that the druggist shall keep each prescription and not refill it. The bill also provides that doctors, dentists, and veterinarians shall not have more than one ounce of cocaine in their possession at any one time, and shall keep a complete record of the disposal of the drug. Failure to abide by these sections is made a misdemeanor. The bill also seeks to regulate the sale of the drug by wholesalers in large quantities, complete records of such sales being required.

That 300,000 babies die every year in the United States and that half of them might be saved by proper care is stated in the first publication of the Children's Bureau at Washington. The bureau calls for proper birth registration laws in all the States, which would make it possible to trace all infants and give assistance through physicians, visiting nurses, and social workers to those born under adverse conditions. A model registration law has been drafted.

During the month of November, 1912, there were reported to the Public Health Service, Washington, D. C., 22 cases of smallpox in the State of Alabama, with one death. During December, 35 cases were reported in Arizona, 3 in Connecticut, 46 in Maine, 9 in Maryland, and

87 in Michigan. One death was reported in Maine. On January 15th the secretary of the Maryland State Board of Health reported the occurrence of 5 additional cases in Alleghany County.

In his third biennial message to the Utah State Legislature on January 14, Governor Spry recommended the passage of an act requiring the sterilization of the hopelessly insane and of criminals convicted of certain statutory crimes.

Professor Ludwig Aschoff, of the University of Freiberg in Breslau, Germany, has accepted an invitation to deliver the Cartwright lectures of the Alumni Association of the College of Physicians and Surgeons, New York, between March 15 and 20, 1913.

Statistics recently published at Washington, D.C., by the Children's Bureau, indicate that about 300,000 infants under one year of age die annually in the United States, corresponding to a rate of about 125 per 1,000 born. The lowest known rate of infant mortality in a civilized country whose registration figures are reliable is 68 per 1,000 in New Zealand. In New York City the rate is 160 per 1,000.

The Liverpool School of Tropical Medicine has despatched its thirtieth expedition. This, under Dr. Seidelin, goes to Jamaica. It is the second expedition of the school to that island, and has been promised cordial support by the king's government, as well as by that of Jamaica.

King Edward's Hospital Fund has experienced its first check in the steady rise of its amount for distribution, due to a fall in the income of £50,000. To meet the case a sum has been drawn from former fat years' accumulation—a method of making both ends meet which cannot go on.

The Secretary of State for the Colonies has appointed Lieutenant-Colonel Sir William B. Leishman, M.B., C.M. Glas., R.A.M.C., F.R.S., Professor of Pathology at the Royal Army Medical College, London, to be a member of the Advisory Medical and Sanitary Committee for Tropical Africa.

The annual report of the Vienna Board of Health for the year 1911, which has recently been published by the municipal authorities, contains much that should be of particular interest to its medical readers. For example, the report states that in 1911 there were 3,018 doctors practising in the city of Vienna, the population of which at that time amounted to 2,120,000; that is to say, there was one doctor to every 555 inhabitants. Forty-seven of these practitioners were women.

Report from Shanghai, China, on January 10, states that by the order of the provincial authorities of Nanking, in the province of Kwang-si, 39 lepers of that city were recently put to death by shoot-

ing, and their bodies burned and buried. Their only crime was their disease. This drastic Oriental procedure is one method of eliminating undesirable infections from the body politic.

It is reported that Mary Mullen, the celebrated typhoid carrier, familiar to the public as "Typhoid Mary," has dropped the suit for \$50,000 damages which she brought against the New York Health Department for isolating her for three years and making it impossible for her to get employment as a cook.

Dr. William Howship Dickinson died on 6th January, at the age of 81. He was for many years connected with St. George's Hospital and the Hospital for Sick Children, London.

Dr. Horwitz, the noted genito-urinary surgeon, died at Philadelphia on January 28th, at the early age of fifty-four years. He was born in Philadelphia of distinguished parentage, his father, the late Dr. P. J. Horwitz, having been a medical director in the United States Navy. He received the degree of Bachelor of Science in 1881 at the University of Pennsylvania, and that of M. D. from Jefferson Medical College in 1883.

OBITUARY

EDWARD PARDEE BUCKE.

Dr. Edward Pardee Bucke, a prominent London physician, who graduated from the Western Medical School, London, fifteen years ago, and who had practised in that city since he completed a specialist course in England in 1908, died 16th February at his residence, 207 Queen's Avenue, following a nine days' illness. Dr. Bucke was stricken with pneumonia while travelling between London and Chicago, and since then little hope for his recovery had been entertained.

He was born in Sarnia, but came to London with his parents when an infant, his father, the late Dr. Richard Morris Bucke, having been appointed to the superintendency of London Hospital for the Insane. Mrs. (Dr.) Ed. Seaborne, of London, and Mrs. H. C. Pope, of Moose Jaw, are sisters, and Harold L. Bucke, division engineer on the Grand Trunk Pacific Railway at Superior Junction; Dr. Robert W. Bucke, of Port Arthur, and William A. Bucke, of Toronto, are brothers. His mother resides at present with Mrs. Seaborne.

ROBERT P. ROBINSON.

Dr. Robinson, of Ottawa, died in the High Park Sanitarium, Toronto, where he was undergoing treatment. He was a student of Trin-

ity Medical College, and graduated in 1888. He had practised for many years in Ottawa. He was an active member of the Canadian Hospital Association.

J. G. CALDER.

Dr. Calder, of Medicine Hat, died during December in California, while on a visit there with his family. He had been engaged in practice in Medicine Hat for twenty years, and was esteemed as a surgeon in the West.

H. B. ROSS.

Dr. Ross, one of the surgeons to the Jeffrey Hale Hospital, Quebec, died on 19th January, after a brief illness with pneumonia.

E. E. KITCHEN.

On 19th February, the death occurred at St. George of Dr. E. E. Kitchen, a well-known medical man. He had been in practice in St. George for many years. He was well known to a very large circle of friends.

BOOK REVIEWS

PRINCIPLES AND PRACTICE OF OBSTETRICS.

Principles and Practice of Obstetrics. By Joseph B De Lee, A.M., M.D., Professor of Obstetrics at the Northwestern University Medical School. Large octavo of 1,060 pages, with 913 illustrations, 150 of them in colors. Philadelphia and London: W. B. Saunders Company. 1913. Cloth, \$8.00 net; half morocco, \$9.50. Canadian agents, J. F. Hartz Company, Toronto.

This large octavo volume of nearly 1060 pages, makes its appearance for the first time. Professor De Lee has good cause to be proud of the result of his labors, which must have been almost incalculable. This large volume is almost solely the work of the author. In the matter of the pictures and microscopic work he acknowledges assistance from others. Section one takes up the physiology of pregnancy, the next section is devoted to the physiology of labor, then we have the physiology of the puerperium. A section is given to the hygiene and conduct of pregnancy and labor. The new-born child is next discussed. A large portion of the book is devoted to the pathology of pregnancy,

labor and the puerperium. One of the most interesting of the portions of the volume is that assigned to operative obstetrics. All the way through the work there is constant evidence of the author's extensive reading and sound judgment. The illustrations are of a high class and are also numerous, there being 913 altogether, of which 150 are in colors. With few exceptions the illustrations are original. This alone would prove the immense amount of time expended upon the preparation of this work. Throughout the volume two sizes of type have been used. The large type should be read by the student, while the smaller type covers matter in greater detail and is for the practitioner, or those who use the work for reference. Every phase of the science and art of obstetrics will be found in this volume. It can be recommended with much confidence, and those who possess a copy may regard themselves as fortunate. It is really a great comfort to have at one's immediate command a thoroughly reliable book on so important a subject. We have examined this volume with the greatest care and find it a *thesaurus* in the fullest sense. There is nothing omitted and all is well done. The publishers deserve praise. They spared no pains to give the profession a *handsome* volume. The binding, paper, press work and everything is up to the highest ideals. As one examines the book he admires it, and as he reads it he admires it more.

TUBERCULOSIS.

A Clinical System of Tuberculosis describing all forms of the disease. By Dr. B. Bandelier, Medical Director of the Sanatorium Schwartzwadheim, at Schomberg, near Wildbad, and Dr. O. Roepke, Medical Director to the Sanatorium for Railway Workers, at Stadtwald, in Melsangen, near Cassel. Translated from the second German edition by G. Bertram Hunt, M.D., B.S., late physician to the Scarborough Hospital. London: John Bale, Son & Danielsson, 83-91 Great Titchfield Street, Oxford Street W. 1913. Price, 21s net.

Tuberculosis has received much attention of late years. This is as things ought to be, for the disease leads the list as a cause of death and sickness. This work deals with tuberculosis in general and then with the disease as it appears in the various organs of the body. There is a good account of the history of the growth of knowledge on this subject. The remarks on the tubercle bacillus are interesting and instructive. The most recent views are given on the life-history of the bacillus and the best methods of cultivating it. The histology of tubercles is well set forth. The aggregating together of spithelioid cells until a small grey granule is formed, and the subsequent caseation are well told. Much interest attaches to the remarks upon the paths of infection, such as by the air, the intestinal canal, the blood, and the

lymph channels. Heredity comes in for its due share of attention. It has not been shown that the bacillus is conveyed to the child through the spermatozoon, but it can reach the foetus through the placenta. The authors agree with others that very few children are born with the disease. This comes to the position that those who are infected have become so after their birth. The authors deal with hereditary predisposition, acquired predisposition, and local and general predisposition. Some attention is also paid to the subject of race and immunity. The main portion of the book is devoted to the disease in the several organs body. Much space is devoted to pulmonary tuberculosis. There is a very illuminating chapter on miliary tuberculosis. The relationship between scrofula and tuberculosis is treated at length. In scrofula there is a nutritional defect that renders the lymph gland prone to tuberculosis infection, and detracts from the patient's ability to resist the disease. Much attention is given to treatment throughout the volume. This is a work that lays before the medical profession the results of much practical experience, anatomical study, and experimental research. The book is gotten up in very attractive form. We congratulate both authors and publishers.

PSYCHANALYSIS.

Psychanalysis: Its Theories and Practical Application. By A. A. Brill, Ph.B., M.D., Chief of the Neurological Department of the Bronx Hospital and Dispensary, Clinical Assistant in Psychiatry and Neurology at Columbia University Medical School. Octavo of 337 pages. Philadelphia and London: W. B. Saunders Company. 1912. Cloth, \$3.00 net. Toronto: J. F. Hartz Company.

This work is devoted to Professor Sigmund Freud. This is sufficient to indicate the trend of thought that will be found within its covers. The author in his preface states, while he has made use of all the methods of psychotherapy, the most effective is psychanalysis. He contends that this reaches the fundamental error in the mental state, and enables the experienced attendant to do most for the patient. But Freud claims that this system has its limitations. Patients must possess a certain degree of education, and must be to some measure reliable. There are some persons who are good for nothing and it will not do to assume that their condition is a psychosis. They are inferior persons. A true neurosis does not stamp its bearer as a degenerate. The treatment is not calculated for the degenerates nor for those who do not feel prompted to seek treatment. The author discusses psychoneuroses, dreams, actual neuroses, obsessions, psychanalysis, psychological mechanism of paranoia, and a number of other similar topics.

The system as taught by Freud is well set forth in this book. The subject of psychoanalysis is a very important one, and, of recent years has come well to the front and should receive careful attention at the hands of the medical profession. The method of finding out the concealed idea that is at the bottom of the mental derangement in some persons is here well stated. When, by a proper method of examination, this buried idea is brought to the surface and removed, the patient then makes progress to a recovery. It would be impossible to state the position of such a book in the time at our disposal, but it will bear careful study and will well repay the reader for the time and thought expended upon it. Dr. Brill has made himself very familiar with his subject, and has a happy manner of elucidating a very difficult subject. One might not agree with all the positions taken by the author, but his book is a scholarly one. The great theme dealt with is the series of perverted ideas that arise out of Freud's views of sexuality. The whole subject of psychoanalysis presupposes a knowledge of psychosexuality as Freud teaches it. We think this aspect of abnormal mental conditions should receive close attention, and recommend this book very highly.

MEDICAL MEN AND THE LAW.

A Modern Treatise on the Legal Rights, Duties and Liabilities of Physicians and Surgeons. By Hugh Emmett Culbertson, of the Ohio and New York Bars, Contributing Editor to the Lansing, Ohio, "Encyclopaedic Digest," Notes on the American decisions and reports, and many other legal publications. Lea & Febiger, Philadelphia and New York. 1913. Price, \$3.00.

This book is a very useful one. It sets forth definitions, who may practise medicine and surgery, relations of physicians to patients, compensation, malpractice and negligence, criminal liability of physicians and surgeons, exemptions of physicians and surgeons, physicians and surgeons as witnesses, right to protect professional reputation, and wills. There is an excellent collection of useful information about the standing of the medical profession in various places. There is a series of definitions of terms common to various sects of practice such as osteopathy, bone setter, etc. Who may practise medicine and surgery is set forth in clear terms. The relation of physician and patient is an interesting portion of the book. There is much valuable information on the subject of the physician's "right to recover compensation." This is the sort of book every practitioner should have. It will enable him on many occasions to come to a correct opinion as to what he should do and what the law is on almost every phase of the doctor's professional work. The book contains an excellent collection of law and

usages, and set out in clear terms. An interesting part of the book deals with the physician as a medical witness. We have had much pleasure in reviewing this book. It is one of the most useful publications we have read in a long time. It touches upon the life and work of the doctor at so many points.

SURGICAL HANDICRAFT.

Pye's Surgical Handicraft, a Manual of Surgical Manipulations, Minor Surgery, and other matters connected with the work of the house surgeons and surgical dressers. Edited and lately rewritten by W. H. Clayton-Greene, B.A., M.B., B.C., F.R.C.S., Surgeon to St. Mary's Hospital, Lecturer on Surgery in the Medical School, etc. Sixth edition, fully revised, with some additional matters and illustrations. Toronto: The Macmillan Company of Canada. 1912. Price, \$3.50.

The first edition of this books appeared in 1884. Since then it has been issued as a new edition from time to time, until now the sixth has appeared. Many a student and young practitioner has read this book with keen delight and profitted greatly thereby. This is one of the sanest books that was ever written. It covers one field of the healing art in a thoroughly scientific and equally attractive manner. We could wish that every student of medicine would make himself at home in the teachings of this book. There is scarcely a page of it that would not bear many readings, as there are so many valuable suggestions everywhere in it. One can hardly imagine there could be so much in the book till he examines it.

ENDEMIC GOITRE.

The Etiology of Endemic Goitre, being the Milroy Lectures, delivered at the Royal College of Physicians of London, in January, 1913, by Robert McCarrison, M.D., R.U.I., M.R.C.P., Major Indian Medical Service. Illustrated. London: John Bale, Sons and Danielsson, Oxford House, 83.91 Great Titchfield Street, Oxford Street W. 1913.

The author had been working on this subject for ten years before he delivered his lectures. The book is a reprint of the Milroy Lectures. It is shown that endemic goitre is world-wide and that all races are subject to it. The influence of locality, soil, climate, water, toxic agents, sex, age, are all carefully considered. A good deal of attention is given to the condition as it appears in various animals. Very many features of the disease are discussed and in such a manner as to throw much light upon goitre. The essential result of these studies are that endemic goitre is caused by a living excitant, which is a *contagium vivum* conveyed by certain waters and contained in certain soils, and that the

soil is a vehicle for the spread of the disease. Some evidence is also submitted towards proving that goitre may spread from one person to another when they live together and use the same dishes in common. In concluding his argument this statement is made: "I have endeavored to put as succinctly as possible the facts and the logical conclusions whereon are based my belief that the essential cause of endemic goitre is a micro-organism that finds its home in the intestinal canal of man, and there creates a toxin which so influences the thyroid gland that it undergoes the enlargement which is the dominant symptom of the infection." This is a most refreshing book to read. It is so original in argument and so full of illuminating investigation.

THROAT, NOSE, AND EAR.

Diseases of the Throat, Nose and Ear, for the use of Students and Practitioners. By W. G. Porter, M.B., B.Sc., F.R.C.S., Surgeon to the Eye, Ear and Throat Infirmary, Edinburgh, Surgeon, Ear and Throat Department, Royal Hospital for Sick Children, Edinburgh, Aurist to the Edinburgh Royal Institution for the Education of the Deaf and Dumb. With 77 illustrations, 44 of which are in colors. Toronto: The Macmillan Company of Canada. 1912. Price, \$2.25.

In a brief form this little volume of 275 pages covers the three fields of nose, throat and ear affections. The author aims at being brief, but he also aims at being clear. There is no superfluous discussion on any subject, and by this means the size of the book is kept down. The essentials are given and in such a form that the reader can quickly arrive at the position of the author, who has enjoyed exceptional opportunities of becoming familiar with all phases of disease of these regions. This volume makes a first-class guide to the recognition and treatment of nose, throat and ear affections. To all who wish to make themselves acquainted with the views on such subjects would do well to study this book. It is also got up in a very attractive form, and does great credit to the publishers.

HUMAN EMBRYOLOGY.

The Development of the Human Body, a Manual of Human Embryology. By J. Playfair McMurrich, A.M., Ph.D., LL.D., Professor of Anatomy in the University of Michigan. Fourth edition, revised and enlarged, with 285 illustrations, several being in colors. Philadelphia: P. Blakiston's Son & Company, 1012 Walnut Street. 1913. Price, \$2.50.

We believe that embryology is one of the subjects in a liberal medical education that is shunned more than perhaps any other on the curriculum. For this there are two main reasons. The first is that some students do not look upon the subject as of much value in their

future work. The other, and the main, reason is that it has too often been presented in an uninviting form. The descriptions were often obscure and the student found that he was obtaining very little clear knowledge for the time he was spending upon the subject. The volume before us goes a long way to overcome this. Professor McMurrich has a clear vision in his mind as to how the human body develops, and he has the faculty of conveying his own mental conception to the mind of the reader. We remember once reading a work on embryology and the task was both distasteful and unprofitable. Not so with this volume. To grasp embryology one must begin at the very elements of the subject and comprehend the first changes that occur in the impregnated ovum. It is here that Professor McMurrich has made the study of embryology interesting and clear. All the way through the same clearness of style is maintained. We hope that students generally will avail themselves of the valuable assistance of this volume.

CARDIO-VASCULAR DISEASES.

Recent Advances in Their Anatomy, Physiology, Pathology, Diagnosis and Treatment. By Thomas E. Satterthwaite, A.B., M.D., LL.D., Sc.D., Consulting Physician Post-graduate, Manhattan State, Orthopedic, Babies', Champlain Valley Hospitals, and North Eastern Dispensary, Member American Therapeutic, State and County Medical Societies, American Medical and Greater New York Medical Associations, New York Academy of Medicine, Harvey Society, life member New York Pathological Society, honorary member Washington (D.C.) Medical Surgical Society, First Lieutenant Medical Reserve Corps, U.S.A. Lemcke and Buechner, 32 West 27th Street, New York City.

Dr. Satterthwaite needs no introduction to the medical profession, as he has long been well and favorably known, both as a teacher and author. When he gives the profession a new book it is reasonable to expect that it will be of a high order of merit. Dr. Satterthwaite does nothing by halves, and it is to be expected that any subject he undertakes to discuss, he will dip down into fundamental principles and build upon these. So it is in the volume before us.

This work on "Cardio-Vascular Diseases" is composed of a series of articles which have appeared in the medical journals, and which are now collected and carefully revised. This method of making a book has been adopted by others and sometimes is of unique value in that it gives the author more time to mature his views. In the first chapter the anatomy and physiology of the heart receive attention. Much consideration is given to the His bundle and its function in connecting the auricle and ventricle. It is shown that this bundle is of the utmost importance in the movements of the heart, as it plays a leading part in deranged heart beat. This chapter is a valuable contribution to the subject.

The second chapter takes up the question of sphygmomanometry and sphygmomameters. This is a subject on which information is at present much needed, because some form of sphygmomanometer is an essential for every physician. The author gives a good account of the several makes on the market. The graphic methods and instruments in the diagnosis of cardiac affections come in for careful study. The various forms of traceys, such as jugular, carotid, apex, radial, are clearly distinguished, and the value of these instruments in clinical work accentuated. The author gives a good description of the use of the electrocardiograph, the spring recorder, and the electric time marker.

A chapter is devoted to cardiac arrhythmias. To many this seems a difficult subject, and, consequently, it does not receive the attention it merits. Dr. Satterthwaite has performed a good service in clearing up this branch of clinical cardiology. One of the most interesting portions of the book is that on cardiac arrhythmias. He directs attention to the fact that the use of instruments to record the pulse and heart beats have materially recast our views within the past ten years. It is stated that arrhythmias may be classified with reference to the five physiological attributes of the heart muscle, namely, rhythmicity, irritability, contractility, conductivity, and tonicity.

In speaking of heart block, the author states that a diagnosis can be made without the graphic method. There is heart-block caused by drugs. Partial heart-block where the auricular stimulus does not always reach the ventricle. Complete heart-block where the auricle and ventricle act independently. The Adams'-stokes syndrome, where the loss of conductivity is associated with syncope attacks. In auricular fibrillation digitalis is advocated as the most useful remedy, as it reduces the frequency of the ventricular systole. When heart-block is due to digitalis, the drug must at once be given over for a time.

The Nanheim bath treatment is discussed. There are some interesting remarks on the mobility and malposition of the heart, and on cardiovascular thromboses. Very interesting and lucid chapter follows in myocardial disease. The myocardial changes caused by parenchymatous myocarditis, diffuse myocarditis, chronic myocarditis, fatty heart, hypertrophies, and atrophies. These various forms are discussed at length.

The book closes with a few pages on malignant endocarditis. Attention is paid to the origin, nature, infection, prognosis and treatment of this very serious heart affection. The author favors the expectant plan of treatment. We have had much pleasure in reviewing this book. Its teachings are sound, well stated, on some of the most important of all the cardiac diseases. The make-up of the book is very superior.

MISCELLANEOUS MEDICAL NEWS

DOCTOR JOHNSON AND THE DOCTORS.

“Dr. Johnson,” says Boswell, writing under date 1784, the year of Johnson’s death, “had in general a peculiar pleasure in the company of physicians,” and this was certainly not abated when he took tea at Oxford in the company of Dr. Wall, a “learned, ingenious, and pleasing gentleman.” It was on this occasion that the great moralist prophesied, in some sort, the necessity for research into the diseases of the East and of warm climates. He fell foul of the Radcliffe Traveling Fellowship, and averred that the Fellows had done very little good. “I know nothing that has been imported by them; yet many additions to our medical knowledge might be got in foreign countries.” And he cited inoculation as having saved more lives than war destroys, and the unnumbered cures performed by Peruvian bark. “I would send the Radcliffe Fellows,” he cried, “out of Christendom; I’d send them among barbarous nations.” Johnson’s kindness to poor old Dr. Robert Levett, his pensioner, is, of course, famous, and equally so are the lines he wrote on the doctor’s death at the age of 80 in 1782. Goldsmith, also a physician, was among his intimates, and the chaff bestowed on his new plum-colored coat has become immortal. The coat, terribly worn and threadbare, is now in the London Museum, and suggests the pathetic supposition that the spendthrift poet-physician wore it till it was almost unrepresentable. At the time of Goldsmith’s death in 1774 Johnson wrote, “Of poor dear Dr. Goldsmith there is little to be told.” Goldsmith probably owed £2,000, not less, and this preyed on his mind and heightened a fever, which he further complicated by an excessive use of James’ powders. Referring to the debt Johnson humorously asks: “Was ever poet so trusted before?” Later, writing to Bennet Langton, he says, “Let not his frailties be remembered; he was a very great man.” If Goldsmith by his over-medication hastened his own death, Johnson by dint of amateur surgery did likewise. Shortly before his death he inflicted such wounds upon himself, in the hope of obtaining relief, as to suggest the idea of suicide. He used a pair of scissors in an endeavor to void the water of dropsy. Johnson’s last words were many. To the faithful Langton he said tenderly: “Te teneam moriens deficiente manu.” Of his man nurse he said, with a flash of the old humor: “Sir, the fellow’s an idiot; he’s as awkward as a turnspit when first put into the wheel, and as sleepy as a dormouse.” His last recorded words were to a young lady who had asked for his blessing: “God bless you, my dear,”—*Lancet*, December 21, 1912.

YOUNG OLD MEN.

This is pre-eminently the age of "young old men," it has been said by a student of modern England, and it is certainly wonderful as we look around to note how much of the most energetic work in this country is being accomplished by those who have already exceeded the Biblical span.

Lord Stratheona, whose activity in business continues unabated, and whose appetite for hard mental exertion is as insatiable as of old, is 92. Lord Wemyss, though 94, still follows modern politics with all the zest of youth, and is a redoubtable antagonist with his pen.

Dr. Atkinson, the master of Clare College, Cambridge, is 98, and is fast approaching the record of Dr. Routh, the famous president of Magdalen College, Oxford, who lived into his 100th year. Earl Nelson, the Nestor of the House of Lords, is 89.

If there is any slackness in this country it is to be found in the rising generation, not in our old men. Earl Roberts puts our youth to shame by the splendid vigor and persistence of his services in the cause of national defence.

Lord Halsbury, for all his 86 years, is one of the strongest forces in his party; in his green old age his ardor for combat has rather deepened than decreased. Our greatest figure in literature is Thomas Hardy, who at 72 can yet produce poetry that will live.

The contrast with the 18th century is certainly extraordinary. Then, in the days of Pitt and Fox, men were counted old at 40 and sank to valetudinarianism at that age. Now they retain their health and strength and are young at 90. This does not suggest any loss of vigor in the race.—*London Mail*.

DOMINION MEDICAL COUNCIL.

Alberta.—Dr. R. G. Brett, Banff; Dr. John Park, Edmonton.

British Columbia.—Dr. R. E. Kechnie, Vancouver; Dr. R. E. Walker, New Westminster.

Manitoba.—Dr. J. S. Gray, Winnipeg; Dr. R. S. Thornton, Deloraine. University of Manitoba; Dr. J. R. Jones, Winnipeg.

New Brunswick.—Dr. A. B. Atherton, Fredericton; Dr. W. W. White, St. John.

Nova Scotia.—Dr. A. W. H. Lindsay, Halifax; Dr. John Stewart, Halifax. Dalhousie University; Dr. D. Fraser Harris, Halifax.

Ontario.—Dr. W. Spankle, Wolfe Island; Dr. R. J. Gibson, Sault Ste. Marie, Queen's University; Dr. J. C. Connell, Kingston. Toronto

University: Dr. J. M. McCallum, Toronto. Western University: Dr. H. A. McCallum, London.

Prince Edward Island.—Dr. S. R. Jenkins, Charlottetown; Dr. Alex. McNeil, Summerside.

Quebec.—Dr. E. P. Normand, Trois Rivieres; Dr. Arthur Simard, Quebec. Laval University: Dr. E. P. Lachapelle, Montreal, and Dr. P. C. Dagneaw, Quebec. McGill University: Dr. F. J. Shepherd, Montreal.

Saskatchewan.—Dr. W. A. Thompson, Regina; Dr. A. McG. Young, Saskatoon.

The Governor in Council appointed Dr. T. G. Roddick, Montreal; Dr. W. Bapty, Victoria, B.C.; and Dr. G. A. Kennedy, Macleod, Alberta.

The homeopathic representatives were: Dr. E. A. Hardy, Toronto; Dr. G. E. Sugden, Winnipeg; Dr. J. D. Morgan, Montreal.

HOW HE SELECTED A DOCTOR.

A woman living in a downtown street was ill with sore throat. She had not been ill for years and had no regular physician, so her husband set out to look for one. Their son, a lad about ten years old, went along as guide. Half way down the block they came to a house whose front door was decorated with a doctor's sign.

"Here is one," said the boy, and started up the steps.

But the man stopped him. "Wait a minute," he said. Then he leaned against the railing and stared up at the windows of the doctor's office.

"I don't want him," he said presently.

They went on. Soon they came to another sign.

"Here is another," said the boy.

Again the man looked intently at the front windows.

"No," said he, "he won't do either."

They went to two more places in that street and to one in the next street before finding a house where the man would consent to apply for medical aid. Naturally the boy wondered, and finally he asked his father why he left the other houses without going in.

"I wouldn't go into those places," said the man, "because the windows were dirty. And I never saw a doctor who lived in a house where windows were dirty that was worth his salt."—*New York Times*.

VITAL STATISTICS OF TORONTO.

The report of Dr. Hastings, Medical Officer of Health, to the local board for January, said that pneumonia and broncho-pneumonia were

the primary causes of 97 deaths, and in 42 cases the same disease contributed, which means that 139 persons died from the disease.

	Jan. 1913.	Jan. 1912.
Acute contagious diseases	67	47
Cancer	35	21
Organic heart diseases	34	42
Tuberculosis (all forms).....	28	46
Broncho-pneumonia	23	13
Premature birth	22	26
Violence	22	26
Congenital debility	20	25
Cerebral hemorrhage	20	19
Disease of the stomach	14	6
Bronchitis	14	10
Acute nephritis and Bright's	13	21
Old age	12	16
Other diseases of respiration	12	9

To the death from tuberculosis are added eight Toronto people who died in the Weston Sanitarium.

The report also shows that while there was a falling off from 29 to 9 deaths from diphtheria last month, when compared with the same month last year, there was an increase in the number of deaths from measles from 2 to 48, owing chiefly to the outbreak in the Infants' Home in St. Mary's street.

HOW DOCTORS SHOULD DRESS.

Justice Riddell, of Toronto, addressing a gathering of physicians, told them that he didn't approve of the manner in which most doctors garbed themselves, giving as his reason that they were hardly distinguishable from undertakers.

In making a suggestion as to the proper garb for the profession the speaker said: "You ought to wear a three-tailed wig, a cocked hat, a stiff brocaded coat and stock, velvet breeches, and shoes with buckles. In your right hand you ought to carry a cane about six feet long, at the top of which is a box with sweet-smelling perfume. To make this effect even better you might travel in a sedan chair, which should be carried by two footmen."

It is a question, however, whether all the worthy doctors will be willing to adopt the dress suggested by the man of law, so we humbly offer a few suggestions that will offer the medicos a wider choice.

For internes, pink or blue satin sheath skirts, trimmed with flounders of cerise, and ornamented with large blue or green polka dots. Large picture hats trimmed about the edges with loops of spaghetti or macaroni. Rubber boots.

For visiting doctors, lavender togas, cut on the bias, and surrounded by large clumps of fresh seaweed. Unless the seaweed is fresh the proper effect cannot be obtained. It is also permissible to carry a coat-of-arms, such as an appendix gules rampant on an azure field. A fireman's hat completes this picture. No shoes are worn with this costume.

For family physicians and surgeons, dinner jackets of pale blue, with long strings of sausages pendant. If desired the coat may be split down the back. Bathing trunks of papier mache trimmed along the edges with rows of honeysuckle and analeas produce a very stunning contrast. Large light green straw sailors, decked with frozen gold-fish is the proper headgear. Carriage, baseball or track shoes are to be worn. *New York Sun.*

TYPHOID DECLINES IN TORONTO.

In giving figures bearing upon the death rate from typhoid fever Dr. Hastings shows that while the rate ran as high as 32.1 in January, 1905, and 57.3 in 1910 per 100,000 of population, it went down to 4.8 during January this year. For the first five years from 1908 to 1912 the rate was 26.5, and for the ten years from 1903 to 1912 it was 20.9. These figures show that during January this year deaths from typhoid fever were only one-fifth of the average death rate for January during the past five years.

VIGOR AT SEVENTY.

Who talks of fifty years as the culminating point in man's career? Were all the great work performed by men even beyond seventy erased from history the human race would be bereft of some very proud achievements.

Jefferson founded a university by his own activity after he had passed three score years and ten. John Quincy Adams, although he had been President of the United States and five times a Foreign Minister, wrought as a Congressman by far his greatest deeds after he was sixty-five. His robust father sat in a constitutional convention when he was almost a nonagenarian, Franklin did valiant services in helping to frame the Constitution of the United States after he had turned a serene and contented eighty.

Seventy saw Gladstone so vigorous that he was still good for the greatest battle of his political life and a Premiership. England's foremost living historian, Sir George Otto Trevelyan, who is even now completing his monumental story of the American Revolution, occupied a seat in Parliament half-a-century ago. This brilliant nephew of Lord Macaulay has done his best writing since reaching seventy.

Germany's first Emperor, the venerable William, saw Waterloo as a soldier, but fifty-five years later he was directing armies at Sedan and welding an empire after the fall of Paris. John Bigelow at fourscore was mentally as virile as a boy, and his powers as an author were not dimmed.

Frederick Fraley was an active business man, president of a bank and the National Board of Trade since the Spanish-American war, and yet he was prominent enough in 1844 to serve on a committee that welcomed to Philadelphia Daniel Webster.

Science is making lives longer than they were in the days of our grandfathers, and also far more comfortable. The same agency that prolongs bodily vigor will surely lengthen the age of man's most virile mental labor.—*Philadelphia Ledger*.

MORTALITY OF THE BALKAN WAR.

It is estimated that the Turks have lost over 80,000 killed in battle, and about 50,000 dead from disease. The allies have lost in killed about 50,000, and about 50,000 dead from disease. This makes a grand total of about 200,000.

WORK OF PELLAGRA COMMISSION.

The pellagra cimmission of the New York Post-Graduate Medical School and Hospital, which was financed by Col. Robert M. Thompson of New York and John H. McFadden of Philadelphia, and the head of which was Capt. J. F. Siler, U.S.A. Medical Corps, has now returned, after spending four and a half months in studying the disease in South Carolina. The data collected relating to the epidemiological of pellagra are probably the most complete ever obtained, but whether any light as to its etiology has been gained can be known only after a detailed investigation of the studies made. It appears that there are at present not les than 50,000 persons in the South suffering from pellagra, and that while the manifestations of the disease are becoming less severe, the number of cases is not diminshing; also, that while the

affection as first was confined almost exclusively to the poorest class, it is now spreading to a considerable extent among the well-to-do. The commission is of the opinion that its prevalence is greater than has been supposed. Thus, in Spartansburg County, where the commission's field headquarters were, the local physicians had reported 162 cases, but a careful investigation showed that the actual number was between 300 and 400. One result of the visit of the commission was that the inhabitants became so interested that they have started a movement to establish a pellagra hospital in the city of Spartansburg. As the result of a consultation of the local physicians with Dr. Garrison of the commission, a committee, consisting of three mill presidents, a member of the Legislature, and one physician, was appointed to devise ways and means for raising the necessary funds and selecting a site; and it is now stated that sufficient money has been subscribed to assure the success of the undertaking. The Post-Graduate Commission has expended only half of the \$30,000 donated by Col. Thompson and Mr. McFadden, and it is purposed to send out another similar commission in the spring.—*Boston Med. and Surg. Journal.*

MEDICAL PREPARATIONS, ETC

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H. V. C. that the original and not an imitation is given to your patients. Samples of the original H. V. C. with formula and literature will be sent on request to N. Y. Pharmaceutical Co., Bedford Springs, Bedford, Mass.

QUACK MEDICINES IN AUSTRALASIA.

We learn from the *Australasian Medical Gazette* (October 26th) that, in reply to a question, the Minister of Customs stated in the House of Representatives that seven prohibitions of 'quack medicines' had been made by the Commonwealth Government during the past twelve months, in some instances in consequence of palpably misleading claims as to the efficacy of the compound, and in others because of the nature of the preparations themselves. In addition, objections had been taken to the claims practically of omnipotency accompanying 230 nostrums of various kinds, and makers have been warned that "such extravagant claims must be deleted." It was understood that some goods the importation of which was objected to were manufactured in the Commonwealth. A perusal of local advertisements showed that extravagant claims were put forth, which would not be permitted in connexion with printed matter accompanying imported medicines. The Customs Department had at present no power to exercise super-trums to go unchecked.—*British Medical Journal*.

THE HEROIN HABIT.

J. Phillips, Cleveland, (*Journal A. M.*, December 14), calls attention to the danger of heroin as a habit-forming drug. Even physicians are not sufficiently alive to this danger, and he refers to cases observed or reported that illustrate this fact. The special purpose of his paper, however, is to call attention to the fact that heroin is being used extensively by the method of snuffing among the disreputable classes in the large cities. Inquiry has shown to him that the practice is quite common. One of the three patients whose cases he reports from his own observation told him that he knew at least of twenty of his associates who used the drug in this manner. They have no difficulty in obtaining the heroin, but buy it in bottles of a hundred tablets each, paying 60 cents for the same. The method of use is to take three or four tablets and crush them in a piece of stiff paper and snuff the powder from the paper or from the hand. The symptoms resemble closely those of chronic opium poisoning except that heroin poisoning causes a chronic rhinitis similar to that sometimes caused by cocain. Some patients who are addicted to the use of morphin substitute heroin because it is more easily obtained and is advertised as harmless by some manufacturers of nostrums.