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FEVER IN PUERPERIUM.

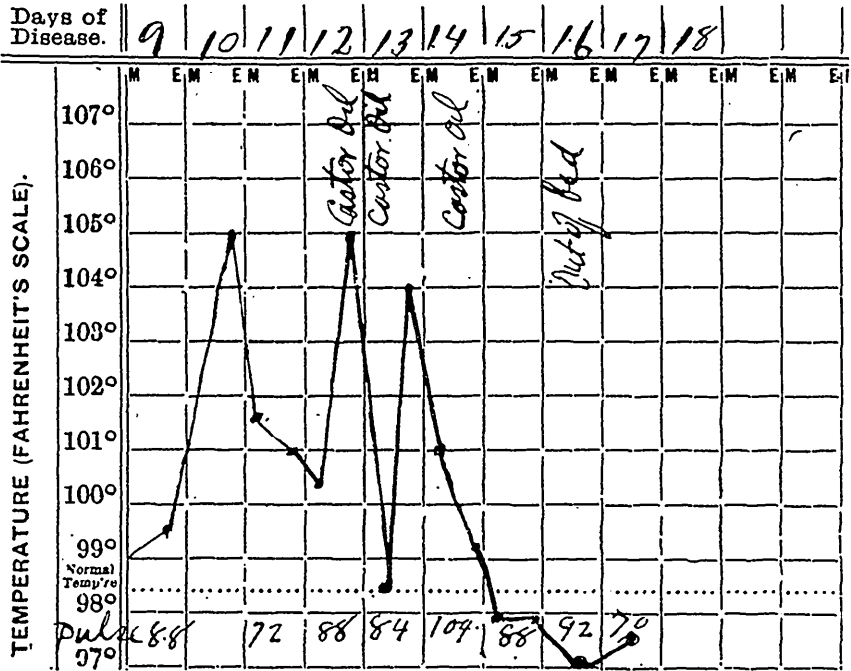
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POST equitem sedet atra cura." The physician carries many a care on his rounds, but none that is more wearing than the consciousness of a febrile puerperium in his practice. I have chosen a wider subject than puerperal sepsis, because, though much has been written on different causes of post-partum fever, sufficient attention has not been paid to the diagnosis of one from another. The first question that arises is not, "What is the best treatment for puerperal sepsis?" but, "Is this sepsis, and, if not, what is it?" I cannot pretend to offer a solution for all the knotty problems which arise in this connection, but hope that the readers of THE LANCET may find something of interest in these few observations.

When the temperature rises post-partum, endeavor to arrive at a diagnosis by a process of exclusion. What may the cause be? Let me give a list, placing the graver causes last: "Reaction," intestinal, bladder, emotion, nipples, breasts, intercurrent diseases, stitches, first getting up, post-eclamptic, crowded wards, sapræmia, septicaemia.

"*Reaction.*"—In a large percentage of cases there is a rise of temperature to 99 degrees or even to 100 degrees within the first 24 hours after labor. If the labor has been very severe, the "reaction" may be correspondingly severe, and the temperature may rise to 101 degrees or even more. The points about this are that it occurs within the first 24 hours, and is not prolonged beyond that period.

Intestinal.—The whole duty of the physician has not been performed when a laxative has been prescribed and the bowels have been moved two or three times. The bowels may be repeatedly moved and yet not emptied. I have on many occasions, when trouble had arisen, found masses in the colon either by percussion or palpation, upon the elimination of which the trouble abruptly ceased. The hepatic and splenic flexures of the colon on the usual sites at which such collections form. Let me cite a case.



On the 12th day a lump was felt in the ascending colon, & castor oil; on the 13th day lump moved to splenic flexure, & castor oil; on the 14th day lump moved to sigmoid flexure, & castor oil; on the 15th day lump gone. The rest of the puerperium was uneventful. Note the sudden disappearance of the temperature, coincident with the disappearance of the lump. This woman never felt very ill, and her pulse was not as rapid as one would have expected with the temperature.

The time and mode of onset of the fever may closely simulate septic fever. Distension of the abdomen frequently accompanies the formation of such masses. The uterus may be kept higher up than usual—apparently subinvolved. There is however this great distinction that the patient seldom looks or feels as ill as a septic patient. The best means of elimination that I have found is to give repeated doses of castor oil, coupled with high enemata.

Bladder.—Increased secretion of urine is the rule after labor. One of my patients passed 200 ozs. in 24 hours early in the puerperium, and I have several times had over 100 ozs. recorded. With the expulsion of the child the tension within the abdomen is suddenly lowered. These two

factors favor distension, and when once over-distension has occurred the expulsive power of the bladder is diminished; the expulsive power of the abdominal muscles also is lessened for a time by the stretching they have undergone. In view of all these facts, it is not surprising that over-distension of the bladder should frequently occur in the earlier part of the puerperium, and I believe it occurs much more frequently than is usually supposed. Do not be content with nurse's or patient's report that the urine has been passed. You may find on further enquiry that it is being passed "every hour or two," which of course means retention with overflow; or you may find that 8 or 10 ozs. have been passed at a time, but that twice as much more may be drawn off by catheter immediately afterwards. This "residual urine" soon becomes offensive in odour, and much pain and discomfort or even cystitis result. Examine the abdomen at each visit after labor. If you find the uterus high up and pushed over to one side, push it gently in to the middle line, sink your fingers behind the fundus and hold it forward against the abdominal wall. Then palpate with the other hand from fundus to symphysis. If the bladder be empty you can feel the uterus all the way down, but if it be distended you feel a body like a more or less distended water bag. If it is not too tightly distended you can feel the contracted uterus behind by "dipping" sharply into it with the fingers. In addition to pain and discomfort this distension of the bladder may give rise to fever.

Train your nurse to watch the abdomen and pass the catheter when distension occurs, no matter how soon after labor or how frequently, if the bladder can not be emptied by natural methods. When distension has occurred and the urine is offensive in odour a useful prescription is

Urotropin
Lithiæ Citratis, āā grs. x
Infusui Buchu ad ʒ ʒʒ.

Signa.—To be given in a glassful of water night and morning.

Emotional Fever.—The usual form is transitory. Any excitement may produce it. A visit from an irate parent; a disagreement with a nurse; fears about the infant, etc., etc. One of my patients had a rise of temperature to 104 degrees soon after hearing of a murder which had been committed in her neighborhood. Many cases of this kind have been recorded by various observers. Such a sudden rise may occur in a patient who had previously been doing quite well. This distinguishes it from sepsis, for sepsis never comes as a "bolt from the blue." There are always premonitory symptoms. It is less generally known that if the worry or fear or other cause remain the fever may be kept up for some time.

Nipples.—Nipples which are sore but not cracked may send up the temperature by reason of the pain and nervous excitement they produce. Wash them with boracic solution before and after nursing and anoint after nursing with a paste composed of equal parts of Bismuth Subnitrate and castor oil. Cracked nipples are a frequent source of high temperature. Apply a boracic poultice for 12 hours. Then dry out thoroughly with sterile absorbent. Then dip the flat end of a probe into pure carbolic acid. Shake till no drop hangs from the end, and then gently touch the whole surface of the crack. Repeat this every two days until the crack heals. It may be necessary to use a nipple shield for a day or two.

Breasts.—If an abscess forms in the breast it must be incised at once at the most dependent part and drained with iodoform gauze. A redness may come on the surface of the breast, without further local symptoms, when the trouble is really in the uterus. My attention was first drawn to this at Queen Charlotte's Hospital, and I have seen it frequently since.

Intercurrent Diseases.—One of the most frequent of these is influenza. There is usually a sudden high elevation of temperature and often a labial herpes.

Stitches.—When there are many stitches in the perineum the temperature may be of an up and down type until they are removed. It rarely rises above 100 degrees in the afternoon and is about 98 or 99 degrees in the morning. This may be due to absorption from the skin taking place about them, but I think it is often due to the irritation they produce, especially if they are drawn too tight. In a nervous patient the removal of the stitches may send the temperature up to 101 degrees or 102 degrees.

First Getting Up.—The first day that the patient gets up may be marked by a rise of temperature. I do not offer any explanation of this, though I have often seen it.

Post-eclamptic.—The temperature of patients who have had eclamptic convulsions sometimes remains elevated for days or even for weeks. I do not know why. Perhaps it is due to the continued presence of the poison which caused the convulsion. Perhaps it is that such patients suffer more readily than others from mild infection. Certain it is that a febrile puerperium is more frequent in them than in other patients. Two of my eclampsia patients developed signs of cavity formation in the lungs. House surgeons reported tubercle bacilli in the sputum. Yet when seen at a later date no signs of lung trouble were evident. The treatment is active elimination by calomel and salts.

Crowded Wards.—In the winter time when windows are necessarily shut if the wards of the hospital become crowded, temperatures are apt to go astray without any definite cause being assignable.

Sapraemia, Septicaemia, Gonorrhoea.—We have now to discuss sapraemia, septicaemia and that "tertium quid," gonorrhoea. Is it sapraemia, septicaemia or both? This is the point at which bacteriology should help us, but unfortunately the aid from this source is as yet but feeble. If we find gonococci in the lochia, we have information which may guide treatment to some extent. Streptococcus in pure culture in the lochia or in the blood confirms us in the use of anti-streptococcic serum. This is practically all.

In the *British Medical Journal* for March last, Mr. Arnold Lea of Manchester, says, amongst other things: "If the lochia contains streptococci a diagnosis of streptococcic infection may be made. We have, however, no means of estimating the gravity of the infection or the depth of the invasion. No fewer than nine varieties of streptococci have been isolated from the uterus; some of these are not pathogenic, and the recognition of the type present is difficult and cannot be relied upon clinically." I agree with all this except the first sentence. Like the small boy in the orchard, the presence of the streptococci in the lochia is suspicious, but after all they may be doing no harm. Again the same author says: "If anaerobic bacteria only are discovered the case is one of putrid endometritis. This is often associated with decomposition of clots, placenta or decidua, and these cases have been regarded as sapraemia or absorptive fever." This does not help us much, however, for: "It has been definitely proven that these organisms are capable of producing generalized infection even in the absence of pyogenic bacteria. If, however, these are present, such as streptococci or bacterium coli, the synthesis greatly increases the intensity of the infection." For our diagnosis and prognosis we are still chiefly dependent on more direct clinical observation.

Symptoms Common to Sapraemia and Septicaemia.—The first symptoms, usually appearing in 24 hours, are headache, rapid pulse, sleeplessness, general malaise, poor appetite, definite chills or slight feelings of chilliness, and last but not least the general appearance of the patient. Does she look ill? On the second day there may be some increase in these symptoms, and about the third day the temperature rises. The lochia may stop suddenly. Putrid odour to the lochia may develop on the third or fourth day, and if it does this will prove the presence of sapraemia, but not the absence of septicaemia. Putrid odour to the lochia, subinvolution of the uterus, and a moderate grade of fever, say to 101 degrees or 102 degrees by the third or fourth day generally mean sapraemia alone, or at worst a mild septic infection as well. Very high temperature, 104 degrees to 106 degrees, often beginning on the second day and accompanied by chills and general appearance of severe illness usually mean septicaemia.

If the site of infection be a perineal or vaginal wound, and this is by no means uncommon, involution of the uterus may not be greatly interfered with. Let me quote the words of Smyly: "If a patient with a high temperature looks well, sleeps well, and says she is well, she is, at any rate, not septic." "If a patient with a high temperature looks very ill, sleeps very badly, and says she feels very ill, she generally is very ill." "If a patient with a high temperature looks very ill, sleeps very badly, but says she is very well, she will probably die." This last is the condition known as eupharia.*

Treatment in the Early Stages.—As soon as the premonitory symptoms which I have described appear, the patient should be raised to a semi-recumbent posture to favor drainage; then give calomel grs. ii in divided doses, followed in 6 or 8 hours by magnesium sulphate ʒ ss of the saturated solution every hour till the bowels are freely moved. Examine the vulva, vagina and cervix carefully. If any wounds are found showing a gray sloughing surface, touch them with pure carbolic acid and dust them with iodoform. Any stitches that have been put in must be removed. This treatment may be repeated every day until the sloughs clear up. If the vulva or vagina alone, and not the cervix are thus infected, do not touch the interior of the uterus. If by the third or fourth day the temperature is up, the uterus larger than it should be at that date, and especially if there be a putrid odour to the lochia, the following treatment should be adopted: Let the patient be anaesthetized and placed in the lithotomy position. Wash the vulva and vagina thoroughly with green soap and hot 1 per cent. lysol solution, using a gauze pad as a wash cloth. Then douche thoroughly with 1 per cent. lysol solution. Then pass the hand into the vagina and the fingers into the uterus and explore the whole cavity, removing all clots, shreds of membrane and bits of placenta, whether loose or adherent. Douche out the uterus thoroughly with 1 per cent. lysol, and pack it with iodoform gauze 5 per cent. To do this well you must grasp both anterior and posterior lips of the cervix with tenaculum forceps and draw it well down, both for douche and packing. The Bozeman's intra-uterine douche nozzle, large size, may be used as a packer as well as for the douche. The gauze should be renewed in 24 hours, and this is all the intra-uterine treatment that should be given.

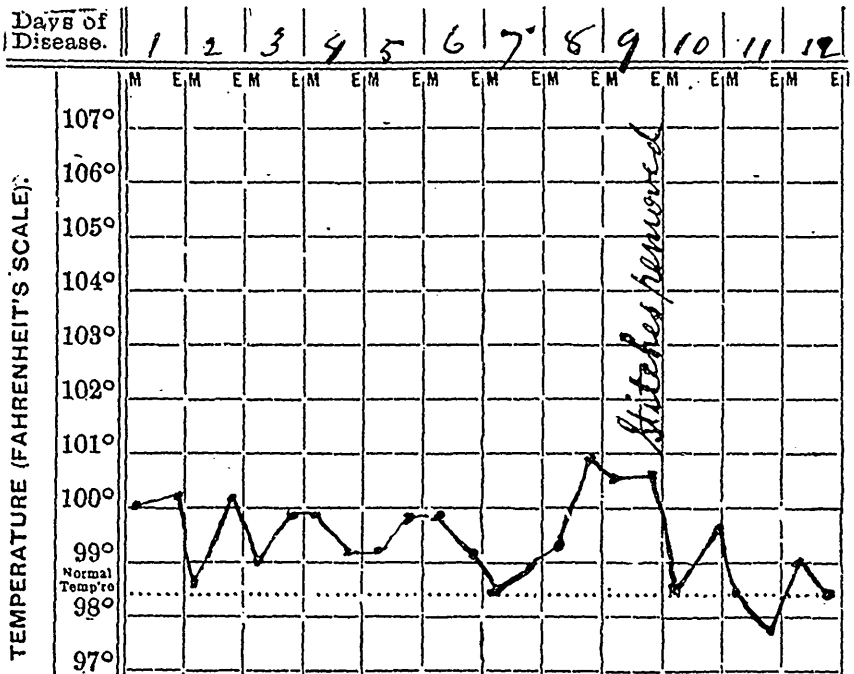
This treatment will cure sapraemia, and I think also some cases of mild sepsis. If this treatment is postponed till the 7th day or later, it is not so effective. At such a period it should not be undertaken unless sapraemia is clearly present. Remember that by late interference severe septicaemia may be started by septic organisms which have had their virulence increased by the preceding sapraemia, and which gain entrance through small lesions produced by the treatment.

*Jellet's midwifery, second edition, p. 136.

Course of Symptoms following the Treatment.—Exploration of the uterus under these circumstances is almost always followed within 24 hours, usually within 12 hours, by a high elevation of temperature and a rigor. The temperature soon falls again, and if the case be one of sapraemia alone it usually remains normal by the third day after exploration. If, however, the case be one of septicaemia the septic temperature and other symptoms continue.

Treatment of Septicaemia. If streptococci are found in the lochia from the uterus, antistreptococcic serum should be given—20 c.c. by injection every 8 hours while it seems to be doing good. Evidence of this is found in the general sense of well-being it induces in the patient soon after administration, as well as in the fall of the temperature. If after 60 or 80 c.c. have been given no good results it may be discontinued. Direct now every effort towards maintaining the patient's strength, and meeting complications as they arise. Three things should be given: *whisky*, from 6 to 20 ozs. per diem; *quinine*, 1 grain t.i.d. if the stomach stands it well; and *strychnia* hypodermically from 1-60 gr. every 6 hrs. to 1-20 every 4 hrs. All sorts of prepared foods may be needed to maintain nutrition. Amongst these I would especially mention somatose and Brand's meat extracts. As a hypnotic $\frac{3}{4}$ ii of whiskey given in the form of a hot toddy is often effective. It is oftentimes difficult to say whether a pelvic abscess is present or not, and a leucocyte count may aid in the diagnosis—very pronounced leucocytosis being in favor of abscess formation. If an operation for the opening of such an abscess be necessary, be careful not to *lie* the patient in the lithotomy position, but let the legs be held. The pressure of straps or sheet on legs and shoulders may so diminish local vitality as to start thrombosis or abscess formation at these points. I am convinced that *open air* treatment is almost as much indicated in septicaemia as in tuberculosis. Let the patient be well wrapped and carried *carefully* into the open air on a couch. This treatment has produced excellent results in the two or three cases in which I have tried it. High temperature does not contra-indicate. Lastly, *never give up while life lasts*. I have seen most marvellous recoveries after three months' of illness, and after hope had been abandoned several times.

Gonorrhoea.—Fortunately the acute stage is usually past before labor takes place. When gonorrhoea infection is known to be present, avoid all manipulation during labor and after it. I subtend the chart of a patient who was admitted to the T. G. H. for repair of the perineum, labor having come on suddenly and the child being born without the attendance of a physician. The infant developed severe ophthalmia, and gonococci were found in the lochia taken from the cervix. The patient was left absolutely without local treatment and did well.



I have reserved the question of preventative measures till the last, because it seems to me too much of a subject in itself to be interpolated in the midst of an account of the fevers arising in the puerperium.

British obstetricians have for years been greatly exercised over the fact that though puerperal sepsis in hospitals has been reduced almost to the vanishing point, it is almost as great a scourge as ever in general practice. It was hoped that better results would follow the better training and supervision of midwives. As a three months' course is all that is required, however, things remain as bad as ever—a result which will not greatly surprise Canadian obstetricians. Lately the president of the London Obstetrical Society has endeavored to lay the blame on the defective teaching of the medical student in obstetrics, a statement which has led to much interesting correspondence in the *Br. Med. Journ.*—and the death rate still goes on. Things are not so bad here as they are in the old land, but yet we should have less sepsis.

Prophylaxis.—Prepare your patient during the 9 months of pregnancy for the ordeal of labor. She should take plenty of food, but no very heavy meal at one time. Exercise in the open air, not carried to the point of fatigue, and strict personal cleanliness should be advised. She must above all things avoid constipation. The toxæmia of pregnancy and all hæmorrhages render the maternal organism more vulnerable.

Where gonorrhœal infection is found during pregnancy the patient

should be treated as follows: Three times a week a Ferguson's speculum should be introduced so as to expose the cervix. Into the tube is then poured a solution of silver nitrate of a strength of 40 grains to the ounce, sufficient of the solution being poured in to bring it in contact with the whole of the mucous membrane exposed at the end of the tube. The tube is then slowly withdrawn, the solution thus coming into contact with the whole vaginal surface. Even this treatment often fails to eradicate the infection.

At the outset of labor let the nurse give an enema in every case, no matter how recently the bowels have been moved, and let the patient empty her bladder. Then let the nurse give a warm bath, especially cleansing the external genitals. After the bath the patient should wear a napkin wrung out of bichlorid of mercury 1-3000, during the whole of labor. All the patient's clothing and bed clothes should be scrupulously clean.

The physician, and nurse too if she is to actively assist at delivery, should prepare as follows:

(a) Scrub the hands in hot 1 per cent. lysol solution for 6 minutes. This is timed by the sand glass at the hospital, by the watch in private.

(b) Clean the nails with a sterile nail cleaner.

(c) Wash off the soap in hot water.

(d) Soak the hands in fresh 1 per cent lysol solution for 2 minutes.

(e) Do not touch any unsterile thing before making examinations.

(f) Wear sterile gown.

(g) Boiled rubber gloves are an improvement and may be used for all ordinary obstetric work. They cannot be used for vaginal stitching, however, without being perforated by the needles.

In the conduct of labor remember that long continued pressure of the head on the perineum is apt to cause sloughing, which an early use of the forceps will prevent; also that dry labors should not be allowed to go on as long as those in which the liquor amnii is present.

If a lubricant is needed 1 per cent. lysol in Tr. of green soap does very well.

(h) Though these measures will go far towards the prevention of sepsis, yet the physician should remember that at best they are not perfect, and that he should make as few vaginal examinations as possible, informing himself as to the nature and progress of the labor by abdominal examination. All instruments should be boiled in a soda and water solution, and brought to the bedside in the vessel in which they are boiled, without being touched by unsterilized hands. For repair of the pelvic floor 40 day chromic gut in hermetically sealed tubes is the best material. For repair of the perineum use silk-worm gut, freshly boiled for each occasion.

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LACTO-FARINACEOUS DIET IN THE INTESTINAL AUTO-INTOXICATIONS.

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INTESTINAL auto-intoxication since the labors of Bouchard have given it the right to be spoken of in pathology, has been made the subject of numerous studies which enable us to fully understand its mechanism and to correct it by a rational and efficacious treatment. The works of Combe, of Lausanne, have contributed in a large measure to make secure this result from treatment. We have had the occasion in a recent case to prove the efficacy of the method of treatment which he advocates; but before relating our observation we think we ought to explain according to this author the mechanism of intestinal auto-intoxication and to show how a lacto-farinaceous diet appears to be the remedy of choice with which to combat this pathological state.

Intestinal auto-intoxication is a direct consequence of the action of microbes in the digestive process. The role of the microbes is of the utmost importance and we can say that, in the normal state, the digestion by these is superadded to that by the enzymes. The enzymes transform the starches into sugar, emulsify the fats, from the albumins they make albumoses, peptones and crystallizable bodies. The action of the microbes in the intestinal canal is, therefore, extremely useful because it comes to aid digestion by means of the enzymes. Pasteur had supposed that this microbic intervention was indispensable and that life could not be maintained without it. Ingenious experiments show that, if in the course of digestion we suppress all microbic action, the young animals succumb or develop much less actively than is usual. We may, therefore, conclude that the microbes have an incontestably useful role to perform. Their action, however, is not without danger because by their presence the digestive tube, in the words of Marfan, is transformed "into a receptacle for and a constant producer of poisons."

Combe studied with care the noxious substances which result from the action of the microbes on nitrogenous foods. It is, indeed, the putrefaction of the nitrogenous food materials that constitute the great factor in auto-intoxication.

Microbic digestion gives rise to the same bodies as digestion by the enzymes, the pepsine and trypsin of the stomach and intestines. There are crystallizable bodies the albumoses, peptones, ammonia; crystallizable bases, such as lysine, arginine, etc.; crystallizable acid bodies, as leucine, glyocol, tyrosine, etc. All these can be utilized in the organism and be

converted into urea, carbonic acid, and water. But the microbic digestion does not stop at the breaking up of the albuminous molecule, it gives origin to two groups of substances, the one of the fatty series, as ammonia salts, butyric and caproic acids, and ptomaines; the other of the aromatic series as aromatic oxyacids, phenols, indols. These different bodies can no longer be used by the organism, they do not become oxidized in it, and they belong to the noxious products from which the system ought to rid itself. They are the products which if reabsorbed give rise to auto-intoxication. They would cause this in the normal state if the organism did not put in line the entire means of defence to change, to destroy, and to eliminate them. The intestinal epithelium, the liver, in the first place; the vascular glands, as the thyroid body, the thymus gland, the suprarenal capsules, in the second place; and, finally, the emunctories, and particularly the kidneys, eliminate those which have been neither transformed nor destroyed.

The conditions in which intestinal auto-intoxication is produced show themselves by two sets of facts. Either the poisons have been produced in normal quantity, but, in consequence of an insufficiency in the anti-toxic organs or of the emunctories, they have not been rendered harmless; or, and this is the case much the most frequently, the poisons have been elaborated in too great quantity and the means of defense of the organism have not been sufficient for their destruction.

The pathological states which cause an augmentation in the production of intestinal poisons are very numerous. Among these may be mentioned dyspepsia in all its forms, stasis in the digestive tube, acute and chronic catarrh, and muco-membranous entero-colitis.

How can we recognize intestinal auto-intoxication? Without doubt, in the majority of instances, by special disorders, such as vomiting, colic diarrhoea; but it is necessary to remember that auto-intoxication may show itself by symptoms affecting distant organs such as the nervous system, nutrition in general, the skin. It is very important then when the intestinal symptoms are latent to search out carefully the true causes for the derangements in the other systems, so as not to overlook their intestinal origin.

According to Combe chemical analysis can establish the diagnosis of intestinal auto-intoxication by the quantity in the urine of the elements arising from the intestinal putrefaction, which are eliminated by that channel. The ideal plan would be to dose the veritable noxious substance, ptomaine or toxine; but no chemical procedure permits this. It is necessary, therefore, to fall back upon the bodies of the aromatic series, which are eliminated almost exclusively by the urine, and which, if

they are not the true toxic elements, can at least serve to measure the intensity of the intestinal putrefaction, as their development is parallel to it. Combe points out the processes which enable us to attain this result. By adding milligrams of the aromatic substances in proportion to the grains of urea or total nitrogen we can obtain the coefficient of the auto-intoxication which measures it.

If the intestinal auto-intoxication is connected in a definite way with the putrefaction of nitrogenous substances under the influence of microbes, all the therapeutic efforts ought to tend towards the restriction incumbent to saturate it with some substance that is inoffensive to man of the number of these and to diminish in that way, the intensity of the putrefaction.

Intestinal antiseptics are wholly insufficient to disinfect the digestive canal, as all authors are quite in accord on this point. The administration of even massive doses of such drugs scarcely affects the number of the microbes. Repeated doses of purgatives and enteroclysis restrain in a marked manner the growth of the germs, but these are only adjuvant means and cannot be continued indefinitely.

In order to disinfect the intestinal canal, according to Combe, it is incumbent to saturate it with some substance that is inoffensive to man and destructive to the microbes, or at least paralyse them and prevents them from causing putrefaction of albumen. This method does not seek to destroy these organisms, but, by modifying the medium in which they live, are nourished secrete their toxins and reproduce themselves, seeks to diminish their vitality, activity, and virulence, by cutting off their food. To fulfill these conditions, we must limit as much as possible the nitrogenized elements from which the intestinal microbes secure their nourishment and introduce into the food a large quantity of carbohydrates, a medium in which they do not find the material requisite for their subsistence. A locto-farinaceous diet, complying with these conditions as it does, is the true antiputrefactive alimentation. The antiputrefactive action of milk has been known for a long time, and some recent precise experiences have confirmed this. The same individual placed on a meat diet yields three times as much of the aromatic excreta as when on a milk diet. It has been shown that of all diets milk best resists putrefaction. This quality is due specially to the carbohydrate which is found in it, the lactose, for, if we remove from milk its sugar, the caseine putrefies with as much rapidity as the albuminoid substances.

It is by its products of fermentation, lactic and succinic acids, that lactose paralyse in some way proteolytic bacilli. The same restraining action due to these acids produced by lactose is found in a diet of kephir and fresh cheese.

The antiputrefactive action of carbohydrates manifests itself in digestion *in vitro* and *in vivo*. *In vitro* the addition of sugar, glycerine, or dextrine causes the complete disappearance of the aromatic substances arising in the artificial digestion of nitrogen elements. But it is the farina of cereals which, mixed with nitrogen products and placed in the *in vivo*, check all formation aromatic substances.

In vivo, by adding carbohydrates to the nitrogen foods, we equally check to a considerable extent the formation of aromatic substances. Farinaceous diets, farinas of cereals and their derivatives, prevails over other carbohydrates, as they furnish only little by little lactic and succinic acids.

Lactated and farinaceous foods have, therefore, both a true antiputrefactive action, but the advantage rests with the latter. Milk foods, in a word, contain an antiputrefactive substance of undeniable activity, the lactose; but it is rapidly absorbed in its passage along the intestinal canal, and the caseine still indigested and deprived of its antiputrefactive substance continues to undergo decomposition for the same reason as other proteids do. On the other hand, it is a fact of current experience that in certain cases of acute and chronic enteritis, and particularly in muco-membranous entero-colitis, milk is very badly borne by the patients. It is not so with regard to farinaceous diet. These constitute themselves the antiputrefactive substance or rather contain the germ of it, and it is only little by little that the lactic and succinic acids are produced as food passes along the intestinal tract. As a result of this the quantity of the restraining substance, far from exhausting itself as the lactose of milk does, reproduces itself in proportion as the bacterial life becomes more active. In the second place, a farinaceous constitutes a bad medium for the nourishment of the proteolytic bacteria. In fine, they are admirably borne in all the affections of the large intestine, the place where the preponderating amount of putrefaction in proteids occurs.

It is well to associate with milk a farinaceous diet which corrects in some way its inconveniences and makes it much better borne and digested. Combe has shown that to saturate the entire intestinal tract with the restraining substances, we must give with each meal where albumen is ingested about five times its volume of farinaceous articles. The result would be better if the number of meals were increased.

If the lacto-farinaceous regime constitute in some way the ideal diet to combat intestinal putrefaction, we can lessen its inconvenience by giving in the less severe cases proteid food in the form of meat, but it is always ingested with five times its weight of farinaceous diet.

We have had the opportunity of establishing for ourselves the good effects of the regime advocated by Combe among patients suffering from undoubted intestinal auto-intoxication.

A full description of the extremely severe symptoms of a case of intestinal auto-intoxication is given. The case improved steadily under the following treatment.

The stomach was washed out with a large quantity of water containing naphtholin, 1 in 1,000; he was given a calomel purge, and a cachet of grains 6 of cryogeninc. A diet of milk and eggs was ordered. Under the influence of this treatment the temperature became normal from the second day. A manifest amelioration was noticed in the digestive functions.

The alimentation was then increased. To the milk and eggs were added in progressive doses 200 grammes of raw meat. The patient took in addition a little roasted chicken and some leguminous soup. The general condition soon improved, and the patient who had been confined to his bed was able to get up, move around in the house and take some short walks outdoors. The condition of the digestive functions was not yet very satisfactory, as the patient often had colic some hours after food. The stomach was frequently tympanitic and at the level of the caecum and the descending colon, pain and gurgling could be elicited. The patient had several relapses of diarrhoea. Constipation was the rule and the large lavages brought away mucus in considerable quantity. The temperature was sometimes subnormal. We prescribed the locto-farinaeous diet without altogether suppressing meats. At seven in the morning he took some phosphates in milk; at eleven some soup, the yellow of two eggs, chicken, bean puree and dried cake; at six the same diet, but soup made with water was replaced by one made with milk. The quantity of milk allowed per day was about one quart. The patient was instructed to drink only between meals. Combe affirms that the separation of solids and liquids in this way diminishes notably intestinal fermentation.

Under the influence of this regime the condition of the functions were greatly improved, the malaise after meals disappearing. The stools no longer contained mucus and undigested fragments. The gurgling was no longer detected in the large intestine, nor were there attacks of fever or diarrhoea. He has followed this line of diet for seven months and declares that he never was better so far as his digestion is concerned. Daily douches, subcutaneous injections of arseniate of strychnine, and electrization of the intestines are also useful. The latter has a happy effect in regulating the bowels. This method of treatment is not only useful in cases of intestinal auto-intoxication but in case of muco-membranous entero-colitis.

THE PREVENTION OF APOPLEXY.*

BY T. CLIFFORD ALLBUTT, M.D., F.R.S.

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FROM the time of Hippocrates physicians have aimed, by methods better and worst, at the forecast of disease. They have perceived that successful forecast is not only of prime utility in the particular case, but is the test by which they must be judged concerning their knowledge of the causes of disease, a knowledge in which must lie, in the long-run, our command of the means of cure. And if, leaving the particular instance, we turn our eyes towards the broader incidence of disease, we shall see that a knowledge of causes is the only way to what is far more than individual curé, namely prevention. On such considerations as these we may be contented to be judged to-day. To the great Italians of the early renaissance we owe far more than we are wont to acknowledge. To them we owe not indeed Harvey himself, but surely the spirit and the teaching which made Harvey what he was; and as in Harvey physiology began, so pathology had its chief source and inspiration in Morgagni.

Virchow has said that the key to Morgagni's reform was the substitution of the question, Where is disease? for What is disease?—the substitution of an inquiry into the place and order of the phenomena, instead of that which had ruled the Middle Ages, the inquiry into the essence of disease. Since Morgagni's day the revelations which have rewarded this change of attitude and method have been prodigious, and not in the direct results of anatomical search only. By the new method wide and deep changes have penetrated thence into the fields of clinical and therapeutical knowledge. In therapeutics, for instance, the distance between Morgagni and Wilks was as great as in morbid anatomy itself. The reform was sound, useful and progressive, almost above our appreciation. Yet, like all reforms, it has had its defect or partiality. To ask, as Virchow put it, Where is disease?—unless we give an infinite extension to the word "where"—is to convey too stationary a sense to the problem; to make it too static. Among the consequences of this limitation was a certain fatalism, both of pathology and of therapeutics; and this the more that; as in the vast majority of cases the necropsy does not take place until the disease has wrecked the organs affected, the mind is impressed by the destructive and inevitable aspect of the event, rather than by the processes, often very protracted and insidious, in which the event was generated. It is recognized on all hands that from this static attitude of observation prognosis and therapeutics suffered much loss:

*Read at the Bristol-Medico-Chirurgical Society, and from the *Bristol-Medico-Chirurgical Journal*.

and during the last decennium the acuter observers of clinical phenomena have been engaged in encouraging a less fatalistic prognosis in diseases of the heart and kidneys, in tuberculosis, and in many other maladies. In diseases of the nervous system, as we should expect in the sphere of greatest complexity, one in which the causes are more profoundly withdrawn from direct observation, this fatalism still oppresses the physician. Where these diseases are seated is but too apparent; but by what processes they accumulate is as yet concealed from us. Now the ravages of disease are grievous enough without the despondencies of the *post-mortem* room. We shall gain heart, and the patient will gain hope, if we turn our eyes for a little while from this theatre to the clinical laboratory, in search of the genesis of disease; in an endeavor to detect the first small beginnings, which, unchecked, issue in such miscarriage. We shall not indeed go back to inquire, What is disease? but we shall not stop at the morbid anatomist's question, "Where is disease?"; we shall ask farther, How is disease?

Clinically, we have given up the catastrophic notion of disease; we have learned that its catastrophes are sudden only to him who is blind to their approaches. The springing of a mine is astonishing to its victims, but is no surprise to the sapper who laid it, who carried the clues to his tent, and at the just moment touched the button. The very name of apoplexy—in Latin, *sideratio*—signifies a stroke as if from the stars; the victim is, as it were, planet-stricken. And so it appeared to our fathers who gave it the name, and to many a generation after them; nay, so it appears still to the inexpert public. Yet nowadays the pathologist himself—possessed at first with fatalist submission, silent before the violent outburst of blood into the delicate web of the brain, pondering in helpless dismay what man could have done in face of such a stroke—has begun to try to get behind the catastrophe. Now he demonstrating to the bystander that granular kidneys, perhaps,—at any rate damaged arteries, and an abnormal heart, are precedent conditions. So that the event is surprising only to the unwarned. At this stage the eager mind questions farther and farther—how comes it that these arteries, these kidneys, this heart, are so changed? For all this is no swift infliction; it signifies modifications implying a long duration and gradual progress, modifications which again cannot have been without their insidious causes to take us farther back still; and so on. Thus, as in tuberculosis, we are laying aside the attitude of amazement or resignation, and are putting on that of the scout; if perchance we may detect the first approaches of the enemy, or even by timely diplomacy prevent him before war is declared. We are receding from the fatalism of the early pathological anatomists, and returning to that desire for more and more timely forecast which dis-

tinguished the schools of Cos and Cnidus; the forecast in which lie the proof of scientific knowledge and the means of prevention.

At the present time we are enthusiastic in the foreknowledge and prevention of tuberculosis; we are waylaying the epidemics in their courses; we are ardently pursuing the tracks of cancer; and as one by one we disarm them, we are gathering understanding and hope. It is my desire to-day to bring you to a like encouragement in respect of the apoplexy of cerebral hemorrhage.

That cases of "stroke" are not all the same kind, we have known for some time past; especially since the researches of Kirkes. On the cases in which healthy arteries are blocked by casual embolism, however, I have not now to speak; moreover, we will set aside all cases in which the effects of extrinsic poisonous or bacterio-toxic agents are concerned. We are to consider those in which disease of long-standing is found in the arteries about the seat of the hemorrhage. In a large number of these cases, however, we find no effusion of blood, or none in bulk, at any rate; the circulation of the brain is arrested, but by a silting up of the arteries rather than by rupture of them. Moreover, in these cases we find that the heart, abnormal as it may be, does not indicate present or previous hypertrophy; often indeed an atrophy. We find too that the arteries of these cases often present calcification of the middle coat, while the body at large is one in which senile change is far advanced, and probably not advanced prematurely—the patients do not run between sixty-five and seventy, but between seventy-five and eighty-five. In apoplexy by cerebral hemorrhage, the outbreak in the brain is no fault of this organ but wholly its misfortune. By apoplexy we lose day by day able citizens whose mental powers before the fatal seizure were intact both in vigour and quality. The pathological signs are those of some slow injury to the blood-vessels; but the heart is or has been hypertrophied and the result of the conditions is rupture rather than occlusion.

Now what do we know, or what can we find out, concerning these awful visitations? For the last quarter of a century I have taught that in a large number of cases of sanguineous apoplexy the kidneys are not granular; and if in some of them they are fibrous, they do not partake of the nature of chronic Bright's disease. This I affirm on the condition of the secreting structures of the tubes, which dwindling or crushed as they may be here or there, present no foci, or traces of past foci, of degeneration or necrosis. Professor Osler has given his valuable judgment in favour of the proposition that a large number of cases of the kind we are contemplating are not attributable to chronic Bright's disease. Now my belief is that, if we can carry our analysis of causes far enough back, we shall reach a junction where we shall travel on a line of common

approach to apoplexy with Bright's disease and to apoplexy without it; but for present convenience, and under the restriction of time, I must rule out the Brightian class. It is by the study in the first instance of the simpler case that we shall get back to the junction.

Now in a case of apoplexy what do we find in the damaged parts? Brain assumably healthy; heart hypertrophied; arteries spoiled: the phenomena lie then in the mechanism of the circulation. Thus, in accordance with our desire we step back from the static point of view and enter upon the dynamic. We shall try to discover which of the variables in this function are altered? In a simple case the heart presents no primary changes, but changes altogether secondary; essentially it is not only healthy in tissue but has worked for a long time at high pressure, thus doing not less but more than its contract. Such changes as may be seen in it are compensatory, or, if morbid, evidently consequential. Then what about the arteries? These have undergone a change, call it atheroma, sclerosis—what you will, so long as we are agreed on signification—but, diseased, as they are, they have not silted up, as in the cases we contemplated but to put aside, but have burst. Why have they burst? Because they have been submitted not only to the mean pressures of age but also to the augmenting mean pressures of a reluctant peripheral circulation. They have burst at last for the same reason that they have sustained gradual injury; namely by the accumulation of obscure stresses which, if we might observe and measure them, we might avert and interpret. I put aversion before interpretation because happily in many conditions of life we can take up our guard before we know why we are the object of hostility, or even before we recognize our enemy. We do not know why in cases such as these the circulation is embarrassed: the cause of the reluctance in the periphery lies still beyond our ken. But, briefly, I may say that the cause must consist either in a narrowing of the calibres of the arteries or stream bed over a very extensive area, if not indeed universally, or in an increase of viscosity with excessive friction in the blood itself. I have been asked somewhat tartly how I demonstrate excess of viscosity, and in what it consists? My answer is, that I never said that the blood in these cases is more viscous, but that there exist the two alternatives only which I have cited—narrowing of the channels and increased friction within the fluid itself. To decide which is the cause, or, if both, the degree of each in the combination, I never pretended. But I admit that it is not easy for me to conceive a contraction of arteries in all or virtually all areas without compensatory dilatation in some of them. It has been suggested to me that in elderly persons the depressor property of the heart and vaso-dilatation may be stiffened or abolished. But a simple test will indicate that our vaso-dilator mechanism is not much abated. Let an elderly man enter a hot bath. For a

short time at first he will find the radial artery contracting; let him continue however to observe, and in two or three minutes he will find the artery beginning to dilate, until it is largely distended; and a corresponding afflux of blood takes place to the surface. This is not dilatation of the splanchnic area, it is true; but if vaso-dilator mechanism does not rust up in one area, it probably does not in other areas.

It is alleged that in the elderly the arteries become refractory because of sclerosis, whereby their walls grow sluggish or stiff. This explanation, by the way, is inconsistent with that which attributes excessive arterial pressures to arterial contraction over large areas. And in any case to attribute high pressure to sclerosis, and to overlook the large class of cases in which arterial degeneration is manifested without rise of pressure is bewildering. Again, by some writers increase of arterial pressure is explained as a "hypertonus" of the arteries, a resuscitation surely of that older pathology which used to attribute disease to "hypertrophy of the heart"? It is conceivable, of course, that a morbid state of the vaso-motor centre, due to some persistent irritation in the spot, might keep up general and persistent vaso-motor contraction. Still this is not very probable, nor do I know that this is the view of those who discuss "hypertonus." Must we not assume for the present that hypertrophy in the arteries is produced by the same mechanism as in the heart, namely by persistently excessive pressures on their internal surfaces? In my opinion the vice lies not in a morbid tone of the vessels, but in excessive internal pressures such as obstruction at the periphery would set up. If, then, arterial spasm be also a factor in the hyperpiesis, it seems more consistent to attribute this to the same cause as that, whatever it may prove to be, which chokes the periphery. My observations are that in some cases of rising pressures without Bright's disease arterial spasm, whether primary or consequential is manifestly present; but in others, perhaps the majority, it is not obvious. In some we have what I have called the "large, lax and leathery" artery; in others we find the "wiry" artery. The first kind may be regarded as "arterial tension," for in these cases the effects of tension are very manifest in the consequent tortuosity of the vessels; in the walls of wiry vessels this stretching effect, and indeed the sclerosis itself, is less apparent. Yet in my experience the wiry hyperpiesis is far more difficult to reduce.

However, to come to the matter of prevention; if, concerning the mechanism of persistent rise of mean arterial pressure, we are in the dark, happily there is less doubt as to the treatment of the condition. If the patient is to be saved from an apoplexy, it is only by long anticipation that the proclivity can be counteracted. It seems probable that a disposition to hyperpiesis runs in families; if so, in such families vigilance is imperative. But the tendency is too common to be regarded as one confined

by any such hereditary limits. Even in children and youths it is by no means rare, though I have little information on the deferred consequences of hyperpiesis in such patients. Such information must be obtained from the family physician, who watches children from infancy to youth, from youth to maturity. This I can say, that in young people it may thicken the arteries plainly enough; but the thickening is probably of the muscular coat only, not of the intima, for it will disappear, as a hypertrophy of the heart disappears in persons who put aside causes of exceptional stress on this organ. The care of these juvenile cases, then, does not fall so near the group of potential apoplectics as to require our attention to-day. Still, I think a study of these precocious cases may throw light not only on an undescribed disorder of children, but also upon the causes of hyperpiesis in the elderly.

The aim of this discourse is to prevent apoplexy, which is a message to elderly persons. I have held against all comers for many years that arterio-sclerosis, as distinguished from the sclerosis decay of senile involution, is not the cause but the consequence of rising arterial pressures. In my view, then, prevention must lie first in the detection of a special tendency to a persistent mean rise. I need not say that occasional rises, even of morbid origin, are apt to occur in all persons, and to disappear before the vessels are permanently damaged. In others, however, the rise is persistent, often to very high degrees; yet if this tendency be detected in its earlier phases it can—in many instances, at any rate—be reduced and kept down; but the longer the story, the older the rearrangement of parts, the harder reduction becomes. I urge, then, that as a matter of routine every adult of the age of forty and upwards should have his blood pressures measured by the best instruments available, instruments which I have not now time to discuss. And I urge that this appreciation should be repeated every five years, say till the age of sixty, when, if there be no great increase—I say no great increase, for in almost all elderly persons there is some rise of mean pressure—the danger of apoplexy may be disregarded.

Of the principles of treatment of hyperpiesis we cannot be completely assured till the obscure points I have mentioned are cleared up. That there is any difference in treatment between the leathery and the wiry artery people I cannot say. So far I have not been able to discover more than that, as I have hinted, in the latter the perversion is far less submissive to deobstruent treatment, as generally understood, than in the former. Nor can I find any therapeutical divergence of practical value between burly, red-faced people and the spare and pallid. I am disposed to think, however, that pallor and wiry vessels are more frequent among the sedentary, and that the burly, red-faced people are of those who may over-eat and over-drink themselves, but take, on the other hand, much

exercise in the fresh air. In the former there is a long history of relative excess in feeding; in the latter of positive excess. It cannot be too earnestly declared that nearly all men, and not a few women, take far more food than they need; and that the sedentary persons, such as scholars, lawyers, or merchants, although prompted by some nervous exhaustion they live more generously than cowboys, need very much less food than they habitually consume. If, then, in any person we find persistent rise of mean pressures, we shall revise his mode of life; advising regulated exercise, abstinence from alcohol—which if not an initiator, is a potent ally of other influences—and a great reduction in intake of food. In these cases also, the regimen and the waters of certain spas—such as Harrogate, Carlsbad, or Marienbad—are invaluable.

The readiness of response in individuals is very various. In some, as I have said, reduction is attended with much difficulty; in others a couple of seasons at a bath, with punctilious restriction of diet and regular exercise, suffice to put the danger aside, at any rate for a time. In others, do what we may with regimen and medicines such as mercury and salines incessantly brought to bear, the rise, even if set back, comes up again and again. To such persons the ultimate result of apoplexy is pretty certain. It seems probable that the systematic blood-lettings of our forefathers, who were big feeders, was a rough-and-ready method of preventing morbid augmentations of blood pressures; and I am disposed to think that, practised with more discrimination, we might find in it a valuable remedy in the habit of body I have alluded to. I must honestly confess, however, that I have not had the moral courage to recommend it. Vaso-dilators are, as we should expect, disappointing. The high pressure is conservative, so that to reduce the pressure without removing or relieving the causes which import it is to set natural readjustments at naught. So long as the high pressures can persist the blood is driven through the periphery, and the patient may feel well enough; it is when the cardiac energy begins to slacken, and vaso-dilators are apt to slacken the heart also, that he suffers from the sense of exhaustion, the vertigo and the morning melancholy which vaso-dilators bring on factitiously. Notwithstanding, vaso-dilators may on occasion aid us at critical moments.

I need not say that if a slight apoplexy occur, these measures must be undertaken with the more determination. Too often, unfortunately, we are not consulted until the enemy is upon us; still, even then, on the lines I have indicated, a return of the attack may be postponed with no little success.

In conclusion, let me urge upon you in all cases in which you are consulted by middle-aged persons, to note the blood pressures, and if possible to record them by means of one of the instruments which give us at any rate approximate estimates in this research. Not rarely, in con-

sultation with physicians whose ability is above my praise, I note high blood pressures which they had not heeded, although they may freely admit the truth of the observation when their attention is drawn to it. Even the most capable of us are apt to see what we expect to see, and that only. Moreover the most erudite finger cannot always be trusted. It is my purpose, therefore, to invite you to take heed to the state of pressure in all middle-aged patients, and, if occasion occur, in persons who, not admitting any ill-health,, may nevertheless be breeding an apoplexy unawares; a few years more neglect, and the event, unless anticipated by a fatal pneumonia, may be inevitable.

SIR FREDERICK TREVES ON ALCOHOL.

Sir Frederick Treves, Surgeon to the King, addressing a temperance meeting, declared that alcohol was distinctly a poison, and that its use ought to be limited as strictly as any other poison. He added that it is not an appetizer, and that even a small quantity hinders digestion. Its stimulating effect only endures for a moment, and when this is passed, capacity for work falls enormously. Its use is inconsistent with work requiring quick, keen, and alert judgment. Reviewing medical practice for a quarter of a century, Treves declared that he could say that the use of alcohol in hospitals and by physicians generally had emphatically diminished and is diminishing.

CURRENT MEDICAL LITERATURE

MEDICINE.

Under the charge of A. J. MACKENZIE, B.A., M.B., Toronto.

A DIET IN CHRONIC CONSTIPATION.

Moyer, in the *St. Louis Medical Review*, suggests the following :

7 a.m. A glass of cold water.

8 a.m. A liberal breakfast with sweetened coffee, a good deal of butter, honey, and graham bread. After which the patient should go to stool.

1 p.m. Midday meal of meat, a good deal of vegetables, salad, stewed fruits, farinaceous food, followed by half a bottle of light wine.

7 p.m. Meat, with plenty of butter, graham bread, and stewed fruits.

10 p.m. Before retiring fresh or stewed fruit.

This is a diet for simple constipation and is not adapted to obesity or diabetes. The diet in all cases must be suitable to individual cases rather than according to dietetic rules.

THE TREATMENT OF EPIDEMIC CEREBRO-SPINAL MENINGITIS BY DIPHTHERIA ANTITOXIN.

In the *Medical Record*, March 11th, Waitzfelder, of Gouverneur Hospital, New York, discusses the results of this method of treating this terrible disease. At this hospital there were admitted during 1904, 113 cases of which 75 died, 5 unimproved, 5 improved, and 28 cured. The treatment did not originate with the writer, but his attention was called to the work of Wolff, bacteriologist of the city of Hartford, who demonstrated an antagonism existing between the Klebs-Loeffler bacillus and the diplococcus intracellularis meningitidis, the causal agent in the recent epidemic disease, pure cultures of the latter being killed by the serum. He communicated with Wolff, who reported a case which showed marked improvement after the injection of the anti-diphtheritic serum, and he determined to try it in the hospital. In all, 17 cases were so treated, 5 recovered completely, 3 died, 9 are still under observation ; of these, 5 give

every promise of a speedy recovery, no prognosis can be given in the other four. The dose given was 6,000 units to children under 5 years of age, 8,000 units to those between 5 and 12, and 10,000 to adults. Thus the dosage is larger than is customary in diphtheria, and should be repeated daily during the course of the disease.

TUMOR OF THE PARATHYROID GLAND.

In the *Bulletin of the Johns Hopkins Hospital*, March, MacCallum reports a case of tumor of the parathyroid gland, a condition which has been described only twice before. It was discovered in the course of an autopsy upon a man aet. 26, who had suffered for some time from chronic nephritis and had died from uraemia. The mass lay on the right side, just below the lower pole of the thyroid, and quite separate from it, in a delicate capsule; it was almost spherical and was about 2 c.m. in diameter; and in the centre was a small cavity filled with a clear fluid. The blood supply was not rich.

Under the microscope it was seen to be made up of a tissue much resembling the normal parathyroid strands, and large anastomosing branched masses of cells were separated by a relatively delicate stroma, which bears the blood vessels. Certain masses of cells surround a central cavity, containing a finely granular coagulum. Of colloid matter there was practically no trace.

The normal parathyroids were found in the case. It could not, therefore, be regarded as a compensatory hypertrophy, unless, indeed, it had some relation to the renal insufficiency. For the present the writer would regard it as an adenoma.

PRACTICAL POINTS IN THE ADMINISTRATION OF POTASSIUM IODIDE.

In the *Medical Record*, April 1st, Huhner, of New York, calls attention to the following points which, while many of them are well known, are so important that repetition is permissible:

(1) Always give well diluted and never, if possible, on an empty stomach. For dilution nothing is better than milk, as it disguises the taste and prevents disagreeable after effects; the compound syrup sarsaparilla is also an excellent vehicle.

(2) It is important to have a perfectly pure preparation, many of the bad effects are due to impurities.

(3) Strict bodily cleanliness, while taking the drug, will go a great way in the prevention of skin-troubles; these are due to the decomposition of the excreted salt by the fatty acids and the irritation by the iodine formed.

(4) It is possible to make a 100 per cent. solution but it is very difficult; and, if it is prescribed, the druggist will probably give a weaker one.

(5) Iodide of potassium is incompatible with alkaloids and the ordinary soluble metallic salts. So, for example, a calomel dusting in the eye would cause irritation.

(6) Small doses may cause iodism while larger ones will not.

(7) Potassium iodide should never be given in phthisis or where it is suspected, as it is irritant to the bronchial mucous membrane. Where syphilis is associated it may have to be used.

ON THE INFLUENCE OF COPIOUS WATER DRINKING.

In the *University of Pennsylvania Medical Bulletin*, March, Hawk of the laboratory of that institution gives the result of a series of experiments made on men to determine the effect of copious water drinking on the body economy. Previous experiments had been made on animals and were directed, in the majority of cases, to the consideration of the excretion of nitrogen and, in many cases, by methods, in the opinion of the writer, were inaccurate. In the experiments reported the subjects were placed on a constant diet, and after a period long enough to arrive at an equilibrium, this diet was supplemented by the edition for two days of an enormous volume of water. Analysis of the excreta and food ingested were made, the number of subjects being five.

Copious water drinking was found to cause an increased excretion of nitrogen and phosphorous by the urine. The increase in the amount of nitrogen eliminated is due, primarily, to the washing out of the tissues of the urea previously formed, but which has not been removed in the normal processes, and secondarily, to a stimulation of proteid catabolism.

The increase in the excretion of phosphorous is due to increased cellular activity and the accompanying catabolism of nucleins, lecithins, and other phosphorous-containing bodies.

In man an increase of 4500 c.c. in the daily amount of water ingested caused an increase of 12.8 per cent. in the excretion of nitrogen by the urine on the first day, and the somewhat smaller increase of 6.8 per cent.

on the second. The course of the SO_2 excretion showed a general tendency to run parallel with that of nitrogen.

The course of the P_2O_5 , as influenced by copious water drinking, was distinctly different from that of the others, it increased above the normal on each day of the water period, the maximum excretion occurring on the second day of the increased water ingestion, and ranging 17 to 20 per cent.

There was a constant tendency for the largest percentage of the ingested fluid to be excreted by the urine on the days of copious water drinking. This was indicated by an elimination of 28.5 per cent. on an ingestion of 2,300 per cent c.c. as compared with an elimination of 90.6 per cent. on an ingestion of 6,400 c.c. of fluid.

These experiments have a practical bearing in the support they give to the suggestion of giving large quantities of water in febrile or toxic conditions to assist and increase elimination.

HOSPITALS AND MEDICAL EDUCATION.

In the *Medical Times and Hospital Gazette*, London, March 11th, there appears an article on this subject which, while referring directly to the institutions in the Old Land, will be of interest here, where the problem of support to our hospitals is becoming of so much importance.

It will be remembered that the Prince of Wales, as president of King Edward's Hospital Fund, appointed a committee, consisting of Sir Edward Fry, the Bishop of Stepney and Lord Welby, to inquire—

1. Whether any, and if any how much, money given or subscribed for the relief of the sick poor to the twelve London hospitals having medical schools, is contributed, directly or indirectly, by those hospitals, or any of them, for the maintenance of medical education.

2. Whether any direct or indirect return for such contributions (if any) is received by the hospitals from their medical schools, and, if so, whether such return is equivalent to the amount of the contributions.

3. Whether, in the event of the committee finding that any hospital contributed to its medical school a sum in excess of the return it receives from the medical school, there are any special considerations advanced in justification of such expenditure, or any general considerations which would apply to all hospitals having medical schools.

Specific instances have no interest here, but the general conclusions may be quoted as pertinent:

"We think that the publicity which attends the work of a hospital where there is a body of young men in attendance also tends to maintain at a high level the whole work of the institution.

"It has been urged before us that the great amount of work done without payment, or with inadequate payment, by students, in the character of medical clerks and dressers, and in connection with the out-patients and the casualty cases, constitutes a pecuniary advantage received by the hospital from the school; but the evidence satisfies us that the expenses incurred in hospitals with schools are generally in excess of those in hospitals without schools, and we are of opinion that no saving of expense can be attributed to the presence of medical students. On the contrary, some of the evidence before us, together with a study of the accounts of the various hospitals, has brought to our attention remarkable variations in the expenses incurred by the several hospitals, and raises the important question whether, in the case of some of the hospitals to which schools are attached, there is not considerable extravagance and waste in the expenditure.

"With regard to the welfare of the patients, this depends so largely on the character of the individual medical men and nurses concerned with each case that it is difficult to draw any line between the two classes of hospitals. Probably, in cases of great obscurity and difficulty, the presence of a large number of students may at times be useful; but on the other hand we think that the quiet of a hospital without students must often be a comfort to patients, and on the whole we do not think that the hospitals with schools can substantiate any superiority, in this respect, over other hospitals.

"The schools confer certain considerable benefits on the hospitals, and the hospitals confer on the students very great benefit, because without admission to such institutions the students could obtain little or no clinical teaching. These mutual benefits may, the committee think, be fairly set off the one against the other."

SURGERY.

Under the charge of H. A. BEATTY, M.D., M.R.C.S., Eng.

Chief Surgeon Canadian Pacific Railway, Ontario Division; Surgeon Toronto Western Hospital.

SURGICAL TREATMENT OF CIRRHOSIS OF THE LIVER.

At the French Congress of Surgery, held at Paris, October, 1904, A. Monprofit outlined the surgical methods of treating hepatic cirrhosis under the following heads:

I. Paracentesis.

2. Simple laparotomy.
3. Laparotomy followed by drainage.
4. Vaginal laparotomy.
5. Omentopexy—Talma's operation.
6. Portal-vena-cava anastomosis—Fistula of Eck.

Monprofit quoted Talma's statement, that omentopexy should be done in every case where there was obstruction to the flow of portal blood through the liver, but he did not entirely agree with this statement.

Ascites might be due to other causes than cirrhosis, therefore, exploratory laparotomies were often in order. One could not state positively that the ascitic stage of cirrhosis marked the end of all hope of relief from medical treatment; yet it held true that the beginning of ascites marked the time when surgical interference should be urged.

Statistics showed an operative cure of 35 per cent. and a mortality without operation (in atrophic cirrhosis) of 100 per cent. Even those cases which were not cured by operation were very often much improved.

Every case of biliary cirrhosis should first receive carefully directed medical treatment, and be subjected to surgical interference only after medical aid had failed.

M. Tuffier called attention to the fact that cytological examination of the ascitic fluid was most important and entirely too frequently neglected.

M. Lejars reported several of his cases, drawing attention to the importance of cholecystostomy as a measure that did much to ameliorate the severe symptoms of cirrhosis.

M. Delangeniere dealt with the etiology of cirrhosis, stating that in his opinion all varieties of cirrhosis were due to infections travelling up the ducts from the intestine. Based on this view was his idea to combine omentopexy with temporary cholecystostomy.

M. Bardesco, of Bucarest, stated that a definite cure certainly depended upon the degree of change in the liver at the time of surgical intervention and to the permanence of the changes induced by the operation on the collateral circulation. He felt that failures were often due to the fact that we delayed too long with operation, thereby allowing the liver cells to become too much compromised, and the portal circulation to become too much embarrassed. We should operate always before all the various medical means had been used, and should be careful to select a sufficiently large section of omentum, in which the vessels were not sclerosed, and to secure a broad surface of contact with the abdominal parietes, choosing, in particular, the abdominal muscles for points of contact.

THE SEMEIOLOGIC VALUE OF BLOOD EXAMINATIONS
IN SURGERY.

The above subject was considered at the French Congress of Surgery, 1904.

Somenberg, of Berlin, confined his remarks to the blood in appendicitis cases and gave the following conclusions :

1. The more violent the injection, the greater the leucocytosis. A low leucocyte count in a foudroyant case, usually means a fatal termination.

2. If the count diminishes as the symptoms of the disease lessen, then the prognosis is favorable.

3. If, after a diminution the leucocytes again increase, it points to a recrudescence of the disease.

4. If the number of leucocytes diminishes suddenly and rapidly it points to a fatal outcome.

5. A marked hyperleucocytosis, combined with severe symptoms, indicate immediate operative interference.

6. A moderate leucocytosis with grave symptoms, calls for surgical interference.

Cazin stated that his experience warranted him in believing that those cases which showed no leucocytic increase were not pus cases.

A leucocytosis, however, should never be regarded as a pathognomonic sign in appendicitis, but should always be linked with objective and subjective symptoms.

SHIFTING DULNESS.

In *The Lancet*, February 25th, 1905, Godlee states that dulness in the back which shifts on placing the patient on his face or upon the opposite side, usually means that the pleura is healthy and that the cause of the dulness is subdiaphragmatic.

The dulness resulting from a localized empyema if there is no gas in the cavity, does not shift at all. The dulness from a pleural effusion shifts very little, if at all. The presence of pleural effusions limits or prevents the shifting of the dulness caused by solids or fluids below the diaphragm. A dulness which disappears under an anæsthetic must not be neglected, but it must be suspected that adhesions do not extend so far as they might before the administration be supposed to do. In a suspected empyema where the dulness disappears under the anæsthetic, the case will probably prove to be one of pneumothorax. In cases of intestinal

obstruction with much distention it is impossible to say whether or not there is free fluid in the peritoneal cavity because the flanks may be dull when the patient is lying on the back, but resonant in the upper flank when he is lying on his side.

PROSTATIC ENUCLEATION.

In the number of *The Lancet* just mentioned, Freyer calls attention to the great success of total enucleation of the prostate in advanced old age.

Of 134 patients 8 were octogenarians. Seven are alive and in excellent health and all able to retain and pass urine normally. The remaining patient, after recovering from the operation, died suddenly of heart disease. The author gives the details of the eight cases, with illustrations of the prostatic glands removed.

GYNÆCOLOGY.

Under the charge of S. M. HAY, M.D., C.M., Gynecologist Toronto Western Hospital; Consulting Surgeon Toronto Orthopedic Hospital.

FIBROID TUMORS AND PREGNANCY.

The February number of the *American Journal of Obstetrics and Diseases of Women and Children* contains an article on this subject by Dr. S. Marx, which was read before the County Society of New York.

The doctor takes the position that with few exceptions fibroid tumors of the uterus should at all times, if possible, be treated before the advent of pregnancy, as their association with pregnancy forms a complication which must, in many patients, be looked upon, not as a benign, but as a malignant state. Their tendency to rapid growth, their likelihood to undergo sloughing and regeneration, and the great probability of such growths, when situated below the intermediary zone of the uterus, making an otherwise normal labor one of utter impossibility or fraught with the greatest danger, are but what we may have to expect in dealing with fibroids and pregnancy associated in the same uterus. No matter how small or insignificant the tumor may be in the non-pregnant state, no living being can tell, no matter what the location of the tumor, what we may expect during labor. Labor may be impossible, or, overcoming

that, we may lose our patient later from sepsis, due to sloughing of the tumor. But Nature is kind to the poor women with fibroid uteri, for many of them are incapable of conception, and when they do conceive, abort before full term.

Dr. Marx gives the history of a healthy, vigorous Italian whose previous labors, eight in number, had been supervised by a midwife; consequently, were probably normal. In her present pregnancy she came under the care of an able physician. At the end of a normal utero-gestation she went into labor and her physician upon examining her found that, instead of a foetal part presenting, the entire pelvic brim was blocked by a hard tumor. The os was found pushed high to the left, and the presenting part could not be felt. A Cesarean section was advised and accepted at once, the patient exacting a promise that the uterus be not removed. The operation was performed and a living child delivered. The convalescence was normal. Examination of the tumor and its relation to the pelvis was made at the time of the operation, and it was clearly shown that an intra-ligamentous fibroma was practically blocking the entire pelvic inlet. Two months after the section, an examination showed the remnant of the tumor to be situated in the right broad ligament and, as the result of a complete and rapid involution, it could just be made out, about the size of an ordinary bean. The advice to remove this nodule to prevent a recurrence, was absolutely refused.

Surely this case requires no comment but proves that even the smallest fibroid, no matter how insignificant, may present a barrier which may be almost insurmountable, and just as surely does it make clear the problem of treatment, both from a prophylactic and curative standpoint. Fibroids diagnosed before a pregnancy exists should be removed.

The writer further says in reference to pregnancy occurring in a fibroid uterus: "In fibroids at the fundus we may watch the cases with armed expectancy and, since they are usually non-provocative of mischief during labor, interference is seldom called for. Where they do give rise to trouble there is hæmorrhage, persistent and continuous, during pregnancy. Here the indication is vital, and when imperative the uterus should be emptied, or, better, removed."

Fibroids involving the dilating zone of the uterus demand instant interference, where their position is so low as to either obstruct the labor entirely or prevent the dilation of the parturient os. An attempt should be made to push them above the presenting part, taking care not to cause œdema and, perhaps, necrosis of the tumor. When this complication occurs early, abortion or hysterectomy may be required. When met with at term, Cæsarean section, terminated by hysterectomy, may be necessary.

The third stage of labor is generally dangerous from hæmorrhage and sloughing.

The doctor concludes his paper with the following resume:—

1. Prophylaxis.—Every fibroid during the child-bearing period, with few exceptions, should be attacked by surgical means.

2. During Pregnancy.—Safe fibroids, i.e., those beyond the dilating zone of the uterus, should be carefully watched. Every complication during pregnancy, depending upon the fibroid, should warrant our attacking surgically the condition, or, at least, provoke us to the indication for emptying the uterus.

3. During Labor.—(a) Again safe tumors need watching. The resultant complications must be met energetically, but gently, as they arise, i.e., hæmorrhage, tardy labor. (b) Tumors which cannot be displaced, blocking the bony passage, warrant vaginal enucleation (seldom possible), or Caesarean section, followed by hysterectomy.

4. Sloughing and Necrosis.—This condition of a puerperal fibroid must not be mistaken for retained secundines. This doubt must be eliminated by exploration with the clean, aseptic hand. Retained secundines are always to be removed manually and, under no conditions, must the curette be employed, because of the great danger of laceration of the capsule, and consequent sepsis.

5. Sloughing and necrotic fibroids are always to be attacked surgically, either by enucleation or by hysterectomy.

BEARING-DOWN PAINS.

Dr. Bedford Fenwick, of the Hospital for Women, Soho Square, London, recently gave a clinical lecture on this subject to the Out-Patient Department. Among the causes of this symptom he mentions:—

Cervical Polypus.—He says this is an often-overlooked cause of "bearing-down", although it was the most prominent symptom in the patient presented. She was also very anaemic.

This case was contrasted with another who complained bitterly of bearing-down pains, and who was found to be suffering from a small fibroid in the uterine walls. The latter by its mere weight pushed the uterus down just as the other growth, hanging from the cervix, pulled down the organ.

The symptoms in these two cases were relieved—in the one by removing the polypus, and in the other by lifting up the heavy, enlarged uterus by placing a well-fitting ring pessary.

Lax Abdominal Walls.—This, the writer thinks, is one of the most common causes of "bearing-down." In this case the patient was 45 years of age, had had seven children, and said that after each confinement this particular pain got worse, till it became almost unbearable. From the history of this case one would suspect she might be suffering from prolapse of the uterus. On examination that organ was found in good position, and there was no falling of the vaginal walls. The secret of her trouble was an extremely lax abdominal wall. There was considerable adipose tissue and the anterior wall dropped down over the pubes in heavy folds. The lack of support to the abdominal contents allows a considerable amount of dragging upon the intestines and mesentery.

These cases are treated by the application of the interrupted current and the use of a well-fitting abdominal support.

Chronic Constipation.—A patient was now shown whose chief symptom was "severe bearing-down pains," and on vaginal examination the pelvic organs were found in a healthy condition, nothing in either uterus or uterine appendages being found to account for the troublesome symptom. The rectum was found loaded, and the colon, as far as one could feel it, seemed equally distended. The doctor said, "It was evident that in such cases as this the one drug which could be used with advantage was the sulphate of soda—it answers much better with most women than the sulphate of magnesia. He then prescribed—

℞	Ferri sulph.....	gr. ii
	Sodae sulph.....	ʒss
	Tr. belladonnae.....	m.ʒ.
	Aq. camph.....	ʒss

Pro dosis i, ter die, ex aq.
post cib. sumend.

A later report is, that the bearing-down pain of which she complained so bitterly had entirely passed away and she had improved in appearance and color, and increased in weight.

Urethral Growths.—The patient who illustrated this case was 53 years of age, and for the past three years, since the menopause occurred, she had complained of an increasing amount of bearing-down pain. Apparently this was her chief symptom. She gets worse after any exertion. The pelvic organs, on examination, were found quite normal for one of her age. There was found a flesh-like growth occupying the urethral orifice and extending half an inch below it. This is commonly termed a vascular growth of the urethra, an affection which is most common at her time of life. The cessation of the catamenial loss prevents the vascular system from being relieved, as it has been for some

36 previous years, and the natural consequence is that women suffer, at the so-called "change of life," from symptoms of abnormal vascular tension. They get the flushings of the face, the frequent perspirations, the great nerve depression, the various mental conditions, all and every one of which signify overloading of the vascular system. With these vascular growths there may be frequent micturition and sometimes bleeding in addition to the bearing-down pains. The only treatment for this condition is the removal of the growth freely with scissors, the patient being under an anesthetic, the base of the growth is seared well with Paquelin's cautery in order to prevent a recurrence.

Growths in the Bladder.—In cases of disease of the base of the bladder and especially when this takes the form of new growths, the symptom of "bearing-down pain" is often acutely complained of. The doctor here mentioned the case of a lady with a large stone in the bladder. The stone was crushed and washed out and the bearing-down pain was immediately and permanently relieved.

Vulvar Growths.—Various diseases of the Nabothian glands will frequently cause this troublesome symptom. Sometimes these are very chronic. It is perhaps only when they become much increased in size that the bearing-down pain becomes troublesome. After abscesses of these glands have been opened the after-treatment is important. The application of poultices to the labium often sets up considerable oedema, and tends to promote the formation of fresh glandular inflammation. The poultice should be small, should be applied simply to the opening of the abscess, and, as soon as the discharge has ceased, the poultice should be discontinued, and a dressing of dry lint applied.

Bearing-down pains may also be caused, either by an enlargement of the labia, a normal hypertrophy in fact, or by a pedunculated growth.

OBSTETRICS AND DISEASES OF CHILDREN.

Under the charge of D. J. EVANS, M.D., Lecturer in Obstetrics, Medical Faculty,
McGill University, Montreal.

ECLAMPSIA WITH REPORT OF CASES.

Dr. L. M. Allan reports, in *American Journal Obstetrics*, February, 1905, 33 cases of eclampsia and 10 cases of toxæmia of pregnancy in a series of 3,400 confinements in the In and Out-door departments of the Free Lying-In Hospital of the University of Maryland.

Nephritis was present in all the eclampsia cases and in 90 per cent. of the cases of toxæmia. 27 per cent of the mothers recovered and 59

per cent. of the children. In one case convulsions developed seven days after the death of the foetus, as could be proved by its macerated condition when born.

The author's conclusions, which sum up the results of this interesting study of clinical material are as follows:—

1. Eclampsia is due to the toxin which very probably has its origin in the liver.
2. Its origin is maternal rather than foetal.
3. Premonitory symptoms are always present.
4. The most constant and important premonitory symptom is frontal headache.
5. The diagnosis of toxæmia of pregnancy should be made early, and if the patient is under observation this can generally be done.
6. The mortality should be kept under 20 per cent.
7. Treat premonitory symptoms until, in spite of treatment, they get worse, then empty the uterus as in some cases this is the only method of stopping the progress of the disease.
8. Deliver as quickly as possible, consistent with cleanliness and preservation of the soft parts; bleed, removing from 300 to 700 c.c. as the case may indicate; infuse, giving from 500 to 1000 c.c. of salt solution, depending on the amount of blood withdrawn and the character of the pulse; this may be repeated later; morphia gr. $\frac{1}{4}$, hypodermically, to relax the muscular system; croton oil gr. i to 11 in olive oil dr. i to dr. ii, followed by magnes. sulph. half ounce, in saturated solution, until effectual as a purgative.
9. Milk and water diet.
10. Other conditions treated systematically.

DISTURBANCES OF DIGESTION IN INFANTS, RESULTING FROM THE USE OF TOO HIGH FAT PERCENTAGES.

L. Emmett Holt, in *Arch. Ped.*, Jan., 1905, states that excess of proteid in milk, the mixture supplied to an infant has long been recognized as the chief factor in the production of disturbances of digestion. In this paper, Holt calls attention to the serious consequences of a too high percentage of fat in food mixtures.

Several cases are reported. In all, the infants at first thrived on high percentage fat mixtures, but usually suddenly severe symptoms of indigestion developed. These symptoms were general convulsions, enlargement of the liver, rickets and severe indigestion. In a few of the cases constipation was a marked symptom, the motions, when pass-

ed, were hard, dry and of a grey color, and consisted almost entirely of undigested fat.

In all the cases, the food mixtures administered were found to contain approximately 7 per cent. of fat. The cream used was obtained from the milk of a herd of Jersey cows. When the fat percentage in the food mixture was reduced to a low limit, the cases improved. In all the digestive disturbance was of such severity that recovery was slow.

Physicians may avoid such mistakes by ascertaining approximately the fat content of the milk, cream, or top milk used in making up food mixtures. To be successful in the feeding of infants the physician must learn to think in percentages.

Holt considered that infants differ considerably in their capacity to digest fat as in other respects. He considers that four per cent. is the limit for the average child, and states that he has never seen any advantage, but often much harm result from raising above this. The bad results of the higher percentages may not be at once apparent, but they are almost certain to come later

A CASE OF CAESAREAN SECTION WITH TWO UTERI AND VAGINAE.

Dr. Ranken Lyle, in the *Scottish Medical and Surgical Journal*, gives some "Notes on an interesting case of Cæsarean section at full term in a patient with two uteri and two vaginæ." The woman was thirty-one years of age, and had had three abortions in successive years. Pro-lapsus uteri followed the ultimate abortion and was treated for seven months with a Smith-Hodge pessary. A year later her doctor found her in labor at full term. The os uteri was then the size of a florin, and was displaced forward by an irregular hard mass (the size of a closed fist) immediately in front of the sacrum. An aperient and an enema were given under the impression that it was due to hardened fæces, but with no effect on the obstruction. After the lapse of two hours, as the pains were strong and the head high up in the pelvis, and its advance impossible, Dr. Lyle was asked to see the case. On examination, the rectum was found empty and the mass was diagnosed as a fibroid in the pouch of Douglas. As delivery *per vias naturales* was impossible, Cæsarean section was decided upon. On opening into the abdomen, the uterus was found in front. It was opened and a living child with the placenta removed. The wound was closed and the mass being lifted up was found to be a myomatous uterus independent of the other and attached to the top of the vagina on the right side; it had one ovary and tube on the outer side, but none on the inner. There was a reflection of

peritoneum from the bladder directly to the rectum between the two uteri. The myomatous uterus was removed by supra-vaginal amputation, and the patient made a good recovery. The vagina was found divided by a complete septum which was attached below to the vestibule in front and to the perineum posteriorly. At the highest part of each vagina a distinct and separate cervix was found, the case being unique.

OPHTHALMOLOGY AND OTOTOLOGY.

Under the charge of G. STERLING RYERSON, M.D., C.M., Professor of Ophthalmology and Otology, Medical Faculty, University of Toronto.

LOCAL ANÆSTHETICS AND ANALGESICS IN OPHTHALMIC PRACTICE.

Dr. B. F. Church, in *Los Angeles Medical Journal*, of December, 1904, discusses the subject. He states that a local anæsthetic is differentiated from an analgesic by its power to render superficial surfaces painless to the touch and to have no effect upon deep seated preexisting pain. A local analgesic has no effect upon peripheral sensation but relieves pain. Cocain and holocain may be considered types of local anæsthetics; dionin, of local analgesics.

Hydrochlorate of holocain, in practical value, ranks next to cocain. It does not dilate the pupil, does not affect the epithelium of the cornea, and has valuable antiseptic properties. In one or two per cent. solution, it is superior to cocain as an anæsthetic for cataract operations. It penetrates more deeply than cocain and anæsthetizes the iris. It can also be employed by subconjunctival injection. It is especially useful by this method in operation for glaucoma. Its toxic effect is greater than cocain. Eucain B. has a limited use. It is less toxic than cocain and has some anæsthetic properties, but gives rise to marked hyperæmia and smarting when applied to the eye. It does not dilate the pupil and has no effect upon intraocular tension.

Tropocain has great anaesthetic properties, but has the disadvantages of Eucain B.

Acain renders the eyes of lower animals anæsthetic, but has no effect upon the human eye, save when there is a solution of continuity. It is used to relieve the pain of ulcers and traumatisms. A solution of acain is unstable.

Hydrochlorate of cocain is too well known to require notice.

Dionin has remarkable analgesic powers and is also a valuable acquisition to our therapeutic armamentarium. It is the hydrochloride of ethyl morphine, a homologue of codein, and is fully soluble in water. It is used in a strength of 1 to 10 per cent. in solution or ointment. Great

differences exist in persons regarding their sensibility to its action. A first application should not be stronger than 2 per cent. On account of the pain produced, it should not be dropped directly on the cornea, but into the lower conjunctival sac or preceded by cocain solution.

The physiologic action of dionin is that of a powerful lymphagogue and vaso dilater. It stimulates the vaso-motor and lymphatic systems of the eye. Lachrymation, chemosis and swelling of the lids characterize the use of this drug. The greater the reaction, the more beneficial the results. It has a wide range of usefulness, relieves pain, hastens absorption of exudates and assists atropine in dilating the pupil.

Weber (*Therapeutic Gazette*, Feb., 1904) gives a valuable report of his experiences with this drug and summarizes his conclusions as follows:—

1. That dionin possesses properties, at present inherent in no drug thus far used in ocular therapeutics.
2. That it is an analgesic of power and relieves iritis when atropine does not.
3. That the action of atropine is enhanced by dionin.
4. That it is a vaso motor and lymphagogue.
5. That it promotes absorption of exudates and debris after cataract extraction.
6. That it helps to clear up the cornea after interstitial keratitis.
7. That it seems without effect in other forms of corneal opacity.
8. That its influence upon the glaucomatous process is as yet unsettled.
9. That it should be widely used and the effects of such use reported in order that a correct estimate of its value may be made.

THE MEDICO-LEGAL ASPECTS OF OCULAR INJURIES.

Dr. H. V. Würdemann publishes an excellent and elaborate paper in *Ophthalmology*, January, 1905, which would occupy too much space for republication here, although it is worthy of it. He shows that the percentage ratio of eye to general accidents among iron workers is 9 to 10 per cent.; in war, less than 1 per cent. The 11th United States census gives 20 per cent. of blindness caused by injuries, as against other causes. Compensation for injury to the eye should be regulated by the amount of economic damage.

Some of the recent judgments in the U. S. Appellate and Supreme Courts fixing damages for eye injuries were as follows:—

Section boss, lost one eye, working capacity reduced one half, \$5,000; porter, one eye lost, other somewhat injured, \$3,000; farmer, one eye lost, court assumed his earning capacity was diminished, \$5,000; salesman, eyes injured in train wreck, so as to incapacitate him from business, \$5,000; woman lost one eye in train wreck, \$7,000; man, total loss of sight, \$9,000; woman, young and pretty, stenographer, \$12,000.

Conclusions :—

1. The present usages of the estimation of pensions, insurance and damages at law, for injury to vision are wholly based on precedent and are purely empirical.
2. The relation of the visual act to the earning capacity is susceptible mathematical demonstration.
3. The effect on the earning ability of the individual may be determined by the particular injury to vision.
4. For the settlement of pensions and annuities the full economic annual damage should be paid.

GLAUCOMA, ITS ETIOLOGY, PATHOLOGY AND TREATMENT.

The term 'glaucoma' is employed by B. F. Church, M.D., Los Angeles, to describe a condition in which there is an increased intraocular pressure. All symptoms and phenomena associated with this affection have their origin and are dependent upon this one condition, increased tension of the eyeball.

Glaucomatous manifestations are divided into three principal groups :
 1. Primary glaucoma, in which the increased pressure manifests itself without an apparent pre-existing cause. 2. Secondary glaucoma, a result of some antecedent disease. 3. Congenital glaucoma, usually described as buphthalmos.

While it may be said that primary, or true, glaucoma is produced by the secretion or oversecretion of fluid from the epithelial lining of the ciliary body, evidence seems to bear out the theory that there must co-exist an obstruction to its outward filtration. There are three kinds of fluid within the eyeball : Intraocular, that filling the aqueous and vitreous chambers; blood contained in the blood vessels, and lymph in the lymphatic spaces of the uveal tract and the perivascular lymphatic channels. The amount of blood in the intraocular blood vessels is subject to constant variations, such as alterations in the blood pressure, pressure from the surrounding muscles, and changes in the shape of the iris and ciliary body.

The mechanism which governs the secretion and excretion of the fluids of the eye is so delicately adjusted that, notwithstanding the constant changes which alter the amount of blood in the intraocular blood vessels, or possible stimulation which may increase the secretive power of the ciliary body, intraocular pressure, or tension of the eyeball, in health remains practically the same at all times. This pressure equals a column of mercury 28 mm. in height.

Primary or true glaucoma may be divided into (1) acute glaucoma (acute inflammatory glaucoma), (2) sub-acute or chronic congestive glaucoma (chronic inflammatory glaucoma), (3) chronic non-inflammatory glaucoma (simple chronic glaucoma). Primary glaucoma is not an uncommon disease, and, according to Fuchs, constitutes one per cent. of all diseases of the eye. Acute inflammatory glaucoma and the chronic non-inflammatory variety, or simple glaucoma, have the following distinctive characteristics:

Inflammatory glaucoma is found most frequently in persons between 50 and 60 years of age. It does not occur in childhood and youth. More women are affected than men. Strongly myopic eyes have almost, if not complete, immunity from the disease. One eye alone may be affected. Whereas simple glaucoma sometimes occurs in children or before middle life. As many men have the disease as women. It is sometimes found in myopic eyes. Hydrophthalmos (buphthalmos) is a disease of childhood; is either congenital or develops in the first years of life, and generally in both eyes.

Etiology.—The predisposing cause of primary glaucoma has to do with age, sex, conformation and refraction of the eye and systemic conditions. According to Priestly Smith, not one per cent. of the cases begin earlier than the twentieth year. The few seen in young persons are generally monolateral. Heredity seems to bear a casual relation to the disease. The gouty and rheumatic diathesis and those who suffer from arterial sclerosis, chronic bronchitis and heart disease are liable to the malady. Many observers believe influenza to be a factor in the causation of simple glaucoma. There is a relationship between smallness of the cornea and glaucoma. The normal cornea has an average horizontal diameter of 11.6 mm., while the glaucomatous cornea, according to Priestly Smith, is 11.1 mm.

Exciting Causes.—Glaucoma may be excited in eyes predisposed to the disease by worry, overeating, insomnia, fright and neuralgia of the fifth nerve. It sometimes follows injury and hemorrhage into the uveal tract. Instillation of mydriatics, also oversue of ametropic or improperly corrected eyes may bring on glaucoma in one predisposed to the disorder.

The disease under consideration is one of the most serious maladies of the eye which we are called upon to treat. It sometimes comes on very insidiously, and when least expected. A warning, therefore, is given to the busy practitioner to not permit the existence or nonexistence of probable predisposed causes to overshadow the classical prodromes of this affection. It is our duty, and it behooves us all to be alert in discovering its prodromic symptoms and to meet the disease promptly when it arises.

The pathogenesis of glaucoma says W. H. Roberts, M.D., Pasadena, is so intimately associated with its pathology that in considering the latter the former must of necessity be taken up. In order to understand this disease it is necessary to keep clearly in mind the source of supply of the intraocular fluids and the paths they follow in the normal eye. The ciliary body has been proven by Leber to be the chief secreting organ of the eye, supplying a fluid which nourishes the lens and vitreous and replaces the aqueous. Snellen describes the course pursued by this fluid as follows:

The freshly secreted fluid stands in close osmotic relation to that which is contained within the thin membrane of the vitreous body. A slight excretion of fluid occurs at the back of the eye from the vitreous body into the lymph spaces of Schwalbe in the optic nerve. The chief stream passes over the lens and through the pupil into the anterior chamber, traverses the latter to reach the angle formed by the junction of the iris and the cornea, passes through the meshes of the ligamentum pectinatum, and by diffusion and filtration is taken up into the plexus of veins known as Schlemm's canal. There is no direct connection between the anterior chamber and the lymph spaces, which, according to Schwalbe, exist in Schlemm's canal. The influence of the nervous system on the pressure of the fluid is indirect. The pressure of the fluid regulates the outflow, so that when the afflux is increased a compensatory increase of the efflux occurs.

W. S. Fowler, M.D., Bakersfield, states that the action of eserine in glaucoma depends upon the abnormal position of the iris; by contracting the sphincter of the pupil it thins the iris, flattens its folds, and pulls upon its peripheral insertion, tending thereby to open the filtration angle. Cocaine is synergistic to eserine in glaucoma; for while its action alone dilates the pupil, it has the power, so much to be desired in this disease, of contracting the ciliary blood vessels and diminishing the sensibility of the ciliary nerves, both results tending to lower intraocular pressure, even strong solutions of cocaine may be used so long as eserine controls its pupil-dilating power. Morphine eases pain, lowers blood pressure, lessens secretion, promotes contraction of pupil and sleep. During sleep the pressure on the cerebral vessels falls and the pupils contract.

Aperients reduce tension and congestion, especially in patients with constipation. Warmth, food and rest all aid in promoting relief. Ice applied to the closed lids sometimes proves a useful adjuvant to other palliative measures.

To utilize our knowledge of this disease and our remedies I would suggest to the physician, upon diagnosing a case of acute glaucoma, the application of hot compress over the eyes, renewed frequently for from fifteen to thirty minutes; the instillation with the eyelids of several drops of

R Eserin salicylat	gr. i
Cocain muriat.	gr. x
Aqua. destil.	ʒ i

repeated every hour till pupil contracts, and the exhibition of morphin to relieve pain and produce sleep. A full hot bath to induce free perspiration, the patient being immediately placed in bed, is an excellent preliminary to this treatment, but an immediate and active treatment of the underlying and predisposing general systemic condition is of the greatest importance to supplement and assist the local applications.

Such measures actively carried out will frequently subdue a recent congestive glaucoma even of severe type, and may for a time restore the eye to an apparently healthy state; the cure, however, will rarely prove permanent, and with each recurrence the treatment is less likely to prove effectual; it is useful chiefly as a means of lessening the severity of the symptoms and of bringing the eye into more favorable conditions for operative treatment and the immediate benefit, however great, must not be allowed to obscure the fact that, in the majority of cases, a permanent cure can only be obtained by proper and timely operation.

Pilocarpin to the production of very free diaphoresis has been a very useful medicament, given subcutaneously until its effect was well established and per os in increasing doses daily thereafter until the intra-ocular tension falls within reasonable limits.

Treatment of the absolute stage of glaucoma can avail nothing beyond the relief of pain, and this object is more certainly, speedily and satisfactorily attained by the removal of the useless organ than in any other way. Treatment of the various forms of secondary glaucoma is usually surgical, and consists of some variety of iridectomy, the broad peripheral form being most generally useful; but even in these cases the course of treatment given for the acute primary form of the disease sometimes relieves the patient.—*California State Journal of Medicine.*

CURRENT CANADIAN MEDICAL LITERATURE.

The Canadian Practitioner, April, 1905.

HÆMORRHAGIC PANCREATITIS.

Dr. W. J. McNicholl, of Hamilton, gives a very careful account of the above disorder. He reports a case and follows this up with an account of the state of knowledge on the subject up to date. The case reported was that of a man, aged 45, with a good family and personal history. When attending a meeting he laughed very heartily at something that was said and did not feel well after that, passing a very restless night. He did not feel much inconvenience the week following. Very suddenly he was seized with violent pain in the upper abdomen. The patient was in a state of prostration with rapid, weak heart and cyanosis. The abdomen was greatly disturbed, particularly over the upper portion. There was great pain in the back, the lower dorsal and lumbar parts. On account of the extreme tympanites it was not possible to discover any mass, nor could the liver and splenic dullness be made out. A consultation was held and the diagnosis made of pancreatic hæmorrhage, or a perforation of an ulcer. An operation was advised which he declined at first, but later on accepted. It was performed in the evening of the same day. When the abdomen was opened it was found to be filled with a bloody serous fluid on which floated apparent fat globules. There were many small patches of fat necrosis, the pancreas was greatly swollen and much disorganized from a large amount of extravasated blood. The abdominal organs were found to be seriously distorted and damaged.

On making a postmortem on the body a large quantity of the above-mentioned fluid was found. There were many areas of fat necrosis. A gall stone the size of a cherry was found in the cystic duct at its junction with the common duct. Enormous quantities of blood were found in the retroperitoneal tissue. The pancreas was six or seven times its normal size. The gland was very much damaged. The lobules and acini were destroyed and in parts replaced by areas of necrosis.

The disease is usually met with in middle-aged men. The subjects are often obese and addicted to alcohol, and have a history of colicky pains. Among causes may be mentioned the hæmorrhagic diathesis, alcoholism, arterio sclerosis, syphilis, fatty degeneration in obesity, traumatism, embolism and thrombosis. A gall stone may become lodged in the ampulla of Vater and cause a flow of bile into the pancreatic duct,

giving rise to inflammatory changes and hæmorrhage. The escaped pancreatic ferments are very destructive to the tissues.

The only hope in these cases is in surgical intervention. As the symptoms are very urgent and likely to be much the same as in other conditions calling for surgical treatment, no mistake will be made by opening the abdomen. The diseases that should be borne in mind are perforation of gastric and duodenal ulcers, intestinal obstruction high up, and acute perforative appendicitis. The only rational therapy is to open the focus with the knife and drain the toxic and infectious exudate.

In the matter of the symptoms the writer directs attention to the following points : The attacks come on with great suddenness, there is usually violent colicky pain in the upper abdomen, nausea and vomiting. The abdomen becomes distended and tympanitic and there is usually constipation. There is tenderness over the entire abdomen, but specially in the upper portion. The temperature is at first subnormal, but later on rises above normal. The extremities are cold, the breathing is hurried and costal, there is cyanosis. The shock is intense from pressure on the solar plexus and abdominal nerve supply. There is marked pain in the back corresponding to the pancreas. Acute pancreatitis is to be suspected when a person perviously well, or affected with occasional attacks of indigestion, is suddenly seized with a violent pain in the epigastrium followed by vomiting and collapse, and in the course of twenty-four hours by a circumscribed swelling, tympanitic or resistant, with a slight rise of temperature. The article is an extremely interesting and valuable contribution to the subject of pancreatic diseases, which is now attracting a good deal of attention.

A REPLY TO DR. USLER.

This article by Dr. John Ferguson was read at the Toronto Medical Society, and has already appeared in the April issue of the Canada Lancet to which readers are referred.

Dominion Medical Monthly, March, 1905.

THE SURGICAL TREATMENT OF RENAL TUBERCULOSIS.

This article is from the pen of Dr. Howard A. Kelly, of Baltimore. In opening his paper he refers to the characteristic in the development of surgery that some one subject dominate the surgical thought for a

time, until it appears to be settled on solid ground when it is dropped and some other subject is taken up.

Dr. Kelly performed his first nephro-ureterectomy in 1893. The patient had had a left renal tuberculosis for 15 years. The kidney and ureter were removed and the bladder drained. She made a good recovery, and is still in excellent health. Since this case he has had 44 others.

Dr. Kelly is strongly of the opinion that, though uro-genital tuberculosis in the male may ascend from the bladder to the kidneys, such a course may be set aside as not occurring in the female; and that tuberculosis of the urinary organs in women is a descending disease, having its beginning in the kidneys. The kidney is infected through the arterial system. In the case of women, with the rarest exception, the course of the disease is from the renal cortex or papilla to the pelvis, the ureter and the bladder. In Dr. Kelly's cases there was only one doubtful case which began in the bladder.

With regard to spontaneous cure it is held that it is extremely rare and only in the sense that the kidney is destroyed and encapsuled in a mass of sclerotic tissue and the ureter obliterated. The rule is that renal tuberculosis is both progressive and fatal. This being the case, the best treatment is extirpation of the diseased organ.

The operation should be performed with as little delay as possible, only waiting until the patient is in fair condition. The disease tends to run a very chronic course and may last from 16 to 20 years. Sooner or later, however, the disease shows itself in some other part of the body, the lungs, or, much more frequently in the other kidney. In the case of the second kidney, the disease is likely of the ascending variety from the bladder up the ureter to the organ.

The diagnosis must be made with the utmost care. The only sure proof is finding the bacilli in the urine, which must be drawn by catheter to avoid the presence of the smegma bacillus. Even with this precaution this bacillus may be found in the urine. The x-rays should be employed with the view of determining if there be a calculus in the kidney. Palpation of the ureter through the vagina or rectum is helpful. If the disease is advanced it will be found thick and cord like, or even beaded. The cystoscope often reveals an inflamed condition of the mouth of the ureter and ulceration of it and of the bladder around it. The ureter orifice may retract to the posterior part of the bladder and is often circular and gaping like a pocket. The ureteral catheter may meet with obstruction, but if it can be introduced it may be left in position for several hours to secure a good sample.

The condition of the other kidney must be determined. If the bladder is not ulcerated, while the ureter catheter is in position, it should be

washed out and a sample of urine obtained from the other kidney. If the urine is normal it may be taken as satisfactory; but, if abnormal, the second ureter must be catheterized. When careful search has been made and no bacilli found, two guinea pigs should be injected, one in the peritoneal cavity, the other in the flank, with the fresh sediment from the urine. The amount of urea excreted by each kidney is also of importance as enabling one to decide which organ is functioning most actively. Cryoscopy of the blood and of the urine from each kidney may be of some use. The diseased organ may sometimes be palpated. Care should be taken to ascertain if there be tuberculosis in any other part of the body.

As to treatment, three courses are open to the surgeon. Nephrotomy, or opening the kidney and draining any abscess that may be found, is not at all successful. Partial removal of the kidney has been tried, but has almost always failed, as the removal of part of the diseased kidney fails to eradicate the disease. The third plan is the removal of the kidney and diseased ureter.

The patient is placed on an Edebohls cushion, bringing the loin into prominence. An oblique incision is made from the angle of the last rib downwards and forwards for 4 inches. The latissimus dorsi is cut or its fibres drawn aside. This exposes the tendinous area formed by the oblique muscles. On reaching this an artery forceps is forced in, opened and then withdrawn. This makes an opening through which the retroperitoneal fat protrudes. This opening is enlarged by a blunt dissection and pulling the parts asunder. The kidney may be exposed with very little bleeding and without the use of a single ligature. If the wound has to be enlarged, it may be done by a blunt dissection and the separation of the fibres of the external oblique with the fingers, and incising the internal oblique. When the kidney only is to be removed, the ureter is freed for about four inches, crushed with a clamp, and divided. The vessels are tied separately well away from the kidney. When the ureter must be removed, an additional opening is made into the pelvis, keeping outside the peritoneum. The ureter may be removed through this down to the bladder. The upper portion of the ureter and kidney are removed through the lumbar opening. A bridge of the abdominal wall is left between the two openings. Portions of the bladder have also been excised.

FINSEN LIGHT, X-RAYS, AND HIGH-FREQUENCY CURRENTS IN SKIN DISEASES.

Dr. Graham Chambers, of Toronto, discusses the above subjects in an interesting paper. He uses the Finsen apparatus. The lamp should possess penetrating power and germicidal power. The lenses are made of rock crystal which allows the ultra violet rays to pass through, glass

absorbing these rays. The Bang lamp lacks the power of penetration and is of very little use in treating deep lesions. Finsen light is very useful in the treatment of lupus, unless there be ulceration when the x-rays should be used until the ulceration disappears. The Finsen light may then be employed.

The x-rays he uses extensively and employs hard tubes, placed about 8 inches from the patient. The exposures vary from five to fifteen minutes two or three times a week. The x-rays are very useful in rodent ulcer, the healthy skin being protected by a shield. In deep epithelioma the x-rays should not be trusted as the sole treatment. The rays should be applied after excision. When there is rapid growth in skin epithelioma, arsenical pastes may be used, followed by the rays. In cocco-genic sycosis the application of a strong antiseptic ointment, at the same time using the x-rays five or six times. The hairs are then readily removed. In tinea tonsurans the application of an ointment containing iodine, sulphur, salicylic acid, and ammoniated mercury, together with the x-rays, will soon begin to cause the hair to fall out. This treatment will cure very obstinate cases in less than three months. Short exposures should be the practice, three times a week.

High-frequency currents were introduced into medicine by D'Arsonval. In this form of radio-therapy Dr. Chambers employs an Oudinval Dean resonator. D'Arsonval thinks that this form of treatment has a distinct effect on metabolism, increasing the carbon dioxide and the production of heat. It produces anæsthesia of the skin and relieves neuralgia and myalgia. Hyperæmia, œdema and vesication may result from this form of treatment. Dr. Chambers has found high-frequency current of distinct benefit in cases of lupus erythematosus. He cured four cases out of six, another is improving, while one was given the light treatment when this treatment had failed. The indolent cases with induration appear to be best suited for the high-frequency currents. The treatment was given once or twice a week by means of a Tesla's electrode. Pruritus ani has been benefited by these currents. In telangiectasis these currents, along with scarification, prove very useful. In alopecia areata, combined with antiseptic lotions, sparking by means of high-frequency currents has been found very helpful.

Upon the whole the writer of the article takes a very hopeful view of the treatment of skin diseases by these physical appliances.

The Montreal Medical Journal, March, 1905.

PRESSURE PARALYSIS.

This very interesting and important subject is made the basis of a very lucid paper by Dr. D. A. Shirres, of Montreal. His paper is a study of

a number of cases in actual practice: One cerebral, one spinal, one cauda equina, seven brachial plexus in adults, and six brachial plexus in children.

Before going into the history and treatment of these cases, he gives a succinct but clear account of the central nervous system and especially the part played by the neurones. This portion of his paper is useful and suggestive. He maps out the functions of the upper and lower motor and sensory neurones. The upper motor neurone is motor and inhibitory in function, while the lower motor neurone is motor and nutritional to the muscle fibre. When the lower sensory neurone is destroyed there is loss of sensation and also of the reflexes. When the upper sensory neurone is destroyed there is loss of sensation, but the deep reflexes are preserved. A careful study is given of the effects of pressure on the brain, on the cord at different levels, and on the peripheral. The cases reported bring out the features of these varieties of paralysis, such as spastic and rigid or flaccid and atrophied muscles, loss of sensation with and without loss of the reflexes.

NERVE GRAFTING AND THE NEURONE CONCEPT.

Dr. Mills, Professor of Physiology in McGill Medical Faculty, gives an interesting account of our knowledge on the subject of nerve suturing and grafting. He points out that nerves have a marked tendency to reunite when divided, and that it is often difficult to prevent this occurring. This fact is made use of in the efforts to secure restoration of function in a paralysed muscle. Experiments have shown that the peripheral end of one motor nerve has been united with the proximal end of another motor nerve and that the muscles so supplied have retained their power.

Certain principles are now generally accepted. Functional union does not take place between the central ends of two nerves. The peripheral ends of two nerves may sometimes unite. The central end of a nerve may unite with two peripheral nerves. Nerves may be so united as to be lengthened. Efferent nerves cannot be united with afferent fibres. The phrenic nerve can be united with the cervical sympathetic and the latter with the recurrent laryngeal.

The question of the autogenic regeneration of the distal portion of a divided motor nerve is fully considered. The arguments and experiment for and against its occurrence are stated. On the whole it may be accepted that the peripheral portion of a divided motor nerve does not regenerate unless it becomes united with a central portion.

AN UNUSUAL INJURY TO THE CERVIX UTERI DURING LABOR.

Dr. J. B. Browne reports the case of a woman who sustained an unusual injury during labor. The labor was dry, the pains were severe, and the cervix rigid. The posterior wall of the cervix became distended and ruptured, the child being born through the perforation and not through the os, which never dilated nor was it lacerated.

The patient did not make a good recovery. On the eleventh day, the patient was examined by speculum, when the true condition was revealed. The perforation was curetted so as to freshen the edges, and the parts brought together by sutures. The recovery was satisfactory. This is a very unique case. The causes advanced for the peculiar laceration are: the patient was a primipara, the labor was a dry one, powerful uterine contractions, and the direction of the head against the posterior wall of the cervix. The writer is of the opinion that the accident may have often been overlooked.

TRANSPOSITION OF THE VISCERA AND ATRESIA OF THE PULMONARY ARTERY.

Dr. John McRae puts on record a case of this nature. He mentions that the most common form of congenital heart anomaly is stenosis or atresia of the pulmonary artery. Atresia forms about one-sixth of the combined cases. In the case recorded by Dr. McRae the pulmonary artery was a mere fibrous cord. Vierordt found 12 such cases on record. These cases, of course, do not live long, usually dying within a week, but this case lived seven weeks and there is one reported that lived nine weeks. Of the other abnormality, the situs inversus, it is stated that there are about 300 cases on record. In the case reported, the heart was like that of the fish, one ventricle and one auricle.

A CASE FOR DIAGNOSIS.

Dr. James Bell, of Montreal, gives the clinical history of a unique case, where the diagnosis was very obscure. The patient was a young man of 31. In March, 1904, he felt a pain in the lower part of the sternum, radiating downwards. On 20 June, he consulted a physician who found slight tenderness on pressure. On July 9, he again consulted the doctor when three hard little nodules could be felt over the lower portion of the sternum. On August 15th, enlarged glands were found in the axilla, and on 25th a prominence along the lower border of the pectoral muscle, and the small nodules were ulcerating. The veins along the lower part of the chest were dilated. The case was clearly one of some sort

of infection. On 10th September, a gland in the axilla was removed and found to contain only inflammatory tissue. One of the ulcerating nodules was also removed and contained only inflammatory tissue. On 3rd October, the ulcerating nodules and the greater part of the right pectoral muscle were removed, and the muscle was found to be deeply involved. During all this time there was no suppuration. The leucocytosis rose to 22,000. Cultures were found to be sterile but a bacillus resembling a form of leptothrix was discovered. After a careful analysis of the case, Dr. Bell excludes glanders, tuberculosis, syphilis, malignant disease, and actinomycosis. He came to the conclusion that it was a granuloma, due to infection by some form of leptothrix.

The Maritime Medical News, March, 1905.

TREATMENT OF CASES BY X-RAYS.

H. D. Weaver, M.D., of Halifax, has an article upon this subject. He has treated 46 cases, and gives details of these. Some had only three or four treatments, while others had as many as eighty, and were under treatment for 21 months. In one case when pushing the treatment to destroy a malignant growth there was a typical case of x-ray burn or "white gangrene."

The hypertrichosis cases were fairly successful but the length of time that the treatment takes, also the risk of severe dermatitis, the extreme pigmentation, which may last for weeks, are great objections.

In all or nearly all the cases of carcinomata the relief of pain and the satisfaction to the patient in feeling that the disease was being fought, have been very great. And in several cases life was greatly prolonged, but he doubts if any of his cases will eventually be cured. In early cases of rodent ulcer and epitheliomata the treatment was very useful in his cases. In advanced cases, he thinks it may only restrain the disease.

He urges that the x-rays be used, where possible, after operation for malignant disease.

THE PRACTICE OF MEDICINE IN INDIA.

Anna M. Fullerton, M.D., of Punjab, India, gives an interesting account of the practice of medicine in India. She refers to the fanatical adherence to ancient customs and religious beliefs as defying the laws of science at every point. When one has lived in India for some years it becomes quite apparent why the British Government has not been able to suppress epidemics of the plague and cholera. The streets of India are crowded with those who are the victims of incurable diseases, once cur-

able, but now hopeless through neglect. Many are maimed from brutality, and there are very many children who are blind and deaf because of neglect.

Scurvy, diarrhoea and gangrene, the result of chronic starvation, abound. About one-fifth of the population, or 60,000,000, are insufficiently fed, even in years of ordinary prosperity. Some of the rulers are very rich, but a vast number of the people are groveling in poverty. The average income of an East Indian laborer is \$1.50 a month.

Famine is frequent in some part or other of the country. The plague, eruptive fevers and pulmonary diseases, including tuberculosis, are very prevalent and fatal. During the long hot season dysentery, cholera, and intestinal diseases, and malaria are scourges of great severity.

Demon possession is firmly believed in and appear to be only exaggerated cases of hysteria. Fortune telling and the belief in omens add to the dread of the average Hindu.

Surgical diseases and accidents are very common, the treatment of which is left to the barbers who may bleed, use leeches, or apply the cautery. For tumors they do nothing. There is strong prejudice against the foreign doctor in cases requiring operation.

Leprosy, syphilis and many forms of skin diseases are very common.

Herb doctors are numerous, called "hakims," who combine with their practice chants, incantations and offerings to the gods.

Of the 300,000,000 of India's population, 120,000,000 are women, and of these at least 50,000,000 are Zenana prisoners, the high class secluded women, to whom male physicians can never have access. These women suffer terribly through the poor attendance they receive from the native midwives. Rickets and scrofula are very prevalent among these women and add to the troubles of childbearing.

Very early marriages cause a vast amount of disease. Brahmin girls must marry between 7 and 11. This frequently leads to sterility from disease. These girls become pregnant and then the uterus undergoes superinvolution.

The government wish to overcome some of these evils by the establishment of hospitals. Medical schools have been established, also, in Calcutta, Bombay, Agra, Lahore and Madras, where those with sufficient education may be trained for the medical profession. Many special hospitals have been erected for the treatment of women, and known as "Dufferin Hospitals," after Lady Dufferin who lived in India as wife of the Viceroy. In many of these institutions the distinctions of caste are firmly drawn and the lower castes fare badly. In many instances religious fanaticism interferes with the treatment and prevention of disease.

The people are very ignorant, dirty, and prejudiced. It will take a long time to spread western ideas among them. The hospitals and medical colleges are doing much to introduce new views. In this respect the medical college for women at Ludhiana deserves special mention.

OTHER PAPERS.

The address of Dr. F. E. Daniel at the American International Congress on tuberculosis contains some good advice along the lines of prevention. He speaks of the disease going along with the conditions of civilization. The utmost care should be taken with cars, passenger boats, public buildings, etc. Every effort should be made to eradicate the disease, by prevention as well as cure.

Dr. E. D. Farrell, of Halifax, gives the report of an interesting case of perinephritic abscess. There was doubt as to the case being one of appendicitis, psoas abscess, or perinephritic. Some pus was obtained by aspiration which was *staphylococcus pyogenes aureus*. This helped to settle the diagnosis in favor of perinephritic abscess, as the appendiceal abscess would likely contain the colon bacilli, and the psoas usually contains no bacilli until it is opened. The abscess was opened by an incision as for nephrectomy. The patient recovered.

Dr. W. D. Finn, of Halifax, reports the case of a girl who had a greenstick fracture of both bones of the forearm. The arm was straightened and put on splints. The girl was 14 years, which is rather unusual for such a fracture. The recovery was excellent.

An interesting judgment is recorded, a person, named Goelette, had engaged Dr. Doucette to treat his wife for \$20. Dr. Doucette called in Dr. Pinault to perform an operation. This was skilfully done and the patient made a good recovery. Dr. Pinault had to sue for the recovery of his fee, the defendant claiming that he had engaged Dr. Doucette for a definite amount to attend his wife. The Judge gave a verdict in favor of Dr. Pinault.

QUEBEC MEDICAL NEWS

Conducted by MALCOLM MACKAY, B. A., M. D., Windsor Mills

The contract for the building of the new Alexandra Hospital in accordance with the plans prepared by the architects, Messrs. Edward & Maxwell. has been awarded by the governors to Mr. John Quinlan. By the awarding of this contract, approximating in amount to \$250,000, the committee has assumed a liability that would have deterred many less resolute than the gentlemen composing the board, but the necessity is so great, and the safety of the community so much at stake in case of an epidemic of infectious disease, that the matter of lack of funds to meet the obligations incurred could not be allowed to further block the way in the accomplishment of the desire to provide suitable accommodation for this class of cases.

The Royal Victoria Hospital fire has imposed upon the committee the absolute necessity of obviating the occurrence of such a calamity in this new institution. While this, from the point of view of construction, does not present any very serious obstacle, yet the additional expenditure that such a plan demands, has had to be faced, and the Board has wisely decided to employ only the most thoroughly fire proof method of building that recent experiences have proved to be absolutely secure, believing that the public will approve of their decision and will come to their aid in a generous manner.

The property is situated at Point St. Charles, about half a mile above the Victoria Bridge, bounded by the river on the south, by Char-ron St. on the north and on the east by Nelson St., the lot having a front-age of 479 feet.

The buildings are to be grouped about a main axis, running through the centre of the lot and distributing symmetrically on each side of this axis.

The administration building occupies the centre of the group nearest the street, a building 72 ft. by 40 ft. From the rear of this building leads a covered and heated corridor that passes around the kitchen building immediately behind the administration block, and gives access to the three main pavilions, namely the measles, scarlet fever and diphtheria blocks while the erysipelas and observation departments are situated to the east and west respectively of the administration building, and connect-ed with the same by similar corridors.

As to the construction of the building, terracotta, steel, concrete, brick and stone are practically the only material which will be used. The

floors are to be monolithic with rounded corners, all walls and ceilings will be in hard plaster painted and enamelled white, the only woodwork used being the sashes and doors, and these latter will be of veneered hardwood without panels or mouldings. Special attention has been paid to the ventilation, and fresh, moistured, screened and heated air is provided at the head of each bed. Boyles' ventilators cap each duct and the Johnson system of temperature regulating apparatus is to be used, whereby a change of half a degree will regulate the steam supply accordingly. The accommodation will be about 125 beds or 185 in case of emergency.

At the graduating exercises of the Royal Victoria Hospital nurses, Lord Strathcona, in the course of his address, announced that a new residence would be built at the western side of the hospital for the accommodation of the nurses in training. The new home will be capable of housing about one hundred nurses and is to be fitted up in the most modern fashion with every comfort for the occupants. Competitive plans have been called for and probably the work will be commenced this year. This addition to the hospital will be most valuable, as for years hundreds of candidates for admission to training have been refused through lack of room. The work of the hospital has also increased so materially that a larger staff of nurses has been found to be essential. Especially true is this in regard to the operating room nurses. The large and magnificent new operating theatre requires a considerable increase in the staff, and, when the old theatre has been completely rebuilt, there will be still greater demands upon this portion of the nursing body and consequently the new building will be a very great improvement upon the present plan.

On April 14th Dr. Osler addressed the McGill Medical Society in the Molson Hall. His subject was "The problems of the medical student before and after entering medical practice," and he was listened to with great attention by an audience which filled the hall to its utmost capacity.

Dr. Osler knows how to interest students and his first remark, "No one is more interesting as an object of study than a student," made every member of the medical society—founded by the way by Osler in '77—sit up at attention. Many were the quotations, the epigrams, and the *bons mots*, which were delivered in the well known fascinating style of the Canadian student's ideal.

"To no man is it given to know the truth, the whole truth, and nothing but the truth. But what is a student but a lover courting its fickle systems? The truth is the best you can get with your best endeavor."

"Keep your heart whole and be always a student. You and your professors are all students together." "The education you are getting is not merely a college or medical one, but a life course, ending only with

death. You may die in training from lack of food—worse, you may be mentally still born—but what you become depends upon whether you starve your brain after you leave college or not. This latter study is hard. There is too much wayside fruit in our educational market. With Chrysostom I would say 'depart from the highway, for it is hard for a tree that grows by the wayside to keep its fruit until it be ripe.' "

"The true student is a citizen of the world whose soul is too precious to be restricted to any one country."

"You must not confine yourselves to book knowledge, study men. That will order experience and give certainties instead of surmises, and enable every man to judge his own line of work."

"Your study is human life, its orders and disorders, and you to put it to rights."

"There are three things a practitioner needs, a note book, a library and a quinquennial brain dusting."

Such were a few of the sentences in an address which appeared far too short. The "brain dusting" above mentioned was to consist in a periodical sojourn at a hospital to get in touch with new ideas and treatment.

The lecturer considered the greatest danger to be in the break between college and active life. If the first year was one of study and work it might mean a life of great usefulness; but, as a general rule, either from incapacity or distaste, this was not the case. To avoid this, he strongly advocated the British custom of old practitioners taking juniors as partners. This was the best way to cultivate that best flower of profession—a cultivated general practitioner, which was the desideratum he hoped for the most of his hearers.

His final precept was that the practice of medicine was pretty much what the doctors made it and either a perpetual pride and joy, or a perpetual nuisance; and it could be made the former by a perpetuation of the student spirit.

Principal Peterson moved a vote of thanks to the distinguished lecturer, in which he congratulated Dr. Osler that as yet he only looked *thirty-nine*, and voiced the gratitude of McGill that he had returned once more to his alma mater before being translated to another world.

In the evening, a banquet was held in the Windsor Hotel—the annual dinner of the Medical Faculty. Some 250 covers were set and the function passed off amid the greatest enthusiasm. Dr. Osler in the course of his remarks spoke of the great advances which had been made in the faculty of medicine since he left some twenty years ago, and considered that much of the success of the medical school was due to the hospital facilities enjoyed by the students, stating that Montreal had two of the

best equipped hospitals on the continent. He also touched upon the need of funds, and the dependence of the college upon the generosity of the public, as student's fees were entirely inadequate for the support of such an institution.

In conclusion he said that the reception tendered him by the students and faculty of his old alma mater gave him courage to go across the water, and he was glad to know that he carried with him the good will of the students of old McGill.

Dean Walton responded to the toast of "Old McGill" and referred to Oxford and its tradition at some length, suggesting that Dr. Osler should cable "You needn't take it" to the Oxford dons; as many were of an advanced age.

Dr. Mills responded to the toast of the medical faculty and alluded to his student days with Osler under Bovell, of Toronto, and Howard, of Montreal.

Sir James Grant and Dr. Chipman were among the other speakers, and the banquet is recorded among the most successful in the history of the medical faculty.

The Medical Faculty of McGill University has arranged for a very complete post-graduate course of instruction for the month of June. This is the tenth year of this course. This year, however, special efforts will be made to render the course very complete and satisfactory in every way. Those taking the course may select the subjects desired and pay for these only. The course will be largely clinical and practical. Arrangements have been made for an abundant supply of clinical material at the different hospitals.

The course will begin on Monday, June 5th, and be carried on until Friday, June 30th.

Dr. Fleury, who has been medical superintendent of the Notre Dame Hospital for the past four years, will leave shortly for Europe to pursue a course of study. Dr. Demers, who is at present one of the house surgeons of the hospital, will succeed him as superintendent.

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EDITORIAL.

ALCOHOL AS A MEDICINE.

“Fifty years ago alcohol was regarded as a necessity of life by the man in the street and as an indispensable drug of omnipotent value by the physician. Nowadays all that is changed. Alcohol is looked upon as a luxury for the healthy man and a stimulant of determinate value, useful in some forms of ill-health. On the other hand, it is recognized as the cause of a vast number of pathological disturbances, functional or organic, and as a potent factor in disease, premature senility, early death, insanity, and an innumerable array of more or less deadly maladies.” Such is the language of the *Medical Press*, with which the vast majority of the medical profession agrees.

Much has been said and written upon the amount of alcohol which the adult can tolerate or use without harm daily. Dr. Francis E. Anstie laid down the rule that one and one-half ounces was the quantity. Recently, Professor J. J. Abel, of Johns Hopkins University, lays down the quantity as one or, at most, two glasses of wine (10 per cent. alcohol), or one pint of beer, or their equivalents in terms of alcohol, in the twenty-four hours.

The Collective Investigation Committee of the British Medical Association reported as follows as the result of a careful study of the subject:—

“That habitual indulgence in alcoholic liquors beyond the most moderate amounts has a distinct tendency to shorten life, the average shortening being roughly proportional to the degree of indulgence.

“ That total abstinence and habitual temperance augment considerably the chance of a death from old age or natural decay without special pathological lesion.”

If we turn to the records of the old and large life insurance companies, where there is a large collection of lives to draw conclusions from, we find that in Great Britain there is a difference of 25 per cent in favor of the abstainers as compared with the non-abstainers; and in the United States there is a favorable balance of 18 per cent.

By means of delicate and accurate tests the experimental psychologist

can determine the mental activity of an individual. Tests of this nature have been conducted under competent observers and show that the daily consumption of one and one-half ounces of alcohol perceptibly lessens mental capacity and activity. This effect is noticed for at least eight days after the cessation of its use. This makes it quite clear that in health alcohol, even in small quantities, acts as a narcotic and a depressant.

Turning to the change of opinion in the use of alcohol in disease, several important facts must be noted. In the first place, in the Temperance Hospital in London the results are as good as in any other British hospital. In the Massachusetts General Hospital in Boston in 1884 the yearly drink bill for each patient was \$1.84, while in 1900 it had fallen to 29 cents with results satisfactory to all.

Some fifty years ago, arising from the teachings of Liebig that alcohol was a food, it was not uncommon to give from 30 to 45 ounces of brandy per day to fever and pneumonia patients. This practice is happily gone forever. Sir William Tennant Gairdner of Glasgow was the first to raise his voice against such over dosing with alcohol. In his book, *The Physician as Naturalist*, he dealt a crushing blow to the teachings of such men as Todd and his school. In 1862, W. T. Gairdner began to discontinue the use of stimulants in fever cases. During that year he treated 189 fever persons under 16 with only one death, that of a girl who was moribund when brought into the hospital. The excessive alcohol treatment under Todd, of Kings Hospital, gave a death rate thirty times as great.

Briggs of Johns Hopkins has shown that alcohol by irritating the mucous membrane of the mouth and stomach, causes a temporary rise of blood pressure, lasting about thirty minutes. This is clearly not what is required in an acute, exhausting disease. A dose of capsicum will do as well and the rise of blood pressure is more lasting, while it is not followed by the reduction noted in the alcoholic rise. According to the teachings of Ringer, Sainsbury, Martin, Hemmeter, Wilks, Hill and many others, alcohol is a cardiac depressant and paralyzant and not a direct cardiac stimulant. Alcohol increases the diastole and lessens the systole of the heart. It has received the reputation of being a stimulant from the fact that when first given in fever cases it appeared to do good, a circumstance that was attributed to its stimulating influence, but which was really due to its sedative effects. Take the case of a person in the late stage of cardiac failure in valvular disease with dropsy, visceral engorgement and orthopnoea, the administration of alcohol, as Wilks has shown, always makes the condition of the patient worse; whereas purgatives and strychnia improves the condition. This would appear to prove that alcohol is not a cardiac tonic or stimulant.

If alcohol could be of any use at all as a cardiac stimulant one would expect good results from its administration in the late stage of fever with dicrotic pulse and low blood pressure. But clinical experience shows that it fails to raise the blood pressure in such cases. This is true equally when given by the mouth or by the hypodermic method. Large quantities of alcohol produce this very condition of pulse met with in the late stage of severe fever. We may take it that alcohol cannot raise the blood pressure, whether it be normal or subnormal to begin with.

Much has been written about the antipyretic effects of alcohol. It has been settled that any influence of this sort which it may possess is not due to an inhibitory power over tissue change or metabolism. It has, however, a decided influence on the temperature of the body, but only through its power to relax the cutaneous vessels and allow more blood to accumulate on the surface of the body. Body heat may in this way be dissipated if the environments of the person is favorable to loss of heat by radiation or conduction. Alcohol is, therefore, not an antipyretic in the true sense. It only acts on the temperature through the vaso-motor nerve system, and the advantage may be bought at too high a price.

Alcohol may prove useful when applied to the lips to cause a reflex rise of blood pressure in syncope or sometimes as a narcotic, or again to dilate the surface vessels when the skin remains cold after exposure. It may be given a visceral neuralgia, but this may lead to its too frequent use. Professor Munro of Glasgow sums up an able article in the following words: "Alcohol is a medicine with certain useful properties, but the limitations of its usefulness are far greater than is ordinarily supposed; and even where it is useful, there are generally other remedies which are also useful and, at the same time, more safe."

Sir William Broadbent, in a carefully prepared article on "Alcohol as a Medicine," in which he takes a very judicial view of the question, and evidently is disposed to give as much credit to alcohol as a medicine as can be allowed, still speaks with great reserve, and his words of caution exceed his words of praise. "The action of alcohol which we call stimulant is," says Broadbent, "therefore, indirect, and the most conspicuous evidence is dilation of the arterioles and capillaries, which allows of freer supply of blood to all the organs. There is a concomitant increased action of the heart, due partly, if not mainly, to the diminished resistance in the peripheral circulation. A temporary general acceleration of the circulation and increased afflux of blood to the brain and viscera generally thus constitutes the action of alcohol of which we take advantage clinically. It may permit of the evolution of functional energy, but this is provided at the expense of blood and tissue, and is not supplied by the alcohol."

Mr. Pearce Gould, in speaking of "Alcohol in Surgery," says: "For

many years I have dispensed almost entirely with alcohol as an aid in surgical treatment. As soon as I made trial for myself of the effect of withholding alcohol, I found how entirely overrated its value was, and how gravely mistaken had been the teaching. It is commonly held, I believe, that alcoholic stimulants are of special value in all forms of septic inflammation, such as pyæmia, erysipelas, septicæmia and hectic fever. I believe that this is founded solely upon tradition unsupported by any trustworthy evidence, and untested by experiment or experience." And, again: "I think that of all the bad uses to which alcohol is often put as a therapeutic agent, none is worse than its employment in any form of infective disease. Even in cases of uncontrollable suppuration, I have found nothing but good from withholding all alcohol."

CEREBRO-SPINAL MENINGITIS.

The recent epidemic of cerebro-spinal meningitis in New York and adjacent places has attracted a good deal of attention. This disease appears in the epidemic and sporadic forms. The membranes involved are the arachnoid and the pia. The veins, arteries and lymphatics are affected, and also the surface of the brain, giving rise to a true meningo-encephalitis. In the vast majority of the cases the meninges of the cord as well as those of the brain are attacked.

While a number of bacteria may cause acute meningitis, the chief ones are the diplococcus intracellularis, the pneumococcus and the streptococcus. The diplococcus intracellularis meningitidis was discovered in 1887 by Weichselbaum. A few years later, Jäger proved that this organism is the specific cause of epidemic cerebro-spinal meningitis. It appears as a diplococcus, but often groups in fours as a tetrad. It is practically settled that all cases of primary meningitis are caused by the diplococcus intracellularis. Secondary cases of meningitis are caused as a rule by the pneumococcus, the streptococcus, or some other form of bacterium.

The germ has low resistance to unfavorable conditions and cannot withstand light or drying. This is a very important feature in the life-history of the diplococcus intracellularis. It must be propagated from person to person in the sporadic form of cerebro-spinal meningitis, otherwise the germ would die out and epidemics would be impossible. These sporadic cases are the connecting links between the epidemics. It would appear from careful investigation that the sporadic form of the disease is much more common than has been generally considered. Epidemics of this disease may be explained on the assumption that under certain condi-

tions the infection becomes peculiarly active or virulent, or the resisting power of the individual is lowered.

The mortality varies in different epidemics, and has been estimated to vary from 20 to 75 per cent. It is more than likely that the latter figure is nearer the truth than the lower one. One epidemic gave a death rate of 65 per cent. When the disease appears in the sporadic form the death rate is much lower than when it appears in the epidemic form. Sporadic cases may be often overlooked and no accurate diagnosis made. In this way it is difficult to determine the true rate of mortality. When acute meningitis is caused by the pneumococcus or the streptococcus it is usually secondary to disease caused by these organisms in some other part of the body; and it is further noticed that the mortality is much higher in these secondary cases than in primary meningitis. The highest mortality is experienced in the specific form of the disease in the months of March, April and May. These are also the months in which pneumonia prevails, so that it would appear that the pneumococcus and the diplococcus intracellularis reach their maximum activity and virulence under somewhat similar atmospheric conditions.

There is a well-defined inflammation of the meninges. This is most marked along the base of the brain, around the crura, the pons and the cerebellum. It also extends over the lateral aspects of the cerebral hemispheres. In the very acute cases there may be little else than intense hyperæmia of the meninges and cortex. In cases lasting about a week there is an abundant exudation of serum and pus. In chronic cases the œdema of the affected parts is very pronounced. The coverings of the cerebellum are generally very much involved in these inflammatory changes. The extension of the disease to the cord affects the medulla and the posterior aspects of the cord mainly. The more acute the case is the greater will be the tendency for the exudation to be purulent, whereas in the more chronic cases much of the exudation is sero-fibrinous with disintegrated pus cells. There are also found distinct evidence of disease in the brain, cord and nerves in the form of pus and cell infiltrations.

Dr. Councilman, in his article in the *Jour. Am. Med. Association*, states that diplococcus intracellularis has been found in the nostrils of those not suffering from the disease. It would appear from this that the infecting organism is transmitted in some way through the air. But there may be other channels by which the germs find entrance into the system.

The disease is not confined to man, as it has frequently proved fatal to horses, dogs, rabbits, swine, foxes, poultry. Some epidemics in man have been preceded by the disease in lower animals.

THE ETIOLOGY AND TREATMENT OF CANCER.

Professor Doyen of Paris is a firm believer in the bacterial origin of cancer. It is his opinion that the cells increase in numbers under the influence of the organism, as do the cells of the embryo under the impetus of the spermatozoon. From time to time Professor Doyen has read or published papers advocating his views. He maintains the micro-organism which causes cancer is easily cultivated in a bouillon of lactating cow's udder with one per cent. of peptone and glucose added. The organism is found in the juice of cancerous growths, in the degenerating cells of such, and in the lymphatics when they become involved.

Dr. Doyen has succeeded in causing growths to appear as the result of inoculation. He reports examples of a white mouse, a monkey, a second white mouse, a guinea pig, a white rat, and a second white rat.

Cultures are made over a lengthy period. Bouillon is inoculated with these and kept in the incubator ten or twelve months. These cultures are used to inject the horse with. After repeated injections, a serum is obtained for the treatment of cancer. When a cancerous patient is injected with this serum there is a distinct reaction. The effects of these injections are quite remarkable. The tumors decrease in size and become more freely movable. In many cases the condition of the patients has been so improved as to justify the statement that a cure has been accomplished.

In cases that cannot be operated upon, or where the operation cannot be made complete, the employment of the serum is strongly advocated. It is of great value in the way of preventing recurrence.

Superficial cancers of the skin can be best cured in this way. He claims that it is superior to the x-rays.

Early cases of the mucous membranes, the glands, and internal organs should be removed by operation and the serum used to prevent return.

Progressive cases that are too far advanced for operation, or from their location render operation impossible, respond often very well to the treatment by the serum. In course of time the tumor may be so arrested and reduced in size as to permit of its being removed. Small outlying nodules will disappear under the treatment and need not be searched for at the time of the operation.

Widely spread and multiple cancers of the skin, and cases with advanced glandular and visceral complications are the least likely to derive any benefit from the treatment. It should be continued in such cases for years, and in some instances the disease may be held in abeyance.

Dr. Doyen reports 242 cases treated with the serum. Of these, he

reports 42 which must be regarded as cured. Many of these were bad cases for any form of treatment. Doyen claims that no other form of treatment could yield such good results. He hopes to perfect the serum to such an extent that it can be used as a preventive of cancer by creating immunity.

THE STATISTICAL IMPORTANCE OF GONORRHOEA AND SYPHILIS.

It is not until the results of a disease are reduced to figures that we really grasp its importance. When we showed some time ago that there were 8,000 deaths in Canada annually from tuberculosis; and that the value of each life, on the average of the earning capacity of those who die of the disease, was equal to a present worth of \$6,000, making a grand total loss of \$48,000,000 a year, the public really awakened to the seriousness of the problem.

Let us now take a glance at the mathematical side of gonorrhoea and syphilis. Sir William Gowers, in his Lettsomian Lectures, said that there were in London about 500,000 persons who had contracted syphilis. It is estimated that there are 200,000 cases of gonorrhoea in New York city, that 80 per cent. of the deaths of women from pelvic disease is due to this disease, that 50 per cent. of involuntary childless marriages is the result of gonorrhoea, and that it causes 20 per cent. of all blindness. It has been estimated that the expenses and loss of time, arising from venereal diseases in Prussia amount to \$21,000,000 annually.

By taking the returns from various armies much information is obtained. For every 1,000 admitted to the following armies the ratio was found to be: Germany, 27; Russia, 36; Japan, 36; France, 40; Holland, 48; Austria, 61; United States, 73; and Britain, 173. Primary and secondary syphilis prevailed to the following extent in every 1,000 admissions to the armies: Germany, 5.5; France, 9; Russia, 13; Italy, 13.9; United States, 16.8; Holland, 14.8; and Britain, 101.

Syphilis is the cause of a very heavy death rate in some countries. In France one-seventh of the population have the disease, and the mortality among infants born of syphilitic parents is often over 80 per cent. There are about 150,000 syphilitics in Berlin, 225,000 in New York, and in some other places the condition is even worse. It is believed that 15,000 of the blind in the United States owe their affliction to gonorrhoea.

Towards the suppression of this frightful spread of disease various plans have been advocated. The licensing of places of prostitution has always met with the opposition that it recognizes the vice and places it under the auspices of the law. By some it has been urged that venereal

diseases should be reported and placed under official observation. It has also been claimed that free state treatment would lessen the evil results of these diseases by early and efficient treatment. Perhaps early education regarding these diseases is the best course for the present. In the State of Michigan each year the State Board of Health sends out instructions to all the teachers which enable them to properly inform the children attending the schools.

We think that some steps should be taken in this country to place in the hands of the teachers suitable circulars regarding all the infectious and contagious diseases with the instruction that children be taught the simple facts regarding them.

NEW AND NON-OFFICIAL REMEDIES.

At its meeting of 1904 the American Medical Association appointed a large and competent committee to be known as the "Council on Pharmacy and Chemistry." This committee is to report on the many non-official drugs and combinations on the market for physicians use. Preparations which conform to the standard of the rules adopted by the committee will be admitted into the book which is to be published, under the auspices of the committee, by the *Journal of the American Medical Association*. The rules are as follows:

RULE 1.—No article will be admitted unless its active medicinal ingredients and the amounts of such ingredients in a given quantity of the article, be furnished for publication. (Sufficient information should be supplied to permit the Council to verify the statements made regarding the article, and to determine its status from time to time.)

RULE 2.—No chemical compound will be admitted unless information be furnished regarding tests for identity, purity and strength, and, if a synthetic compound, the rational formula.

RULE 3.—No article that is advertised to the public will be admitted; but this rule will not apply to disinfectants, cosmetics, foods and mineral waters, except when advertised in an objectionable manner.

RULE 4.—No article will be admitted whose label, package or circular accompanying the package contains the names of diseases, in the treatment of which the article is indicated. The therapeutic indications, properties and doses may be stated. (This rule does not apply to vaccines and antitoxins nor to advertising in medical journals, nor to literature distributed solely to physicians.)

RULE 5.—No article will be admitted or retained about which the manufacturer, or his agents, make false or misleading statements re-

garding the country of origin, raw material from which made, method of collection or preparation.

RULE 6.—No article will be admitted or retained about whose therapeutic value the manufacturer, or his agents, make unwarranted, exaggerated, or misleading statements.

RULE 7.—Labels on articles containing "heroic" or "poisonous" substances should show the amounts of each of such ingredients in a given quantity of product.

RULE 8.—Every article should have a name of title indicative of its chemical or pharmaceutical character, in addition to its trade name, when such trade name is not sufficiently descriptive.

RULE 9.—If the name of an article is registered, or the label copyrighted, the date of registration should be furnished the Council.

RULE 10.—If the article is patented—either process or product—the number and date of such patent or patents should be furnished. If patented in other countries, the name of each country in which patent is held should be supplied, together with the name under which the article is there registered.

The need for such information cannot be denied. Preparations are poured forth at such a rate that it is quite impossible for the physician to keep himself familiar with them. Some of these preparations are of undoubted value and reliable information regarding them should be available to the hands of the busy practitioner. On the other hand there are many drugs and combinations that are of questionable utility and which could not stand the test of being examined by such a committee, making known the composition of these. The work of such a committee will have the happy effect of putting off the market many of the so-called remedies that are constantly pushed under the notice of the doctor. Further, it may show that many of these preparations with loud-sounding names are very common products, and quite familiar under other names. It will be possible to separate the wheat from the chaff. The exploitation that has been done in many instances is very objectionable, and has been able to effect an extensive sale for some very inferior preparations.

There are, however, some proprietary medicines that are of distinct value. It will be the duty of the committee to make this known and the pleasure of the physician to obtain the information.

THE ONTARIO MEDICAL ASSOCIATION.

The attention of the profession throughout the province is again called to the coming meeting of the Ontario Medical Association, June 6th, 7th and 8th next. As was the case last year the sessions will be held in

the west lecture hall of the Medical Buildings, Queen's Park. The programme is being rapidly filled and anyone desirous of presenting a paper should inform the secretary at an early date.

The officially invited guests for the meeting are Drs. A. J. Ochsner and W. B. Pritchard.

Dr. Ochsner, surgeon to St. Augustine Hospital, Chicago, is he whose aggressive surgery and whose courtesy to many Canadians visiting his crowded clinic have made him so very popular on this side of the line. The names of Dr. Ochsner and his friend, Dr. Mayo, are, perhaps, more upon the lips of men studying the advances in surgical thought than those of any other two operating surgeons on the continent.

Dr. Pritchard, of the Post-Graduate College of New York city, has identified himself by his work as a neurologist. He likewise is well known to many in Ontario, his friends predicting for him a very warm reception here.

THE VALUE OF DIPHTHERIA ANTITOXIN.

We have much pleasure in quoting the following from a recent bulletin of the Chicago Board of Health:

"No child dies of diphtheria to whom 3,000 units of antitoxin are administered within the first forty-eight hours of the attack—repeated, of course, if necessary.

"That is to say, one of the most malignant diseases has become one of the least dangerous through the discovery of a specific. It may be confidently defined where there is the intelligence to insist on the employment of the remedy. The whole public ought to understand this, and to understand also that the conviction of the department is based upon an intimate knowledge of the record that has been made in the city since the use of antitoxin began.

"While the Department certainly has 'an intimate knowledge of the record,' and has, from time to time, given such record to the public, it may be given again with profit—since, in sanitary matters and in matters of preventive medicine, iteration and reiteration, 'line upon line, precept upon precept,' cannot too often be multiplied.

"Ten years ago the antitoxin treatment of diphtheria was begun by the Department. During the previous ten years ended December 31, 1894, there had been 13,566 deaths from diphtheria and croup reported to the Bureau of Vital Statistics—a yearly average of 1,356 and a proportion of 13.53 deaths in every 10,000 of the population.

"During the ten years ended December 31, 1904, there were only 8,129 such deaths reported—a yearly average of 812 and a proportion of less than 5 (4.88) on every 10,000 of the population.

"These figures show a reduction of 5,437 in the actual number of diphtheria-and-croup deaths since the Department began the antitoxin treatment. They show a relative reduction, in proportion to increased population, of nearly 64 per cent.—63.9. Which is to say that, if the ravages of diphtheria had not been checked by the use of antitoxin during the last decennium, there would have been 22,538 deaths from this former 'scourge of the nursery,' instead of the 8,129 that did actually occur—a saving of 14,409 lives."

One would think that such evidence as the above would prove convincing, and yet there are some who appear to be still unconvinced with regard to the life-saving power of diphtheria antitoxin.

At the meeting of the Ontario Medical Association last year, there was a lively discussion on the treatment of diphtheria. It was then stated by one or two of the speakers that antitoxin was not as potent for good as many claimed. The above report from the Board of Health for Chicago negatives such views effectively. We have noticed that the death rate from diphtheria in Ontario has gone as high as 12 per cent. This we think should not be the case; and we fear is due to the expense of the antitoxin placing it beyond the reach of some of the poorer patients. In such cases we think the municipality should supply it. We know of many instances where the doctor supplied it rather than see the patient die.

THE ONTARIO HOSPITAL ASSOCIATION.

We have had occasion in the past to mention this association favorably and to commend its objects to our readers. The hospitals of Ontario are doing an excellent work for the Province and merit much better treatment at the hands of the Provincial Government, the municipalities, and the wealthy than they have received in the past.

An influential deputation of the association waited upon the Government on April 12th and pressed for an increase in the Government grant towards the support of the hospitals. The grant is now, and has been for years, \$110,000. When this is divided up among those entitled to it, it yields only 17 cents per day. Municipal aid to patients never exceeds 50 cents per day, or a total of 67 cents. The deputation pointed out very clearly that the cost of maintenance of all patients throughout the Province was 89 cents per day. This leaves a loss of at least 20 cents per day.

It was shown that it would not be wise to raise the municipal charge, and that, therefore, the duty fell upon the Government to do more for this class of patients. The deputation asked that the Government grant be made 25 cents per day on those entitled to it. This would give the hos-

pital an income of 75 cents a day on the cheapest grade of patients. It was thought that on this amount the hospitals could carry these patients without entrenching too much on the other funds of the hospital and thereby crippling their efficiency.

The objects of the association are very worthy, and deserves careful consideration at the hands of the medical profession.

THE TREATMENT OF PAUPER INEBRIATES.

At the annual meeting of the Canadian Medical Association, held in Toronto on August 30th, 31st, and September 1st, 1899, Dr. James Thorburn, the chairman of the Committee on the Treatment of Inebriates, submitted the report, which reads as follows :

At the Quebec meeting of this association a paper by Dr. A. M. Roseburgh was read by the secretary on this subject. This gentleman has for years taken a deep interest in the reformation of inebriates, and about eighteen months ago was commissioned by the Prisoners' Aid Association of Canada to visit institutions and interview specialists, with a view of enabling him to formulate a plan for the economic treatment of pauper inebriates. After visiting eight special institutions and conferring with the best known specialists in Canada and the United States, he found that about thirty-four per cent. of those subjected to scientific treatment appear to be permanently relieved from their infirmity. This percentage, he is convinced, may be very materially increased by the adoption of a modification of the Massachusetts' Probation System—changing the environment of the patients and exercising judicious supervision subsequent to treatment. While he has for many years recommended reformatory treatment with prolonged detention for the more hopeless class of inebriates, he is convinced that, for the incipient drunkard and the more hopeful class, a few weeks' hospital treatment will be effective in a large percentage of cases, more especially if the case be followed by judicious management subsequent to treatment.

Since the paper referred to was read at Quebec, the matter has been considered by the Ontario Medical Association and the plan therein outlined was fully endorsed and also commended to the Ontario Government for adoption. We learn that influential members of the Ontario Government, to whom the scheme was submitted at an audience given by them to a committee of the Ontario Medical Association, expressed themselves as being very favorably impressed therewith, and that they were disposed to favor its adoption in Ontario.

The scheme endorsed by the Ontario Medical Association and recommended to the Ontario Government, briefly stated, is as follows:

(a) The appointment by the provincial government of an inspector of inebriate institutions. This inspector should be a qualified medical practitioner, who has made the medical treatment of inebriety a special study.

(b) The inspector should organize in the City of Toronto a hospital for the medical treatment of pauper inebriates of the more hopeful class, and in other cities of the Province an inebriate department in the existing general hospitals.

(c) The inspector should also arrange in connection with each institution, where inebriates are received and treated, an organization or agency for the adoption of the probation system, and giving a helping hand to the patients subsequent to treatment for inebriety.

(d) The inspector should provide for the adoption of a rational course of medical treatment for inebriates in accordance with the tenets of legitimate medicine only, to the exclusion of the use of any proprietary remedy.

Under the circumstances here cited, we beg leave to make the following recommendations:—

1. While we are of the opinion that for the successful treatment of confirmed drunkards, prolonged removal from temptation in a properly equipped reformatory is very desirable, if not absolutely necessary, we would nevertheless be disposed to endorse the plan herein outlined for the economic treatment of pauper inebriates of the more hopeful class, either in cottage hospitals or in a special department of general hospitals.

2. In case the plan of treatment of inebriates here referred to should be undertaken either by the Ontario Government or by any of the other provincial governments, we bespeak for it the cordial co-operation of every member of the medical profession who is in a position to favor this important undertaking.

Respectfully submitted,

(Sgd.) JAS. THORBURN, Toronto,

J. GEORGE ADAMI, Montreal,

W. S. MUIR, Halifax.

Dr. Thorburn moved the adoption of this report, seconded by Dr. McNeill (Charlottetown, P.E.I.) Carried.

We have much pleasure in calling the attention of medical practitioners to this important subject. It is to be hoped that something decided will be done at an early date.

THE RETIREMENT OF DR. CHARLES O'REILLY.

For twenty-nine years, Dr. O'Reilly has been the Medical Superintendent of the Toronto General Hospital. A few days ago he handed in his resignation, an action which was a great surprise to his many friends and acquaintances.

Dr. O'Reilly is a graduate of McGill University, where he received the degrees of M.D., C.M. After graduating he was appointed to take charge of the Hamilton Hospital, a position which he filled for a number of years. On resigning this position he was tendered a banquet and presented with a complete silver service and an address by the city council and a marble clock by the medical profession.

In 1876 he was appointed to the position of Medical Superintendent of the Toronto General Hospital. During these twenty-nine years there have been many changes and improvements. The capacity of the hospital has been greatly increased. The patients, nurses, house surgeons, and servants, now total some 500 persons. Since Dr. O'Reilly became the head of the Toronto General Hospital, over 100,000 patients have passed through its wards. The hospital has now a bed accommodation for 400 patients.

When he lived in Hamilton he was secretary-treasurer of the Medical Society and one of the surgeons to the 13th Battalion of Hamilton. In 1881, he was instrumental in having an ambulance presented to the city. In 1890 the honorary degrees of M.D., C.M., were conferred upon him by Trinity University. He has acted as examiner in clinical surgery for the Medical Council of Ontario for many years. He is vice-president of the Association of Hospital Medical Superintendents, and of the Ontario Hospital Association.

Thousands of medical practitioners all over the world, who at some time walked the General Hospital, will join with THE CANADA LANCET in wishing Dr. O'Reilly many happy years. *Detur aliquando otium quiesque.*

 PERSONAL AND NEWS ITEMS.

Dr. A. P. Proctor is removing from Kamloops to Vancouver, where he will engage in practice. He is succeeded at Kamloops as C. P. R. doctor by Dr. Burris.

Dr. Thomas H. McCall, who was house surgeon at the Sarnia general hospital last year, was married on Wednesday, March 15th, to Miss Christina McAlpine, of Payne's Mills. Dr. and Mrs. McCall will be at

home after May 1st at Tilbury, where Dr. McCall is practising.

Dr. R. M. Simpson, of Winnipeg, Chairman of the Provincial Board of Health, has returned after an absence of some months in London, England, where he took a post-graduate course in diseases of women, spending much of his time visiting the various hospitals.

Dr. Geo. K. Grimmer has decided to remove with his wife and family back again to Scotland and will take passage in the steamer sailing from St. John early next week.

Dr. A. E. Bolton has decided to take up his residence in Vancouver, engaging in general practice at that city. Since settling in Victoria Dr. Bolton has won a host of friends, all of whom will deeply regret his intention. As a member of the board of school trustees and President of the Young Men's Christian Association, he has made his influence felt in the public life of the city.

Dr. J. James, of Melbourne, who has sold his practice, intends to locate at Edmonton, where he will open a private hospital. He expects Miss Brown, his sister-in-law, a trained nurse, to accompany him and assist in the work.

The marriage of Miss Isobel Mary Johnston, daughter of Mrs. James Johnston, to Dr. W. H. P. Hill, son of Rev. J. Edgar Hill, took place on Wednesday, April 19th, at the residence of the bride's mother.

Dr. Chown, of Winnipeg, performed an operation on Dr. Stevenson, of Moosomin, a short time ago. We are pleased to know that the doctor is recovering although rather slowly.

Dr. McGuigan, of Vancouver, has returned from Harrison, where he had been recuperating recently. He will continue his practice.

A quiet wedding was solemnized recently at St. Thomas' Church, when Miss Violet M. Paterson, youngest daughter of the late Capt. William Paterson, was married to Dr. Charles E. Treble, M.R.C.S., son of Mr. J. M. Treble, all of Toronto.

Dr. G. R. McDonagh spent two months in an enjoyable trip abroad.

Dr. Williams, of Lisle, has sold his practice to Dr. Evans, late of Uxbridge. Dr. Williams will take a post-graduate course before resuming practice.

Dr. G. W. Barber, of St. George, has sold his medical practice to Dr. T. Dunlop White, of Brantford. Dr. Barber has been in St. George for about eight years.

Dr. G. A. Richardson has purchased Dr. Herbert Galloway's house at 14 Bloor street east and expects to remove his office and residence early in May.

Dr. William Turner, formerly of the Montreal General Hospital, has taken his degrees as M.R.C.S. and L.R.C.P. at London, and is at present at Paris.

Dr. A. M. Rosebrugh has removed to 22 Shuter street, Toronto.

The medical faculty at Queen's is considering a proposal to lengthen the session so that medicine and arts can finish at the same time—in April. The proposed lengthening would suffice for the extra six weeks' session, which follows, to meet the requirements of the Ontario Medical Council. The new scheme may go into effect in 1906.

The many friends of Dr. Homer McLay will be glad to learn that he has decided to locate permanently in Äylmer.

Dr. T. B. Stevenson, formerly resident physician of Lakeside hospital, Toronto, and graduate of Trinity University, Toronto, and also of Toronto University, has located in Ponoka, in partnership with Dr. Campbell.

Dr. J. A. McNaughton, of Brussels, has decided to take a complete rest for a year.

The marriage of Miss Frances Charlotte Lister, daughter of the late Judge Lister, and Dr. John Herbert McConnell, of Dundas street, Toronto, took place on Wednesday, April 19th.

Dr. D. B. Bently, of Sarnia, was successfully operated upon for an attack of appendicitis a few weeks ago. The doctor has made a good recovery.

Dr. Robert Craik, formerly dean of McGill Medical Faculty, was seriously ill lately, but is getting better.

The marriage of Dr. Douglas Gray, of Sudbury, and Miss Lillian Gordon, of Pembroke, took place 10th April.

Dr. William E. Bessey died in St. Mary's Hospital, Grand Rapids, Mich., a city charge, after having for almost sixty years practised medicine-surgery. William E. Bessey, born near Montreal, graduated from McGill University medical department when he was 21 years of age, and practised in Montreal for many years, and was in Toronto for sometime.

Dr. William Osler was in Montreal a couple of weeks ago where he was dined. He gave an address to the students on "The Student in and Out of College." He made a passing remark on the risk of trying to be humorous. He received a great ovation from the students of the college where he spent so many years and for which he did so much.

Dr. Duncan Anderson, of Toronto, has completely recovered from the operation for appendicitis which had to be performed upon him. His attack was one of extreme acuteness.

Dr. Harold Ward, of Kingston, has gone for a five months' trip to Europe.

Dr. W. Gunn, of Clinton, while in Toronto in consultation with Dr. Caven over a Clinton patient, was taken suddenly and dangerously ill. His many friends will be glad to learn of his recovery.

Dr. W. Warner Jones, of Mount Forest, who, in 1904 passed the examination for the Fellowship of R.C.S. England, has recently been appointed Senior House Surgeon at St. Peter's Hospital, London, Eng. For the past six months he has been House Surgeon in the West London, Hospital. His many friends will be pleased to learn of his success.

Dr. G. A. Peters, of Toronto, has been compelled through ill health to take a lengthy rest. We hope to hear of his perfect recovery.

Dr. Brown, the C. N. R. physician, at Battleford, was almost drowned in the Saskatchewan, slipping through the ice, but was rescued by a companion.

Dr. and Mrs. Ainslie P. Ardagh, of Orillia, sailed lately for England. They will be absent for six months or more, Dr. Ardagh taking a post-graduate course in London, specializing for the eye, ear, nose and throat.

The many friends of Dr. W. A. Groves, of Fergus, will be pleased to learn that he has been appointed assistant surgeon on the Baltic, one of the largest ocean steamers of the White Star line, plying between New York and Liverpool. He paid a flying visit to his father before leaving for New York, to take his vessel.

The following Canadian graduates were present at a dinner in London, Eng., given by Dr. Donald Armour, F.R.C.S.E., in honor of ex-members of Toronto General Hospital house staff. Dr. George Badge-row, E. D. Carder, A. C. Hendrick, W. J. Mallock, George W. Ross, G. A. Schmidt, A. B. Wright, S. H. Wertman, Colin Campbell, J. M. Cochrane, H. Lowry, J. R. McCollum, A. T. Stanton, P. W. Saunders, T. P. Weir. In welcoming his guests, Dr. Armour spoke of the happy days they had spent as house surgeons in the Toronto General Hospital. He referred in high terms to the hospital and Dr. O'Reilly. All regretted the doctor was not present in person.

Dr. A. H. Singleton, recently a house surgeon in the Kingston General Hospital, has secured the degree of L.R.C.P., and S., from Edinburgh University, whither he went in February to write upon the examinations. Dr. Singleton will be back shortly. His home is at Newboro. A year ago he graduated at Queen's medical college.

Dr. Cranson de St. Remy, of Kingston, died in St. Vincent Hospital, New York, on 7th April, after several weeks' illness. He had been a house surgeon for the past year in the Manhattan Eye and Ear Hospital, but was stricken down with a former ailment, heart trouble. Deceased was a son of Peter de St. Remy, now of Buffalo, N.Y. The remains were brought to Kingston for interment.

Dr. W. H. B. Aikins and Mrs. Aikins of Toronto, who have been touring Europe sailed from Bremen for New York on the 25th April.

The engagement is announced of Miss Minnie Darling, only daughter of Mr. and Mrs. Richard Darling, 114 Robert Street, to Dr. T. H. Bell, F.T.M.C., M.R.C.S., only son of Mr. F. J. Bell, Toronto. The marriage will take place in June.

The engagement is announced of Miss Margaret Sloane, elder daughter of Mrs. William Sloane, Rusholme Road, to Dr. D. W. McPherson, elder son of Mr. and Mrs. James McPherson, Bathurst Street, Toronto.

Dr. Williams, of Lisle, has sold his practice to Dr. Evans, late of Uxbridge. Dr. Williams will take a post-graduate course before resuming practice.

The marriages of Miss Frances Charlotte Lister, daughter of the late Judge Lister, and Dr. John Herbert McConnell, both of Toronto, took place April 19th.

Dr. Aylesworth, of Bath, has made arrangements to practice medicine at Roseneath. He will occupy Dr. Lapp's old office.

OBITUARY.

THOMAS H. MEIKLE, M.D., L.R.C.P., ED.

Word has been received of the death of Dr. Thomas Hamilton Meikle, which occurred at his home in Emsworth, Hants, England, on the 21st of March. Dr. Meikle was the eldest son of Rev. Mr. and Mrs. Meikle, formerly of Oakville, and latterly of Toronto. He graduated from the Toronto School of Medicine in 1880, taking his Edinburgh degree two years later, and entered the British Navy the next year, from which he retired with rank of Fleet-Surgeon after twenty years' service. He was married in 1901 to Miss Jessie Lewis, of Portsmouth, England, who survives him.

Dr. Meikle had many friends in Canada, who will learn of his death with deep regret. He was a brother of W. B. Meikle, of Omaha, Neb., and a cousin of Mrs. James Warnock, of Galt, and the late Mrs. C. D. Massey, of Toronto. Few of the class of 1880 were better liked than the late Dr. Meikle. In the truest sense of the words, "He was a good fellow."

DAVID THOMPSON, M. D.

His many friends regretted to learn of the death of Dr. David Thompson, which occurred 20th February, at his residence, 5 Howewood avenue, Hamilton, after an illness of many months. The deceased was a son of the late David Thompson, member for Haldimand in the Dominion Parliament, and grandson of David Thompson, M.P., the first member for that county. Col. Andrew T. Thompson, his brother, represented Haldimand during the last parliament. Dr. Thompson was borne 41 years ago at Ruthven park, the family residence on the Grand River. He was educated at Upper Canada College, and took a medical course at Toronto University, and completed his studies at Edinburgh. He then lived and practised his profession at Cayuga until seven years ago, when he moved to Hamilton, where he had formed a large practice. While at Cayuga the deceased acted as reeve for two years, and after coming to Hamilton he was a member of the city council for two years. Dr. Thompson was very popular with all who knew him, and he will be greatly missed. He is survived by a widow and four children.

 JOHN A. NELLES, M. D.

Dr. John A. Nelles died suddenly March 25th, at his home in London. He was 78 years of age, a prominent member of First Methodist Church, and vice-president of the London Loan Company. Dr. Nelles is survived by three daughters, who reside at home, and several sons. Two of the latter are in business in Montreal, and another is connected with the Molsons Bank. Dr. H. H. Nelles of London is a brother, and the late Principle Nelles, of Victoria University, Toronto, was also a brother.

 PIERRE CHAUVEAU, M. D.

Dr. Pierre Chauveau, Quebec City, son of Mr. Pierre Chauveau, of the Sheriff's office, Montreal, died 19th March, at Quebec, after a brief illness. He was a grandson of the late Hon. P. J. O. Chauveau, who was premier of the first Quebec government and subsequently became Speaker of the Senate.

 JOHN HERALD, M. A., M. D.

Dr. John Herald, of Kingston, died in the General Hospital there, 12th April. He was admitted to the hospital three days before his death and an operation was performed.

John Herald, M.A., M.D., was professor of clinical medicine and dermatology in Queen's University, and for several years was Registrar of the Medical School. He was a man of marked executive ability, a good lecturer, popular with the student body and had a large general practice of medicine in Kingston. He was 49 years of age. He was an ex-Mayor of Kingston. Interment took place at Dundas, his old home.

Dr. Herald was born in Aberdeen, Scotland, in 1855, and was the son of the late Rev. James Herald, Presbyterian minister. He came to Canada when comparatively young, and, entering Queen's University, he graduated with honors in 1876, and received the degree of M.A. in 1880. In 1884 he graduated in medicine from Queen's. He was a member of several fraternal orders, and was Past High Chief Ranger of the Independent Order of Foresters. His wife, formerly Miss Grafton, of Dundas, Ont., survives him.

W. H. JOHNSTON, M.D.

Dr. Johnston, of Fergus, one of the most prominent physicians of Wellington county, died 18th April, at the residence of his brother, Captain Archie Johnston, in Eramosa, after a four months' illness. He had an extensive practice, and was very successful. He took a most active part in the volunteers, in which he held the office of lieutenant-colonel surgeon. He was recently president of the Centre Wellington Agricultural Society, and was this year president of the Fergus Horticultural Society, for twenty years secretary of the public library, reeve during 1901 and 1902, county commissioner last year, and coroner of Wellington county. His funeral was a military one, leaving Fergus for the Johnston cemetery, Eramosa.

BOOK REVIEWS.

SEXUAL SELECTION IN MAN.

Studies in the Psychology of Sex—Sexual Selection in Man. I. Touch. II. Smell. III. Hearing. IV. Vision. By Havelock Ellis. 6 3-8 x 8 7-8 inches. Page XII-270. Extra Cloth, \$2.00, net. Sold only by subscription to physicians, lawyers, and scientists. F. A. Davis Company, publishers. 1914-16 Cherry Street, Philadelphia.

Havelock Ellis has been a close student of these subjects for many years. His writings have done much to place this subject upon a scientific basis. There is much in this subject that is yet in a nebulous state. The author dissents from the views put forward years ago by Darwin. The

author deserves much credit for attempting to place the evolution of the sexual instinct, its perversion and the diseases which arise in this way on a proper footing. His book is well worth reading.

HOLLIS' EPITOME OF MEDICAL DIAGNOSIS.

A Manual for Students and Physicians. By Austin W. Hollis, M.D., attending physician to St. Luke's Hospital; to the New York Dispensary, etc. In one 12mo volume of 319 pages, with 13 illustrations. Cloth, \$1.00 net. Lea Brothers & Co., publishers, Philadelphia and New York, 1905.

As each volume of *Lea's Series of Medical Epitomes* appears, the conviction is strengthened that Authors, Editor and Publishers are using their combined efforts to place before the medical world a set of compendious manuals to which the word BEST exactly applies. For the student preparing for examinations, or for the physician who wishes a handy volume to slip into his pocket or under the cushion of his carriage seat, so that at odd moments he may refresh his memory on forgotten details or post himself on the most recent knowledge on any medical subject the volumes of this series have proved to be very helpful.

Dr. Hollis' volume on Medical Diagnosis, just published, is the fifteenth of the series. It naturally does not claim originality, but it embodies an earnest effort to give a clear, accurate, compendious covering of the essentials of its subject, presented with a due sense of the relative importance of its various branches.

Diseases and abnormal conditions are taken up in regular sequence, and physical and clinical signs and symptoms are clearly pointed out with full explanations of their significance.

In addition to physical methods, the author gives directions for laboratory investigations, blood tests, bacteriological and chemical examinations, etc., and as one goes carefully through the book the wonder grows at the enormous amount of clear-cut, modern, well-arranged information which has been compressed between its covers.

Illustrations are used throughout the volume wherever the understanding can be better helped by the combination of text and pictures, and the price of the volume (\$1.00), based upon the certainty of a very wide usage, is low enough for every student's purse.

THE URINE AND FECES.

A practical Manual on the Urine and Feces in Diagnosis. By Otto Hensel, Ph. G., M.D., bacteriologist to the German Hospital, New York, and Richard Weil, A.M., M.D., pathologist to the German Hospital, New York, in collaboration with Smith Ely Jelliffe, M.D., Ph.D., Instructor in Pharmacology and Therapeutics, Columbia University; Visiting Neurologist, City

Hospital, New York. In one octavo volume of 334 pages, illustrated with 116 engravings and 10 colored plates. Cloth, \$2.75, net. Lea Brothers & Co., publishers, New York and Philadelphia, 1905.

Although there are a number of large and exhaustive treatises on clinical and laboratory methods of diagnosis, it is believed that this is the first laboratory methods of diagnosis, it is believed that this is the first compact, convenient and practical hand-book on the subject. It has been the aim of the authors to supply a trustworthy guide arranged for ready use, and complete enough for the actual daily needs of the working practitioner.

With the rapid growth of the use of precise methods in diagnosis the value of a manual of this kind becomes more and more evident. The authors, from their large hospital experience, are peculiarly fitted to furnish exactly the information that is most valuable, and this volume will prove an indispensable assistant to every progressive physician.

A TEXT BOOK OF THE PRACTICE OF MEDICINE.

For Students and Practitioners. By Hobart Amory Hare, M.D., B.Sc., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia; Physician to the Jefferson Medical College Hospital; Laureate of the Royal Academy of Medicine in Belgium and of the Medical Society of London. Author of *A Text-Book of Practical Therapeutics*; *A Text-Book of Practical Diagnosis*, etc. In one very handsome octavo volume of 1120 pages, with 129 engravings and 10 full-page plates in colors and monochrome. Cloth, \$5.00, net; leather, \$6.00, net; half morocco, \$6.50, net. Lea Brothers & Co., Philadelphia and New York, 1905.

As the student of to-day is the physician of the future, and as the physician must always be a student, a single volume can be conceived as answering the requirements both of a text-book and work of reference. This volume embodies the experience of more than twenty years of active hospital and private practice, during which time the author has been constantly teaching Clinical Medicine and Therapeutics. Dr. Hare possesses to an unrivalled degree the ability to grasp the essence of a subject and to present it clearly. He also understands how to select just those points concerning which the practitioner is likely to seek for information. These characteristics are notable in his previous works, especially in the *Practical Diagnosis* and *Practical Therapeutics*. Five large editions of the former in nine years, and ten still larger editions of the latter in fifteen years, testify to the appreciation which has been bestowed on them wherever English is read. The author's long training has enabled him to appreciate and overcome the student's difficulties, and his equal experience in practice has qualified him with ripened judgment to solve the everyday perplexities of the physician. Throughout the work the author has dealt with medicine as a practical science, and has given prominence to those aspects which bear directly on human needs. The sec-

tions on diagnosis and treatment have accordingly been developed with special fulness and detail, the therapeutical recommendations being given in such a way that they may be readily applied. Illustrations and plates have been introduced wherever an important point could be made clearer than by verbal description alone. This new work by an author so well equipped at every point is assured of a warm welcome as the leading Practice of Medicine for all classes of readers.

ELEMENTARY MICROSCOPY.

A Handbook for Beginners. By F. Shillington Scales, F.R.M.S., London; Baillière, Tindall and Cox; Toronto, J. A. Curveth & Co., and Chandler & Massey. Price 3s., net, 1905.

This book deals with the microscope, the mounting of specimens, and their examination. It is a first class little book for those who have occasion to use a microscope. There is nothing pertaining to the mechanical part of microscopy which is omitted. The book is well illustrated, bound and printed. The varieties of microscopes, lenses, microtomes and their care and the method of manipulating them are explained fully.

SURFACE ANATOMY.

By T. Gillman Moorhead, M. D., Dub., M.R.C.P.I., Physician Royal City of Dublin Hospital. Late Chief Demonstrator of Anatomy and Joint Lecturer in Applied Anatomy, T. C. D.; Lecturer in Medicine Royal Service School, T.C.D. London: Baillière, Tindall & Co. 1905. Price 4s. 6d., net.

This is an excellent book of its kind. Most medical men are familiar with such books as Treves' Surgical Anatomy, Holden's Landmarks, Bellamy's Surgical Anatomy, etc. The present book is written in good style and well illustrated. It is really an attractive little volume. The information is reliable and of such a character as to prove very useful to the student, the operating surgeon, and the general practitioner.

EYE, EAR, NOSE, AND THROAT NURSING.

By A. Edward Davis. A.M., M.D., Professor of Diseases of the Eye in the New York Post-Graduate Medical School and Hospital, and Beaman Douglass, M.D., Professor of Diseases of the Nose and Throat in the New York Post-Graduate Medical School and Hospital. With 32 illustrations. Pages XVI-318. Size, 5 1-2 by 7 7-8 inches. Extra cloth. Price, \$1.25, net. F. A. Davis Co., publishers, 1914-16 Cherry Street, Philadelphia.

This little book has been written primarily for the use of nurses, students and general practitioners. It contains a good deal of very useful information on the more common diseases of the eye, ear, nose and throat, and is well calculated to be of distinct usefulness to those for

whom it is specially written. The book is got up in a very neat form. Excellent instructions are given for the preparation of patients for the various operations and how to perform the more common ones. The treatment of many diseases is given in a careful manner.

MECHANICAL VIBRATION AND ITS THERAPEUTIC APPLICATION.

By M. L. H. Arnold Snow, M.D., Professor of Mechanical Vibration Therapy in the New York School of Physical Therapeutics; Associate Editor of the *Journal of Advanced Therapeutics*; late Assistant in Electro-Therapeutics and Diseases of the Nervous System, in the New York Post-Graduate Medical School, etc. Published by the Scientific Authors' Publishing Co., 465 Lexington Ave., New York. Price \$2.50, net.

Dr. Snow has acquired considerable note as a writer upon the above subject. Mechanical vibration or vibra-massage has made rapid development during the past few years. The author traces the history of massage, the movement treatment, (and mechanical vibration from the earliest mention. A full account is given of all the instruments in use and their mode of application. The book is well got up and fully illustrated. A detailed account is then given of the effect of vibration on the different systems and the application of this method to the treatment of disease. The author claims the vibration is of wide applicability in the treatment of disease, and, like the X-rays and the light treatment, is bound to make for itself a distinct place in modern therapeutics. Many eminent names have at some time or other endorsed the principle of this form of treatment, such as Seguin, Graham, Playfair, Weir, Mitchell, Kellogg, etc. We are impressed with the importance of the subject and can recommend this book to our readers.

THE CONJUNCTIVA IN HEALTH AND DISEASE.

Being a Record of Some Research Work by N. Bishop Harman, M.A., M.B. Contab., F.R.C.S., Eng. Ophthalmic Surgeon to the Belgrave Hospital for Children; Chief Clinical Assistant, the Royal London Ophthalmic Hospital, Moorfields; Senior Ophthalmic Assistant, the Middlesex Hospital, etc., etc. London: Baillière, Tindall & Cox; 1905; price 10s. 6d.

This is a particularly attractive book. It is got up in the finest possible style, as to paper, printing, illustrating and binding. The book contains much interesting information upon the history of the subject, the anatomy of the conjunctiva, the causes of blindness, bacteriology, the varieties of conjunctiva, and the treatment of these. Conjunctivitis in its several forms constitute a very important part of a doctor's duties to his patients. The classification adopted is that of simple conjunctivitis,

conjunctivitis due to disease in lochrymal sac, blepharitis, angular conjunctivitis, purulent, membranous, tubercular, trachomatous, phlyctenular, and spring catarrh. The treatment is full and up-to-date.

DISEASES OF CHILDREN.

The British Journal of Diseases of Children, edited by George Carpenter, M.D. Vol. I. London: Adlard & Son.

This is the numbers of the first year of publication of this excellent journal bound in a neat volume. The editor has done well in his first year and we hope he may be able to keep up the high standard he has set for himself. There is no special journal takes a higher place than this one devoted to the diseases of children. We wish the editor and publishers every success. The price is 15s. bound and 1s. per monthly number.

VENEREAL DISEASES.

What Venereal Diseases mean and How to prevent them. Five lectures given at the University of Copenhagen by Professor Erik Pontoppidan, Chief Physician to the Loch Hospital, Copenhagen. London: John Bale, Sons & Danielsson. 2s., net.

The whole subject of the venereal diseases are discussed in a very thorough manner. This brochure points out the vast amount of harm that is done by these diseases. The author goes into the question of the prevention and throws out some excellent suggestions on the subject. He admits that the plan of "abolition" has completely failed, and that "regulation" is the only way by which these diseases can be checked.

THE VERMIFORM APPENDIX AND ITS DISEASES.

By Howard A. Kelly, A.B., M.D., Professor of Gynecology in the Johns Hopkins University, Baltimore, and E. Hurdon, M.D., Assistant in Gynecology in the Johns Hopkins University, with 399 original illustrations, some in colors, and 3 lithographic plates. Philadelphia and London: W. B. Saunders; Toronto: J. A. Carveth & Co. 344 Yonge St., Toronto; 1905. Price cloth, \$10, net; sheep or half morocco, \$11, net.

Howard A. Kelly is a surgeon of first rank, and it has been known for some time that he was engaged on a *magnum opus* on the appendix. That work is now before the medical profession. That the appendix and its diseases are important subjects no one will doubt. It has claimed the attention in a very special manner of such high authorities as Sir William Macewen, Sir Frederick Treves, Professor Deaver, Professor Ochsner, Barrett Lockwood, and Drs. Battle and Cornet. On the heels of the writings by these men comes along this

work by Professor Kelly. We wish to say at once that this is a great work. When we bear in mind that appendicitis is by far the most important of the diseases of the abdomen; indeed, is one of the most important of the acute diseases to which man is subject, we can readily understand why these writers have given so much attention to this question. This work enters fully into the history of the disease, and takes up the anatomy and physiology of the appendix in a very clear and satisfactory manner. The bacteriology of appendicitis receives, as it ought, full consideration. The pathology and etiology of this malady are gone into carefully. The portion of the book devoted to symptomatology and diagnosis is particularly good; and this is very important. One turns, however, to the surgical treatment of appendicitis. Dr. Kelly states that: "Ideal time for operation in acute appendicitis is within the first few hours, and not later than the first twenty-four." The advantages of this course are: "It is safest, the operation is more easily done, the patient is spared days of suffering, the liability to recurrent attacks is obviated, and an early operation obviated the risk of hernia." These are weighty reasons. American and French surgeons take this view, while German and British surgeons are more conservative and lean towards delay with the view of avoiding operative treatment as frequently possible. The details of the operation are given with great minutiae. There is nothing about the whole subject which one does not find discussed in this work. We congratulate Professor Kelly and the publishers on the results of their efforts. Nor must we forget the artists, for the illustrations are superb. This work complies in every detail with the requirements laid down long ago by Morgagni that a book must be the outcome of many dissections and clinical observations, collected, compared and collated.

AN ATLAS OF DERMATOLOGY.

A work showing the appearances clinical and microscopical, normal and abnormal, of conditions of the skin. By Morgan Dockrell, M.A., M.D., Senior Physician and Chesterfield Lecturer on Dermatology to St. John's Hospital for Diseases of the Skin. London, New York and Bombay: Longmans, Green, and Company; 1905; price, 50s, net.

This is a work specially intended to aid in the diagnosis of skin diseases. There is nothing said on the subject of treatment. The letter press description accompanying each plate is divided into remarks on the clinical and microscopical features of the disease portrayed in the plates. The plates, of which there are sixty, are beautifully executed. They give the conditions in the colors characteristic of the diseases. The work is got up in excellent form, the paper being of very fine quality, the printing very clear, and the binding substantial. The letter press and

the plate face each other, making the study of each plate easy. This work will prove a great help to its possessor in the making of a diagnosis of most of the forms of skin diseases. We can speak in very high praise of Morgan Dockrell's new atlas of skin diseases.

SAUNDERS' AMERICAN YEAR-BOOK OF MEDICINE AND SURGERY FOR 1905.

A yearly digest of Scientific Progress and Authoritative Opinion in all branches of Medicine and Surgery, drawn from journals, monographs, and textbooks of the leading American and foreign authors and investigators. Arranged, with critical editorial comments, by eminent American specialists, under the editorial charge of George M. Gould, A.M., M.D., in two volumes. Volume I, including General Medicine; Volume II, General Surgery. Two octavos of about 700 pages each, fully illustrated. Philadelphia and London: W. B. Saunders & Co., 1905. Per volume: Cloth, \$3.00 net; half morocco, \$3.75 net. J. A. Carveth & Co., Limited, 434 Yonge St., Toronto.

The 1905 issue of Saunders' American Year-Book of Medicine and Surgery fully maintains the pre-eminent position which it long ago established. Dr. Gould, the editor, has associated with him a staff of men of greatest ability, shown in the conscientious thoroughness with which each article is prepared. Here the practitioner has placed before him, and at a very moderate price, the cream of all the medical literature published during the past year, and in such a form that it is readily digestible. As a compendium of medical and surgical progress, it will prove invaluable; for the practitioner anxious to keep abreast of the advances in the subjects treated, it will be of the utmost assistance. The text, as usual contains a number of illustrations of practical value; there are also nine insert plates of much excellence.

ESSENTIALS OF THE PRACTICE OF MEDICINE.

Prepared especially for students of medicine. By William R. Williams, M.D., formerly Instructor in Medicine and Lecturer in Hygiene, Cornell University; Tutor in Therapeutics, Columbia University (College of Physicians and Surgeons), New York. 12mo of 461 pages. Philadelphia and London: W. B. Saunders & Co., 1905. Double number. Cloth, \$1.75 net. J. A. Carveth & Co., Limited, 434 Yonge St., Toronto.

In this new volume in Saunders' Question-Compend Series the student is provided with a book of the utmost practical value. Throughout the work special stress has been laid on the more common aspects of the various diseases, emphasizing the contrasting points in similar conditions, so as to render differential diagnosis as easy as possible. Symptomatology and treatment have likewise been adequately, although concisely, considered. In fact, this little work is the best we have seen, and for students preparing for examination it will be a most welcome

and trusty aid. It contains a vast amount of practical, essential information in the least possible space.

THE OPHTHALMIC YEAR-BOOK.

A Digest of Literature of Ophthalmology with Index of Publications for the year 1903. By Edward Jackson, A.M., M.D., Emeritus, Professor of Diseases of the Eye in the Philadelphia Polyclinic, etc., etc., with 45 illustrations. The Herrick Book and Stationery Company, Denver, Col., 1904.

This is a carefully prepared digest of the literature on diseases of the eye for the year. The author covers the ground with ability and credit. The various diseases of the eye are taken up in order and the best of the year's progress given the reader.

PRACTICAL PEDIATRICS.

A Manual of the Medical and Surgical Diseases of Infancy and Childhood. By Dr. E. Graetzer, editor of the "Centralblatt Fur Kinderheilkunde" and the "Excerpta Medica." Authorized translation, with numerous Additions and Notes, by Herman B. Sheffield, M.D., Instructor in Diseases of Children, and Attending Pediatric (O.P.D.) New York Post-Graduate Medical School and Hospital; Visiting Pediatricist to the Metropolitan Hospital and Dispensary, etc. Pages XII-544. Crown Octavo. Flexible cloth, round corners. Price \$3.00 net. F. A. Davis Company, publishers, 1914-16 Cherry Street, Philadelphia.

This is a trustworthy book on a very important department of every general practitioners' daily duties. The successful management of the medical and surgical diseases of childhood is very essential to success. We can very confidently recommend this work. Dr. Sheffield has given the reader a good translation of the German edition. The book is got up in attractive form. The paper and typography are all that anyone could desire.

MALFORMATIONS OF THE GENITAL ORGANS OF WOMEN.

By Ch. Debierre, Professor of Anatomy in the Medical Faculty at Lille. With 85 illustrations. Translated by J. Henry C. Simes, M.D., Emeritus Professor of Genito-Urinary and Venereal Diseases in the Philadelphia Polyclinic. Philadelphia: P. Blakistons Son & Co., 1905; price \$1.50, net.

This is a very pretty little book. In this respect the publishers merit all possible praise. The binding, paper, typography, and illustrations would certainly please the most hypercritical. The author, on his part.

'has given the profession a most interesting book. His work falls into three parts : The anatomy, the development, and the malformations of the female genital organs. It is extremely interesting to note how the author traces the perversions of development that cause the malformations he describes. The book will well repay a careful perusal and an often time return to it for reference.

WELLCOME RESEARCH LABORATORIES.

First Report of the Wellcome Research Laboratories at the Gordon Memorial College, Khartoum. By the Director, Andrew Balfour, M.D., B.Sc., M.R.C.P., Edin., D.P.H. Camb., Fellow of the Royal Institute of Public Health, member of the Epidemiological Society. Medical Officer of Health, Khartoum, and Sanitary Adviser to the Soudan Civil Medical Department. Department of Education, Soudan Government, Khartoum, 1904.

Mr. Henry S. Wellcome performed a great service to the British possessions in Africa and through these to the whole empire when he equipped the Research Laboratories of the Gordon Memorial College at Khartoum. Such facts are few and, therefore, very precious. The purposes of these laboratories are to promote technical education, to study tropical disorders, to examine foods, to detect poisons, to make assays, etc. The report before us is a splendid one and reflects much credit upon the Director, Dr. Balfour, and those concerned in its publication. After an introduction setting out the foundation of the laboratories, there is a full and instructive section on the mosquito. The *Culex fatigans* is shown to be a filaria carrier, *Pyretophorus costalis* conveys malaria, while *Stegomyia fasciata* is responsible for yellow fever. There are some other forms of mosquito that convey disease. Much has been done to break up the breeding places of the mosquito. Other varieties of disease producing flies are described and beautifully illustrated. There is then a good account given of the work on malaria, filariasis, trypanosomiasis, haematuria, etc., etc. Upon the whole the Report contains a great deal of very interesting matter.

THE EYE, MIND, ENERGY AND MATTER.

By Chalmers Prentice, M.D., Chicago, Ill. Published by the Author, 1905.

The more one reads this book the less able he feels himself to review. It is not suitable for the lay reader and it is not likely to be any

use to the doctor. Let us quote one sentence. "In the union of health adjuncts, and the absence of pessimism, there is no such thing as incurable disease." We have done.

CONSERVATIVE GYNECOLOGY AND ELECTRO-THERAPEUTICS.

A Practical Treatise on the Diseases of Women and their Treatment by Electricity. By G. Betton Massey, M.D., attending surgeon to the American Oncologic Hospital, Philadelphia; Fellow and Ex-President of the American Electro-Therapeutic Association; Member of the Société Française d'Electro-Thérapie, American Medical Association, etc. Fourth edition, revised, rewritten and greatly enlarged. Illustrated with Twelve (12) original, full-page chromo-lithographic plates; twelve (12) full-page half-tone plates of photographs taken from nature, and 157 half-tone and photo-engravings in the text. Pages XVI-468. Royal octavo. Extra cloth, beveled edges. Price, \$4.00, net. F. A. Davis Company, Publishers, 1914-16 Cherry Street, Philadelphia.

The first edition appeared in 1889. Since then the author has acquired much new experience and has added largely to the importance and value of the book. The forms of current, the mode of using them, and the diseases for which they may be employed, are all set out with much care. The author deserves commendation for this valuable contribution to medical literature. The publishers have spared no effort to do their part well.

INTERNATIONAL CLINICS.

A quarterly of Illustrated Clinical Lectures and especially prepared original articles on Treatment, Medicine, Surgery, Neurology, Pediatrics, Obstetrics, Gynaecology, etc. Edited by A. O. J. Kelly, A.M., M.D., Philadelphia, with the collaboration of many eminent physicians, surgeons and specialists. Philadelphia and London: J. B. Lippincott Company; Canadian agent: Charles Roberts, Montreal. Price, \$2.00, Vol. 1, 1905.

This is one of the very best volumes that has appeared in this splendid series. To say this is to say much; and, yet, not too much. There are three articles on treatment, five on medicine, five on surgery, three on neurology, one on obstetrics, and a careful summary of the progress made in 1904 in the various branches of medical science. The book contains a number of excellent illustrations. The editor and publishers are both entitled to much praise for their efforts to keep this publication up to such a high standard. Throughout the book are to be found the record of some very interesting cases. Upon the whole we can speak of this series of books in terms of high praise.

SATTERTHWAITE ON THE HEART.

Diseases of the Heart and Aorta by Thomas E. Satterthwaite, M.D., Professor of Medicine in the New York Post-Graduate Medical School; Consulting Physician to the Post-Graduate, Orthopaedic and Babies' Hospitals; President of the Medical Association of the Greater City of New York. Publishers: E. R. Pelton, 19 East 16th Street, New York City.

This is a book of 304 pages, and consequently not too large for the busiest to read and study. The usual diseases of the heart are carefully studied and sound teachings laid down regarding it. The portions of the book dealing with the diagnosis of the various forms of cardiac diseases is good, and furnish in small compass much reliable information. The rules for treatment are laid down in a very explicit manner. We are glad to notice that the author belongs to the class who think that something can be done for persons suffering from heart disease. He is not too pessimistic. A number of the chapters had appeared elsewhere and are now gathered together with a good deal of new matter. A large number of illustrative cases are recorded.

MISCELLANEOUS.**THE TREATMENT OF MENSTRUAL DISORDERS WITH SPECIAL REFERENCE TO CASES IN WOMEN SUFFERING FROM MENTAL DISEASES.**

By GEORGE S. WALKER, M. D., Staunton, Va.

First Assistant Physician in Charge of Female Department, Western State Hospital, Staunton, Va., etc.

The connection between disorders of menstruation and disorders of the brain and nervous system has long been an established fact. The dependence of the psychic functions of the menopause upon mentality, are all subjects that have received the attention of clinicians for many years. It is a well-known fact, correlated to the peculiar connection between the mind and the sexual apparatus, that amenorrhoea is not infrequently met with in the insane. Thus, Sutton and Giles, in their work on the Diseases of Women, point out that "If in such a case menstruation comes on again the mental condition often improves." The problem as to how to treat insanity is one of the most difficult in therapeutics; and in the modern conception of this treatment all agents that tend directly or indirectly to further the equilibrium of the mental functions have a legitimate place.

One of the most difficult phases of this problem is the treatment of the menstrual disorders in insane women, and the importance of correcting any such disorders, in this class of patients is realized by all who are aware of the fact noted by numerous clinicians, that the improvement of the menstrual function leads to a marked amelioration in the mentality of these patients in very many instances.

In an institution like the hospital with which I am connected we naturally come face to face frequently enough with the question of treating the amenorrhœa that is noted as an accompaniment of mental disease and for a long time I have been experimenting with various therapeutic agents recommended for the treatment of menstrual disorders without obtaining perfect satisfaction from any, until I tried the method of treatment which I am about to describe.

What I was looking for was a safe and efficient emmenagogue, which gave positive results in cases of amenorrhœa, dysmenorrhœa, and suppressed menstruation, without either exciting or depressing the patient, without causing any disturbances on the part of the digestive tract, or the urinary tract, such as are met with in the use of most of the remedies classed as emmenagogues.

I knew that Apiol, the active principle of *Apium petroselinum*, Linne (Parsley), was a substance that had been long known to possess marked emmenagogue properties, but that had not been used extensively in this country on account of certain unpleasant after-effects connected with its administration. On investigation, I found that Apiol was first isolated by Joret and Homolle in 1855, and was at first recommended for malaria, as a substitute for that specific of specifics—quinine. Later its emmenagogue virtues became known, but it found far less favor in this country than in France, the American physicians being especially prone to reject any remedy that has disagreeable after-effects. Apiol seemed to me the ideal emmenagogue, and I was even tempted to try it, administering it in some way as to neutralize its irritant action, when I came across a statement in an article on the subject, to the effect that the Apiol of the market, no matter where purchased, was full of a series of impurities, and that the bad after-effects of this drug were due to these impure elements.

The ordinary Apiol of commerce, it seemed, was simply a mixture of impure principles obtained from parsley by extraction. The question was, therefore, to obtain such a preparation of Apiol that eliminates the impurities that do the harmful work of the ordinary preparation. A number of chemists, in various countries have tried to purify Apiol with varying success, but finally, within the last few years a pure product was obtained. It seems that the preparation which contains the purest product obtainable, which was prepared by the new process mentioned, is a pharmaceutical compound known as Ergo-Apiol (Smith). Seeking, as I said,

preparation of Apiol which would give satisfactory results in amenorrhœa, dysmenorrhœa, and suppressed menstruation, especially in the insane, and that would not produce any undesirable after-effects, I determined to try Ergo-Apiol (Smith), a liquid substance dispensed in gelatin capsules, which contains the pure Apiol described above, and in addition to a combination of emmenagogues that immediately appealed to me as calculated to enhance the efficiency of the whole remedy, namely ergot of rye, oil of savin and aloin.

I selected a series of cases in the hospital, each of which was characterized by a more or less pronounced menstrual disorder of some standing, and administered no other medication for the treatment of the disordered menstruation than Ergo-Apiol. I cite, in illustration, three cases in which the remedy in question was employed. They are only examples of the experience I had with it.

Case I.—Miss V. F. Aged twenty-one years. Was admitted June 1901. She said that she had not menstruated for nearly a year, and attributed her suffering in body and mind to this fact. She was despondent, and on the verge of committing suicide. The reflex effects of the uterine disturbance were also manifested by the derangement of function in nearly all the organs. There was entire loss of appetite and a practical cessation of digestion, accompanied by pain after eating. In October, 1901, I began to give her two capsules of Ergo-Apiol (Smith) three times a day until after her expected periods, without any effect. During the month of November I gave her two capsules three times a day, and continued the treatment until December 12th, 1901, when her menstruation returned in a perfectly normal manner. No unpleasant after-effects whatever were noted at any time during this treatment. She improved both mentally and physically during the time of taking this emmenagogue, and her condition was so remarkably ameliorated that she was discharged cured when the menstrual function had been re-established.

Case II.—Miss M. B. S. Aged twenty-four years. Has been suffering from amenorrhœa for a year, which persisted in spite of all treatment. She was melancholy, and had a very poor appetite and other disturbances due to her suppressed menstruation. In November, 1901, I began giving her two capsules of Ergo-Apiol (Smith) three times a day. I continued this treatment without any appreciable effect, except that the patient seemed to feel more comfortable, and at certain times during the month she experienced the subjective sensations accompanying the onset of menstruation. Finally, her menses returned on April 21st, 1902. The menstruation was perfectly normal. One week before the next succeeding period I gave her two capsules of Ergo-Apiol (Smith) three times a day, and when the time came for the onset of the flow it appeared in a normal manner. The remedy was continued in doses of one capsule three times

a day while the flow lasted. Since the re-establishment of her normal function the patient has gained both mentally and physically, and regained her mental balance and her usual cheerfulness, so that she was discharged cured.

Case III.—Miss L. D. C. Aged fifteen years. A girl of fine physique, who had first menstruated at the age of nine years, but always very irregularly. The menstruation disappeared for a year and then returned. When admitted she was very irregular with a scanty flow that lasted but one day, and was accompanied by severe pain in the head, loins and pelvis. A week before her expected period in January, 1902, I began giving her one capsule of Ergo-Apiol (Smith) three times a day. At the end of one week her menstruation returned, and lasted four days, the flow being normal in amount and accompanied by very little pain. The same treatment was pursued in February, with similarly good results, and from that time on the function was fully established and remained so. There was a marked improvement in both physical and mental condition and she was discharged from the hospital cured.

From my experience with Ergo-Apiol (Smith) and from the experience of a number of other observers, whose findings are published in the literature of the past few years, this remedy represents an emmenagogue of the highest type of efficiency combined with the inestimable advantages of safety, trustworthiness and absence of any unpleasant after-effects. It is probable that Ergo-Apiol owes its efficiency to the particular type of Apiol that it contains, the pure product from which all irritating and injurious impurities have been removed. But it is unquestionably also the accessory remedies, which enter into the combination that contribute to the efficiency of the whole. Ergo-Apiol was easily and agreeably taken by all the patients to whom I administered it, and in no case was there any nausea, eructation, or any other gastric disturbance. Unlike most other emmenagogues, it requires only small doses continued for a comparatively short time to bring about the desired therapeutic effects. Ergo-Apiol (Smith) has not only a stimulating effect upon the menstrual function in amenorrhœa, but also a tonic effect upon the muscle fibres of the uterus, for after it has been administered for a few months, the uterus is almost always able to resume its function without any further aid from external sources.

In conclusion, I may note the fact that the treatment of amenorrhœa in the insane is always a matter of greater difficulty than in persons with normal minds, and that a remedy that produces perfect therapeutic results, such as I have noted with Ergo-Apiol (Smith) in insane women, may be expected to perform the same services even more promptly in the average case of amenorrhœa as met with in ordinary family practice. This is proved conclusively in the numerous cases reported by various observers

who employed Ergo-Apiol (Smith) in menstrual disorders, and a partial list of whose publications appear in the annexed bibliography. Ergo-Apiol in the shape of capsules administered three times daily in doses of one or two, beginning a little before the expected menses, and continuing through the period, has proven the most efficient, prompt, safe, and pleasant emmenagogue that I have ever employed. My experience with the drug was such as to lead me to adopt it as a routine treatment in amenorrhoea.—*From the Brooklyn Med. Journal.*

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A VALUABLE AID TO ANTITOXIN.

In connection with the use of antitoxin in the treatment of diphtheria and croup much benefit can be derived from the use of an antiseptic inhalant which will act directly upon the mucous membrane of the throat. The effect of sprays is only temporary, while the inhalation of steam impregnated with volatile antiseptics is of limited value on account of the high degree of dilution in which they are present. On the other hand, Vapo-Cresolene has none of these disadvantages. Its vapors are diffused in the air and are directly inhaled, coming into contact with every portion of the diseased mucous membrane, destroying the bacilli, reducing the inflammation, and aiding in the removal of the diphtheritic patches. Unlike other antiseptics Vapo-Cresolene does not irritate, but is agreeable and soothing, and can be breathed with perfect safety by the youngest

child. Laboratory tests have shown the vapor of Cresolene to be destructive to diphtheria bacilli.

PLATT'S CHLORIDES AND THEIR USES.

To remove objectionable odors where sprinkling is inadvisable a cloth, wrung out of a solution of one (1) part of Platt's Chlorides and ten (10) parts of water, should be placed over, or near, the offensive article or place.

While lecturing recently, a Chicago physician and member of the School Board, declared the prevailing method of dry sweeping a prolific source of disease, due to the spreading of germ-laden dust.

Dust, dirt and germs are best removed from floors by first sweeping with a cloth-covered broom, moistened with water containing just a little Platt's Chlorides.

THE VALUE OF ECTHOL IN MEDICINE AND SURGERY.

The Journal of the American Medical Association is perfectly correct when it states editorially in its issue of April 8, 1905, that its own observation of medical literature indicates that echinacea is being used far more than formerly, as Ecthol (Formula:—Each fluid drachm contains 28 grains echinacea augustifolia and 3 grains thuja occidentalis) has grown into almost universal use among physicians of all countries since it was first introduced to the profession some 5 years ago. Discussing echinacea in a recent issue of the *Louisville Monthly Journal of Medicine and Surgery*, Dr. C. S. Chamberlin, of Cincinnati, writes as follows: "In my own experience, the results attending the use of echinacea have convinced me that there is no remedy of so great value in the treatment of cases of septic infection, and I have repeatedly used it in the cases of septicemia following wounds of the extremities, which I am confident, by any other means of treatment, would have resulted in the loss of the limb and possibly of the life of the patient." He further recommends it to eliminate toxins and to alter conditions which favor suppuration and inflammation, as in the case of abscesses, ulcers, gangrene, bites of venomous insects and reptiles, tonsillitis, the exanthemata, eczema and psoriasis.

TREATMENT OF FELONS.

Felons are classed as minor surgery and yet many a finger has been lost through their careless treatment. Antiphlogistine is a specific in incipient cases. Apply hot, change every 6 or 8 hours and resolution will as a rule occur without the formation of pus.

If pus has already formed incise deeply and freely. Thoroughness is essential. Evacuate and cleanse with a suitable antiseptic. Insert a drainage tube. Surround the finger with Antiphlogistine. Cut the drainage tube 1-4 inch above the surface of the Antiphlogistine. Cover all with absorbent cotton and a bandage. The results will be satisfactory.

 QUININE WITHOUT EBRIETY.

When two such well-known drugs as antikamnia and quinine are offered to the profession it hardly seems necessary to indicate the special classes of affections which call for their use. Antikamnia is unquestionably a perfect substitute for morphine for internal administration. It has complete control over pain, while it is free from the undesirable after-effects of the alkaloid of opium. In cases of malarial fever the combination of antikamnia and quinine should be given as a prophylactic and cure. For all malarial conditions, quinine is the best remedy we have. But, associated with this condition, there is always more or less pain, and antikamnia will remove these unpleasant symptoms and place the system in the best condition for the quinine to do its work. There are a number of ailments, not closely defined, which are due to the presence of malarial poison. All such conditions are greatly benefited by the use of "Antikamnia & Quinine Tablets," each tablet containing $2\frac{1}{2}$ gr. antikamnia and $2\frac{1}{2}$ gr. sulph. quinine. The antikamnia in these tablets not only relieves the pain, but prevents the ebriety or ringing sensation produced when quinine is administered alone. In headache (hemicrania), in the neuralgias occurring in anaemic patients who have malarial cachexia, and in a large number of affections more or less dependent upon this cachectic condition, the regular administration of these tablets is indicated.—*Medical and Surgical News.*

 DR. HAMILL'S MEDICAL EXCHANGE.

The Canadian Medical Exchange—While the profession practically all know that Dr. Hamill of the Canadian Medical Exchange handles over 80 per cent. of all the medical practices and properties sold in Canada, which offers are every month found among our advertising pages, it may

not be generally known to the profession that he also locates young physicians in fields for practice where there are excellent openings and where the people have requested a doctor to settle. In fact, Dr. Hamill assures us that he always has on his register from 6 to 10 openings that are sufficiently inviting to induce any young man to start in with certain assurance of a good living from the first and plenty of scope to enlarge. Physicians desiring a short-cut to their needs in this line will do well to communicate with Dr. Hamill, Medical Broker, Janes Building, Toronto.

GLYCO-THYMOLINE IN TONSILITIS.

Inflammation in any form attacking the tonsillar region gives rise to symptoms of most distressing character and at the same time provides a most favorable soil for the entry into the system of other infections. It is well to remember that at first this disease is only a local disturbance affecting the capillary system and glandular structures, and if promptly and efficiently treated will remain local. The constitutional symptoms such as fever, headache, etc., only develop when there is considerable infection taken up.

In treatment the first indication is to increase local capillary circulation. A local remedy must will two requirements, i.e., a detergent antiseptic and a degree of permanency in effect. Many of the remedies which have been advocated for the varied forms of tonsillitis are antiseptic, but they are not sufficiently exosmotic in their action to increase the circulation, or else their effect is too transient. Glyco-Thymoline frequently applied in a 50 per cent. strength with a hand atomizer produces a rapid depletion of the congested area through its well defined exosmotic property, reestablishing normal passage of fluids through the tissues, promptly relieving the dry conditions of the membrane and giving an immediate and lasting anodyne effect. As a gargle a 25 per cent. solution hot may be effectively used, providing the process does not cause undue pain. The external application of cloths dipped in hot water and glyco-thymoline in 25 per cent. solution greatly increases the venous circulation.

WHY DOCTORS SMOKE CIGARETTES.

Why do so many doctors smoke cigarettes, is a question which an observant physician propounded the other day? One reason is that a doctor is liable to be called upon at any time, and so he naturally avails himself of his scanty moments of leisure to seek the convenient solace of a cigarette. A good cigarette, such as the "Sweet Caporal" has much to recommend it, and is the purest form in which tobacco can be smoked.