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Original Communications.

PRELIMINARY COMMUNICATION ON THE SPREAD OF TUBERCULOSIS.

BY DR. WM. GOLDIE.

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For long one has been at a loss to explain satisfactorily why tuberculosis is not even more common than it is.

With dust-infection as the main cause of its spread, it has seemed a marvel that anyone could escape from the sputa-laden dust of our streets.

The very fact that so many escape, together with the general awakening to the importance of prevention, has led to further investigations, with highly important results.

Not only are we better able to appreciate the spread of tuberculosis, but also that of the infectious diseases such as influenza, diphtheria, etc.

Cornet has shown that it is very difficult to powder sputa so fine that it would remain suspended in the air for any length of time, and also that a very small percentage of guinea pigs caused to inhale sputa dust ever contracted tuberculosis.

It has also been stated, on experimental evidence, that bacilli-laden sputa, dried at room temperature, loses, after a varying length of time, all power of infection.

These statements, if true, would aid us in understanding the limitations to the spread of tuberculosis, but would not explain why association with consumptives should be more dangerous than sojourn in unwatered streets.

Answering this, Flügge has drawn attention to the fine

spray thrown out in the acts of coughing, and under his guidance students have demonstrated not only the presence of the bacillus tuberculosis in these droplets, but also that they are carried for long distances through the air, and cause infection. Others have confirmed and extended his experiments, showing that in the case of the guinea-pig infection takes place more readily from cough-spray than from sputa-dust.

The following experiments have been carried on in Toronto General Hospital as a test of the correctness of the above results, with the assistance of Dr. Sutherland and Mr Young:—

Method.—Patients with clinical history of progressive chronic pulmonary tuberculosis were selected and supplied with carefully cleaned glass plates, which they held six inches from the mouth during the act of coughing.

These plates were subsequently examined for the bacillus tuberculosis by staining with carbol fuchsin, etc., with the following positive results in any one set of plates:—

Results.—(a) Sixty per cent. for those used for twenty-four hours; (b) sixty per cent. for those used for twenty-four hours when cough was accompanied by expectoration; (c) thirty-three and one-third for those used for twenty-four hours when cough was not accompanied by expectoration; (d) twenty-eight per cent. for those used during a single act of coughing in the early morning; (e) fourteen per cent. for those used during a single act of coughing during the evening.

This shows the frequency with which the bacilli might be found in a single day, or in a single act of coughing, in the case of patients in whose sputa the bacillus tuberculosis could be detected. It is to be remembered, however, that the percentages only refer to the sets of plates, not to the patients. All patients in whose sputa the bacillus was found gave positive plates *at one time or another*; so constant was this that, in one, repeated negative plates led to the examination of the sputa for bacilli, with negative results, even when the centrifuge was used.

It is also worthy of note that in the case of coughing without expectoration only those patients gave positive plates in whom the sputa, when present, was thin.

The number of sputa droplets thrown out seems to depend more upon the *character of cough* than upon the consistence of the sputa. The films formed by these droplets are very easy to demonstrate, as they present a granular surface, such as might be formed by any albuminous fluid, and contain only leucocytes without a trace of stranded or thick mucus. Such film vary from 50μ to several mm in diameter. The bacilli occur in varying numbers; with a magnification of 1,000, one film with many leucocytes presented from 125 to 200 in the field.

The droplets coming from the saliva were also carefully examined, and only in the case of patients with very thin sputa were any bacilli found. To ascertain whether these droplets of saliva and those sprayed out in talking contained any bacilli worth taking account of, the washings of the mouth from well-marked cases were treated with a solution of KOH and centrifugized and the sediment examined. Only cases with great quantities of sputa or thin sputa presented bacilli and these infrequently and very few in number.

Having demonstrated that the bacilli were thrown out in the spray, it remained to determine if such spray would remain suspended in the air for any length of time and be carried to any considerable distance. The air and dust of the laboratory having been found free from the bacillus prodigiosus, it was chosen to be made use of in the experiments, and plates containing agar medium were arranged around the room, from the floor to a height of five feet above it. After gargling and washing out the mouth with a culture of the bacillus prodigiosus, twelve coughs were given during the five minutes' exposure of plates. Other sets of plates were exposed at the end of five, ten and fifteen minutes, for five minutes each. On incubation *all* the plates showed a varying number of colonies. The greatest number were on those within ten feet of the cougher, and exposed during the first five minutes; the least were on those on the floor, exposed during the first five minutes, and on those farthest away at a height of five feet exposed for the last five minutes. Other trials demonstrated that any disturbance of the air increased the distance and the length of time at which infection might take place, while with the air still the distance depended upon the vigor of the coughing. Thus it would appear that during a single act of coughing a patient may throw out bacteria-laden spray, which will find access to all parts of any ordinary room. Beside the power of directly infecting while contained in the droplets, the bacteria must, without any injurious drying, be readily set free when the spray alights on carpet, curtains, or cloths, and mingling with the dust be the important factor in infection through each material. Droplets falling on clothing must be a frequent means of the spread of infection from one house to another.

Not only do we have the spray thrown out while coughing, but also in the acts of laughing, sneezing, talking and deep breathing. Trials conducted in the same way as in the case of coughing, demonstrated that plates to the distance of ten feet were infected while laughing, to the distance of six feet with loud talking, ordinary talking to the distance of three feet, while deep breathing seldom infected groups of plates even at a few inches. These facts are not of great interest as regards

tuberculosis, as the specific bacteria rarely occur in any number in the mouth, but they are of importance in connection with other infectious diseases and with the otherwise unaccountable infection of operation wounds. This means of infecting wounds is thought to be of such importance that in some hospitals the operators wear masks. It appears at first to be rather too refined a measure, but it must be remembered that it requires only a few hundred pyogenic bacteria to establish pus formation. The operator takes care never to let a drop of sweat enter the wound, then why should he run the risk of introducing the smaller but more heavily bacteria-laden drops of saliva. Experiment shows that during ordinary talking for two minutes, ninety droplets may fall in a four inch circle at a distance of eight inches, each of these droplets containing dozens to thousands of bacteria. Under normal conditions this may not be of much importance, as the bacteria able to produce suppuration are ordinarily few in number.

But should the operator have a tonsillitis or other inflammatory condition of mouth or pharynx, some means of protection, as, for example, the wearing of a mask, is imperative.

The results of further experiments will be published hereafter.

NOTES ON TREATMENT OF ECZEMA.*

BY GRAHAM CHAMBERS, B.A., M.B.,

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The first step towards the successful management of a case of eczema is to make a thorough examination of the patient with the object of determining the etiology and the course of the disease as well as the character of the lesions, with their distribution and evolution. The causes of the disease are both local and constitutional, and should be diligently sought for; otherwise the treatment must be more or less empirical. I may here mention a few generalizations which aid in determining the origin of the disease. As a rule symmetrical lesions are the result of irritants circulating in the blood and affecting the skin directly, or indirectly by their action on the central nervous system. On the other hand, asymmetry points to local origin. Lesions which increase in size by peripheral extensions are generally of parasitic origin, whereas rapidly appearing, widely distributed lesions are usually due to irritation—the result of some systemic disturbance.

Bacteria no doubt take an important part in the etiology of many cases of eczema, but in the majority of cases the causes of eczema are both multiple and multiform; and constitutional disturbances, such as a toxæmia, some affections of the nervous system, etc., assist the micro-organisms in irritating the skin. When bacteria are the principal cause of eczema, the primary changes are generally most marked in the epidermis, and the symptoms of inflammation—burning, itching, redness and swelling—are not well marked.

The course of eczema may be acute or chronic but frequently both conditions co-exist, as in many cases of chronic eczema where new acute lesions from time to time appear and old standing lesions become inflamed and then take on most of the characters of the acute disease. Again in many cases of eczema, the course is very irregular—at one time better, while at another time worse. The name, sub-acute eczema, is applied to this form. It is principally acute as regards appearance and symptoms, but chronic as regards time. Hence, in a skin disease such as eczema, the terms acute and chronic would be better applied to describe the character of the lesions rather than the length of time the disease has existed.

The treatment of acute eczema varies considerably with the form of the lesions and with the locality attacked, but there is one principle which forms the basis of treatment of all types of the

* Read at meeting of Ontario Medical Association.

acute disease, and that is to give rest to the skin as completely as possible. The local treatment should be directed to remove irritation, to destroy parasites, and to protect the inflamed surface from air and other irritants. All the crusts should be removed. They may be softened and loosened by the application of non-irritating oil to the patches. Pustules, if present, should be opened, and the surface washed once with a solution of boric acid or sprayed with a ten volume solution of hydrogenperoxide. Repeated washings with water are contra-indicated. Then a mild antiseptic astringent lotion should be applied. The writer has used for this purpose, during the last few years, a combination of black wash and calamine lotion, and cannot recommend it too highly, particularly in acute vesicular and pustular eczemas. It is made up as follows :—

℞ Hygrarg. sub-chlor.	grs. xv.
Zinci, carbonat.	℥ iv.
Zinci, oxidi	℥ iii.
Glycerini	℥ iss.
Aquae calcis ad	℥ iv.—M.

Sig.: Apply frequently to affected parts.

This preparation is antiseptic, sedative, astringent and protective. Another remedy worthy of recommendation in vesicular and weeping eczemas is a saturated solution of picric acid. It precipitates the albumen and forms an artificial cuticle and is at the same time both sedative and antiseptic. However, picric acid is useless in acute dry eczemas, such as the papular and erythematous types. When the lesions are highly inflamed, I have usually found ointments and pastes, even when made as soothing as possible, to be more or less irritating, but as soon as the inflammation has subsided and lesions have become dry and scaly, then some form of greasy preparation is indicated and should take the place of the lotions. These should be slightly antiseptic, protective, and as emollient as possible. I have found Ihle's modification of Lassar's paste the best for this purpose. It may be prepared as follow :

℞ Resorcini	grs. x.
Pulv. amyli	
Zinci oxidi	
Lanolini	
Vaselini	aa ℥ ii.—M.

Sig.: Apply to part two or three times a day.

There are several other formulæ for good bases for pastes which I sometimes use in place of the above combination. I shall only give the formulæ for three of them :

- (1) ℞ Zinci oxidi
 Pulv amyli.....aa ℥ ii.
 Ung. aquae rosae ℥ ss.—M.
- (2) ℞ Zinci carbonat. precip.
 Pulv. amyli
 Lanolini
 Ung. aquae rosaeaa ℥ ii.—M.
- (3) ℞ Ung. zinci
 Pulv. amyli.....aa ℥ ss.—M.

To each of these ten grains of boric acid, resorcin or of salicylic acid may be added.

This process of local treatment is generally all that is required to affect a cure in an acute case. In some cases where resolution appears to linger, half a drachm to a drachm of liq. picis carbonis, added to any of the foregoing prescriptions, will materially aid in effecting a cure. However, as the skin frequently turns greenish when a mixture of liq. picis carbonis and resorcin are applied, when the former is used, I substitute boric acid or salicylic acid for the resorcin.

The internal treatment of acute eczema is nearly as important as the local medication, as in the majority of cases there is some systemic disturbance. Here, as in the local treatment, rest to the skin should be the guiding principle in the treatment of the disease. Rest of mind and body are sedatives to the skin and should be secured as completely as possible. When the eruption is extensive, confinement to bed is a great aid in subduing the inflammation. Particular attention should be directed to the condition of the alimentary tract, for although the patient may not complain of any subjective symptoms, there is frequently some digestive disturbance, such as intestinal putrefaction. Regulation of the diet is of the greatest importance. The food should be of plainest possible character. Milk and Vichy water answers admirably in many cases. Hot drinks and stimulants are contra-indicated. The bowels should be kept regulated by the administration of saline aperients, such as Carlsbad salt, Glauber salts, etc. When the urine of the patient has a high sp. gr. and contains an excess of indican, the administration of 2 or 3 grains of calomel, combined with three or four grains of resin of jalapin will be found advantageous. This combination is not only a purgative and an intestinal antiseptic, but has also a diuretic action. How it increases the quantity of urine is not quite clear, but probably depends upon the action of the calomel upon the liver. In place of these remedies, I sometimes prescribe with advantage small doses of salicylate of sodium combined potassium bicarbonate and aromatic fluid extract of cascara sagrada. The activity

of the kidneys generally requires further stimulation and the remedy best adapted for this purpose is either potassium acetate or potassium bitartrate. When the blood pressure is high, as indicated by great arterial tension, cardiac sedatives are indicated. Malcolm Morris recommends wine of antimony for such cases. He advises that it be given in ten to thirteen minim doses every two hours for a few doses and then the dosage should be gradually diminished to five minims three times a day. I have tried this remedy in several cases and believe it to be a valuable agent in subduing the inflammation of the skin. Iron and arsenic are two remedies which, though useful in some forms of chronic eczema, are as a rule contra-indicated in the acute disease, as they both stimulate the formation of blood and as a result irritate rather than soothe the skin.

This method of treatment is usually all that is required to subdue the excessive irritation and produce sleep. However, some cases require additional sedatives, and then I am in the habit of using a mixture of codeine sulphate and potassium bromide.

When a patch of acute eczema has lasted for a few weeks, or when successive eruptions attack the same locality, there is always more or less thickening of the epidermis and true skin. Parakeratosis and epithelial growth (acanthosis) with more or less oedema of the mucous layer appear to be the primary pathological changes in the skin and are probably etiological factors in producing the increase of the connective tissue, the changes in form of the papillae, etc., of the corium. The term, sub-acute is applied to the eruption when there is a moderate amount of thickening, and inflammatory symptoms are present but not so marked as in the acute eczema. Many of these cases follow a very irregular course, at one time better, at another time worse, but remain in one locality for sufficient time to produce the amount of thickening of the skin which is frequently observed in the chronic disease. I apply the term chronic to long standing patches with markedly thickened true skin as well as to scaly patches with very little thickening provided there had been very little inflammation in the affected part. The so-called seborrhœic eczema would also be included under the same heading, but in it the pathological changes are principally situated in the epidermis. Both types—sub-acute and chronic eczema—are frequently associated with the acute disease. Thus one meets frequently with patients who state that they have suffered from one or two patches of eczema for years, when the eruption extended to different parts of the surface of the body. This is an important consideration as the preliminary treatment in such cases is the same as in acute eczema. The treatment of sub-acute and chronic eczema is

more difficult than that of the acute eruption. It is difficult because it varies with the form of the lesions and with their distribution, as well as with the cause and length of course. Thus the treatment of erythematous eczema of the face is considerably different from that of a similar eruption in other parts of the body, and what will cure an eczema on the back of the hands will not usually be as effective with lesions on the palms. Both local and constitutional treatment are generally required. However, local treatment is all that is required to effect a cure in seborrhœic and other forms of the disease due to micro-organisms. It is also effective in some cases which were originally caused by some form of systemic disturbance which has ceased to irritate the skin, but the lesions remained for the want of good local treatment. Although the treatment of sub-acute and chronic eczema is subject to great variation with the change of locality, type of lesion, etc., still there are now certain generalized principles of treatment which I follow, and these may be varied to suit the locality, form of lesion, and irritability of the skin in each case.

I shall first describe the management of parasitic eczema, and then I shall briefly outline the general treatment which I consider the best in the other forms of sub-acute and chronic eczema. Parasitic eczema includes seborrhœic eczema, eczema marginatum and some other forms not well defined.

Seborrhœic eczema both in adults and in children may appear as a dry or moist-crusted eruption. However, the majority of cases of the crusted form are found amongst children. When the crusts are present the parts should be annointed for twenty-four hours and then washed with a solution of boric acid. Any form of soothing antiseptic paste, such as Lassar's :

℞ Acid salicylic
 Zinc oxid.
 Pulv amyli aa ʒ ii
 Vaselini ʒ ss

is a good application at this stage. Sometimes there is a great amount of weeping, and in these cases I use for a few days the calamine-black wash lotion, but as soon as the excessive discharge has ceased, I apply the aforesaid paste. This answers best for infants, but in older children and in adults it frequently causes considerable matting of the hair, and then in place of paste I use an ointment such as the following :

℞ Resorcin
 Sulphur aa grs. xv.
 Ung. Zinci
 Ung. Aquae Rosae aa ʒ ss.—M.

As soon as the inflammation of the parts has subsided, stronger ointment of resorcin and sulphur may be ordered. Twenty grains each of resorcin and sulphur to an ounce of ointment base is generally sufficient. After this stronger preparation has been applied for a few days, the parts should be washed with soap and water and the ointment reapplied. Any common form of soap may be used in cases amongst infants, but spirits of green soap should always be used in cleansing eczematous patches in older children and in adults. Soap and water occasionally irritate the lesions too much, and hence as a rule should not be applied more frequently than every two or three days. This method of treatment usually rapidly brings about resolution, but if necessary the proportion of resorcin and sulphur may be increased. The treatment should be continued for some time after the skin appears normal as this type of eczema is particularly apt to recur.

Eczema marginatum is caused by the ringworm fungus and properly should not be placed with the eczemas. I have found a drachm of sulphur added to half an ounce each of zinc ointment and ammoniated mercury ointment the best application.

Eczema mycoticum is the name applied by Hans Hebra to another form of parasitic eczema. It is characterized by very itchy moist crusted lesions which are generally situated on the flexor surfaces of the joints, scrotum or anal region. Hebra treats these cases by antiseptics, mild at first, but finally very strong, such as chrysarobin.

Eczema circumscriptum is another type of parasitic eczema which was first described by Crocker. It occurs most frequently below the knees and consists of patches of reddish papules which are sometimes so closely aggregated as to form scaly surfaces. Crocker treats these cases with success with mild antiseptic ointments.

There are probably other forms of parasitic eczema which up to the present time have not been defined. Nevertheless the treatment of these cases is likely to be correct, as the remedies—tar, resorcin, sulphur, mercurials, etc.—which have been found most useful in chronic eczemas, are also strong antiseptics.

A description of the local treatment of the non-parasitic cases of sub-acute and chronic eczema is beset with considerable difficulty, as the treatment is so variable with change in form of lesions. In order that my description may be more explicit I shall divide the work into four divisions:

(a) Local treatment of sub-acute eczema and of chronic eczema with moderate amount of thickening of the skin.

(b) Local treatment of chronic eczema, with great amount of thickening of the skin.

- (c) Local treatment of chronic pustular eczema.
 (d) Local treatment of eczema rubrum.

LOCAL TREATMENT OF SUBACUTE ECZEMA WITH MODERATE
 AMOUNT OF THICKENING OF THE SKIN.

The preliminary local treatment of these types is very similar to that of acute eczema. Any one of the emollient pastes referred to under the treatment of acute eczema is a suitable application. One drachm of zinc oxide added to an ounce of cold cream forms a most useful soothing ointment, and is at the same time an excellent basis for making stimulating ointments. The cooling effect of the ointment is no doubt due to the evaporation of the water incorporated in the preparation. The greater the proportion of water the more cooling the ointment. After these soothing applications have been applied for a short time, many of the patches will have disappeared while the others will appear less inflamed and generally improved in appearance but still scaly and slightly thickened. At this stage of the disease, stimulating ointments are indicated, but great care should be exercised lest the application be too stimulating. It is always best in these cases to commence with slightly stimulating ointments. Preparations containing tar generally give the most satisfactory results. Two formulæ which I frequently use are:

℞ Liq. picis carbonis	℥ss to ℥i
Zinci oxidi	℥i
Ung. aquæ rosæ	℥i—M.
℞ Ung. picis	℥ii
Zinci oxidi	℥i
Ung. aquæ rosæ	℥i—M.

These ointments should be thoroughly rubbed into the parts twice daily. When itching is a troublesome symptom, ten grains of carbolic acid added to either of the above preparations will be found useful. In some cases the ointment will be made more efficient by adding ten grains of ammoniated mercury or 30 grains of calomel.

LOCAL TREATMENT OF CHRONIC ECZEMA WITH GREAT AMOUNT
 OF THICKENING OF THE EPIDERMIS.

The patches in these cases are generally dry and marked here and there with angry looking fissures. The palms of the hands, the soles of the feet and the lower extremities are the localities most frequently attacked. This type of the disease is generally referred to as eczema sclerosum or eczema keratodes. In some cases, particularly on the lower extremities, the patches

have a warty appearance and then the name *eczema verrucosum* is applied to the eruption.

The first indication in the treatment of this type of eczema is to heal the fissure and to get rid of the thickened epidermis. I usually commence the treatment by prescribing some emollient ointment such as equal parts of zinc ointment and cold cream or

℞ Ung. diachyloni ℥ vi.
Ung. aquæ rosæ ℥ ii.

This somewhat softens the parts and heals the fissure. For the removal of the thickened epidermis no remedy gives such satisfactory results as a salicylic acid plaster. Five per cent. of the acid is generally sufficient, but in old standing eczemas of the palms of the hands or soles of the feet ten per cent. is required. A good five per cent. plaster may be made as follows:

℞ Acid, salicylic
Ol. olivi. aa grs. xxiv.
Emplastri saponis ℥ i.—M.

There is no need of olive oil in the preparation when ten per cent. of salicylic acid is used. By means of a warmed spatula this plaster should be spread on linen and carefully applied to the part and left in position for two or three days. The plaster should then be removed when it will be found that considerable of the excessive epidermis will be carried away, and much more can be readily removed by washing the part with soap and water. In the case of the palms and soles, the skin may be rubbed with a pumice stone or scraped with a curette. If the overgrowth of epidermis is not removed by this procedure, the plaster should be re-applied. When the patches have been thinned down, the skin will appear more or less red and very sensitive to the patient. In some cases, particularly on the lower extremities, the bleeding points of the hypertrophied papillæ will be exposed to view. At this stage milder remedies are indicated. Ten grains of salicylic acid to one ounce of diachylon ointment is an excellent application to the palms of the hands and soles of the feet, but in cases where the lesions were situated on the lower extremities, I have found a jelly such as the following the best application :

℞ Ichthyol grs xxxv
Gelatin
Glycerin aa ℥ vi.
Zinc oxidi. ℥ iss.
Aquæ ℥ ii.—M.

This combination should be dispensed in a tin box in order that it may be readily melted before being used. The melted jelly should be applied with a brush and then covered with a

thin layer of cotton. Every two or three days the parts should be bathed in hot water, when the dressing can be easily removed. A new application of jelly should be again applied.

This method of treatment should be followed as long as resolution progresses, but if at any time the patches should tend to revert to the thickened condition the salicylic acid plaster should be re-applied.

LOCAL TREATMENT OF CHRONIC PUSTULAR ECZEMA.

The treatment of this type of eczema is usually very satisfactory. The first indication is to remove the crusts. The parts should be annointed with oil for twenty-four hours and then washed with a saturated solution of boric acid. An anti-septic ointment should then be applied. I have found the following combination the best for the purpose :

℞ Ung. hydrarg. ammon.
 Ung. zinci oxidi
 Ung. aquæ rosæ ℥ ii.—M.

If any thickening of the epidermis remains after the lesions are free from pus and have become dry, and if the diseased skin does not tend to resolve, then other mildly stimulating ointments, such as used in the treatment of subacute eczema, should be tried.

LOCAL TREATMENT OF ECZEMA RUBRUM.

I apply the term eczema rubrum to chronic infiltrated patches varying in color from deep red to pink, from which the outer layers of the epidermis are continually being cast off in the form of scales or crusts. The lesions may be either dry or moist. The excessive exfoliation of the epidermis is due to a soddened condition of the mucous layer. The eruption of eczema rubrum may appear upon any part of the surface of the body but is generally situated on the lower extremities.

In cases of moist eczema rubrum the first indication for treatment, is to convert the lesions into the dry form and to bring about a partial natural cornification. For this purpose the calamine-black wash lotion acts excellently in the majority of cases. A solution of nitrate of silver in spts. ether, nit, (grs. xv to ℥ i) is also a good application, particularly when there is considerable oozing from the lesions. Rest in bed with elevation of the affected parts will also aid in reducing the redness of the skin. When very little serous exudate remains, then soothing ointments or pastes should be used. Ihle's paste would be a suitable application. When the patient is not at rest in bed, the legs should be bandaged from the foot upwards. This holds the dressing in position and at the same time supports the

vessels. As soon as the hyperæmia diminishes, mildly stimulating ointments may be used. In fact the local treatment becomes the same as that of a similar condition under the foregoing types.

THE INTERNAL TREATMENT OF SUB-ACUTE AND CHRONIC ECZEMA.

When the lesions are inflamed and the patient complains of burning, itching, etc., the preliminary internal treatment should be the same as that of acute eczema. As soon, however as the inflammation of the parts subsides, and the lesions assume a typical chronic type, then in many cases additional internal medication is required. When the patient is anæmic and debilitated, I generally use the following combination, which is a modification of Startin's mixture :

℞ Mag. sulphatis	℥ ii.
Ferri sulphatis	℥ ss.
Acidi sulph. dil.	℥ iv.
Liq. strychnin	℥ i.
Glycerin	℥ iv.
Aquæ	ad ℥ vi.—M.

Sig : ℥ ii in water after meals.

With this mixture I sometimes combine one or two drops doses of Fowler's solution ; but arsenic should only be prescribed for chronic, scaly or papular patches in which there are very slight signs of inflammation. Cod liver oil is a very useful drug and food in many cases. I have found it most useful in strumous children and in adults in whom the rash has a tendency to become general and takes on the appearance of exfoliative dermatitis.

A careful examination of the condition of the stomach, intestines and kidneys should always be made in every case of non-parasitic chronic eczema, for although a cure may be effected by local treatment, still the disease is apt to recur provided the faulty condition of these organs is not removed.

In examining the urine of eczematous patients I always pay most attention to the quantity in 24 hours, total solids, and the amount of indican. When the urinary secretion is scanty, I always give alkaline diuretics, such as potassium acetate. The following mixture answers admirably in many cases :

℞ Pot. acetatis	℥ iv.
Tinct. nucis vom	℥ iv.
Ext. euonyrni. fl.	℥ vi.
Aquæ	ad ℥ iv.—M.

Sig : ℥ ii in water before meals.

When an excess of indican is present in the urine, I give one or two drachms of sulphate of sodium in a glass of hot water every morning as well a fairly large dose of calomel every three or four days. The internal administration of 10 grain doses of ichthyol before each meal does good in some of these cases, particularly when the eczema is of the erythematous type. The treatment of the gastric and intestinal symptoms should be adapted to the pathological condition in each case. A test meal followed by an analysis of the expressed stomach contents gives valuable information in many cases. It should always be administered in inveterate cases, even when the patients do not complain of any subjective gastric symptoms. The diet is always of the utmost importance. A light diet of milk, farinaceous articles, tender vegetables, with a limited amount of fish and fowl, is, as a rule, the most useful for the purpose.

ETIOLOGY AND DIAGNOSIS OF CEREBRO- SPINAL FEVER.*

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In practice we sometimes meet with a meningitis which is not a sequel to pneumonia or ulcerative endocarditis, to ear disease or of injury, and which does not mark the terminal stage of a chronic malady. As the meninges of brain and cord are both inflamed the condition is labelled cerebro-spinal meningitis. When there are many cases we speak of epidemic cerebro-spinal meningitis. Until recently my experience did not extend beyond the sporadic form of the disease. However, the recurrence of a small outbreak in Baltimore during the past year has enabled me to study certain points in this most interesting affection, and has thus determined my choice of a subject upon which to address you.

Of the special features of epidemic cerebro-spinal fever I shall speak but briefly.

First, it is one of the most fatal of all acute diseases, but fortunately takes a low position among destructive epidemics. It spreads slowly and attacks only a few individuals so that the general mortality may be but slightly increased. On the other hand, scarcely any known fever kills so large a proportion of those attacked. During the recent Boston epidemic out of 111 hospital cases no less than 76 died.

Secondly, the outbreaks occur in epidemic waves, of which

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the fourth in the present century is now prevailing in the United States. For some years there have been local outbreaks in widely-separated regions, but in 1896, 1897, and 1898 a slight epidemic occurred in Boston, and in 1898 cases appeared in Baltimore and other towns. From a recent report by Surgeon-General Wyman we find that cerebro-spinal fever has prevailed during the past year in twenty-seven States.

Thirdly, among specific diseases cerebro-spinal fever comes closest to pneumonia. Sporadic cases of both occur during epidemic periods, although more commonly so in pneumonia, while both are most frequent in barracks, gaols, and asylums. Even when not epidemic there may be remarkable house outbreaks of cerebro-spinal fever. The seasonal relations are the same in both, and the two diseases may prevail together. Other points of resemblance are found in the abrupt onset, the herpes, the almost identical character of the fibrino-purulent exudate, as pointed out by Netter, and the frequent complication of pneumonia by meningitis, and of the latter by pneumonia. The degree of contagion is about the same in both diseases, and it has been claimed that the organism described in cerebro-spinal fever is only a degenerate variety of the pneumococcus.

On the other hand, Lichtensten urges against the view that pneumococcus is the cause of epidemic cerebro-spinal meningitis, the facts that pneumonia is of universal distribution, whereas the other condition is very rare, and in some countries still unknown. Croupous pneumonia attacks every age, and somewhat more so with increasing age, while epidemic meningitis chiefly affects children and young persons. Pneumonia has a typical course and crisis: epidemic meningitis has no crisis. The complications also differ.

THE BACTERIOLOGY OF CEREBRO-SPINAL FEVER.

More than twelve years ago Weichelsbaum described a diplococcus with special cultured peculiarities, which he claimed to be the specific organism of the disease. In 1895 his observation was confirmed by Jaeger. No mention, however, was made of the fact in Allbut's System, published in 1896, or in Lowne's and Thompson's System in 1897. Weichelsbaum has been confirmed by Heubner, Councilman, Mallory, and Wright, and the organism, known as the meningo-coccus, or the diplococcus intracellularis meningitidis, is now regarded as the specific cause of the malady. The subject is fully discussed by Netter in Vol. XVI. of the "Twentieth Century Practice." My own cases have been carefully investigated by my colleagues, Drs. Gwyn, Harris, and Welch. The meningococcus in coverslips from the exudate is usually a diplococcus lying within the polynuclear leucocytes; hence the term intracellularis. It may also occur

free. It is stained with the ordinary reagents, and is discolored by Gram's method. It grows best on Loeffler's blood serum, on which it forms round, whitish, shining, viscid-looking colonies, with smooth, sharply-defined outlines, which contain a diameter of 1 to 1½ millimetres in twenty-four hours. It is found in the cerebro-spinal exudates, and has been rarely isolated from the blood, pus from joints, pneumonic areas in the lungs and nasal mucus.

Our clinical and pathological experience with the organism is as follows:—In twenty-one cases which I have seen lumbar puncture was made in sixteen. In three cases seen in consultation the diagnosis was so clear that puncture was not made. In cases 1 and 2, both mild, the puncture was made, one on the sixth and the other on the seventh day, but no organisms were found. In cases 3 and 4, admitted late in the disease, it was not thought necessary to perform it. Of the remaining fourteen cases, in thirteen the diplococcus intracellularis was present on coverslips and in cultures. In the fourteenth case its presence was doubtful on the coverslips, but the staphylococcus was found in culture. Of the five autopsies the diplococcus intracellularis was present, and two had been found during life. In one the streptococcus and in another the staphylococcus was isolated.

MICROBIC ASSOCIATION IN CEREBRO-SPINAL FEVER.

It is interesting to note that the diplococcus intracellularis is often found to be not in pure culture. In the Boston epidemic other organisms were often found, particularly in lumbar punctures taken in the course of the disease. In a large number of Netter's cases the pneumococcus was present. In our own series it was found only once in the fluid obtained by lumbar puncture. Another point in diagnosis is that after five or six weeks or longer the diplococcus intracellularis often disappears. The chief organisms found in association are the pyogenic organisms, the pneumococcus, and rarely, the tubercle bacillus.

On the whole, then, our observations support those of Weichelsbaum, Jaeger, Councilman, and others, that in epidemic cerebro-spinal fever there is an organism with special cultured peculiarities which may reasonably be regarded as the exciting cause of the disease. Among recent observers, Netter alone appears to doubt this, and says that he found the diplococcus intracellularis in 16 only out of 39 cases, and in 10 of those the pneumococcus was present at the same time.

Netter's position is illogical and confusing. In his article in the "Twentieth Century Practice" he assumes that cerebro-spinal fever may be caused by either the pneumococ-

cus or the diplococcus intracellularis. That a cerebro-spinal meningitis may be due to the pneumococcus is everywhere acknowledged; but it is unlikely that so specific an affection as cerebro-spinal fever should be caused by two different organisms. Towards the close of the article the inconsistency of this view seems to impress him, for he says, "certain peculiarities prevent us from concluding that the two diseases are absolutely identical."

THE DIAGNOSIS.

In cerebro-spinal fever the disclosures of the *post-mortem* room are just as mortifying as in pericarditis. Who has not in enteric fever or pneumonia made an absolute diagnosis of meningitis, only to illustrate the dictum of Stokes that there is no single nerve symptom which does not and may not occur independently of any lesion of brain, nerve, or spinal cord? It is very doubtful if either tuberculous or pyogenic organisms cause an acute primary cerebro-spinal lepto-meningitis.

The onset of the disease is peculiar. As a rule it is more abrupt than that of any other known disease, with the possible exception of pneumonia. The patient may be seized when at work or during sleep; he has rigors or chill. This onset is very different from that of the tuberculous form. In sporadic cases of cerebro-spinal attacks there may be no fever at first. (Various charts illustrating the peculiarities of temperature were here shown on a lantern screen.) In two cases there was no elevation of temperature for three days, then the curve ran up suddenly to 104 degrees or 105 degrees. Another chart showed extreme fluctuations from about normal to 106 degrees and 108 degrees (the latter preceding death.) In another less common type the fever was continuous, resembling the third week or recovery stage of enteric fever. In one case regarded as typhoid the diagnosis of cerebro-spinal fever was established by lumbar puncture. One protracted case showed extreme irregularity, and at one time an inverse type of temperature—that is to say, a morning record higher than that of the evening. In some the fever is of a remarkably intermittent nature. It differs, however, from the paroxysms of intermittent fever in extending over twenty-four hours, whereas the intermittent periodicity occurs every twelve hours.

KERNIG'S SIGN.

This interesting sign, first described by a Russian physician, has been present in all our cases in which it has been looked for. It is an old observation that in protracted meningitis the patients lie with the thighs flexed upon the abdomen and the legs partly flexed on the thighs. To test for Kernig's sign, the

patient should be propped up in bed in the sitting position, then, on attempting to extend the leg on the thigh there is contraction of the flexors which prevents the full straightening of the leg. On the other hand, in the recumbent posture the leg can be fully extended. Many patients with meningitis cannot sit up, but the test can be equally well applied by flexing the thigh on the abdomen, when, on attempting to extend the leg, if meningitis be present, the limb cannot be fully extended. Fries found the sign in fifty-three out of sixty cases, and Netter in forty-five out of fifty. Its presence is no indication of the intensity of the spinal involvement. Netter's explanation of the phenomenon is as follows: In consequence of the inflammation of the meninges the roots of the nerves become irritable, and the flexion of the thighs upon the pelvis when the patient is in the sitting posture elongates, and consequently stretches, the lumbar and sacral roots, and thus increases their irritability. The attempt to extend the knee is insufficient to provoke a reflex contraction of the flexors while the patient lies on his back with the thighs extended upon the pelvis, but it does so when he assumes a sitting posture."

LUMBAR PUNCTURE.

By means of Quincke's lumbar puncture we can now say when a meningitis exists and are further able to determine the form of disease. The technique of the operation is fully described in the text-books. It is a simple, harmless procedure, and in most cases can be undertaken without general anaesthesia, or with the aid of a local freezing mixture. The puncture is usually made between the second and third vertebræ, and is done with an ordinary aspirating needle. Often a few drops of blood flow first, then a clear or turbid fluid. A dry tap is unusual in cerebro-spinal fever. The needle may be plugged, or may be in contact with a nerve. In rare cases clear fluid may be obtained when meningitis exists, and in a protracted case the fluid may be turbid at one puncture and clear at the next. A clear fluid may be obtained from a puncture in the second lumbar interspace, while lower down a turbid fluid may be withdrawn. In a recent *post-mortem* the fluid in the dorsal and upper lumbar regions was clear, while that in the lower lumbar and the sacral was turbid and flocculent. The amount of fluid varies from a few drops to a large amount—*e.g.* 126 c.c. Cover glass preparations can be made at once, and cultures prepared by running a few cubic centimetres of the fluid on to a shunt tube of Loeffler's blood serum.

Has the lumbar puncture any therapeutic value? Williams, of Boston, thought it had, but Wentworth takes a contrary view. Netter reports some good results. We have given this point

careful attention. In one chronic case the patient lingered three months. Seventeen punctures were made in all between the twenty-ninth and the seventy-fifth days of the disease, and of these fourteen were positive. A turbid, pale yellow fluid was removed at each effective tapping. On five occasions 100 c.c. or more were obtained, once 125 c.c., and 126 c.c. After the first two effective tappings the patient seemed better, the ten punctures dropped and he seemed much brighter, but he soon became worse, and the fever rose. Following the sixth, seventh, eighth and eleventh punctures the temperature fell 4.5 degrees, 3.8 degrees, 4.2 degrees, 5.8 degrees. The drop in the fever followed so directly that it seemed only natural to attribute it to the lumbar puncture. The thirteenth puncture, however, was negative, yet the temperature fell 5.1 degrees, and after the fourteenth tapping the temperature rose 2.6 degrees. Evidently not the withdrawal of the fluid, but the peculiar character of the disease was responsible for the remission. The *diplococcus intracellularis* was found twice.

SPORADIC CEREBRO-SPINAL FEVER.

To what extent do isolated cases of cerebro-spinal fever occur between the epidemics? What is the nature of the primary suppurative meningitis which is met with from time to time in all communities? Neither hospital statistics nor the ordinary death returns give any trustworthy information as to these questions.

From the Fifty-ninth Annual Report of the Registrar-General, 1896, I gather that the deaths from cerebro-spinal fever in England from 1877 to 1896 inclusive, have only once exceeded 50 per annum. There has been a great reduction in the return since 1897, 233 cases for the ten years ending 1896, against 406 for the previous decade. In Scotland there were only six deaths from cerebro-spinal fever in 1895, and five in 1896. In Ireland there were 76 deaths from this cause in 1896, and the same number in 1897.

In the United States and Canada the occurrence of sporadic cases in the intervals between the epidemics has long been recognized. In Philadelphia, from 1863 up to the present date, a record has been made by Stillé, Pepper, and Abbott. They show a gradual decline from 1884, when there were 124 deaths, to 1891, with 23 deaths. From 1892 to 1897, the deaths were 22, 35, 18, 17, 7, 10; 1898, 24 cases; while in the first four months of the present year there were no less than 89 deaths,

At the Johns Hopkins Hospital in the spring of 1898 there were four cases of sporadic cerebro-spinal fever; the first of the epidemic cases.

One family presented the following history:—(1) a young

man, aged 20, returned home with a terrible pain in the head. He had fever and vomiting and his head and neck were arched. He was delirious and died in five days; (2) a sister who had nursed her brother died in four days; (3) a second sister taken ill and recovered; (4) the mother worn out with nursing her children, attacked and died in two days. These were five cases of sporadic form in one family. The disease was not epidemic in the city.

BACTERIOLOGY OF SPORADIC CEREBRO-SPINAL FEVER.

In a number of sporadic cases the organism of Weichelsbaum has been found. The most important contribution of late years has been made by Dr. Hill, of the Great Ormond Street Hospital for Children. In a study of the simple posterior basic meningitis of infants he isolated from seven or eight cases a diplococcus conforming in every respect with the diplococcus intracellularis. In ten years there were forty-nine different cases of the kind at the hospital mentioned. Clinically the disease differs from the ordinary type, as it attacks young children and is very protracted. Skin rashes are not frequent. Still was able to isolate the diplococcus from the periartritic exudates.

By the kindness of Professor Welch the results of the twenty-five cases in our own city in which bacteriological examination has been made may be here given. There were six of cerebro-spinal fever, eight of pneumococcic meningitis, seven of pyogenic meningitis (in which streptococci and staphylococci were found together and separately), and four showing unidentified bacilli.

The pyogenic forms of meningitis do not concern us here; no case of primary streptococcus or staphylococcus came to autopsy. I have already referred to the chronic form of cerebro-spinal fever in which the pyogenic cocci may alone be present at the time of death.

PNEUMOCOCCIC MENINGITIS.

The pneumococcus has long been recognized as the most important organism in the production of meningitis, and the first question is how sporadic cases of cerebro-spinal meningitis are due to it. Of twenty-five cases in the Johns Hopkins Hospital it was isolated in eight. Of twenty cases examined by Councilman, Mallory, and Wright, it was primary in two and secondary in eight. Netter examined sixty-one cases of meningitis bacteriologically, and found the pneumococcus thirty-five times, the same with streptococcus once, and once with staphylococcus, the intracellularis three times. We may consider three groups of pneumococcic meningitis.

1. The meningitis as a complication of lobar pneumonia. In Montreal my attention was called to the frequency of this complication in eight of one hundred consecutive autopsies. The other groups are pneumococcic meningitis from local infection, and primary pneumococcic meningitis.

The clinical features of pneumococcic meningitis present many points of interest. Is the case one of cerebro-spinal fever with pneumonia, or of inflammation of the lungs, with an added meningitis? This question does not often arise at the bedside, as it is most exceptional for the meningitis of pneumonia to present the symptoms of cerebro-spinal fever, and in doubtful cases the lumbar puncture will settle the matter. The age of the patient is important. In meningitis complicating pneumonia all the cases were above the twentieth year, a striking contrast to cerebro-spinal fever, in which a large portion are under twenty. A second point is the latency of pneumonia, which is more often recognized in the deadhouse than in the wards. Netter states that fully one-half of the cases are latent. Headache and early delirium are present in all cases, owing to involvement of cortex. On the other hand, the mind may remain clear throughout the cerebro-spinal fever. Spinal symptoms are rare in the meningitis of pneumonia. The importance of lumbar puncture cannot be too strongly emphasized. In a case of pneumonia in the wards of cerebral symptoms, the puncture showed the pneumococcus in the exudate. Lastly, an important point is that meningitis complicating pneumonia is almost always fatal. Personally I have never seen recovery under these conditions.

Secondary meningitis from local infection from nose, ear, etc., is often of pneumococcic origin.

Primary pneumococcic meningitis exists, and is abrupt in onset. The most important point to be determined is the exact proportion of primary cerebro-spinal meningitis due to pneumococcus intracellularis.

TREATMENT.

In our cases no special drugs were used. Morphia was given to check pain, and sponging practiced to reduce temperature. Our mortality has not been very great when we consider the severity of the cases. Thus eight cases died out of eighteen in hospital, and nine among the twenty-one I have seen. A distinguishing feature is the relief of pressure by withdrawal of cerebro-spinal fluid.

In two of our cases the spinal canal has been opened, drained and irrigated. So far as I know, an extensive laminectomy had not been done for acute spinal meningitis until our first case on November 6th, 1898, was operated upon by Dr. Cushing. The

spinal canal was thoroughly irrigated with salt solution and a quantity of purulent exudate washed out. No change followed in the existing paraplegia. The bladder and kidneys became infected, and the patient died two months after the operation. At the autopsy spinal meninges were smooth and looked normal. It was impossible to say where the dura mater had been incised, and there were neither adhesions nor thickening of the pia-arachnoid.

In another case laminectomy was performed on the fourth day by Dr. Cushing. A catheter was passed beneath the dura mater, and the membranes drained and irrigated. For several days the patient seemed better, but he developed a hemorrhagic cystitis, and died on the sixth day after operation.

Dr. Musser, of Philadelphia, has also had an unsuccessful case. In England Dr. Rodleston, and Mr. Herbert Allingham, have reported a case of sporadic cerebro-spinal meningitis, in which the patient recovered after laminectomy and drainage. The operation, which has been adversely criticised in some quarters, seems to me justifiable in severe cases, where the spinal symptoms are very marked, on the principle of a desperate remedy for a desperate disease.

✓ Progress of Medical Science.

✓ MEDICINE.

IN CHARGE OF W. H. B. AIKINS, J. FERGUSON, T. McMAHON, H. J. HAMILTON,
AND INGERSOLL OLMSTED.

Diagnosis of Cocaine Addiction.

Dr. Stephen Lett, Homewood Retreat, Guelph, in the *Quarterly Jour. of Inebriety*, gives the following as the symptoms of the cocaine habit:—At first there is great buoyancy and self-confidence. There is increased mental and physical activity. Wakefulness, loss of appetite and ability to do without food come on. The eyes are bright and glistening, with dilated pupils, not contracting under stimulus of light. The secretions are not lessened as in opium addiction, but rather increased. As the habit goes on, the amount of the drug must be increased, or the person suffers from intense physical and mental depression, leading to agitation, fear of death and lachrymosis. Nutrition begins to fail, accompanied by emaciation, anemia, sunken eye-balls, prominent cheek-bones and general pallor. Later on hallucinations and delusions appear. Persons are taken for enemies. The *habitué* collects all sorts of arms in his room for protection. His room is barricaded to prevent imaginary enemies taking him away. There is an intense feeling of worms under the skin. When the hypodermic syringe is used the skin becomes hard, thickened and discolored.

Antistreptococcic Serum in Smallpox.

Dr. W. J. Lindsay, medical health officer for Middlesbrough Isolation Hospital, *Brit. Med. Jour.*, May 13th, remarks that, during a recent epidemic of smallpox, he had the opportunity of treating all varieties of the disease. He noticed that medicinal treatment had no influence on the disease. He further noticed that the date of pustulation usually marked a period in the disease when the patients became much worse. Further, that many had abscesses and went through an illness similar to chronic pyemia. He decided to try the antistreptococcic serum, with a view of checking the pustulation. For this purpose the patient was given 10 c.c. for three days, beginning on the date of pustulation. The treatment was certainly of much value. The critical period was shortened, the tendency to heart failure lessened and the severity of the toxemia greatly abated.

The Functions of Suprarenal Glands.

Dr. A. G. Auld, of the Physicians' and Surgeons' Laboratory, London, *Brit. Med. Jour.*, June 3rd, calls attention to some experiments on cats and dogs with the view of further clearing up the function of suprarenals. When only one gland was removed, the animals remained well for months. After some months, the removal of the second gland caused death in twenty-four to thirty-six hours. The animal lies on its side in a state of intense weakness, and is very drowsy, refusing to move, and may have convulsions. When one gland was removed for some time, there was not any enlargement of the second one; but there was considerable enlargement of the spleen, and very marked increase in the size of the thymus gland. He is of the opinion that the function of the glands is rather that of separating poisons from the blood than the formation of a secretion.

Summer Complaint in Children.

Dr. Louis Fischer, New York, in *Med. Record* for June 17th, states that in the treatment of cases of the above disease the following points should be borne in mind:—Irrigation of the stomach is of much importance. This should be done with tepid water containing a little common salt, and enough used to render the return flow clear. The diet is of greater importance still. The diet the child was receiving when the attack came on must be withdrawn. If it was being fed on milk, barley, rice, farina, starch, or sago, water must be given instead. The external application of cold water, if the temperature be high, or that of warm water, if there be collapse, is useful. Cold affusions to the spine are valuable if there be much fever. The removal of all unnecessary clothing is gratifying to the child.

Insanity Defined on the Basis of Disease.

Dr. C. H. Hughes, in the *Alienist and Neurologist* for April, urges the connection between physical disease and mental derangement. Hippocrates, Galen, Connolly, Combe, Ray, Esquerol, and many others, have enunciated the doctrine of physical disease at different times. Maudsley gave medical men something tangible for the phenomena which we call insanity. The brain must be in good physiological condition for the expression of mind in a normal and healthy manner. When the mind is expressed in a pathological manner it is only following the laws of other diseases, and indicates that the organ of the mind is diseased. In insanity there is primarily or secondarily disease of the brain.

1 THERAPEUTICS.

IN CHARGE OF GRAHAM CHAMBERS AND J. T. FOTHERINGHAM.

The Prevention of Premature Old Age.

Hermann Webber (*Ztschr. f. Diätet. U. Physik. Therap.*) discusses this subject and draws the following conclusions:— Early senility of the nervous system is seen principally in the male sex, and is due chiefly to cardiac and arterial degeneration. It is frequently hereditary, and therefore treatment should be commenced early in life. Moderation in eating, in the use of alcohol and of tobacco, and in the sexual functions, is necessary. Everything conducive to good spirits should be enjoined, some mental occupation should be followed, and upon retiring from business some “hobby” should be indulged in. Bodily activity in the open air is also indicated, but fatigue should be avoided. From puberty to fifty years of age eight hours out of the twenty-four are sufficient for sleep, and after that five or six hours only are necessary. Early rising and regularity of living also conserve the intellectual energy.

The Use of Atropine in Delirium Tremens.

Touvine (*Archives Médicales Beligues*) advocates the use of atropine in alcoholic delirium tremens and allied conditions. He administered atropine to eleven alcoholic patients, and in a few minutes ten of them became quiet, and fifteen minutes later were asleep. The dose in each case was about one-sixtieth of a grain of atropine sulphate, given hypodermically. Touvine believes that the mode of action of the drug depends upon the stimulation of certain regions in the brain, which, according to the researches of Mendel and Krukemberg, are in a state of depression in delirium tremens.

Whooping Cough.

℞ Bromoformi ℥ xvi.
Alcoholis } āā fl. ℥ ii.
Tinct. card. co. }
Glycerini q. s. ad. ℥ ii.

M. Sig. ℥ i. three times a day.

—BEDFORD.

Treatment of Lupus Erythematosus.

Hebra (*Wien. med. Wochenschrift*) claims to have obtained very good results from the treatment of lupus erythematosus by the application to the lesions of equal parts of alcohol, ether, and spirits of mint. The mixture should be frequently applied without rubbing. Soap should not be used during the treatment.

The Antitoxic Agent in Thyroid Body.

Blum (*Bull. med.*, October 5th, 1898) states that he formerly considered the thyroid body an internal secreting gland, but that he is now of the opinion that its antitoxic action is the principal rôle of the organ. The iodine compound which Baumann isolated is probably one of the antitoxins. It is increased in quantity by the administration of potassium iodide. It does not pass into the circulation, but is decomposed in the thyroid body itself by the toxins in the blood. The iodine thus liberated is partly excreted by the kidneys. If the thyroid body is destroyed, then the toxins give rise to changes in the body and mind which are found in myxedema.

Administration of Anesthetics to Children.

Marshall (*The Hospital*) considers a mixture of equal parts of chloroform and ether the best anesthetic for children. During the early stages of anesthesia the child receives more ether than chloroform, which thus prevents the depression frequently noticed at these periods. The writer also calls attention to some of the differences between the anesthetization of children and adults. The corneal reflex is useless in children, as it is frequently absent long before the patient is under the anesthetic. A better test is to pinch the inner side of the thigh and then to watch for reflex contraction of the leg. Reflexes are very active in children, and movements frequently occur when the patient is unconscious.

The Physiology and Therapeutics of the Thyroid Gland and its Congeners.

Wells (*Jour. of the American Med. Association*) contributes an article upon this subject, and states that the substance of our knowledge of the thyroid gland is contained in the following statements:—

The thyroid gland is an organ of very variable size and shape, reaching the highest degree of development at adult-life, and decreasing with old age.

It is capable of great hypertrophy, but probably is not capable of more than a slight degree of regeneration.

Its secretion is a colloid material, which is discharged into the general blood-current by way of the lymphatics.

The colloid material contains the active material of the gland, which is a complex but very stable body, called "thyroidin," which contains about ten per cent. of iodine.

This substance either acts as an antitoxin to the products causing auto-intoxication, or furnishes some substance necessary to tissue metabolism.

Thyroidin is necessary to the animal economy, absence of it in adults producing myxedema; in the new-born, cretinism.

The amount of iodine in the thyroid glands of the inhabitants of any given district varies inversely with the prevalence of goitre in that district.

Thyroid glands of residents of Chicago contain fully four times as much iodine as do glands in the goitrous districts of Germany.

It is probable that glands from the Atlantic coast contain about the same amount of iodine as do the Chicago glands.

Simple parenchymatous goitres contain about the same total amount of iodine as normal glands, but the proportional amount is much smaller. Probably colloid goitres contain the same proportional amount with a very much higher total.

The amount of iodine in the glands of children, from a mere trace at birth, steadily increases until adult years. It then decreases, and in old people again becomes very small.

Therapeutically the thyroid extract is a specific in cretinism and myxedema.

In simple goitre and in obesity the majority of cases are improved or cured.

It seems to have some value in tetany, scleroderma, and arrested growth.

The value in psoriasis and other skin diseases, tuberculosis, insanity, rickets, etc., is doubtful.

It is contraindicated in exophthalmic goitre, heart lesions, albuminuria, and glycosuria. The dose should never be so large as to produce symptoms.

√ LARYNGOLOGY AND RHINOLOGY.

IN CHARGE OF J. PRICE-BROWN.

A Case of Asymmetry of Frontal Sinus Revealed by Operation.

Dundas Grant (*Jour. Lar., Rhin. and Otol.*, June, 1899.) A woman aged 21 years, suffering from purulent rhinitis, was examined by trans-illumination. This revealed dulness over right antrum and right frontal sinus. Treatment for antral disease was only partially effectual; so frontal sinus disease was suspected.

The right frontal bone was accordingly opened in the normal situation of the frontal sinus, as mapped out by Chipault, and confirmed by Lilly's investigations on a large number of skulls. The probe, however, instead of passing through the right infundibulum, entered the left one and came into the left

nostril. The case was obviously one of extreme asymmetry of the sinuses.

Treatment of Coryza.

William E. Barton (*Brit. Med. Jour.*, June, 1899.) This disease can be aborted by washing or spraying the nasal cavities with a solution of tincture of belladonna. The strength used is ℥i to ℥iiss to ℥i of water. After the passages have been freely evacuated, about ℥ii of the solution is thrown into one nostril, and a similar amount into the other. Then the nostrils are to be cleared out again and the treatment repeated. If the attack is in the acute stage the coryza should at once cease. If of longer standing, several treatments may be required.

Non-Diphtheritic Pseudo-Membranous Rhinitis.

J. Price-Brown (*Jour. Lar., Rhin. and Otol.*, May, 1899; and *Jour. Amer. Med. Assoc.*, May, 1899) gives a *résumé* of what has been written upon this disease down to the present time. Two directly opposite views are taken by leading writers, the number on each side being almost equal. The one class of observers maintain that all cures of pseudo-membranous rhinitis are essentially diphtheritic in their origin, and consequently are infectious in character. The other class of observers, while admitting that cases of primary nasal diphtheria do sometimes occur, maintain that instances of pseudo-membranous rhinitis do likewise occasionally take place, which are in no way connected with the Klebs-Leoeffler disease; that these cases are non-diphtheritic and non-infectious; that they may be either acute, chronic, or recurrent; and are interesting chiefly from the peculiar pathological conditions which they exhibit.

While the writer, from the record of cases published, as well as from his own personal experience, endorses the second view, he concludes as follows: "That owing to a possible mistake in diagnosis, isolation in all cases should be imperative, until a reliable bacteriological examination can be made."

Nasal Insufficiency due to Exaggerated Prominence of the Anterior Arch of the Cervical Vertebrae.

J. E. Newcomb (*Ann. Otol., Rhin. and Laryng.*, Feb., 1899) This is a report of a paper read at the Laryngological Section of the New York Academy of Medicine upon this rare condition. The symptoms simulate those of adenoid disease. In the majority of cases lymphoid hypertrophy is also present, aggravating the post-nasal stenosis. The bony arch projecting unduly forward, limits the post-nasal space; and the addition of a limited amount of adenoid tissue, is all that is necessary to produce complete oral breathing.

The removal of this tissue will usually be sufficient to accomplish the required relief. Of course the osseous enlargement cannot be removed.

Mendel, Mayer, Simpson and Quinlan have also reported cases that have come under their observation.

Dundas Grant (*Laryngoscope*, May, 1899) has an article on the same subject. It speaks particularly of the difficulty, in these cases, of removing the adenoids located in the hollow above and behind the bony projections. Quinlan's forceps and Golding-Bird's curette are the instruments which he has found best adapted for the operation; while Gottstein's curettes, from their peculiar shape, were inapplicable.

As the condition may be encountered at any time by the surgeon, he advises digital examination in all cases before operative interference is attempted. The removal of the adenoids can then be accomplished, in accordance with the known anatomical condition of the parts.

Foreign Body Impacted in the Naso-Pharynx for Four Years.

R Patterson (*Jour. Lar.*, May, 1899). This was a metal regulator of an infant's feeding-bottle. It was removed from a child aged six years, suffering from otorrhea of the left side, with fetid discharge from left nostril. There was also complete nasal stenosis, and something could be distinguished in the post-pharynx on looking through the left nasal passage.

Under anesthesia, a hard mass was discovered and removed from the naso-pharynx, and was found to be the body described, thickly coated with phosphates.

The history obtained was that when the child was fifteen months old, while playing with a regulator it suddenly showed difficulty of breathing. This was relieved by suspending the head downwards. From that time nasal breathing became obstructed, and the child's health suffered. At various times subsequently bougies had been passed into the œsophagus by medical men, to prove to the parents that the foreign body was not still in the throat.

Foreign Body in the Naso-Pharynx for Eighteen Years.

H. S. Birkett (*Mont. Med. Jour.*, June, 1899) gives the history of this peculiar case. It occurred in a woman aged twenty-three years. She had had profuse muco-purulent discharge from both nostrils for many years. The odor was characteristic of a foreign body.

When five years old she accidentally slipped a thimble into her throat. This was followed by a violent fit of coughing, which suddenly ceased upon her being thumped upon the back.

One year later she developed "catarrh," which continued from then until the date of examination.

Post-nasal examination revealed a black mass lying close to the septum, and covered with muco-purulent discharge. There was also grating upon being touched with a probe.

Under an anesthetic the foreign body was removed, and was found to be a tailor's thimble incrustated with concretions. The surface of the thimble was perfectly smooth, the usual roughness having been worn away.

Subsequent antiseptic treatment soon resulted in complete removal of symptoms.

Remarks on Laryngeal Growths in Young Children.

G. Hunter Mackenzie (*Brit. Med. Jour.*, May, 1899). In this article the writer advocates tracheotomy as the treatment, of all others, most satisfactory in this condition. He lays it down as an axiom, that the two methods, so frequently advocated—removal *per via naturalis*, and by thyrotomy, are both inadmissible; the reason given being that direct interference with, or irritation of, the growths, is almost always followed by rapid recurrence. The endo-laryngeal method of removal involves a prolonged series of operations, which are usually followed by recurrences; while thyrotomy, when tried, has sometimes required to be repeated three or four times within a year, resulting in more or less permanent affection of the voice, as well as stenosis of the larynx.

Intubation is objectionable in these cases on account of the irritation it produces. It is also frequently difficult to retain the tube in position.

The point that Hunter Mackenzie insists upon is that tracheotomy in this disease is not only a palliative, but also a curative operation.

The order of events he describes as follows: First, the breathing is relieved. Second, the growths being freed from the irritation of coughing and phonation, gradually lose their vitality, and become detached from the vocal cords, without any tendency to recur. If the expectoration and secretion from the windpipe, as taken from the throat of the patient or from the tracheal wound when cleansing the tube, be examined, the growths will be found to come away in pieces. Gradually, in periods varying from one month to six months, or a year, the papillomata shrivel away and finally disappear.

The tube should not be permanently removed until the growths are all away. This removal of the tracheotomy tube is always objected to by the child, as at first normal breathing is more difficult than the artificial. Consequently, one or two

short reinsertions may be necessary. In a short time, however, breathing becomes natural, and the voice is gradually restored.

Intrinsic Epithelioma of the Larynx.

Lennox Browne (*Jour. Laryn. Rhin. and Otol.*, June, 1899). This is a further report of a case previously exhibited. It had been for nearly three years under observation, having been diagnosed by himself and colleagues as intrinsic epithelioma. For a long time no histological examination was made, chiefly for the reason that he was averse to running any risk of arousing latency into activity. Finally he removed a section and had it examined. It was found to be a gradual development of papillomatous into epithelial tissue.

The voice of the patient had been practically gone for years; and, as he was sixty-nine years of age, had only slight dyspnoea, and was not engaged in any work, it was intended to let him go down the hill quietly without operation.

The result in this case confirmed Lennox Browne in his previous experience of intrinsic neoplasms of the old, justifying the inactive policy, which he had frequently advocated.

On Dysphonic Nervous Cough.

Kayser (*Monats für Ohrenh.*, November, 1898). Any ordinary cough is euphonic; but a disturbing, annoying, insufferable cough, is dysphonic. In a case of the latter, occurring in a girl eleven years old, Kayser had an opportunity to observe the mechanism by which the cough was produced.

Every few minutes she coughed, and the tone had such a piercing, trumpet-like note that she had to leave school. The cough ceased at night. Otherwise the girl was healthy. On examination, the lingual tonsil was seen to be enlarged, and from the right half of it a yellow distended follicle projected. This spot was sensitive, and touching it at once caused the characteristic cough.

On looking with the laryngoscope while the sensitive spot was touched, it was observed that the epiglottis sank downwards and backwards over the entrance to the larynx, and during the act of coughing could be seen to vibrate.

When the epiglottis was raised and held up by a Reichert's spatula, the cough lost its trumpet tone and became an ordinary cough. After holding up the epiglottis several times, it remained up of itself for some time, and this cough continued natural.

The enlarged follicle and hyperesthetic area on the lingual tonsil were then cauterized, and the cough soon entirely disappeared.

Nasal Treatment of Asthma.

William Armstrong (*Brit. Med. Jour.*, June 3rd, 1899) strongly supports Dundas Grant's view, that gout and nasal disease are in many instances combinedly causative of asthma. The theory is, that, as between 10 and 30 per cent. of the normal amount of uric acid excreted by the kidneys is retained in the blood during attacks of gout, it may endeavor to secure elimination through the nasal mucous membrane; and by the irritation thus produced, give rise to the formation of sensitive areas, mucous polypi, hypertrophies, etc. These in turn, by reflex nervous influence induce the vaso-motor paresis of asthma.

Numerous instances are given to verify this conclusion. In gouty subjects the removal of nasal polypi, etc., would only partially relieve the asthmatic symptoms; but eliminate also the uric acid from the blood, and relief would be complete. On the other hand, treat only the systemic disease, without removal of the intranasal lesion, and the asthmatic symptoms would still remain.

His conclusion is that: "As in gouty asthma, the condition of the nasal cavities should not be ignored, so in asthma with marked nasal symptoms, the gouty factor ought not to be disregarded."

✓ HYGIENE.

IN CHARGE OF WM. OLDRIGHT, M.A., M.D.

Report of an Investigation at the Stock Yards, Chicago.

We clip the following from the *Chicago Tribune*: "Twenty-five cows, known to have been milked a week ago for the Chicago market, were slaughtered and dissected by the State Board of Live Stock Commissioners at the abattoir of B. Wolf, Forty-first street and Union avenue, yesterday morning, and were found to be infected with tuberculosis. Under the circumstances which led to the condemning and slaughtering of the animals, the commissioners believe they have not only substantiated the efficacy of the tuberculosis test, by which the presence of tuberculosis in the bodies of cattle can be ascertained without necessitating *post-mortem* examinations, but also that they have proved that the tuberculosis has a more universal hold on cattle, especially on cows, than is generally realized.

"As a result of the day's demonstration, they declare the correctness of the assertion that two-thirds of the cows that furnish milk to Chicago consumers are victims of tuberculosis is unquestionable, and that prompt steps for checking the further progress of the disease are necessary.

LOOKED LIKE HEALTHY CATTLE.

"That milch cows can be in virulent stages of tuberculosis growth without its being apparent was shown when the twenty-five subjects of the test were driven into the slaughtering stalls. All of the cows seemed to be in fine physical condition. The only ground on which they were suspected as victims of tuberculosis was the fact that their temperatures had risen to a high degree when they were subjected to the tuberculosis test. The remainder of the herd of sixty-one, from which the infected animals were taken, had shown no increase of temperature after hypodermic injections of tuberculin, and had been declared sound.

"It was hardly expected that all of the twenty-five cows would be found to be so thoroughly infected with tuberculosis clusters.

FINDS A PINT IN ONE GLAND.

"The first-cow dissected had sound, hard muscles and showed no superficial symptoms of consumption or any kindred disease. Its head was severed from the body and Dr. Lovejoy began the *post-mortem* examination. Through an aperture made with a knife he removed a gland swollen to the size of two fists. This gland contained about a pint of semi-liquid tuberculosis. The substance was of a creamy color and contained yellow, mushy grains. The substance was declared to be pure tuberculosis, the lymphatic fluid having been entirely expelled by it from the gland. The whole carcass was infiltrated with tuberculosis.

"In the third subject the bulk of the tuberculosis was found in the liver. It was spread over this organ in deposits which were white and resembled small fungi.

"In the lungs of other carcasses the disease showed itself in the form of incrustated combs. Only in one carcass was it found that the tuberculosis had imbedded itself in large miliary, or soft, deposits in the flesh. In characteristic cases the disease was found to have attacked the glands and lungs, where it met with the least resistance, and there to have shown tenacious vitality.

"In no case was it found that the udder had been affected, although this, it was stated by the examiners, in no wise lessened the danger of a secretion of the tuberculosis bacilli with the milk.

"The average quantity of tuberculosis found in each cow was about a pint. The total amount removed from the twenty-five cows, about three gallons, if allowed to dry to a dust and be scattered to the atmosphere, could destroy, it was stated, all the cattle in the world.

RECORDS OF CASES.

"The following record made by Secretary Johnson for the Board of Live Stock Commissioners shows the various ways in which tuberculosis had attacked the cows. The organs named are the places where the disease made its stronghold. The record of each case is given, the numbers indicating the order in which the *post-mortem* examinations were made:

- 1—Abscess in mediastinal gland!
- 2—Abscess in pharyngeal gland.
- 3 and 13—Miliary deposits in liver.
- 4, 16, and 25—Miliary deposits in walls of intestines.
- 5 and 6—Abscesses in mediastinal glands and lobes of lungs.
- 7—Miliary deposits in lobes of lungs.
- 8 and 21—Abscesses in mesenteric glands.
- 9—Large abscesses and deposits in mediastinal glands and miliary deposits in mesenteric glands.
- 10—Caseous deposits in mediastinal glands.
- 11—Abscesses in pharyngeal glands.
- 12—Abscesses in pharyngeal glands and lungs.
- 14, 15, and 25—Caseous deposits in mesenteric glands.
- 16—Caseous deposits in mediastinal glands and joints of knees.
- 17—Calcareous deposits in mediastinal glands.
- 18 and 20—Caseous deposits in lungs.
- 19—Caseous deposits in pharyngeal glands, deposits in lungs, and calcareous globes in lungs.
- 23—Abscesses in mediastinal glands,
- 24—Abscesses in mesenteric glands and deposits in liver.

"The cows which were subjected to a test and examination, were taken from a dairy that has been sending two carloads of milk to Chicago daily. The herd at this dairy was selected for the demonstration of the efficacy of the tuberculin test at random, and the commissioners say they have no reason to believe it was in a worse condition than any of the other dairy centres that send milk to Chicago. They declare that if the State would appropriate the funds necessary they could visit almost all the dairies in Illinois with the same result.

CONCLUSIONS ON THE SUBJECT.

"The deductions relative to cows and dairy products reached by Dr. Lovejoy and other veterinarians, are as follows:

"The presence of tuberculosis in cows cannot be determined by the physical appearance of the animals

"The fact that about every third cow is infected and that dairies mix milk makes nine-tenths of the milk that comes into Chicago subject to suspicion.

"Butter and cheese being mediums congenial to the growth of tuberculosis, these products are likely to transmit the bacilli.

"Tuberculosis is making unimpeded progress and is destined to develop to such an extent that in a few years only a small proportion of cattle will be without it.

"Tuberculosis has greater vitality than any other germ and retains a vital state when dried. It propagates in rags and rubbish, as well as when imbedded in organic matter.

"The tuberculosis in cattle and the tuberculosis in humans are essentially the same, and readily transplant themselves from one body to another.

"Private citizens should form societies for the education of the unscientific on the subject. Medical societies should disseminate literature on the subject of tuberculosis.

PLAN FOR A CONVENTION.

"The Commissioner of Health, Dr. Arthur R. Reynolds, has definitely decided to call a tuberculosis convention in Chicago, and to that end has begun organizing the physicians of the city. The organization's purpose will be to urge legislative appropriations of enough money to stop the spread of tuberculosis in whatever form. As soon as the date for the convention is agreed upon it will be announced. The following physicians have already signified their intention of participating in the convention: Nicholas Senn, John A. Robison, Frank S. Johnson, Arthur Bevan, T. T. McArthur, E. Fletcher Ingalls, Theodore A. Klebs, James Herrick, William E. Quine, Norman Bridge, E. J. Doering, Frank Billings, Christian Fenger, H. Miller, J. B. Murphy, Homer Thomas, A. C. Klebs, Henry M. Lyman, Henry B. Havill, Arthur R. Edwards, Ludwig Hektoen.

CONSIDERS THE WORK IMPORTANT.

"I will close my desk and, if necessary, neglect other affairs to see that we organize a body in Chicago that will take quick and effective action toward checking this tuberculosis plague," said Dr. Reynolds. "This is an important public matter. It has been too long neglected. I am glad public opinion is being aroused in the matter. Prominent physicians agree the time is ripe for action. We propose, through a convention, to put the facts before the public, and are confident the people then will demand an adequate appropriation from the Legislature.

"It is our intention to publish and circulate rules for the checking of tuberculosis growth and to carry on a general crusade for the prevention of the propagation of tuberculosis. This will mean the saving of hundreds of lives each year, for

when people die from diseases resulting from tuberculosis, they die from negligence.'

"The records of the Health department show that 1,900 people die every year in Chicago from tuberculosis diseases. During last December, 358 people died from tuberculosis, and 282 indirectly from the same cause. One-sixth of all deaths in Chicago are caused by tuberculosis according to the records."

The American Electro-Therapeutic Association will hold its ninth annual meeting at Washington, D. C., September 19, 20, 21, 1899. The President, Dr. F. B. Bishop, appointed the following Committee of Arrangements:

Dr. D. Percy Hickling chairman; Jos. Taber Johnson, G. Lloyd Magruder, Z. T. Sowers, Robert Reyburn, G. Betton Massey, Chas. R. Luce, Elmer Sothoron, Llewellyn Eliot, Clifton Mayfield.

Willard's Hotel has been chosen for the headquarters and special rates have been made for all interested in this meeting.

Many able papers have been promised and a very successful scientific meeting is assured. There will be a large and varied exhibition of Electro-Therapeutic apparatus in Willard's Hall during the meeting of the Association. Willard's Hall is well adapted for this purpose, as it not only adjoins the headquarters, but communicates with it by a corridor, and there is also a large entrance directly from the street. The committee also promises a very pleasant social program, including a reception by the President of the United States, an excursion to Mount Vernon, Arlington and Alexandria—a buffet lunch to be served at Alexandria,—an evening visit to the Congressional Library to be viewed under electrical illumination. Provisions have also been made to visit the War, State and Navy Departments, the United States Treasury, and other public buildings.

It is earnestly hoped that every fellow, active, honorary and associate, will be present at this meeting as we want to make it rank among the notable meetings of the Association.

Very sincerely,

S. PERCY HICKLING.

✓ Editorials.

THE OPEN-AIR TREATMENT OF TUBERCULOSIS.

It is very satisfactory to learn from many sources that the open-air treatment of patients suffering from tuberculosis has already produced remarkably good results, even in climates which had previously been supposed to be unsuitable for consumptives. In the *Practitioner* for June we find interesting reports from a number of physicians. All are agreed that these patients can best be treated in properly conducted sanatoria. Mr. Morris, in his editorial comments, speaks of Dr. Philip, of Edinburgh, as the pioneer of this method in Great Britain. "He has had to work in the most villainous climate in the kingdom. Edinburgh is a test case, yet there, Dr. Philip keeps his patients exposed to the open air during seasons of the year which are trying to persons in vigorous health." He considers that "consumptive patients can be out of doors during the larger portion of daylight, even when actual sunshine is small in amount."

Dr. Calwell, of Belfast, speaks in a very encouraging way of his results in that city, although he considers that there are few places worse situated for the treatment of phthisis than Belfast, on account of the smoke-laden atmosphere, overcrowding, and unhealthy occupations of many of its inhabitants. Yet his results during the past year have been so good that he believes that open-air treatment "is somewhat the same as that of administering iron in anemia, or mercury or iodide of potassium in syphilis." Dr. Barton-Fanning also publishes a paper, in which he speaks of good results in his practice on the Norfolk coast, during the last four years. He thinks that tuberculous peritonitis and lupus may be cured by this method. Dr. Rowland Thurnam, of Mendip Hills, England, tells of the good work accomplished by himself and his colleague, Dr. Gwynn, both of whom have recovered from phthisis after being treated by Dr. Walther, at the Nordrach Sanatorium in Black Forest. We may say to those who are taking special interest in this subject that all the papers referred to, which appear in the June num-

ber of the *Practitioner*, are not only exceedingly interesting but also give a vast amount of information as to details of treatment.

THE MEETING OF THE ONTARIO MEDICAL COUNCIL.

The recent meeting of the Medical Council was in a general way very satisfactory. Many of the discussions were slightly *heated*; but as a rule they were not so acrimonious as those of the last three years. The first important business was the election of a President. For this office there was a close contest between Dr. Roome, of London, and Dr. Henry, of Orangeville, the former being elected by a majority of one. Dr. Britton was elected Vice-President without opposition; and Drs. Pyne and Wilberforce Aikins were re-elected Registrar and Treasurer, respectively. The former Discipline Committee was re-elected as follows: Dr. Bray, Chatham; Dr. Moore, Brockville; and Dr. C. T. Campbell, London.

The question of the annual membership fee elicited a somewhat lengthy discussion, but finally the by-law was passed, fixing the fee as before at two dollars.

The committee appointed to deal with infractions of the Medical Act, presented their report, which, in part, said:—“Some 65 cases were prosecuted and investigated, resulting in 17 convictions. Seven left the country, 8 paid their fines, 4 were sent to gaol. Many unregistered practitioners were reported from different localities, many of these being found to be students under the fifth year curriculum, who in some instances appeared to be regularly practising. This fact continues to be a source of irritation to members of the college throughout the country.”

A great many important subjects were discussed at the meetings of the Education Committee, but no very important change was made, excepting that which governs the numbers of didactic lectures. For the last few years each winter course included not less than fifty lectures in each subject, and each half course included not less than twenty-five. According to the new regulation, eighty and forty, respectively, will be required.

We must confess to a little surprise at this change. The tendency of the day in all modern educational institutions is to diminish the purely didactic lecturing and increase practical bedside and laboratory instruction. Considering the fact that this whole question was well threshed out in the Council a few years ago, when the curriculum in this respect was amended so as to suit modern ideas, it seems strange now to see this same body commencing to drift back to ancient methods. Many new examiners were appointed as will be seen by the list which appears in another column. We think that the new board will be found quite satisfactory.

A lengthy report on inter-provincial registration was presented by Dr. Williams, the chairman of the committee, and the recommendations were adopted. The meeting appointed a committee to consult with the Executive Committee of the Canadian Medical Association at the coming meeting.

THE CANADIAN MEDICAL ASSOCIATION.

We publish in this issue a provisional list of the papers promised for the coming meeting of the Canadian Medical Association, which will be held in Toronto, August 30th, 31st, and September 1st. As this list only contains the papers promised up to July 28th, we have every reason to believe that several other papers will be forthcoming. We are informed by the secretary that there is every likelihood that there will be a decided plethora of papers. However, it is always better to have too many than too few. Taking it altogether, we must say that we have not seen a better early provisional programme for many years.

We are glad to be able to state that the Committee of Arrangements, under the chairmanship of Dr. Arthur Jukes Johnson, has done remarkably good work. Several meetings have been held, and we have every reason to believe that an exceptionally good programme for the entertainment of guests and visiting members will be provided. We understand that the Toronto city council and the directorate of the Toronto Industrial Exhibition are preparing to extend certain courtesies to the association.

TUBERCULOSIS IN CATTLE.—The extent to which disease may exist in cattle without endangering the health of human beings, and the value of tuberculin in determining and measuring the existence and amount of tubercle are questions which are now being debated. A short time ago an article appeared from a reputable medical source, calling for caution in the destruction of property, and mentioning an instance in which, after an animal had been slaughtered, just one gland was found diseased. We will not stop now to discuss the two cognate questions, but we consider them of such great practical importance from a sanitary and economic standpoint, that we invite discussion of them in our columns, and this importance is our reason for publishing *in extenso*, in our Hygienic department, a somewhat lengthy article from one of last month's issues of the *Chicago Tribune*.

PROGRAMME CANADIAN MEDICAL ASSOCIATION.

The thirty-second annual meeting of the Canadian Medical Association will be held at Toronto on Wednesday, Thursday and Friday, the 30th, 31st inst., and September 1st, next.

Through the kindness of the Honorable the Minister of Education for Ontario, the building of the Education Department has been placed at the disposal of the Association, and in it the meeting will be held. This building is most centrally situated, as the Church Street cars pass the building, and the Yonge Street line is but one block away.

The programme will be of exceptional interest, and the very important subject of Inter-Provincial Registration will receive full discussion at this meeting.

A number of entertainments have been provided for, including a Reception and Musicales for members and their friends on the first evening; a Lunch at Exhibition Park; an Afternoon Tea at the Royal Canadian Yacht Club on the Island; a Smoking Concert, and other entertainments.

There will be an exhibition of instruments, drugs and physicians' supplies in connection with the meeting.

The Committee of Arrangements is making every possible effort to insure a successful meeting, and trusts that there will be a very large attendance. As the meeting is held during the first week of the Industrial Exposition, railway tickets to Toronto and return may be obtained for a single fare. We earnestly urge upon the members of the profession, to a man,

to turn out to this meeting and make the thirty-second annual gathering by a long way the biggest on record.

PROGRAMME.

The President's Address will be delivered on the afternoon or evening of the first day.

The address in Surgery will be given by W. B. Coley, of New York.

The address in Medicine by J. T. Fotheringham, of Toronto.

In the Skin Clinic, G. Chambers, A. McPhedran, of Toronto, A. R. Robinson, of New York, and others will take part.

The following is a partial list of the papers to be read :

"The best method of dealing with the consumptive poor." E. J. Barrick, Toronto.

"Floating kidney simulating disease of the ovaries and tubes." A. Laphorn Smith, Montreal.

"Observations on adenoids and enlarged tonsils and their removal, with notes of eighty cases in private and hospital practice." D. J. Gibb Wishart, Toronto.

"The methods and ultimate results of operations for halux valgus." N. A. Powell, Toronto.

"Report of a case of abdominal pregnancy." H. Meek, London.

"An experience in formaldehyde disinfection." F. Montzambert, Ottawa.

"An inquiry into the etiology of chronic Bright's disease." A. G. Nicholls, Montreal.

"Operations for extra-uterine gestation." H. H. Chown, Winnipeg.

"Tuberculosis in cattle and its prevention." J. George Adami, Montreal.

"The hospital room in each dwelling." W. J. Telfer, Montreal.

"The treatment of spina bifida." Geo. A. Bingham, Toronto.

"Complications and treatment of fractures of the skull." J. M. Elder, Montreal.

"Recurrent paralysis of the third nerve (Charcot's ophthalmoplegic migraine)." J. W. Sterling, Montreal.

"Tuberculosis and insurance." J. Hunter, Toronto.

"(a) Typhoid infection without intestinal lesion ; (b) Gastroptosis." A. McPhedran, Toronto.

"Some observations on the treatment of cancer." A. R. Robinson, New York.

"Gall-bladder surgery." J. F. W. Ross, Toronto.

"Typhoid epidemics I have met." Wyatt Johnston, Montreal.

"The treatment of cataract." R. A. Reeve, Toronto.

"Christian Science." J. H. Richardson, Toronto.

"Anesthesia by chloroform and ether." Wm. B. Jones, Rochester.

"Treatment of the acute digestive disorders of infancy." A. R. Gordon, Toronto.

"Rhinoliths." Hubert D. Hamilton, Montreal.

"Observations on the relations of the thyroid gland to the uterus." C. R. Dickson, Toronto.

"The question of operation on thyroid tumors." Geo. A. Peters, Toronto.

"A case of malignant disease of the gall-bladder, simulating hydro-nephrosis (feeding through the gall-bladder for three days)." F. N. G. Starr, Toronto.

"Nephro-lithotomy." B. L. Riordan, Toronto.

"The mastoid operation in chronic middle ear disease." J. M. MacCallum, Toronto.

"Ringworm in Toronto." Graham Chambers, Toronto.

- "The Great Lakes as a health resort." E. H. Adams, Toronto.
 "A case of subcutaneous emphysema." Frederick Fenton, Toronto.
 "An original method for the direct estimation of proteid digestion in the stomach." A. L. Benedict, Buffalo.
 "Cranicectomy for microcephalus with patient." W. J. Wilson, Toronto.
 "Curettag, its use and abuse." R. Ferguson, London.
 "Notes on a case of Jacksonian epilepsy with operation." D. Campbell Meyers, Toronto.
 "Massage and the relief of eye-strain in the treatment of glaucoma." G. M. Gould, Philadelphia.
 "Extreme emaciation in hysteria, with notes of a case." T. Beath, Winnipeg.
 "Hydro-therapeutics in the treatment of disease in children." A. D. Blackader, Montreal.
 "The results already achieved at the Gravenhurst Sanitarium." J. H. Elliott, Gravenhurst.

Papers have also been promised by A. L. Benedict, Buffalo, G. H. Burnham, A. B. MacCallum and J. J. Mackenzie, of Toronto, and a number of others.

During the meeting, T. G. Roddick, of Montreal, will address the Association on the subject of "Dominion Registration."

The Pathological Museum, in charge of a committee with A. Primrose as chairman, will add much to the interest of the meeting. A great many specimens have been promised, among which are the following:

- Lower half of rectum removed for cancer. A. L. Smith, Montreal.
 Ectopic pregnancy. H. Meek, London.
 Extra-uterine gestation, and others. H. H. Chown, Winnipeg.
 Rarer forms of aneurism. Hearts. Calculi. Disease and fractures of bone, and others. J. Geo. Adami, Montreal.
 Cast of hand from a case of acromegaly. J. M. MacCallum, Toronto.
 Congenital atresia of small intestine. W. B. Jones, Rochester.
Eustrongylus gigas in kidney of mink. Formaldehyde preparations.
 Dry anatomical preparations. F. N. G. Starr, Toronto.
 Obstruction of colon by large gall-stone. Superfetation, abortion at 4th month, 2 sacs 4 months and 6 weeks. Elevated fracture of skull. Heart and aorta. Fusiform dilatation of latter due to syphilitic endarteritis. Carcinoma of prostate with terminal suppurative cystitis. Columnar-celled carcinoma of stomach. Diffuse infiltration from cardiac to pyloric orifices. Solid ovarian tumor (Filseo-Myo-Sarcoma) twelve pounds, etc. W. T. Connell, Kingston.

Lung—Chronic tuberculosis, Acute miliary, Tubercular broncho-pneumonia, etc. *Female Generative Organs*—Adhesions of pelvic organs, Pyosalpinx, Cysts, Tumors, etc. *Bladder Urinary*—Prostatic changes, Sacculation, Calculi, etc. *Bladder Biliary*—Hydrops, Calculi, etc. *Kidney*—Cirrhotic changes, Cysts, Tumors, Hydronephrosis and Pyonephrosis, Calculi, Tuberculosis, Anomalies and faults. *Esophagus*—Stricture, New growths. *Stomach*—Ulcer simple, Carcinoma. *Intestine*—Adeno-carcinoma, Colitis, Enteritis chronic, Typhoid changes, Tubercular ulcerations. *Appendices: Heart*—Anomalies and developmental faults, Pericarditis, Myocarditis, Myomalachia cordis, Endocarditis, Chronic valvular disease, New growths, Dilatation and hypertrophy without valve lesion. *Blood Vessels*—Atheroma, Aneurisms, Ectases, Varicose veins. *Liver*—Abscess, Cirrhotic changes, Venous congestion, Amyloid, Syphilis, New growths. W. Goldie, Toronto.

Correspondence.

LETTER FROM LONDON.

To the Editor of CANADIAN PRACTITIONER AND REVIEW :

DEAR SIR,—Every medical man, in coming to London, has some special object or study in view, to which he devotes the greater part of his time. Outside of this special object, however, he has a certain amount of time at his disposal, in which he may visit general hospitals, medical institutions of various kinds, or attend the meetings of medical societies. The difficulty is to make a selection among those various ways of spending his time—so many attractions offering on every hand.

One of the most recently organized of the institutions which are of interest is the Polyclinic. This really is a post graduate school. London has been strangely backward in having a really first-class, up-to-date post graduate school or course. Now, however, the want is supplied by the Polyclinic. Short practical courses on various subjects, eye, ear, skin diseases, nervous diseases, etc., etc., are given. Clinics are given in the afternoons by some of the best clinicians in London, among whom may be mentioned Jonathan Hutchinson. A great number of Canadians will remember the clinics which Mr. Hutchinson gave every week at his own residence, and to which every doctor was welcome. But Mr. Hutchinson gives no clinics at his residence now, having transferred to the Polyclinic.

Turning to another subject, the various annual lectures, such as the Hunterian and Croonian, are now being given before the medical societies.

The West London Medico-Chirurgical Society was fortunate enough to have Dr. Osler, of Baltimore, as their Cavendish lecturer this year. The lecture was delivered last evening before a crowded meeting of the society. Dr. Osler's fame had preceded him, not only as an original worker in the domain of medicine, but as the author of his work on the practice of medicine—a book that is largely used in the colleges here. The subject of the lecture (a copy of which has been promised by Dr. Osler, and which will be forwarded to the PRACTITIONER as soon as received) was "Cerebro-Spinal Fever"—being an account of an epidemic of this fatal affection, which occurred recently in Baltimore. The lantern was made use of to show temperature charts, and various matters of interest in connection with the disease—the lecture and demonstration being received with marked favor by the society.

In proposing a vote of thanks, Dr. Ball felicitously remarked that he understood that Dr. Osier had been born in Canada—and was still a Canadian—and that they could welcome him as a representative of Canadian and Colonial medicine, as well as the representative of American medicine.

In the delightful conversazione which followed I had the pleasure of meeting a number of Canadians—among whom may be mentioned Dr. Anderson of Trinity College, Rudolf of Toronto University, Turnbull of Clinton, Middleboro of Owen Sound. But the fact is that one is constantly meeting Canadian doctors—they are very much in evidence in London at present—and it is a foregone conclusion that Canada will be well represented at the meeting of the British Medical Association, so soon to be held at Portsmouth.

London, June 17, 1899.

J. T. DUNCAN.

ROYAL LONDON OPHTHALMIC HOSPITAL.

This, the largest Eye Hospital in the world, and also the oldest, has interest for many Canadian medical men, being visited by them in increasing numbers year by year.

It was established on its present site in 1804. This locality was known formerly as "Moorfields" hence the name which is so often applied to the Hospital, for it is better known to the public, and probably also to medical men, as "Moorfields Hospital," than by its proper name—"the Royal London Ophthalmic."

The building stands at the head of one of the busiest thoroughfares of London, viz., Liverpool street. Partly its location, but much more the character of the work done by the staff, has caused it to be crowded with patients almost from the day it opened its doors. The building was enlarged from time to time, but as it is now impossible to enlarge it further, and as the numbers attending (about 400 per day) could not be properly attended to, it was found necessary to sell the property and obtain a site for a new building. The property (about 120 feet frontage facing Liverpool street) was sold for about four hundred thousand dollars, and a new site obtained about half a mile distant. This site is on City Road, and is about three-quarters of an acre in extent, and upon this have been erected the fine new buildings which were formally opened the other day by the Duke and Duchess of York. The ceremony was an interesting one, but it will be of more interest to give some account of this "up-to-date" hospital than to describe the ceremony.

Partly from personal inspections, and partly from the reports in the medical press, I give the following particulars. The buildings face on three streets. The out patients enter from

Peerless street and pass to a large waiting hall, where they take their places before the surgeons of the day. Three surgeons and three assistants attend every weekday morning, making six who thus see patients. Opening from the consulting room are the refraction and minor operation rooms, and also the large dark room, which has compartments for eighteen patients. Near the dark room is the room for X-ray work, while the dispensary and spectacle rooms are near the exit.

The operating theatre is upstairs, and may be reached by an elevator. In the theatre (and the same is true to a great extent all through the building) great care has been taken to avoid the accumulation of dust, corners and nooks or ledges being absent. The doors consist of plain slabs of wood without ornament. The walls and ceiling are lined with opalite—an opaque tinted glass tile. The blackboard for demonstration purposes is made of ground glass, and is set in flush with the level of the wall. This to avoid any ledge for dust, and for the same reason the mirror is inserted into the wall in like manner. The constant and interrupted current are both supplied, the first being especially for the Haab's magnet, which is of large size.

The wards are models—light, airy, and with the best arrangements for ventilation. The children's wards are excellently arranged. The day rooms open out on balconies so that patients may have the benefit of sunshine (when the sun condescends to shine) and the most modern plumbing and sanitary arrangements are found throughout the building.

In regard to cost, the sale of the old property has provided the new site and hospital building, so that they are free from debt. A sum of \$155,000 is required per annum for maintenance, which sum is provided by voluntary contributions from those interested in the hospital.

July 9, 1899.

J. T. DUNCAN.

Personals.

Dr. Abbott, of Baltimore, spent a few days in Toronto in July.

Dr. J. B. Fraser, Queen Street East, Toronto, is at present in California.

Dr. R. A. Reeve, of Toronto, left for Europe about the middle of July.

Dr. W. B. Geikie, of Toronto, left for a holiday of a few weeks. After his return to the city he will devote himself entirely to consultation practice.

GENERAL HOSPITAL STAFF.—The following graduates in medicine were appointed by the trustees of Toronto General Hospital as house surgeons for 1899-1900: Dr. G. W. Alexander, Carlton; Dr. M. B. Dean, Brighton, Dr. E. Baker, Simcoe; Dr. F. Turnbull, Milverton; Dr. Colin Campbell, Toronto; Dr. H. W. Spence, Toronto; Dr. G. A. Schmidt, Stratford; Dr. A. D. Stewart, Toronto; Dr. C. A. Page, Toronto; Dr. A. A. Shepard, Toronto. Drs. J. A. Roberts and R. S. Broad were appointed as alternates should any of the above gentlemen be unable to accept.

COUNCIL EXAMINERS.—The following Board of Examiners was appointed at the recent meeting of the Ontario Medical Council: Dr. H. B. Anderson, Toronto, anatomy descriptive; Dr. D. E. Mundell, Kingston, theory and practice of medicine; Dr. H. Howitt, Guelph, midwifery and kindred subjects; Dr. Primrose, Toronto, physiology and histology; Dr. J. W. Edgar, Hamilton, surgery; Dr. William Gunn, Clinton, medical and surgical anatomy; Dr. Graham Chambers, Toronto, chemistry and toxicology; Dr. Schooley, Welland, materia medica and pharmacy; Dr. J. H. McLellan, Hamilton, medical jurisprudence; a doctor from Western hospital to be appointed assistant in surgery and diseases of women; Dr. J. Third, Kingston, first assistant in medicine; Dr. G. H. Fields, Cobourg, second assistant in medicine; Dr. E. F. Adams, Toronto, Homeopathy.

Aug. 1899

✓ Obituary.

JAMES ELLIOT GRAHAM, M. D., M. R. C. P. LOND.

Dr. Graham was born in the County of Peel, Ontario, in May, 1847. He was a son of Mr. Joseph Graham, of Brampton, who died last March at the ripe age of ninety-two. He received his preliminary education at Weston Grammar School and Upper Canada College. He early showed that he possessed a combination of those qualities which made him a distinguished man in later years. He received his undergraduate medical education in the Toronto School of Medicine, and at the same time passed the annual examinations in the University of Toronto—always with high honors. At the final examination in 1869 he was awarded the University gold medal, and also the Starr gold medal. In the following year he was appointed a resident physician of the Brooklyn City Hospital. After he had spent a short time in this hospital, he was appointed a Surgeon without rank in the Prussian army, which position he held during the Franco-Prussian war. He then engaged in post-graduate work in Vienna, after which he went to London, where he soon obtained the diploma of L. R. C. P., Lond.

He commenced regular practice in Toronto in 1872, and was at once recognized as a bright, active and capable physician. He soon acquired a large practice, and also a good reputation among his fellow practitioners. He was married July 15th, 1873, to Miss Mary Jane Aikins, second daughter of the Hon. J. C. Aikins. In 1875 he became a member of the visiting staff of the Toronto General Hospital, which position he held up to the time of his death. He also held other positions in connection with hospitals and various charitable institutions in Toronto, but apart from his private practice, did most of his work, clinical and otherwise, in the General Hospital. He first practised for about five years on Yonge street, after which he removed to the corner of Church and Gerrard streets, where he remained until the year 1896, when he removed to his late residence, 134 Bloor Street East.

After he had been in Toronto about three years, he was attached to the staff of the Toronto School of Medicine, where he did work as demonstrator of anatomy and demonstrator of microscopy. He was for two years lecturer in chemistry, but gave up that position because he preferred to devote himself especially to clinical teaching in the General Hospital. At the reorganization of the Medical Faculty of the University of Toronto, in 1887, he was appointed Professor of Clinical Medicine and



JAMES ELLIOTT GRAHAM, M.D., M R.C.P. LOND.

Medical Pathology, and Lecturer on Dermatology. In 1892, after the resignation of Dr. Henry H. Wright, he was appointed Professor of Medicine and Clinical Medicine. He was an active member of many medical societies, and was a Past-President of the Toronto Medical Society, the Toronto Pathological Society, the Canadian Medical Association, the American Dermatological Association, and some others. He was one of the original founders of the Association of American Physicians. He was also the founder of the Ontario Literary Association, of which he was for some years President. In 1893 he became a member of the Royal College of Physicians, London.

His health had not been good for some time. About fifteen years ago he developed symptoms of glycosuria, which fact was only known to his intimate friends for many years. Although by the exercise of great care, he continued in fairly good health notwithstanding this disability, he and his friends were at last forced to accept the fact that he was suffering from a serious form of diabetes. He went south in February last, and we all hoped that a residence for a few months in a warmer climate than ours would give him a chance to recuperate. Unfortunately he had an attack of lagrippe in Baltimore, resulting in a broncho-pneumonia which left a slight permanent lesion in his lungs. The diabetes, after this, became worse in all respects, and he lost strength rapidly. Kind friends, including Osler, Barker, Fletcher, McCrae and others, did all in their power to relieve his suffering, but were unable to bring back to him health and strength.

He returned with Mrs. Graham to his home in Toronto, in the latter part of April, and for a time appeared to be gaining in some respects. He was cheerful and glad to be at home. He looked forward with pleasure to his expected trip to Muskoka, where he hoped to spend the summer. His friends were hopeful as they saw the slight signs of improvement, especially as Muskoka had always agreed with him in the past. He had himself fully decided, however, that he could never again, with safety, spend a winter in Canada. He and Mrs. Graham went to Gravenhurst, Muskoka, May 25th, and remained in the Sanitarium of that town. At first we heard rather favorable reports about indications of returning strength. He was able to take short trips on the water. Very soon, however, there came a report that he was growing weaker, but there was no indication of any sudden collapse, until the evening of July 6th, when he seemed weak, but was in full possession of his mental faculties. During the night he grew worse, and suddenly lapsed into diabetic coma on Friday morning about five o'clock. He never recovered consciousness, but continued to sink until 5 o'clock in the afternoon, when he died.

It is a simple matter to give a brief history of Dr. Graham's career, but a very difficult task to write an ordinary obituary notice that will do justice to the character of the man, and at the same time give anything like a proper review of the great and good work he accomplished during his life. Fortunately, the profession of Canada, as well as the general public, fully recognized his admirable qualities of mind and heart, and showed their appreciation during his life. From a purely medical standpoint, however, I have to note that his reputation spread far beyond the confines of our Dominion. He was almost as well known to the leading medical lights of the larger cities of the United States as he was to his friends in Canada.

It was my privilege to know James E. Graham, both as a boy and a man. As a boy, he was bright, studious and clever—to such an extent that his friends expected much from him. As a man, he improved and developed in many ways—to such an extent that he more than realized all previous expectations as to his success in life. My more intimate acquaintance with him extended over a period of about twenty-one years. If asked by the graduates of to-day to tell the secret of his success, I must say that I would have nothing striking or novel to relate. I would answer in a general way that strict integrity, unvarying industry, steadfastness of purpose, good judgment, uniform courtesy and kindness of manner, and charity towards all men were the qualities in him that made him great.

When he commenced practice in Toronto in 1872, he had fortified himself by having obtained a good knowledge of his profession by four years of undergraduate work, and three years of post-graduate experience. An old and common expression suits his case exactly: He always thought that a thing that was worth doing at all, was worth doing well. He neglected nothing in the way of the smallest detail in his treatment of any patient, were he rich or poor. He studied each case as carefully as if he had never heard of such a case before. He was in every case patient, kind, thoughtful and attentive.

Soon after he commenced practice, he began to pay special attention to certain branches of his profession—pure medicine and dermatology. He always endeavored to keep abreast of the times, and early formed the habit of going frequently to large medical centres in the United States and Europe to gain more knowledge. He investigated his cases thoroughly, wrote histories of them, and frequently published the results. He wrote much for medical societies and medical journals. He refused to take any active part in politics or anything else that was not directly connected with his profession. After he gave two courses in chemistry, he refused to do any more work of that kind, because he desired to confine himself strictly to medi-

cine, both in his teaching and practice. He was one of the first, if not the first, that gave systematic bedside instruction in the General Hospital. In that class of work he was closely associated with Dr. Fred Grasett for several years; and I believe I am correct in saying that these two were the pioneers in practical clinical medical teaching in this province.

Soon after he commenced to pay special attention to medicine, he gave up the practice of surgery and obstetrics, and refused to treat any other than purely medical cases; but notwithstanding this decision, or perhaps partly on account of it, his work increased to such an extent that he found it difficult or impossible to do it all without some help from other practitioners. For some time he gave much overflow work into the hands of his friends.

Dr. Graham was one of the most active workers in the reorganization of the medical Faculty of the University of Toronto in 1887, and took the deepest interest in the success of that Faculty as long as he lived. During the unholy faction fight of 1892, he very seriously deplored the methods employed by certain individuals, and felt very acutely the injustice of the attacks made upon himself and others. His conduct, however, was admirable throughout the whole controversy; and he never did, nor would he ever, countenance any act that was not strictly fair, honorable and just. He never knew how to do anything that was in the slightest degree treacherous or dishonorable towards any colleague, whether friend or foe. While I have to regret that, for a period of something like two years or more, he suffered in connection with this unfortunate conflict, I have to rejoice that he never in the slightest extent lost prestige, but rather gained strength—to such an extent that he became the strongest medical man in University circles, especially in the Senate and with the medical electorate. His position among his fellow-graduates was clearly indicated in the elections to the Senate, when he was elected at the head of the contest without the slightest effort on his own part.

It is only stating a small portion of the truth, however, to say that he was highly esteemed by his fellow-graduates. He was also highly respected by the graduates of other universities, and especially those of the University of Trinity College. I was often surprised to find that such a large number of Trinity's graduates had such thorough confidence in his ability as a diagnostician and therapist. At the time of his death he certainly occupied a remarkable position. He was generally recognized as the first physician in the Province of Ontario; and I think it would be quite safe to add that he was the most prominent physician in the Dominion of Canada.

The news of his death was a severe shock to his friends and

produced a profound sensation. Even those who held the most gloomy views respecting his condition had no idea that his end was so near. His many friends feel that through his death they suffered an irreparable loss. Such is the general opinion, both in a private and public way. While we have lost a friend, Canada has lost one of her brightest lights.

Dr. Graham was particularly fortunate in his domestic relations. His was ever a happy household until that dark day, the seventh of July, came. Deep grief is there now. We cannot properly share their sorrow, but we can at least mourn with them. Mrs. Graham, three daughters and one son survive. The latter, Mr. Joe Graham, has just completed his first year in medicine. He will continue his course in medicine, and the family will remain in Toronto for the present at least. The medical profession of Canada sympathizes with Mrs. Graham and her dear children in their sad bereavement.

LAWSON TAIT, F.R.C.S., ENG. AND EDIN.

Mr. Lawson Tait was one of the most remarkable men that our profession has produced. He was possessed of a singular individuality, a gigantic intellect, wondrous energy, indomitable pluck, aggressive pugnacity, and great skill as an operating surgeon. When I was in England in 1876 and 1877 I heard much about "that fellow, Tait of Birmingham." I found but few in London who had a good word to say about him. It was generally admitted, however, that he was an able surgeon, and universally acknowledged that he was the greatest fighter in the United Kingdom. I did not know his age then, and it was difficult for me to realize in later years that this man, who had at that time such a great reputation, was only thirty-two years old. He had, however, done a vast deal of abdominal surgery during the previous ten years, and had taken good care to let the world know what he was doing. He worked, and talked, and wrote after the manner of a physical and mental giant. He performed his first ovariectomy in 1868 when he was twenty-three years of age.

I first met Mr. Tait in Montréal, in 1884, at the meeting of the Canadian Medical Association, where he delivered an address, and was the lion of the hour. I was surprised to find then that his age was only thirty-nine years. I well remember him as he first appeared on the platform. The following sentence, from the obituary notice in *The British Medical Journal*, June 24th, coincides with the impression I then received: "To see him once was to remember always his short burly figure, his leonine head, his determined mouth, and his masterful ex-

pression." In his address on "Abdominal Surgery" he referred particularly to the extreme conservatism of the British people generally, and of British surgeons especially. He gave due credit to the work of John Lizars, Charles Clay, Baker Brown, Keith, Bantock, and others; but he waxed furious in all his references to Sir Spencer Wells. His remarks on ovariectomy, hysterectomy, and removal of the uterine appendages were well received, but his views respecting operation for purely subjective symptoms were adversely criticised. Sir William Hingston declared in the discussion that followed that he considered it highly dangerous to take some of Mr. Tait's rules for their guidance in cases where subjective symptoms only were present. He also took exception to his criticism on Sir Spencer Wells. Mr. Tait was slightly ruffled by Dr. Hingston's plain talk, and referred at the banquet, over which the latter presided, to two or three tilts which had occurred between them during the various discussions of the meeting; but he said that after these they were better friends than before, and then paid Sir William the compliment of saying that he, while speaking, reminded him of England's silver-tongued Paget.

Mr. Tait must have been an enormous worker for many years. I was much surprised to hear him say in his Montreal address that previous to that trip he had not taken a holiday for seven years. His teachings in abdominal surgery greatly influenced operators in all parts of the world—generally, but not always, for good. The most unfortunate result was that serious epidemic of oöphorectomy fever which spread especially throughout the United States and certain parts of Canada. That was partly due to the wondrous zeal and poor judgment of a large number of Mr. Tait's enthusiastic disciples, who went far beyond their master's teachings.

The following summary of Mr. Tait's surgical achievements, given by Mr. Christopher Martin in *The British Medical Journal*, will be found interesting:

1. "He reduced the mortality of ovariectomy almost to the vanishing point.
2. "He introduced numerous new operations, such as removal of the uterine appendages for myoma and for tubal disease, removal of a ruptured tubal pregnancy, drainage of a pelvic abscess by abdominal section, cholecystectomy, hepatotomy, and the flap-splitting method of repairing the perineum.
3. "He introduced the plan of cleansing the peritoneum by flushing it with hot water, and of treating peritonitis consecutive abdominal section with purgatives instead of opium.
4. "He demonstrated to the profession most of what is known of the pathology of tubal inflammation and of ectopic gestation.
5. "He invented many new, and perfected and simplified

many old, surgical instruments. As examples I may mention his hysterectomy clamp, his ovariectomy trocar, his pressure forceps, his myoma screw, his gallstone forceps, his uterine dilators, his repositors for reducing inversion by the uterus, his glass drainage tube and sucker."

While Mr. Tait had many enemies, he also had a vast number of friends who fully appreciated the many admirable traits in his character. We quote as follows from the obituary notice before referred to: "No one could meet him without feeling the influence of his strong individuality, the vigor of his thought, and the originality and freshness of his views. He took part in many fierce controversies, both in the medical and lay press. He was a born fighter, he revelled in the joy of conflict, and would fling himself with all the ardor of his pugnacious nature into the arena of debate. And when he hit he hit hard. Yet under this rugged exterior and brusqueness of manner, his friends recognized a large-hearted kindness. He was passionately fond of animals, and was exceedingly kind to the poor and afflicted; scores of poor women were admitted into and operated on in his private hospital absolutely free of charge."

There is something very sad about the history of the last few years of his life. In 1892 he suffered seriously from financial embarrassment. At the same time his health became impaired, and he soon showed symptoms of chronic nephritis, which finally caused his death. He was compelled to close his private hospital, to sell his collection of art treasures, and various residences which he possessed, and to retire to a large extent from practice. His friends noticed with sorrow that his disposition had changed, and that he became very irritable. Early in 1898 he removed to Llandudno, and went once a week to Birmingham to see patients in his rooms and do an occasional operation. He became suddenly seriously ill, June 3rd; uremic symptoms appeared, and he died June 13th, 1899, aged 54.

ROBERT BURNS POTTS, B.A., M.B.

Dr. Potts was a graduate in Arts and medicine of the University of Toronto; B.A., 1888; M.B., 1891. After graduating he commenced practice in Toronto, but a few years ago he removed to Hamilton, where he remained until the time of his death, which occurred July 11th. The remains were brought to Toronto, and buried in Mount Pleasant, July 14th. His age was only thirty-two.

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Book Reviews.

The Anatomy of the Central Nervous System of Man and of the Vertebrates in General. By PROF. LUDWIG EDINGER, Frankfort-on-the-Main. Translated from the fifth German edition, by Arnfield S. Hall, Ph.D., M.D., Professor of Physiology in the Northwestern University Medical School, Chicago. Assisted by Philo Leon Holland, M.D., Neurologist Medical School, and Edward P. Carlton, M.D., Demonstrator of Neurology, Medical School Northwestern University, Chicago. Illustrated with 258 Engravings. Philadelphia, New York and Chicago: The F. A. Davis Company, Publishers, 1899.

When a strictly scientific work passes through five editions in a comparatively few years, there is good reason for supposing that it is one of merit. This can be said in the fullest sense of the word with regard to the present volume.

It is a matter of much regret that more attention is not paid to the anatomy and physiology of the nervous system by the general practitioner. A clear knowledge of these subjects is of the utmost importance in the making of correct diagnoses of many obscure cases. A work like this of Prof. Edinger meets every requirement in this regard.

The illustrations are well chosen and equally well executed, leaving little to be desired in the art part of the work. The type and paper are also good.

We can heartily recommend the work to all who wish to make themselves familiar with the intricacies of the central nervous system.

A Manual of Organic Materia Medica, being a Guide to Materia Medica of the Vegetable and Animal Kingdoms, for the use of Students, Druggists, Pharmacists and Physicians. By JOHN M. MAISCH, Ph.M., Phar.D., late Professor of Materia Medica and Botany in the Philadelphia College of Pharmacy. Seventh edition, with 285 illustrations. Revised by Henry C. C. Maisch, Ph.G., Ph.D., Professor of Materia Medica and Botany in the Medico-Chirurgical College of Philadelphia, Department of Pharmacy. Lee Brothers & Co., Philadelphia and New York. 1899.

This was an excellent work in its day, and has still many characters which should recommend it to students pursuing the study of materia medica. A perusal of the work at once convinces one that the late Professor Maisch must have expended



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a great amount of labor on its compilation. But unfortunately there does not appear to have been the same care exercised in its revision. We would suggest that at the next revision the revisor rearrange the whole work and make it in keeping with modern methods of teaching the subject. We would also suggest that more attention be devoted to remedies in every day use, and less to such ancient drugs as cockroaches, egg shells, oyster shells, bones, etc.

Sajous Annual and Analytical Cyclopedic of Practical Medicine. Subscription entire series only. Six volumes; one every six months. Cloth, \$5.00; half Russia, \$6.00. Monthly supplements sent free during the three years, Philadelphia: The F. A. Davis Company. Second volume, Dislocation—Infantile Myxœdema.

The third volume of this admirable series is to hand. We are more pleased with each volume. The quality of the articles and the completeness of references is if anything improving. There are three very interesting articles in this volume which will prove of great value in special cases: "Cretinism," by Prof. Wm. Osler and Dr. Norton, of Baltimore; "Goitre," by Prof. Adami, of Montreal; and "Exophthalmic Goitre," by Prof. Putnam, of Boston. While these articles are not of subjects commonly met with, one's ability to properly appreciate these cases when met with is much increased by a perusal of these very scientific articles.

An important article on a subject of the greatest practical value both to the patient and the physician is "Empyema," by Dr. J. McF. Gaston and Dr. J. McF. Gaston, Jr., of Atlanta. Drs. Gaston have paid very special attention to Empyema and its operative treatment. They have adopted a very radical procedure and the results have been admirable. The literature of the subject is finely reviewed and ably commented on. Dr. Stetnagon, of Philadelphia, has reviewed the subject of "Eczema," and has concisely put all the salient points of diagnosis and treatment. We do not think, however, that the article on "Formaldehyde" is by any means as complete as it should be. The subject warrants a very much more comprehensive reference than we find in this volume. We are pleased to note the attention paid to the therapeutic agents, Gelsemium, Cocaine, Exalgine, Hyoscine, etc. The article on Hypnotism is well worth perusal and thought. Dr. Reginald H. Sayre's article on "Hip Joint Disease" is very elaborate and complete. It is freely illustrated, and the experience of the present Sayre and his illustrious father are such that he speaks with authority based on practical experience. The volume is an acquisition.

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CHEMISTS.....

TORONTO, CANADA

Selections.

The Appearance of the Typhoid Bacillus in the Urine.

Schichhold (*Deutsch. Archiv. f. klin. Med.*) examined the urine of a number of typhoid patients, and in contradistinction to other investigators, who found typhoid bacilli in the urine when the kidneys were healthy, "recovered the organism only in those cases in which evidence of renal disease existed." They appeared shortly after the onset of the kidney trouble, and lasted well into the convalescence. They appeared to be highly virulent, so the disease may be transmitted through the urine. In such cases of 'nephro-typhoid,' the danger of infection, for the attendant, should not be underrated.

Physiological Effects of Castration in the Male and Female.

A great deal of speculation has found expression in contributions to the study of the physiological effects of castration in the male and female, but, in truth, it is fundamentally erroneous to treat the two operations as if they had anything in common. The ovary is not a gland like the testis, and it is hardly likely, therefore, that the former possesses any internal secretion akin to that which is held to be furnished by the testis. The loss of this internal secretion in the male is credited with the production of more or less marked depression, which not infrequently culminates in melancholia. In the female, on the other hand, the functions of the ovaries which call for removal have generally long since fallen into abeyance, so that the ablation of functionally inactive organs is not likely to entail any corresponding constitutional disturbance. With regard to the sexual appetite, its preservation or otherwise must greatly depend upon circumstances. The loss of the ovaries in an unmarried female usually leaves the sexual appetite undeveloped, whereas in a married woman the nervous system has received previous impressions which may keep awake and prolong the period of sexual activity. The same thing holds good in males. If the testicles are removed before puberty no sexual appetite is developed, but if what we may call the sexual habit has been formed the nervous system reacts to certain stimuli as a matter of routine, even though the original essential stimulus is wanting. After all, these are details of no practical importance, because the conditions which call for castration on the one hand and removal of the ovaries on the other are always such as to render the question of sexual appetite a point of more than secondary importance.—*Med. Press and Circular.*