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SIMPLE ULCERATION OF THE STOMACH AND DUODENUM.*

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WHEN asked some time ago to suggest a suitable subject for discussion at this meeting of the Ontario Medical Association, one ventured, after due consideration, to bring forward that of simple ulceration of the stomach and duodenum as a most deserving one, and especially so in view of the recent, rapid advances made in the treatment of this disease.

It was with pleasure that one learned some few weeks ago that our distinguished visitor, Dr. Ochsner of Chicago, was to discuss the surgery of the stomach from the clinician's standpoint, because one felt that the subject one had suggested would receive the attention which it so properly deserved, considering that recent advances in gastric surgery have for their basis, to a very great extent, the encouraging results of treatment of gastric and duodenal ulcers by surgical procedures as carried out by such men as Miculicz, Robson, Moynihan, Mayo, Finney, and by others, including our visitor.

In a review of the more recent literature on this important subject, one is at once impressed by its enormity, and after that by the impossibility of abstracting therefrom the subject matter for a fifteen minutes' paper without passing over a vast amount of important and useful data. One would require months, and even years, to put together in a manner fit for presentation at a meeting of this association the various statistics that one observes on the various phases of the subject in question, and especially so on account of the great variability of such statistics, whether clinical or post-mortem, and coming as they do from various hospitals scattered over Europe and America, in which the number of such patients has been relatively small, and this no doubt on account of the fact that gastric or duodenal ulceration is largely a home disease rather than a frequently occurring one in hospital practice.

One's first intention was to devote most of the allotted time to a consideration of the surgical treatment, but in view of Dr. Ochsner's contri-

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bution, one has chosen only to put together a few impressions gained from a present day general review of the subject.

There is no longer the necessity for giving distinct, separate consideration to ulceration of the duodenum, which occurs much more frequently than hitherto supposed, as apart from that of the stomach, for since it is that portion of the duodenum above the common entrance of the bile and pancreatic ducts which is involved by the great majority of duodenal ulcers, and as the two conditions are so frequently associated in the same individual, they have come to be looked upon as essentially similar in nature.

The present average estimate of the relative incidence of this disease is about five per cent. Post-mortem records have shown a much greater frequency than have clinical, and it is safe to presume that if careful records of the cases that do not find their way into hospital were available there would be a noticeable increase in the estimate. Greater frequency has been reported from England and Germany than from various parts of America, and even in the latter country vast differences exist in such reports. Whether these are real or only apparent is not manifest when consideration is had for diagnostic care and ability, the frequency with which exhaustive post-mortem examinations are made, and other circumstances which determine the precise value of hospital records.

Recent observations tend to show only a slight preponderance of the disease in females, and that it is only in the acute form of gastric ulceration that such preponderance is decidedly established, since chronic gastric ulceration is probably and duodenal ulceration is certainly more common in males. The majority of cases occur in the poorer classes whose food is not always as wholesome as it ought to be, though the well-to-do are by no means exempt; and in females the disease has been especially common amongst servants.

The vast majority of cases occur between the ages of fifteen and forty-five. From twenty to thirty is the commonest age in females, and from thirty to forty in males. The disease is comparatively rare after forty-five but is more common before fifteen than is usually believed, Dr. Cutler (1) of Boston, having collected records of some twenty-nine cases of gastric ulcer occurring in children between the ages of thirty hours and fourteen years, whereas Oppenheimer, quoted by Moynihan, (2) collected records of fifteen cases of melaena neonatorum arising from duodenal ulceration.

The true pathogenesis of this disease is still overshadowed by obscurity. Apparently all are agreed that the loss of substance is the direct result of digestive processes acting upon body tissues, the vitality of which has previously been impaired or even lost owing to some cause, the precise nature of which is still undecided. The chief causative theories already advanced may be classified as vascular, nervous and muscular,

secretory, traumatic, and bacterial. Of vascular causes most stress has been placed upon embolism, other suggested possible conditions being, thrombosis, hæmorrhagic infiltration, arterio-sclerosis, aneurysmal dilatation, varix and arterial spasm. Nervous and muscular causes are accorded to impairment of nervous control, acting either through the nervous centres or through the nerves distributed to the affected part, or to irritation of nerve terminals and consequent reflex and localized muscular spasm. The hypersecretion of hydrochloric acid has been regarded by many as causative but is now generally looked upon as a coincidence or an effect. As the result of recent experiments Weinland, referred to by Dr. MacCallum (3) of Baltimore, has suggested the possibility and even the probability of the existence or the creation within the body cells, which are or may be exposed to the action of the digestive juices, of an anti-zymogen of a protective character. Were this the case inevitable destruction would await any such exposed part which might become deprived of its inherent immunity. Traumatism resulting from the ingestion of fish bones, other foreign bodies, coarse pieces of food and such like, in the absence of other causative factors, rarely gives rise to ulceration. Much recent support has been given to the bacterial theory and notably by Robson and Moynihan, (4) who regard "oral sepsis" as a most prominent predisposing condition. This finds acceptance from many writers, and Mr. W. Bruce Clarke, (5) in support of the theory, reports a case in which gastric ulceration was the undoubted result of the ingestion of food which had undergone putrefactive changes.

The only practical classification is the one that divides these cases into two classes, namely, acute and chronic. Diseases which are always characterized by cardinal symptoms are rare indeed, so that it seems needless to speak of typical and atypical cases in this regard. Each case should be looked upon individually and its nature decided by the consideration given to it. Why should one continue to speak of the catarrhal, the gastralgic, the dyspeptic, the hæmorrhagic or the cachectic form of gastric ulceration when it is known that any individual case may present one or another or even all of such implied characteristics during its progress? The "simple erosion" and the "exulceratio simplex" rescribed by Dieulafoy, in which the loss of tissue is less decided than in ulceration proper, need only be mentioned here on account of their hæmorrhagic tendency.

No special predilection of location is shown by acute gastric ulcers, but the chronic form, which may be acute in origin though probably in the majority of cases assuming a chronic course from the beginning, is found to involve the pyloric region in somewhere about seventy-five per cent. of cases and in this most frequently the posterior wall near the lesser curvature. The large majority of ulcers in the duodenum are located in its first part close to the pylorus and the ulcerated area is not infrequently

continuous through the pylorus with a similar area on its gastric side. Cases are extremely rare in which such ulceration occurs below the common entrance of the bile and pancreatic ducts, though a similar process is found in the so-called peptic ulcer of the jejunum which in rare cases has ensued after the operation of gastro-jejunostomy.

Acute ulcers are multiple in about fifty per cent of cases. They rarely exceed one half an inch in diameter, being round or oval, with clean cut edges of normal mucous membrane, and are obliquely conical in form, the apex of the cone being directed outwards and extending to the submucous, the muscular, or the serous coat according to the depth attained. Multiplicity is rarely observed in chronic ulcers though their frequent irregular shape is often suggestive of previous coalescence of parts. Their prominent edges are somewhat indurated and there is a condition of mild inflammatory infiltration in the immediately surrounding mucous membrane, their size being variable up to an area of several square inches. In depth they may extend beyond the limits of the viscus affected, without any exaggeration of symptoms occurring, so as to reach such viscera as the pancreas or the liver.

Hyperchlorhydria is a very frequent attending condition, but not always, however, as frequent analyses have demonstrated the continued diminution or absence of free hydrochloric acid in the gastric secretion in some undoubted cases of gastric or duodenal ulceration. In close relation to the existence of hyperchlorhydria is the condition of pyloric spasm and to this in turn a not infrequent gastrosuccorhœa. With regard to hyperchlorhydria it would probably be more to the point to say that frequently repeated analyses in such cases tend to show considerable variations in the amount of free hydrochloric acid present and in the majority of instances reveals an excess.

In practically all cases in which hæmorrhage has occurred the blood presents the characteristics of a secondary or chlorotic anaemia, the average decrease in hæmoglobin being from forty to fifty per cent. The urine which is sometimes scanty presents no definitely special characteristics.

From amongst the long list of complications and sequelæ of this disease may be mentioned as the most frequent, hæmorrhage, perforation, pyloric stenosis, hour-glass contraction, gastric dilatation, gastric tetany, ulcer carcinomatosum, perigastritis, peritonitis, subdiaphragmatic abscess, cholecystitis, empyema, and pulmonary tuberculosis.

Briefly, the symptoms and signs commonly present are, dyspepsia, with acid eructations, pain, vomiting, hæmatemesis, melæna, constipation, loss of flesh, tenderness, localized rigidity, probable tumor formation and anæmia with its attending characteristics. The appetite is variable though good as a rule, but such patients frequently refrain from even moderate eating on account of its consequences.

Pain in the epigastrium of varying severity usually follows the ingestion of a meal, sometimes almost immediately, but its time of onset varies from a few minutes up to two or more hours. Robson and Moynihan (6) believe that such variations depend upon the situation of the ulcer, claiming that the nearer a gastric ulcer is to the pylorus, the longer is the pain deferred, and that when the duodenum is alone involved the most frequent time of onset is after one to two hours. Early pain, a free interval, and then again late pain may suggest the presence of non-continuous ulcers of both stomach and duodenum. Relief from pain usually follows the occurrence of vomiting which most frequently ensues in from one to two hours after a meal, but may come on almost immediately. On the other hand when hyperchlorhydria is a prominent element of the disease, relief of at least a temporary character often follows the ingestion of food.

Hæmorrhage of varying degree is estimated to occur in about eighty per cent. of cases and manifests itself by hæmatemesis or by melæna or both together. Slight degrees of melæna are frequently overlooked, and when unassociated with hæmatemesis its likely origin is duodenal. Gastrorrhagia of a degree insufficient to give rise to vomiting is often only revealed by a microscopical examination of the stomach contents.

Epigastric tenderness is generally well defined and is capable of being elicited immediately below the ensiform cartilage and between it and the right costal margin, and when the duodenum is involved it is often more distinct to the right of the middle line and at a slightly lower level. Dorsal tender points have frequently been observed in the region of the tenth, eleventh and twelfth dorsal spines. Tenderness is also a characteristic of the benign tumor formation which is not uncommonly present.

Symptoms or signs attending the abundant complications are sequelæ to which this disease is liable need not be mentioned here, save one so commonly considered to be essentially present to warrant the diagnosis of perforation, namely the obliteration of liver dulness. With regard to this, Robson and Moynihan (7) state that "its presence or absence is void of any significance and is unreliable as an aid to diagnosis." In the few available records of perforated cases where note of this feature has been made, one finds that in only about half of the cases was liver dulness absent, but it is a feature that has been made note of so rarely that its precise value cannot be judged.

In the clinical picture of this disease the association of pain, vomiting and hæmorrhage is decidedly characteristic, but there are many cases of intractable dyspepsia in which the evidence of ulceration is not so clear and it is only by a most careful and exhaustive enquiry concerning the history and present condition of the digestive system, a thorough physical examination, and by chemical and microscopical examination, preferably repeated, of the stomach contents, that a diagnosis can be made,

while such conditions as gastralgia, carcinoma, cholecystitis, cholelithiasis, nephrolithiasis, tabetic crises and appendicitis are excluded. It should ever be borne in mind that in a small percentage of cases the first noticeable indication of disease may be an alarming hæmorrhage or symptoms of acute perforation.

Dr. Murdoch (8) of Pittsburg believes in the efficacy of orthoform in establishing a diagnosis in many doubtful cases, claiming that if relief from gastric pain follows the administration of orthoform, ulceration is present as this will only anæsthetize nerve endings when deprived of their cutaneous or membranous covering. This, though worthy of trial, would scarcely accord with the more generally accepted idea that the pain is not due to the exposure of nerve terminals to the contact of food or irritating secretions, but rather to their excitation by movements occurring in the ulcerated area.

As to the diagnosis of perforation occurring near the pylorus and especially in the duodenum it is interesting to note the frequency with which the condition has been mistaken for appendicitis. Records demonstrate such a mistake in diagnosis in from one-third to one-half of the reported cases of perforated duodenal ulcers. This admits of an anatomical explanation inasmuch as it has been shown that in such cases the extravasated contents usually find their way most readily towards the right iliac region owing to the presence of a small hillock in the transverse mesocolon beneath the pylorus, and to which special attention has been directed by Robson and Moynihan (9).

Prognostic estimates of this disease are extremely variable, Brinton placing the mortality from all causes as high as fifty per cent. Of cases treated medically only, the average mortality is estimated to be about twenty-five per cent. of which fifteen per cent. is allotted to perforation and five per cent. to hæmorrhage, and the remainder to other causes. Of cases treated surgically, the average mortality in 1900 was sixteen per cent. whereas in 1904 it was five per cent. Other average estimates are these: forty per cent. of cases treated medically undergo relapses; twenty per cent. of protracted chronic cases develop pulmonary tuberculosis, and at least six per cent., but probably many more, give rise to gastric carcinoma.

The treatment of this disease is at present its most interesting phase, but one is compelled to resort to a mere statement of conclusions in this regard. In all cases it is at first essentially medical. The earlier this is instituted the better will be the results, and if carried out with strict attention to detail in the matters of rest and feeding and for a sufficient length of time, which involves at least four to six weeks in bed and much, further prolonged supervision, permanent cure will result in about fifty per cent. of cases. Unfortunately, however, many of the cases are not diagnosed in their early stages and even when diagnosed there is a tendency

to a lack of co-operation between the physician and the patient in the matter of methodical treatment with the result that chronicity is established, relapses are common, complications and sequelæ ensue so that a condition is arrived at in which medical treatment alone is of little benefit, and in which surgical procedures offer the only hope of permanent relief.

Immediate surgical treatment is positively indicated in all cases in which perforation has occurred, and its advisability should be considered in cases in which a single profuse hæmorrhage does not yield promptly to medical treatment, while it is also indicated in the recurring and debilitating hæmorrhages so frequently associated with chronic ulceration. Of other frequently attending complications, pyloric stenosis with gastric dilatation, and hour-glass contraction can only be relieved surgically. Furthermore, a life of chronic invalidism attended by imminent danger of its rapid termination can by surgical treatment in the great majority of cases be rapidly converted into one of perfect health, safety and usefulness.

The present day tendency is towards the early adoption of surgical treatment in all such cases when medical treatment fails after a fair trial to bring about prompt and permanent relief and the results of much recent work done by various competent surgeons undoubtedly demonstrate the wisdom of so proceeding.

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CLINICAL CASES IN THE HOTEL DIEU HOSPITAL.*

By EDWIN RYAN, M.D., Kingston.

NEPHRECTOMY FOR HYDRONEPHROSIS.

MRS. McN., aged 48, was referred to me on July 14th, by Dr. Cooper, of South Renfrew. She was the mother of a large family, had an excellent family history, and her previous health was good. For about four months before her admission to the hospital she had been

* Read at the Meeting of the Ontario Medical Association, Toronto, June 7th.

troubled with attacks of painful and frequent micturition. There was a large well-defined tumor situated in the right hypochondriac epigastric and umbilical regions. The tumor diminished in size upon brisk purgation. There were frequent attacks of intense pain, referred mostly to the umbilical region. The urine was normal in quality and quantity. A hydronephrotic kidney was diagnosed and operation decided upon. The lumbar incision was used. It proved too small and was carried freely along the crest of the ilium and the kidney with the attached mass was removed. There were few adhesions and no great difficulty experienced after the opening was enlarged. The wound healed without incident and the patient left the hospital on September 11th. She has since enjoyed excellent health.

Upon two points in connection with this case I would beg to offer comment, namely, the difficulty of diagnosis and the method of operation. The situation of the tumor, the extent and seat of pain were confusing. The lumbar region gave little assistance. There was no appreciable increase of dulness; nothing at all like what one meets with in a cancerous or tuberculous kidney. The bladder trouble was suggestive, yet the symptoms were not more pronounced than those ordinarily met with in cases of abdominal tumors. The one really diagnostic feature was the partial disappearance of the tumor upon brisk purgation, though no copious flow of urine at that period was detected.

The proposed methods of treatment are various, friction, paracentesis, injection of irritants, nephrotomy, nephrotomy with subsequent nephrectomy, and nephrectomy. The operation of nephrectomy seems the only rational cure. The other methods of treatment appear to be but expedients, not without danger and rendering the radical cure in the end more difficult. To stitch to the integument the cyst wall or the remnant of kidney, with the subsequent inconvenience and danger of fistula or sepsis, does not appear to be in the spirit of modern surgery. As to the kidney, or rather the shell remnant, I think its economical value is of little account. The fluid it secretes is not urine and, therefore, its emunctory duty is of little value. As a primary operation, nephrectomy presents no great difficulty. As a secondary operation, with adhesions formed, and in a field soiled with discharges, I am not so sure it would pass off so easily.

PRIMARY CARCINOMA OF THE LIVER.

Mrs. B., aged 48, Marmora, was admitted to the hospital on April 11th, 1903. She was the mother of several children and her previous health had been good. Her family history was excellent. About one month before her admission, while lifting a heavy weight, in her own

words, she "felt something give way in her right side." Shortly afterward a lump made its appearance below the right costal margin. There was a sense of weight and dragging, accompanied by slight discomfort, but at no time was there any distinct pain. When she first came under observation she was a healthy, well-nourished woman, no cachemia. The liver was very much enlarged. To the right of the umbilicus and in the mammary line a distinct globular tumor was projecting. From the history of the case and from the physical signs of the projecting tumor I felt I had to deal with a case of hydatids of the liver. On April 25th I made an incision over the projecting mass. When exposed, the tumor projected well below the margin of the liver, and certainly had a cystic appearance. It was only upon opening that its malignant nature was discovered. The patient died of exhaustion on July 10th following. The autopsy was performed by Dr. W. T. Connell, who reports :—

The abdomen and lower extremities were markedly oedematous. The abdomen was distended with a large solid mass just below the right costal margin and in the epigastric region. On opening the abdomen and removal of dropsical fluid the liver was found reaching an inch below the umbilicus and extending to the left as far as the spleen. The other viscera in the abdomen were examined and found quite normal. Some of the glands in the portal fissure and along the coeliac axis were enlarged. The right lung was shoved up as far as the third rib, but was otherwise normal, so with the left lung and heart. Liver weighed 11½ pounds. It was filled with a huge mass of growth which breaks out on the surface in large orange shaped nodules. The left lobe lateral portion is the only part not affected by large central nodules, but it contains numerous small secondary nodules. The growth itself was very soft and fatty looking. Microscopic sections from the edge show typical encephaloid carcinoma, the cells being large and packed in small alveoli. In the centre the sections are simply a mass of degenerated cells.

Two points about this case are worthy of notice; the rapid growth of the mass and the tumor-like projections which were certainly very deceptive.

MAMMARY HYPERTROPHY.

Lottie B., aged 18, came to the hospital in July, 1904. Her mother was an Indian woman, her father a half-breed. The family history was excellent. Until the time of puberty her health had been good. From that time on her breasts gave her trouble, being subject to occasional attacks of pain and swelling. In April, 1904, her breasts began to increase rapidly in size, and when she first came under my observa-

tion in July they were enormously enlarged. The nipples had disappeared under the tension. There was little or no tenderness. Treatment was begun at once, strapping, local applications, and the internal administration of iodide of potash. This treatment had absolutely no effect, and as the patient refused to submit to operation she left the hospital three weeks from the time of entering. She returned on October 15th following, her condition being practically unchanged. She was now prepared to undergo operative treatment. On October 17th the left breast was removed. The gland on amputation measured 25 inches in circumference, $9\frac{1}{2}$ inches in long diameter, $3\frac{3}{4}$ inches in short diameter, and weighed 10 pounds, 4 ounces. On November 25th the right breast was removed. It measured 25 inches in circumference, 9 inches in long diameter, $3\frac{1}{4}$ inches in short diameter, and weighed 9 pounds 2 ounces. The patient herself weighed 95 pounds upon recovery. During the operation venous sinuses were encountered, some fully one-quarter of an inch in diameter and the hæmorrhage at times was very difficult to control. The gland tissue would not hold a forceps and the best control of hæmorrhage was obtained by hot towels and pressure. In fact, towards the end of the operation I abandoned any attempt to stop bleeding and shelled the breast out quickly when the bleeding ceased at once. I am sure this method was a decided gain. The patient's recovery was uneventful, the wounds healing rapidly, and the patient left the hospital before the end of December.

Pathological report by Dr. W. T. Connell is as follows:—There is mammary hypertrophy. The microscope shows distinct lobular grouping. The lobules consist of irregular alveoli with single or double epithelial lining, the cells being spheroidal or cubical. A distinct lumen was present in most, but not all, the alveoli. There was no active secretion, nor any evidence of cyst formation. The specimen seems to approximate closely to that of ordinary actively growing, but non-secretive breast tissue.

BRONCHO-PNEUMONIA—A CONTRAST BETWEEN URBAN AND RURAL RESULTS.*

By J. BIGGAR, M.D. Tillsonburg.

IN an experience of barely a year in general practice it is difficult to find a subject of a sufficiently interesting character to be worthy of presentation to this Association. I have met, however, with one phenomenon by which I have been greatly impressed—contradicting as it does, not only the commonly accepted teachings, but also my earlier

* Read at the Meeting of the Ontario Medical Association, June 7th.

experience as resident in the Children's Hospital. This is the large percentage of recoveries from broncho-pneumonia that occurs in rural practice.

It is occasionally a wise procedure to answer objections before they are raised, and in discussing any such condition as broncho-pneumonia and claiming 100 per cent. recoveries, an objection that would in all probability be made, is that the diagnosis has been at fault. Therefore, may I be permitted first of all to state on what symptoms and physical signs this diagnosis was made, in the twenty-six cases which I was called upon to attend during the last six months.

Though in a few instances the disease had set in abruptly, a history was generally obtained of a cold, caught from two days to a week previously, with which the child had had some coryza and bronchitis. This condition had become progressively worse and when first seen the little patient was found lying more or less stupid and slightly cyanotic, making little or no complaint, save with the cough, which was frequent, usually followed by crying. The temperature ranged between 101.3 and 104, the pulse between 120-180 and the respirations, labored and with the accessory muscles in full play, between 40 and 100.

Examination of the chest revealed recession of the soft parts with each inspiration. The results of percussion varied. Hyper-resonance over the front of the chest was invariably present. In some of the cases areas of dullness posteriorly could be easily detected from the first. In others these areas were not discoverable till later on in the attack, but in all the cases one, or more usually several, dull areas were present at some stage of the disease. The breath sounds were harsh broncho-vesicular over both lungs, and accompanied in numerous instances by a generalized fine crepitant rale. This rale was occasionally confined to the areas of bronchial breathing which were constantly present and corresponded, if any such had been discovered, to the areas of dullness mentioned above.

This was the clinical picture presented by the twenty cases to which I have reference and it is, as far as I can learn, the picture of broncho-pneumonia as drawn by the authorities.

Brief reference only need be made to the prognosis as generally given. Allbutt and Eustace Smith agree, that in infancy broncho-pneumonia almost inevitably terminates fatally. Holt's best statistics show a mortality of 10 to 30 per cent. of all cases even in private practice—whereas in hospital work the percentage is much larger. Of his cases under a year of age 66 per cent. were fatal. We had last year in the Hospital for Sick Children 18 cases, with a mortality of 63 per cent. Of nine of these under a year old, eight died, and in the ninth there was a reasonable doubt, as to whether the condition was broncho-

or lobar pneumonia. In short, from his text books and hospital experience the student is taught to expect that the diagnosis of bronchopneumonia correctly made in an infant is, in a great majority of instances, merely the fore-runner of a fatal termination.

The ages of my patients varied from six weeks to three and one-half years. There were eleven under one year old and six between one and two. From the records I have listed ten of the cases to have been severe, six of medium severity, and four comparatively mild attacks. Among the severe are included a malnutrition baby twenty months old, weighing sixteen pounds, a baby six weeks old who had had a sharp attack of inanition fever during its first week of life, a baby four months old who had suffered for some time from intestinal indigestion, and a child about two years old whom I had attended a few months previously in a severe attack of acute gastro-enteritis, from the effects of which he had not as yet completely recovered.

Notwithstanding the fact that I lay claim to a series of 100 per cent. recoveries from this disease, some of them occurring in patients badly handicapped at the outset, I have no specific remedy to vaunt, and under treatment I wish to lay emphasis upon one point only, as being the essential factor in the outcome. This is the attention that should be paid to the digestive system; firstly by a thorough cleansing of the alimentary canal, and secondly, by the ordering of such a diet as will afford ample nourishment and at the same time will be within the power of the enfeebled digestion to handle.

The sweeping out of the digestive tract may be effectually accomplished by the administration of calomel in broken doses, followed by castor oil or infusion of senna, supplemented in some cases by rectal irrigations. The consequent stools show, in nearly every instance, the great necessity that existed for active purgation, and this is, in a large number of cases, followed immediately by improvement in the general condition, and may be repeated at short intervals with advantage.

With regard to dieting, no definite rule can be laid down, but I have found for milk-fed children Holt's method of percentage modification very useful, and either begin with a rather weaker mixture than, is perhaps altogether necessary, working gradually up to the stronger, and at the same time watching the motions very carefully for evidences of failure to digest the food, or add to the weak mixture some form of pre-digested food, as Liquid Peptonoids or Bovinine, to increase its nutritive value. I have found in some cases where the digestion was badly disordered, or excessively weak, a cream and whey mixture eminently successful, providing as it does an easily digested and nourishing food. In any diet variants are generally necessary and for this

purpose broths and albumen or barley water, to which peptonoids have been added are satisfactory.

In all cases, whether the patient be milk-fed or breast-fed, it is essential to lay down specific directions with regard to *regularity*, *moderation* and *slowness* of feeding, indeed, in the case of nursing babies, these directions are of paramount importance—as it is a matter of common observation that if a breast-fed baby be ailing, the mother's chief desire seems to be to have him nurse at all and every hour of the day and night, thereby throwing a greater strain on his already upset digestive system.

The only other remedial measure upon which I have come to place much reliance is active counter-irritation of the chest. This was procured in my cases by means of the old-fashioned mustard plaster, applied front and back every four hours, and immediately replaced upon its removal (when the skin had been thoroughly reddened) by warm flannel cloths, care being taken in effecting the change to prevent any chilling of the surfaces. In the majority of the cases these simple measures alone sufficed to ensure recovery, though as a placebo to the parental anxiety some harmless mixture was usually prescribed. If, in some of the more severe cases, stimulants became necessary whiskey and strychnine were used.

The conclusion to which I have come by the result in these cases is, that a country practitioner finds his patients endowed with a better stamina, a sounder constitution, a greater resisting power—call it what you will—than is usually found in an urban population. In consequence his sick babies will, as a rule, recover, if they are provided with suitable nourishment, and if at the same time they are not overdosed with useless and often harmful drugs; the effect of which, in many cases, is merely to upset still further the digestive system, already deranged by the disease.

Finally, it is a matter of reproach to some of the profession, that lives are sacrificed annually to a mistaken confidence in the efficacy of medicines, when all that is necessary to the patient's welfare is the administration of a proper diet.

REMARKS ON THE SURGICAL TREATMENT OF CHRONIC NEPHRITIS, WITH NOTES OF CASES.*

BY H. HOWITT, M. D., Guelph.

THE *New York Medical Record* of the 4th of May, 1901, contains an article by Dr. George M. Edebohls on "Bandages for Nephrotosis," in a paragraph of which there is a distinct proposal for the surgi-

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cal treatment of chronic nephritis that, no matter what changes or improvements may be made in the technique, gives the doctor priority in directing the attention of the profession to this new field of surgery. In the paper he advises, when the kidney is movable, decapsulation and nephropexy and simply decapsulation when its position is normal.

Prior to this formal proposition to treat chronic Bright's disease by decapsulation, several surgeons had reported the disappearance of albumin and casts in the urine of patients after decapsulation or partial decapsulation and nephropexy of a diseased kidney.

In the classification of chronic nephritis many of our authorities differ from each other widely. Dr. Edebohls gives, from a surgical point of view, a very practical plan. He designates as interstitial nephritis all the cases in which the connective tissue is involved chiefly; as parenchymatous, those in which the involvement of the secretory apparatus forms the salient feature, and as diffuse when both these tissues are involved equally.

In regard to the disease and its surgical treatment the main views held by the doctor, stated briefly, are as follows, viz: That in chronic nephritis there is faulty or insufficient arterial blood supply, hence impaired nutrition of the secretory apparatus in consequence of which the cells fail to mature and are shed prematurely thus leading to imperfect function manifested by retention in the system of urea and other effete products and the presence of albumin and casts in the urine.

That decapsulation by removing an impervious membrane permits collateral circulation to be established between the vessels of the secretory tissue of the organ and those of the vascular perirenal fat and adjacent structures which in time restores the damaged secretory tissue.

That the average time for a cure after the operation is about eight months.

That the *immediate* beneficial results which frequently follow the operation are due not to the relief of tension, but to the necessary manipulation of the kidney during the operation stimulating its circulation.

That after the operation a new capsule is formed in from three weeks to as many months, which is sometimes thicker and sometimes thinner than the original one, but always more succulent and vascular.

That neither the original nor the new capsule ever causes trouble in chronic nephritis by tension.

That unilateral chronic nephritis is more common than is generally supposed.

And that the interstitial, parenchymatous and diffused varieties of the disease are all suitable for the treatment.

A number of surgeons differ from the doctor in reference to the rôle played by tension in chronic nephritis. In acute nephritis we have invariably increased tension of the capsule and in all the chronic varieties of the disease, while his feature may not be easily demonstrated, there is general-

ly undoubted evidence of abnormal tension in the whole or some portion of the kidney structure proper, that is increased denseness due to thickening of the connective or parenchymatous tissue or of both according to the parts involved.

Though removal of the capsule under favorable circumstances may undoubtedly lead to complete restoration of the deranged function, yet in my opinion, in the majority of cases of chronic nephritis it fails to fulfil all the indications. Let me illustrate this by a somewhat parallel condition in another structure of the body. Take for instance that very painful form of *ostitis* which not uncommonly affects the lower end of the tibia, here in the early days of the acute stage a simple incision of the periosteum over the part often gives prompt, complete and permanent relief, but later in the disease a section of the affected bony tissue must be removed in order to obtain good results.

May we not maintain that the relief of tension plays a more important part in the good results which at times follow the operation than the chief exponent of it is at present willing to admit? In regard to the *immediate* beneficial results which usually follows decapsulation, is it not more reasonable to attribute it to the free oozing which takes place from the denuded surface lessening the tension, than to the manipulation stimulating the circulation? It is certainly a more rational explanation. Then why not take a step further and relieve more quickly the tension of the deep portions of the organ?

With the handle of a scalpel or other suitable blunt instrument a free incision can easily be made along the convex border of kidney down to the pelvis. By this method the arterial terminals and capillaries are less injured than those of the venous system of the part, hence there follows abundant oozing from the right quarter to relieve the engorgement.

Then if it is thought desirable to endeavor to hasten the establishment of collateral circulation, I see no valid objection to fastening in the kidney wound a section of the perirenal fat or other available vascular tissue.

In my last case, in addition to excision of the capsule, I made a long and deep incision in both kidneys and the happy result which followed far exceeded my most sanguine expectation.

CASE I.

Master W. M., aet 4 years; marked tubercular family history; admitted to the general hospital on the 10th of December, 1901.

Previous History: Early in the preceding July, the mother noticed a fine rash on his body, but as he appeared to be well otherwise no attention was paid to it. A month later when Dr. McQueen, the family physician, was consulted there was general anasarca and the urine which was scanty contained a large amount of albumin. In spite of the excellent

plan of treatment adopted by the doctor, the boy gradually grew worse and later the abdomen had to be tapped every three or four days.

On his admission to the hospital beside the general anasarca and distended abdomen, there was some oedema of lower part of lungs at back, heart hypertrophy and gastric irritability and uræmic symptoms were present. The daily amount of urine voided was only 10 oz. It contained a large amount of albumin and hyaline and granular casts.

Diagnosis. Chronic parenchymatous nephritis.

The day after he entered the hospital the abdomen was tapped and he was prepared for operation and on the following morning the capsule was removed from both kidneys.

The organs were somewhat enlarged, whitish in color and more dense to touch than normal with capsule neither thickened nor abnormally ad-

The wounds healed kindly and by the 6th day the daily amount of herent.

urine increased to 28 oz. and the general oedema disappeared slowly afterward. There was no recurrence of the ascites. Later the daily amount of urine fell to 20 oz. The skin aided by vapor baths acted freely. By the middle of April there was less than 5 per cent. of albumin by bulk, then he had a severe attack of influenza and broncho-pneumonia which terminated fatally in less than a week.

CASE II.

Miss M. M., æt 17 years; good family history; admitted to a private ward of the Guelph General Hospital on 21st of November, 1903.

Previous History :—Enjoyed excellent health until the spring of 1902, then she began to fail and her ankles became swollen. On consulting the family attendant after a few days treatment all the symptoms disappeared and she was pronounced cured. The following November the trouble returned and an examination revealed that her urine contained casts, and 2 grams of albumin per litre. In March, 1903, she had an attack of influenza which aggravated the disease. She then consulted an eminent physician in Toronto who reported that the daily amount of urine was only 18 oz., and that it contained hyaline casts, blood and a considerable amount of albumin. Under his treatment her health improved very much and she gained in weight, strength and color. By the following August her health appeared to be excellent and an examination failed to detect casts in the urine and there was merely a trace of albumin. Toward the end of September her trouble returned and her brother, a student of medicine, suggested operative measures. Before the other members of the family consented, she was taken to Baltimore for Dr. Osler's advice and remained in Johns Hopkins Hospital for two weeks under observation and treatment, and when there the following facts were obtained, viz: Blood

pressure above normal; hæmoglobin, 75 per cent; sp. gr. ranged from 1,007 to 1,017; albumin half-gram to litre; casts, and urea always low; and also that the amount of albumin increased to 1 gram per litre when given considerable salt with her meals.

During the five days that she spent in the Guelph General Hospital before the operation, the daily amount of urine was 37 oz.; sp. gr. 1,010; albumin varied from 1 to 2 grams per litre; urea 1 per cent. Diagnosis interstitial nephritis.

Bilateral decapsulation was performed on the 26th of November. Both kidneys were harder than normal, had capsule adherent and a granular appearance of subcapsular surface.

Five weeks after the operation an examination of the urine gave—daily amount 55 oz.; sp. gr. 1,014; albumin, 1 gram to litre; urea 1.8 per cent. No casts were detected on this occasion. She left Guelph a week later for Southern California and ten months afterward Dr. Sherry of Pasadena, reported the urine contained no casts and only a trace of albumin.

A month ago here sister wrote: "I am glad to tell you that M— has passed an excellent winter, she has been in continued good health and is a more than usually robust looking girl. She weighs 125 pounds. No test of urine has been made since last October."

CASE III.

W. E., male; aet 21 years; good family history; entered the hospital on the 23rd of November, 1904.

Previous History:—When 7 years of age he had measles and congestion of the brain and was very ill for many weeks. Four years ago he had pleurisy and had his chest aspirated. Otherwise he had been always healthy until last June when he had a severe chill while attending a military camp. After this although he continued at his usual employment in a planing mill, he had not his former vigor. About the 1st of September his face became puffy under the eyes and his legs swollen. He then consulted Dr. P. Stuart of Milton, who found that his urine was loaded with albumin. Under the treatment prescribed by the doctor, he improved quickly and in a short time the urine became normal and all trace of the oedema disappeared. In two weeks, without asking the advice of his medical attendant, he returned to his work. The disease recurred shortly afterward in an aggravated form. Owing to changes at his home he was unable to receive the attention which his condition of health required. Dr. Stuart placed him under my care in the Guelph General Hospital.

Condition on admission: Marked general anasarca; in fact his body was fairly "water-logged"; scrotum and penis distended to immense proportions; large quantities of free fluid in abdomen and oedema of the pos-

terior portion of lower lobe of both lungs. Marked arterial sclerosis, more pronounced on left side; clouded mental condition—answered questions slowly with a distinct interval between each word. He had no headache, but was always tired, very weak and drowsy. The first day after admission he passed 18 oz. of urine, the specific gravity of which was 1.032. It contained, according to Esbach's test, 4 grams of albumin per litre; reaction alkaline; odor very offensive; large amount of pus, and large and small hyaline and granular casts.

Diagnosis: Chronic, parenchymatous nephritis.

He was put on milk diet, kept between woollen sheets with dry heat applied and bowels rendered active by saline. A daily hot-air bath preceded by a hypodermic injection of one-eighth grain of pilocarpin. We endeavored to irrigate the bladder every morning, but rarely accomplished the work owing to the great oedema of the prepuce until we lessened the local swelling by puncturing the parts, then the urine became acid and free from offensive odor.

He grew worse in spite of all our efforts. The hot-air baths gave free action of the skin, but the more freely the skin acted the less the amount of urine secreted and the greater the amount of albumin. During the first week in December the daily amount of urine was only 11 oz., and later it decreased to 9 oz., and it contained more than 13 grams of albumin per litre.

The patient had now urgent attacks of dyspnoea, and a marked cyanotic condition of his lips and skin and a distressing cough. Before the patient had arrived at this critical stage, Dr. Stuart and I had advised operative measures, but the members of his family would not give their consent until Dr. Wm. Caven saw the patient in consultation on the 11th of the month.

On the following day under ether anæsthesia assisted by Dr. Stuart, I decapsulated both kidneys and made a blunt incision along convex border of each fully two-thirds of its length and down to, but not into, the pelvis. The hæmorrhage from the kidney wounds was not as great as I expected.

The incisions in the kidneys were not sutured. Silkworm drains were introduced and the flank wounds closed with buried catgut.

When the incisions in back were made, serum fairly flowed from the tissues.

The kidneys were paler, larger and firmer than normal, confirming the diagnosis which had been made.

For a few days considerable blood oozed from the wounds, evidently it came from the renal incisions. The urine at first contained a large amount of blood, but this factor completely disappeared by the end of the third day. The daily amount of urine increased rapidly and the amount of albumin quickly decreased. On the fifteenth day after operation the

urine chart read: Amount 93 oz.; sp. gr. 1,015; color, amber; albumin, none; cast, none; and three days later the amount passed was 173 oz.; sp. gr., 1,010. The quantity continued large until the oedema disappeared, when the urine became normal in every respect.

On the day of his operation his weight was 184 pounds and three weeks later only 134 pounds, so that one can easily judge what an enormous quantity of serum must have been retained in the tissues.

He left the hospital on the 30th of January and has not had a single symptom of his trouble since. He is back at his work in the mill, weighs 160 pounds and has every appearance of health and vigor. I examined his urine quite recently and found it normal.

NEW METHODS OF STUDYING AFFECTIONS OF THE HEART.

By A. J. MACKENZIE, B.A., M.B., Toronto.

THE *British Medical Journal* publishes during March and April, a series of five articles, by James Mackenzie, of Burnley, on new methods of studying affections of the heart. These are illustrated by diagrams representing tracings taken from the pulse in different cases.

The functions of heart muscle fibres are rhythmicity, excitability, contractibility, conductivity, and tonicity, that is to say, that these fibres possess the power of rhythmically creating a stimulus, of being able to receive a stimulus, of responding to the stimulus by contracting, of conveying the stimulus from muscle fibre to muscle fibre, and of maintaining the condition known as tone. By virtue of these functions, the heart maintains its activity. It possesses no motor nerves, properly so-called, the vagus and sympathetic supply having only a moderating influence. Engelmann demonstrated that these functions might be affected separately and Wenckebach showed that, in such a case, an arrhythmia peculiar to that condition would manifest itself while these functions are inherent in all muscle fibre, some fibres possess to a greater degree than others the power of originating stimulus, namely, the fibres at the mouth of the great vein and adjoining portion of the auricle. From here the peristaltic wave of contraction passes over the heart, going more slowly over the auriculo-ventricular muscular ring, *i.e.*, the fibres joining the auricle and ventricle, because this part is of a more embryonic character than the remainder of the muscle. This muscle ring possesses, as the writer shows later, a greater power for automatically originating muscle impulse than the fibres in general.

Mackenzie first explains how he estimates conductivity. By means of tracing, running parallel to one another and to a time, tracing from the

radial pulse and the jugular by a tambour placed above the right sternoclavicular articulation, a comparison can be made of the time of the auricular and ventricular systoles. There is an interference with the venous impulse by the carotid pulse; but this is an advantage, as it marks the same tracing both auricular and ventricular impulses. In most cases the jugular gives a noticeable impulse.

The intersystolic period or, as it is abbreviated, the a—c interval is really made up of three events: (1) the systole of the auricle, (2) the transmission of the stimulus from auricle to ventricle, (3) a minute portion of time taken up by the interval during which the ventricular pressure is rising before the opening of the semilunar valves. As (1) and (3) are practically constant, they may be ignored, and variation of the a—c interval regarded as being due to the variation of the rate of stimulus conduction. The normal time for this is one-fifth second, and it is fairly constant in normal conditions; at the same time it may be lengthened to some extent without causing arrhythmia.

With the close of each contraction, all the muscle functions are, for the time being, abolished; during diastole they are gradually restored, normally simultaneously. If *c* be depressed its recovery does not take place so speedily as the others, and an interference with the regular sequence of events results; thus, if a stimulus begins prematurely at the auricle, the conductivity has not been completely restored, and there results a lengthening of the a—c interval. Sometimes the conductivity may be so depressed that the stimulus fails to cross the auriculo-ventricular ring, and our tracing will show two or more, auricular beats without a ventricular systole. This longer interval gives a rest to the fibres and our next a—c interval is shorter. Thus we have an arrhythmia. This may occur with some regularity and there is a resultant bradycardia; and, in extreme cases it may induce syncopal or epileptiform seizures, the Adams-Stokes syndrome.

It has been shown experimentally that the application of a ligature around auriculo-ventricular groove will prevent the conveyance of a stimulus from the auricle to the ventricle, resulting finally in the ventricle beating in a separate and independent rhythm, from the auricle (heart block), Mackenzie has demonstrated by tracings that such an independent rhythm may be the cause of certain bradycardias in the human subject. Analysis of tracings reproduced showing that the auricular and ventricular impulses are only synchronous at lengthened intervals in such cases.

While certain phenomena, occurring during the administration of digitalis are generally understood, there are others which have baffled enquirers. The writer has not found any marked difference in the various methods of administering the drug, but points out that digitalis has a peculiar tendency to affect primarily those functions of the heart muscle

fibre which have been previously damaged. Thus, if conductivity is normal, digitalis has no effect upon it; but, where this function was previously depressed, it was very readily affected with a resulting arrhythmia, due to the dropping out of ventricular systoles. Another point of importance is that the drug affects all non-stripped muscle fibre; and, before it can have an appreciable effect upon the heart, it may injuriously affect other structures, *e.g.*, the musculature of the gastro-intestinal system.

It is generally agreed that digitalis has the effect of slowing the heart rate, but whether it is due to slower formation of stimuli or to decreased excitability of muscle fibre, or whether, as Engelmann terms it, it is a chronotropic or a bathnetropic effect, the writer knows no means of determining; but he cites a case to prove that it does not affect normal conductivity, *i.e.*, has not a chronotropic effect. Contractility is the most important function of the heart muscle, as on it depends heart efficiency and it depends on rest. If stimulus succeed stimulus too quickly to allow for recovery, this function becomes depressed. By slowing the heart rate, digitalis may allow time for the recovery of function, but it may also produce the effect directly, a very interesting proof of which the writer adduces in the study of a case in which "pulsus alternans," a pulse regular in time, but consisting of alternating long and short beats, followed the administration of digitalis. The auricular impulse was not affected and the alternation was due entirely to differing lengths of ventricular systole. Wenckebach's explanation of this form of pulse may be quoted, "When contractility is depressed if time be allowed for a full and strong contraction, the longer duration of contraction encroaches upon the period of rest, so that by the time the next stimulus arises, the contractility has not sufficiently recovered, and a smaller and shorter contraction results. As this contraction is shorter in duration the period of rest is thereby lengthened before the next stimulus arises, so that the contraction will be stronger and longer, being longer it will again encroach upon the period of rest, and so the process of alternation goes on."

While normally the peristaltic wave of contraction begins in the auricle and passes down to the ventricle, in certain conditions we have a reversal of the process and an inception of the impulse in the ventricle, transmitted backward through the auricle; and the recognition of this is necessary to the understanding of certain forms of arrhythmia and of the action of digitalis in some cases. This abnormal sequence is demonstrable from such tracings as were described at the beginning of this article. When a pulse is present in the jugular, if the auricle is active, it will undoubtedly always produce a wave with its systole; but, if the rhythm is ventricular in origin, then no wave will appear at the time

usually occupied by the auricular systole, the jugular pulse being found to be synchronous with the ventricular systole. This condition occurs in advanced cases of mitral disease; the appearance toward the end of life of the irregular, so-called "mitral" pulse, is frequently the sign that the heart has taken on the ventricular rhythm. An anatomical basis has been suggested in a distended, paralyzed auricle which cannot originate an impulse, but through which the ventricular impulse is freely transmitted by the incompetent valves. Digitalis here depresses the contractility of the heart muscle fibre; when there is not time given for the recovery of the function, the contraction is weaker and the beat small, or it may not be strong enough to send an impulse past the valves and a beat is missed. Then, after a long pause, a large and long contraction occurs and is again followed by a very feeble contraction. The writer quotes cases with tracings in support of this, and to show the extreme susceptibility of the heart to digitalis when the rhythm is ventricular.

The cause of this inception of the heart rhythm by the ventricle has been investigated by the writer for some years, and he has concluded on evidence, which, however, is only presumptive, that it is dependent on a condition of over-excitability in the fibres joining the auricle and ventricle, and that here is the starting point of the ventricular rhythm. The experimental evidence is founded especially on the work of Gaskell, who showed that these fibres, in cold-blooded animals, were extremely sensitive to stimulation. Immediately the needle touches this region a series of rapid contractions results, while every other portion responds with but a simple contraction. Now, as the rhythm described as the ventricular and the occurrence of ventricular extra systoles, those without corresponding auricular systoles, proves the origin of an impulse, not at the ordinary auricular starting place, it seems reasonable to conclude that these highly excitable fibres are responsible. Further evidence is adduced from a study of the relation of the a—c intervals to the ventricular extra-systoles.

The treatment of such cases, and here the writer includes as due to this cause many cases of tachycardia, and irregular pulse to which various diagnoses are applied in the absence of preceding valvular lesions, would depend on some method of reducing the excitability of these a—v fibres: but, unfortunately, no method of treatment has proved effective. They may revert to the original rhythm, and the physician flatter himself that his medication is effective; but the next case may be refractory. Digitalis, it has been seen may produce the condition. Mackenzie suggests that this may be occasioned by a depression of the other functions, while failing to affect the a—v fibres, which would then be relatively excitable.

The whole subject is of extreme interest, and the author's work the most significant that has been reported for some time.

THE NURSE; HER PLACE AND HER EQUIPMENT.

By JOHN HUNTER, M.D., Toronto.

I HAVE been asked to give an address to you, the class of nurses, who have just completed your course, at the Toronto Western Hospital. This honor came very unexpectedly, and though highly appreciated, yet, like everything else worth having, it had to be bought with a price. I have had to select a subject in the hope of being able to cluster around it a few suggestions that might be of some use to you in the years to come.

Several topics came to my mind, but none seemed more appropriate than the one, the title of which you have just heard. You all, I presume, go to church very regularly and, therefore, must be familiar with the orthodox division of a text into different heads. I shall divide mine—The Nurse—into two, I. her place, and II. her equipment.

HER PLACE.

Biblical literature teaches us that the advent of our race upon the earth was soon followed by suffering and death. With man, as he spread over the antediluvian world, lurking about him in the crevices in the walls of the ark, and following hard after him, wherever he has fixed his abode throughout all the centuries, disease in some one or another of its hideous forms has been ever present—in social life, in the ghastly plague, in the gory carnage of war, in the squalid wretchedness of pestilence and famine, and in the loathsome vices of intemperance, and of immorality. "In every age and in every clime" from the agony of soul and body of the victims of disease, has arisen a ceaseless cry for help from the gentle hand, and for sympathy from the compassionate heart.

This brief glance over our history settles beyond dispute the fact that the nurse has a place, co-extensive and co-temporary with the human race. No other calling can claim a wider field or a more ancient heritage. In the person of some one or other,—grandmother, kind-hearted relative or friend, mother, wife, sister, trained nurse or angel,—synonymous terms it may be, for is not each alike supposed to keep unwearied vigil over the sick couch—the nurse has had a place, throughout all the cycles of the ages.

From creation down to the earlier decades of a century ago, disease was generally believed to be either a direct visitation of Providence, or else due to the presence in the system of some vile humor. In the former relief was to be sought for in prayers and incantations, whilst the latter was to be driven out by sweating, purging, bleeding or blistering. The physicians and surgeons whose practice was governed by these dogmas, were quite content to avail themselves of any helpers,

especially such as possessed the virtues of meekness, patience and kindness. The discovery of micro-organisms as one of the most potent factors in the etiology or causation of disease, and the propagation of the doctrine of aseptic and antiseptic conditions evolved a place that could only be filled by one having special technical knowledge and skill. The position occupied by the modern trained nurse is the product of the evolution that has taken place in scientific medicine and surgery.

But I must hasten on, so will briefly summarize what has already been said, as follows.

I. Ever since disease and suffering came into the world, there has been a *place* for the nurse. II. The advent of aseptic and antiseptic methods has evolved *the place* so well filled by the modern trained nurse.

HER EQUIPMENT.

Reference has just been made to the conditions that have evolved the trained nurse. There is now practically no scepticism in regard to the part played by micro-organisms in the production of disease, and more scientific methods of dealing with it has developed, since bacteriology and pathology have furnished us with this knowledge. We hold now that just as imperative an obligation rests on physicians, surgeons and nurses to prevent the propagation of disease as is the obligation to mitigate or remove its consequences in suffering or in disability. You have received as nurses during your attendance in this hospital that instalment of your equipment, that it was the duty of its staff and officers, to provide for you, viz., a thorough course of instruction and practical experience, in the best methods science has yet given for the prevention and cure of disease. It will be a criminal act on your part when in the discharge of your duty you fail or neglect to give your patients the full benefit of the knowledge and experience you have acquired.

You will not be justified, however, in resting on the attainments you have at present. We draw the "dead line" of our usefulness where we cease to acquire more knowledge and wider experience. You must not limit yourself to your own experience, for the resources of the whole world, through the agency of books and travel are now available to everyone, to a far greater degree than ever before. By these means you can put yourselves in possession of the "facts of failure and success that have gone before and that are in progress from day to day. Determination to master and build upon such facts and their teachings characterizes the successful worker. It is a good thing to profit by one's own experience, but the one who profits by another's experience is even wiser than the one who profits by his or her own."

It will be greatly to your interest to re-visit this hospital, and to visit other hospitals so as to keep closely in touch with the progress of the day. It may be that all cannot acquire the same degree of efficiency for some are more richly endowed by nature than others, but it will be a standing disgrace to anyone who does not make the best possible use of the opportunities within her reach. "Where much is given much is also required."

Another very important part of the equipment of the trained nurse is a systematic course of post-graduate reading on subjects pertaining to her calling. On the foundation you have laid in this hospital it will be your duty to build industriously, wisely and well. Sages tell us we are practically what we are willing to be. Success in nursing, as in every other honorable calling, is never harvested from the slumberous couch of indolence.

Hitherto I have been discussing the purely scientific aspect of your equipment, but I wish now in a few words, and as emphatically as I can say them, to state that scientific knowledge and skill do not occupy the first place in the equipment of the trained nurse. These alone might make a nurse a very high type of machine, but never a very high type of womanhood. What matters it to either patient or physician the amount of knowledge or skill a nurse may possess if she be untruthful, dishonest or immoral? The virtues so tersely expressed by the old Apostle in his letter to the Phillipians, where he says, "Whatsoever things are true, whatsoever things are honest, whatsoever things are just, whatsoever things are pure, whatsoever things are lovely, whatsoever things are of good report," the Christian graces, changeless in character, older than creation, enduring as eternity, these deserve the first place in the equipment of the trained nurse. Pages of closely written rules have been given to guide and govern the nurse in her relationship to patient, physician and others, but the Christian graces cover the whole of her conduct. The nurse who treasures them in her heart, and practices them in her life, will ever have the approval of her own conscience, and enjoy the confidence and approbation of the patient, the physician, and the friends.

Again, in the nurse's equipment the possession of a healthy vigorous body and an attractive personality are most important factors, and unless the very critical character of the case demands it, the nurse is not justified in depriving herself of the time necessary for recreation and rest. The waste products in the system, the effects produced by work and anxiety are of a poisonous character and if not removed by intervals of rest and change, soon vitiate the nurse's work. Under the stress and strain of too long hours on duty, both physical and mental aptitude are impaired. She becomes too exhausted and weak to change the position of the patient or arrange the clothing. She sleeps when she

should be watching. It should be definitely arranged between patient, or friends and nurse, that the latter shall have plenty of time in which to take a cold bath, combined with brisk friction of the body, outdoor exercise, and plenty of sleep, so that she can always bring to her duties a strong healthy cheerful personality.

If you will permit me I would yet briefly refer to one or two other factors in the nurse's equipment. It will be of great value to the nurse to study both from books and by observation what is technically known as child and adult life. Consciously or unconsciously child and adult are great teachers. We learn much of the character of the child from the plays he or she enjoys and the type of companion that is preferred. This knowledge is of great value in nursing children. If you study the life of the adult too, you may readily find out how your accomplishments, as a skilled pianist, or a vocalist, may act as a charm, or your ability as an elocutionist, or your wide knowledge of literature, enhance the value of your services in the estimation of the patient. The nurse's vocation is not all embraced in those arduous duties incident to the sick couch. There is the period of convalescence often as trying, if not even more so to the busy restless mortal than the illness itself. Here the value of culture and of a refined personality come into force. The nurse who can entertain her patient, in games, in dances, in songs or in literature, is contributing to the restoration of health just as effectually as when discharging the more technical duties at the bedside. But, I have trespassed too long upon your time, so will close by extending to each and all, the best wishes of the staff and officers of this hospital.

X-RAY TREATMENT OF CANCER.

The microscopic changes in the tissue, says E. G. Williams, of Richmond, Va., *Journal A.M.A.*, May 6, should be our guide as to the therapeutic possibilities in the x-ray treatment of malignant growths. It is evident, he states, that the elements of the tissues are affected according to their vitality. Dead organic matter is unaffected, and the more active the growth the greater the effect. Next to this is the accessibility of the tissues to the rays. Hence the better results with superficial or skin cancers. That moderately deep tissue can be affected is shown by experience, and the way to reach them without producing necrosis of overlying tissues is to lengthen the distance of the tube and the time of exposure. For deep growths, radical surgical measures should be recommended, as the patient should be given the benefit of the probability rather than the possibility of good results. In such cases, however, operation might be rationally followed by x-ray treatment to destroy what may remain of the malignant growth. Inoperable cases should be treated by the x-ray because remarkable results have been obtained and the most distressing symptoms of pain relieved.

UNIVERSITIES AND MEDICAL COLLEGES.

ANNUAL MEETING OF THE ONTARIO MEDICAL COUNCIL.

The Council of the College of Physicians and Surgeons of Ontario comenced their annual meeting on 5th July, by electing officers for the coming year. The retiring president, Hon. Dr. Sullivan, of Kingston, is succeeded by Dr. Albert A. Macdonald, Toronto. Dr. S. W. H. Moorhouse of London, was elected vice-president, and Hon. Dr. R. A. Pyne reappointed registrar. Dr. H. Wilberforce Aikins was again elected treasurer, and Mr. Christopher Robinson, K.C., solicitor. Mr. Charles Rose and Dr. J. C. Patton are the reappointed prosecutor and auditor, respectively. The official reporter for the council is Mr. John Downey.

The legal opinion was submitted to the council by Mr. H. S. Osler, K.C., to the effect that examinations cannot be held in London until the act is amended.

The financial statement of the Council was satisfactory, showing a reduction on mortgage loan of \$5,000, with a revenue of about \$35,000, and a balance on hand of \$5,764.92.

There was a very full and lengthy discussion on the prevention of tuberculosis. The matter came up on a resolution of Dr. W. H. Moorehouse, of London, providing for the appointment of a committee to interview the Ontario Government, and endeavor to secure a liberal grant to assist in preventing the spread of tuberculosis. The resolution met with the cordial support of the members, and the opinion was expressed that the province should lay aside a specified sum annually for this purpose.

Dr. Thornton mentioned that the sanatorium at Gravenhurst was unable to furnish accommodation for all those who sought admission; and mentioned the danger of having these cases in general hospitals along with other patients. He also emphasized the contagious character of the disease, and cited some instances. Dr. Mearns also spoke along the same lines. Hon. Dr. Sullivan stated that the Dominion Government had taken steps to aid in these efforts, and that Senator Edwards was President of the National Association for the prevention of tuberculosis. He suggested that some space be given in the school text books to the subject of sanitary science.

It was announced that a large number of doctors throughout the province were behind in their fees, and it was recommended that a notice should be sent out to the delinquents that unless the amounts owing were paid their licenses as practitioners would be revoked. The fee is \$2 per year. This matter was also referred to a committee.

The report of the official prosecutor, Mr. Charles Rose, was submitted, and was very carefully considered. It foreshadows an appeal to the Legislature to amend the code so as to expedite the prosecution of Christian Scientists, who are not particularly vulnerable under the existing Act. Dealing with this branch, Mr. Rose, in his report, says:—

“Year after year I have drawn your attention to the need of a small amendment to the penal clause of the Medical Act, as from the decisions rendered by judges of our higher courts it is impossible to secure a conviction as the Act now stands against many persons who, I consider, practice medicine, but from the fact that they do not prescribe drugs, the higher court judges have decided that it is not practising medicine. Many of those who do not give medicine, although practising the art of healing, are more dangerous to the public than he who prescribes medicine. I think it is time for the Ontario Medical Council to lay the facts before the Attorney-General, and I feel sure that if this were done he would see to it that such an amendment was passed, not in the interest of the medical profession, but to protect the public from this class of healing.”

Mr. Rose referred to the Goodfellow Christian Science case in Toronto, and gives Sir John Boyd's remarks on the subject. Then he adds:

“During the past year, we have had a number of such cases cropping up in our Police Courts in different parts of the Province, and in every instance the judge before whom the case was brought spoke strongly against this class of practitioner. There are many other kinds of sick healers of the same nature throughout the Province who give no medicine, but undertake to cure diseases in a somewhat similar manner to the Christian Scientists, and it is to such as these that the Government's attention should be directed in any amendment made.”

Mr. Rose stated that during the year complaints were registered against about 50 persons for practising medicine illegally. He also complained that a number of licensed practitioners throughout the Province employ unqualified men, and that in many cases the unqualified man is left in charge of the physician's practice. If an example of some of them were made by the Discipline Committee investigating their conduct Mr. Rose thought it might put a stop to this kind of “unprofessional work.”

Drs. W. H. Moorehouse, J. L. Bray, W. Spankie and the president, Senator Sullivan, were appointed a committee to place before the Government and the Legislature the lack of accommodation for patients suffering from tuberculosis who are unable to bear the expense of treatment in special sanatoria, having in view the danger to the public from the contagious nature of the disease.

The report of the Discipline Committee was unanimously adopted. Of 52 cases dealt with during the year, 24 convictions had been obtained, nine had left the country, eleven were dismissed, and six were not proceeded with.

The question of non-payment of fees was discussed also. Many doctors allowed their fees to lapse. It was decided that in such cases notice should be sent to those who did not pay, and if no attention was paid, their licenses should be cancelled.

The members discussed at length the legislation which they will ask the Ontario Legislature to pass with the object of suppressing Christian Science. The following was finally adopted as the clause which will be submitted :

It shall not be lawful for any person not registered to practice medicine, surgery, midwifery, or any other method of healing, or to attempt to heal, attend upon, or treat any person the subject or supposed to be the subject of disease, for hire, gain or the hope of reward.

The penalty for breaking the law is to be a fine of not less than \$25, or more than \$100.

The words "or any other method of healing," are supposed to cover the case of the Christian Scientists and the faith healers. As brought down in the report of the Legislative Committee, read by Dr. Robertson, the words read "art of healing." "Art" was changed to "method," as the Council did not wish to admit that Christian Science was an art.

Dr. Britton desired to defer the matter for a year, and to refer the whole question back to the committee for legal advice. He feared that more harm might come of haste than from delay, though he was anxious as anyone to stop fraud.

Dr. A. J. Johnston had no objection to people trying to do good if they thought themselves able. The evil lay in doing it for the hope of reward, which made the public liable to fraud. It was the pay that these people were after, and if there was no reward for it, these fake treatments would soon die out.

Hon. Dr. Sullivan and Dr. Ryan also took part in the discussion.

Anyone who "advertises to give advice or gives advice" will be dealt with in another clause of the bill which will be drawn up for submission to the next Legislature.

An amendment will be the extension to London of the examinations now held in Toronto and Kingston. The third Tuesday in November and the third Tuesday next July were set for the next year's examinations.

The first Tuesday in next July was fixed as the date of the annual meeting of the Council.

Another amendment seeks to insure the payment of all physicians' fees before an action for malpractice can be entertained. It was thought that actions were often instituted in order to escape payments of doctor's bills.

A dinner was held at the King Edward, when the Minister of Education, Hon. Dr. Pyne, presided, and the guests of honor were Hon. J. J. Foy and Hon. W. A. Willoughby.

Hon. Dr. Sullivan made application on behalf of John A. Reid, M.P., of Prescott, to permit that gentleman to take his examination before the council to qualify him as a practitioner. Mr. Reid graduated at Queen's College in 1891, but owing to the death of his father, did not appear before the council for his final examination. The matter was referred to the Registration Committee, and finally agreed that if he took his final examination he would be granted his license.

The Medical Building on Bay Street, will probably remain in the possession of the Medical Council for some time to come. The report of the property committee, presented by Dr. Johnson, said that in pursuance of the instructions given to the committee last year, tenders for the sale of the building has been asked, but nothing further was done. The year, however, had been a satisfactory one. The building was in good condition, all the offices were taken, some of them at an increased rental, and about \$10,000 had been paid on the mortgage held by the Canada Life.

A motion was made by Dr. Thornton to the effect that teachers should be appointed as examiners in anatomy, chemistry and similar subjects, as they were better able to examine in them than ordinary practitioners, who were not continually studying in these particular lines. The motion was referred to the Education Committee.

The business before the Council at its closing session was the receiving of the report of the Complaints Committee. The examiners were upheld in their decision in each instance. Upon the suggestion of Hon. Dr. Sullivan, a committee was appointed to wait on the Government, with the view of establishing a Bureau of Health. The Government will also be asked to assist in the establishment of sanitarium for the treatment of consumptives. Drs. Macdonald, Moorehouse and Campbell were appointed the Executive Committee for next year.

These official examiners were appointed:—Anatomy descriptive, Dr. T. W. G. McKay, of Oshawa; theory and practice of medicine, Dr. George Hodge, of London; clinical medicine, Dr. H. R. Duff, of Kingston; midwifery, operative and other than operative, and puerperal diseases, Dr. J. R. McCabe, of Strathroy; physiology and histology, Dr. R. D. Rudolf, of Toronto; surgery, operative and other than operative, Dr. W. T. Parke, of Woodstock; clinical surgery, Dr. J. S. McCullough, of Alliston; medical and surgical anatomy, Dr. T. H. Middleboro, of Owen

Scund ; chemistry, theoretical and practical, and toxicology, Dr. A. R. Pyne, of Toronto; materia medica and pharmacology, Dr. James S. Sprague, of Stirling; medical jurisprudence and sanitary science, Dr. D. J. Sinclair, of Woodstock; diseases of women, Dr. R. E. Webster, of Ottawa; diseases of children, Dr. James Newall, of Watford; pathology, therapeutics and bacteriology, Dr. Isaac Wood, of Kingston; homeopathic examiner, Dr. W. A. McFall, of Peterboro'.

Dr. Ryan asked if it was compulsory to always hold the meetings at Toronto, and, if not, he suggested that they might be held sometimes in other cities so as to give the members an opportunity of returning the courtesy which they always received at the hands of the council in Toronto.

It appeared that the place of meeting could be changed, but no decision was come to.

On the recommendation of the Education Committee it was decided to substitute Dr. Adam Wright's book on obstetrics for the American book on the same subject.

ONTARIO MEDICAL COUNCIL RESULTS.

The following candidates have passed the final examination:—

J. A. Alford, Ottawa; C. B. Archer, Campbellford; P. Anderson, Cornwall; R. W. Anderson, Toronto; W. G. Anderson, Thorndale.

G. M. Biggs, Toronto; H. R. Bright, Wiarton; E. C. Burson, St. Catharines; A. C. Bennett, Toronto; F. J. Buller, Toronto; F. J. Brodie, Forest; H. R. Bryan, Inwood; J. W. Brien, Lindsay; W. A. Burr, Toronto; W. J. Barber, Toronto.

H. C. Church, Chelsea; W. W. Chipman, Ottawa; W. S. Cody, Windsor; R. L. Clarke, Hamilton; J. C. Caskey, Tweed; G. W. Crosby Campbellford; A. H. Caulfield, Toronto; W. K. Colbeck, Grand Valley.

T. A. Davies, Toronto; E. C. Dixon, Toronto; A. H. Davies, Delhi.

T. B. Edmison, Brighton; F. J. Ellis, Ellisville; F. S. Eaton, Free-land.

P. J. Fleming, Dundas; B. J. Ferguson, Teeswater; J. A. Faulkner, Stirling.

J. Graham, Belwood; H. E. Gage, Kingston; M. E. Gowland Zimmerman; Wm. Gibson, Emerald; T. D. Gallivan, Kingston; G. W. Graham, Toronto.

T. R. Henry, Harriston; P. J. Houston, Paisley; H. O. Howitt, Guelph; R. W. Halladay, Elgin; W. H. Harvey, Toronto; A. L. Hore, Valentia.

G. O. Ireland, Toronto.

J. L. Kane, Gananoque; N. D. Kyle, Belwood; A. Kinghorn, Toronto; J. A. Kane, Orillia; J. F. Kiloran, Seaforth; W. H. Keen, St. Mary's.

E. J. Lyon, Guelph; A. J. Lalonde, Kingston; S. M. Lyon, Barrie; B. M. Lancaster, Culloden; Eleanore Lucas, Toronto.

A. J. Manard, Belle River; A. T. Munroe, Moose Creek; T. D. MacGillivray, Kingston; W. E. Mason, Toronto; A. F. Malloy, Nobleton; P. F. McCue, Formosa; J. P. McKinnon, Hillsburg; P. McGibbon, Forest; R. J. McCulloch, Orillia; R. A. McLurg, Sault Ste. Marie; Geo. McGhie, Elgin; A. G. McPhedran, Wanstead; D. F. McKinlay, Bolton; R. J. McComb, Trenton; P. J. McCue, Melancthon; A. McNally Blair; A. W. McClennan, Toronto, C. C. McCullough, Gananoque; M. A. McQuade, Warsaw; W. E. McLaughlin, Cadmus; J. K. McGregor, Waterdown; A. G. McMillan, London.

S. M. Nagle, Almonte; J. S. Nelson, City View.

J. W. Presault, Verner.

W. G. Reive, Markham; Wm. Reid, Watford; F. W. Roiph, Markham; G. H. Richards, Melbourne; A. L. Russell, Millbrook.

A. B. Sutton, Cooksville; J. B. Stallwood, Hagersville; C. E. Spence, Toronto; F. J. Snelgrove, Toronto; A. W. Seighon, London; J. F. Sparks, Kingston; E. Sheffield, Peterboro; W. A. Scanlon, Prescott; G. M. Shaw, Niagara Falls; R. G. Snyder, Princeton; A. E. Schultz, Elmira; F. J. Sheahan, Newark.

A. Turner, London.

A. D. Unsworth, Hamilton.

K. H. Van Norman, Toronto; F. S. Vrooman, Lindsay.

A. J. Williamson, Kingston; F. C. S. Wilson, Toronto; T. A. Waterson, Manotick; B. C. Whyte, Millbrook; J. A. Wright, Toronto, S. B. Walker, Niagara Falls.

CURRENT CANADIAN MEDICAL LITERATURE.

The Canadian Practitioner, July, 1905.

THE MEDICAL TREATMENT OF EXOPHTHALMIC GOITRE.

At the recent meeting of the Ontario Medical Association, Dr. R. D. Rudolf, of Toronto, read this paper. The author of the paper contends that in this disease there is a strong natural tendency to recover, and quotes a number of eminent authors to substantiate this view. About 50 per cent. eventually recover.

The favorite theory is that the patient is suffering from too much of the thyroid gland secretion circulating in the blood; indeed, is in the opposite condition to that of myxoedema. The patient should be kept physically, mentally and emotionally quiet. The general health of these patients should be carefully watched, and anæmia, constipation, etc., corrected. The diet should be plain and good, and stimulants, also tea and coffee, had better be omitted.

Various methods have been tried of lessening the activity of the gland, including electricity and the application of cold. The employment of the thymus gland extract is useful sometimes, and this may be said of the thyroid gland extract, though it would appear to be wrong in principle. Of late it has been urged that the use of milk or blood from animals from which the thyroid gland has been removed is helpful. Some toxine is found in the blood or milk of such animals that neutralizes the excess of the thyroid gland secretion in the blood of the patient. This treatment has not been accompanied by any marked benefit.

As we cannot arrest the formation of the active principal of the gland, or neutralize it in the system, the treatment of Grave's disease resolves itself into the treatment of symptoms. Of the many drugs that have been recommended, belladonna and the bromides are the most useful in allaying the nervousness. Digitalis and engot, on the whole, are disappointing. When there is anaemia, iron in some form may be administered. Arsenic and phosphorus have been tried, but do not appear to be of any particular value. In those cases which gradually become worse, the only remedy is that of surgical intervention.

THE SURGICAL TREATMENT OF GRAVE'S DISEASE.

Dr. C. B. Shuttleworth, Toronto, read this paper at the Ontario Medical Association. He does not advocate surgical treatment in all

cases, but quotes Osler to the effect that this is likely to be the most successful plan of treatment. Of the operations on the gland may be mentioned injections of iodine in some form, exposing the gland by incisions so as to cause atrophy, ligation of the thyroid arteries, and thyroidectomy. Operations on the sympathetic nerves have been advocated, but without becoming popular methods of dealing with the disease. The surgical treatment by thyroidectomy has been attended by fairly satisfactory results.

THE MENTAL AND PHYSICAL CARE OF CHILDREN.

Dr. Charles J. Hastings, of Toronto, in his address at the Ontario Medical Association brought forward some very important and interesting facts. He spoke of the very high death rate among children under five years of age. Only 50 per cent. reach maturity. In England there is one death in every five during the first year, in Paris one-half die before they reach four years of age, in New York 20,000 out of 75,000 die in their first year, and in Ontario 6,700 died in the first year out of 48,642. These deaths are largely due to improper care and malnutrition. Education along this line is greatly needed.

While this heavy death loss is going on year by year among the children, the Government is spending very large sums in bringing immigrants into the country. The Federal Government spending \$745,000 a year on this department alone. Among the foreigners who come to this country are many degenerates, whose children are likely to be criminals or paupers. In looking after such degenerates the United States spends annually \$200,000,000, not considering the non-productiveness of such. Last year the Dominion of Canada expended over \$500,000 on agriculture by way of distributing literature, and the improvement in stock.

It has become well known that in many large cities a very large number of children are both improperly and insufficiently fed. In New York from 60,000 to 70,000 do not get enough to eat, and in the States about 3,000,000 are underfed. This state of affairs is only too common in other large cities. In Toronto, Dr. Hastings contends, there are many who are very poorly cared for in this regard. Indeed, the children forage for scraps upon which they live as best they can. In Ontario and Toronto some good work has been done by the Government and the various Children's Aid Societies, but these efforts fall far short of overtaking the work. It is a well-known fact that mental, moral and physical degeneration go hand in hand. Everything, therefore, that causes physical deterioration tends to give rise to mental and moral perversions. The study of juvenile criminals in large cities like Chi-

cago and New York abundantly proves the close connection between physical degeneration and crime. In London there are some 60,000 children in the schools who are not physically fit to be taught. Of the applicants to enter the army, 60 per cent. are not fit.

Attention is drawn to the very great importance of medical inspection of schools. This has been introduced in some countries with the most happy results. Such an inspection does much to correct the evil effects of over-strain, and children attending school when in ill-health. Too much attention cannot be given to the disastrous results of such high nervous tension. Many children, as high as 20 per cent., are attending school and suffering severely through defective sight or hearing, or other conditions. This would be noted by a careful medical inspector.

The Dominion Medical Monthly, June, 1905.

APPENDICITIS IN RELATION TO PELVIC DISEASES AND PREGNANCY.

At the meeting of the American Gynæcological Society, Dr. A. Laphorn Smith, of Montreal, read this paper. The author draws attention to the fact that the ancestors of the human race lived on very coarse food, and would have a long and capacious appendix. Gradually, as food became more carefully selected and finer, the appendix became smaller, and less used in the economy of digestion. Issue is taken with the opinion of Sir William Macewan that the appendix is a useful organ in the process of digestion, and the statement is made that "it is a source of danger to have one at all." The appendix is the least used organ in the body and is one of the weakest as a consequence.

If the appendix is, therefore, weak in all, it must be particularly so in the unhealthy, who are those deprived of proper food, sunshine, exercise and fresh air. This, to some extent, establishes the truth of the saying that it is the wealthy that suffer most, as they so often violate the laws of digestion, and the women do not take a sufficient amount of exercise, nor are they enough in the air and sunshine, due to sleeping late in the morning, driving in closed carriages, spending time in darkened stores, and attending afternoon teas, etc.

There is a marked tendency for the appendix to become heavy, relaxed and to drop down into the pelvic cavity, where it may become infected.

During pregnancy there are many digestive derangements, such as vomiting, constipation, deranged peristalsis and an increase in the number of the colon bacilli. Under these conditions the appendix may

become the seat of inflammation. On the other hand the appendix may dip into the pelvis and give rise to an infection of the tubes, or even cause puerperal septicæmia. It sometimes happens that the appendix is found attached to a diseased tube. The author thinks appendicitis during pregnancy is very frequent.

Dr. Smith inclines to the view that women who have had appendicitis would do well to have it removed before marriage; and if they became pregnant to submit to the operation during the first three months.

CARCIMONA OF THE STOMACH.

Dr. W. J. McCollum, of Toronto, reports an interesting case, and draws attention to the following points:—

1. Initial symptoms—Severe hæmorrhage. This occurred in the absence of any gastric symptoms whatever and without any warning. With a history of alcoholism it suggested cirrhosis of liver.

2. Absence of gastric symptoms throughout whole course of disease; patient only had two or three vomiting attacks from beginning of disease to the end. There was no flatulence or distress or pain after eating. Cancer of the stomach, when not situate at either orifice, may give rise to few gastric symptoms.

3. Early and persistent absence of free Hcl. This was found to be absent early in the disease, before any tumor could be detected, and in the absence of any gastric symptoms except a history of hæmorrhage and a loss of weight. It was certainly of considerable aid in making an early diagnosis.

4. Though frequent test meals were given lactic acid was never detected, nor was the Oppler-Boas Bacillus. The explanation of the absence of lactic acid is probably the absence of stagnation in the stomach, due to no pyloric obstruction.

The Montreal Medical Journal, June, 1905.

THE INSANE IN CANADA.

This article is the Presidential Address of Dr. T. J. W. Burgess, of Montreal, to the American Medico-Psychological Association. He first takes up the evolution of the Canadian asylum system. It is pointed out that in 1639 the Hotel Dieu of Quebec was founded and in 1643 the Hotel Dieu of Montreal. In the early days of the country, workhouse was good enough for the insane person if harmless, and the prison, if dangerous. New Brunswick was the first province to make

provision for the insane, in 1835, the movement being set on foot by Dr. George P. Peters, of St. John. In 1836 the Government of Upper Canada, now Ontario, appointed a commission to report on the matter of the care of the insane. In 1841, the jail at York, now Toronto, was opened for the reception of lunatics. In 1850, under the charge of the late Dr. Joseph Workman, the patients were removed to the asylum on Queen Street, Toronto. In 1856, the Kingston, or what is known as the Rockwood asylum, had its birth-place in the stable of the Cartwright mansion. The present building was erected in 1862. The London Asylum was the next. In 1859 it was established in the old military barracks, and in 1870 was located in the present institution. In Quebec, Beauport, or Quebec Asylum, was founded in 1845. In 1852 Longue Point Asylum, or L'Hospital St. Jean de Dieu came into existence, and in 1890 the Verdun, or Protestant Asylum was founded. There are in addition the Hospice St. Julien and the Baie St. Paul Asylum, both of which admit idiots. In Prince Edward Island the asylum dates from 1847; and in Nova Scotia from 1858. In Manitoba, the first asylum was opened in 1871 at Fort Garry. It is now at Selkirk. The second was started at Brandon in 1891. The asylum for British Columbia began in 1872 at Victoria, but is now at New Westminster. All the asylums in Quebec are the result of personal benevolence. They are not maintained by the province.

A strong protest is raised against this condition of things in Quebec. The insane should not be handed over to private institutions to care for them. Before things can be considered satisfactory in Quebec, the province must provide adequate accommodation for this class of sufferers. The paper condemns the system of county asylums as met with in Nova Scotia; and especially the combination of a county asylum and poor-house. In New Brunswick there is some fear that this system may be introduced. In that province, a patient may be committed on a line from a doctor. This is not sufficiently protecting the liberty of the patient. At the present, Ontario takes the lead, the asylums being state institutions and most of the patients maintained at the expense of the province. In Manitoba and British Columbia the asylums are also state institutions.

Attention is directed to the increase in the numbers of the insane. In 1891, there were 13,342 in a population of 4,719,893; and in 1901, 16,622 in 5,318,606. This shows an increase of 25 per cent. in the insane and only 13 in the total population. The cause of this increase is doubtless due to modern methods of life and the race for wealth. High-pressure civilization brings its woes. Any hereditary taint is intensified by these conditions. It is further stated that the utmost care be taken with regard to immigrants, not to allow degenerates to

enter the country. Among the native Canadians there is one insane person to every 339, but among the foreign element there is one to every 243. In the prevention of insanity in Canada one of the first things to consider is the keeping out of an undesirable foreign population.

Among the requirements of the present, the following points are mentioned: "Separate accommodation for idiots, epileptics, inebriates and the criminal insane; proper means for the segregation of the tubercular; some provision for the temporary relief of friendless convalescents; and the abolition of political patronage in asylum affairs." The public should undertake the care, training and education of the mentally defective. Custodial care is not enough. They should not be allowed to grow up without as much education as can be imparted to them. Proper occupation is the essential in the treatment of the epileptic; and the criminal insane should not be housed along with the rest of the insane. The writer of the paper puts in a strong plea for more attention to the treatment of inebriates, and thinks that Canada is behind in this matter. The article concludes with a scathing attack upon political interference in the management of asylums, and the evils of the "spoils system."

BONY OCCLUSION OF THE POSTERIOR NARIS.

Dr. H. S. Birkett, of Montreal, reports two very interesting cases where one posterior naris was occluded by bone. Under anæsthesia, the bony partition was perforated by an electrical dental drill. The opening was maintained by iodoform gauze. These cases did well.

CARCINOMA OF THE TONGUE.

Dr. G. E. Armstrong, Montreal, reports a number of cases of cancer of the tongue. The disease is a local one at the start. Among the causes he mentions injuries, irritation, smoker's patches, gummata, syphilitic ulcers. Early diagnosis is of the utmost importance. Dr. Armstrong remarks that recurrence generally takes place on the same side as the disease began on; and, therefore, that it is usually well to remove only that side of the tongue. This form of operation has a lower death rate and adds much to the patient's comfort. As recurrence takes place about the tonsil or in the glands of the neck, there is no good in removing the entire tongue, except in some cases. When the diagnosis is not made early in the disease, a very radical operation must be performed, and an extensive amount of tissue removed. He mentions a case where he removed the entire tongue, the floor of the mouth, and the glands of the neck to the bifurcation of the carotids. After seven years there has been no return.

The Maritime Medical News, June, 1905.

SOME AFFECTIONS OF THE FEET MET WITH IN PRACTICE.

Dr. Arthur Birt, of Berwick, N.S., contributes a paper on some affections of the feet. The first subject taken up is that of flat feet. In this condition the sufferings of the victim may be very great, consisting of pains in the feet, legs and back. The walk is also impaired, the leg not being fully extended, the foot everted and bulging of the shoe inward. Careful means should be taken to brace up the foot with proper supports, and also to strengthen the weak muscles by massage, exercise and hydro-therapeutics. The patient is taught to throw the weight on the outer side of the foot, hold the feet parallel in walking, and to cultivate the leverage action of the great toe by pressure down the sole of the shoe in walking.

Congenital equino-varus is another troublesome condition. When seen early, the deformity may be corrected by manipulation and massage: Three or four times daily the foot is grasped in front and above the ankle, and the deformity forcibly corrected and the sole of the foot brought well down. When the child is older it is necessary to correct the deformity by force and place the foot and lower portion of the leg in a plaster cast. This may have to be repeated a number of times. A few months of this treatment does a great deal of good. A club-foot brace may be required.

Metatarsal neuralgia, or anterior metatarsalgia, is another very annoying affection of the foot. In these cases a very violent pain attacks the foot while the person is walking. Massaging the foot and broadening out usually relieves the attack. In these cases of Morton's disease there is breaking down of both arches of the foot, *hallux valgus* with bunion, depression of the fourth metatarso-phalangeal joint with over-riding of the adjacent joints, callosities on the sole of the foot over the third and fourth joints, and tenderness over the fourth. Compression of the anterior part of the foot causes pain. Goldthwaite, of Boston, has shown that this condition is due to a weakness in the anterior metatarsal arch. Much improvement can be effected by banking up the sole of the shoe, broadening its sole, and slightly raising the inner side of the sole and heel. A metal or celluloid sole-plate, constructed on a model of the foot, is the best form of support, elevated a little at the point of the depressed joint.

With regard to ingrowing toe-nails, the plan of treatment is as follows, first laid down by Chiene, of Edinburgh. The toe is carefully disinfected, and constricted by a rubber band. A flap of integument is cut out extending beyond the matrix of the nail. The pointed blade

of a pair of scissors is thrust under the nail for its entire length and the edge of the nail divided. This portion is then grasped by a pair of suitable forceps, taking up all the cut tissue as well as the nail. Every portion of the matrix must be removed. The wound is then treated with an antiseptic dressing lightly applied.

Hammer toe is one of troublesome conditions of the foot. In some cases it may be cured by forcible correction, by this combined with subcutaneous cutting resisting tissue, by amputation, or by the wearing of a splint devised by Dr. Thomas, of Birmingham, and called the "Tomatoe." Resection of the toe-joint may be required.

Angioneurotic œdema is a vaso-motor disturbance, and is best treated by hygienic and general health measures along with electricity.

APPENDICITIS AND ITS TREATMENT.

Dr. G. D. Turnbull, of Yarmouth, N.S., discusses at some length this subject. In the article the writer contends that the treatment of this disease as laid down by Ochsner is the best. Dr. Ochsner holds that peristalsis can be inhibited by giving no form of food or cathartic by mouth, and by employing gastric lavage to remove the existing food or mucus from the stomach, the patient being nourished by nutrient enemata. In all chronic recurring cases the appendix should be removed during an interval.

Acute cases should be operated upon within the first 48 hours, if possible, before the general peritoneal cavity becomes infected. In cases where the infection has spread beyond the appendix, the above method of feeding should be followed until the condition of the patient improves. When no operation is performed, neither nourishment nor cathartics should be given until the patient has been freed of pain. Dr. Turnbull thinks that the moderate use of opium is valuable in arresting peristalsis and in allaying the shock of the abdominal nerves. The patient is made comfortable, and as the opiate aids the starvation treatment in arresting peristalsis, there can be no objection to its moderate employment. The writer thinks that a combination treatment of the medical and surgical as outlined should bring the death rate down to 2 or 3 per cent.

The medical profession of New Brunswick is again moving in the direction of a sanatorium for consumptives. The St. John Medical Society has appointed a committee to undertake the very important work of collecting information and getting the question properly brought before the people. It is hoped that the government will act in the matter at an early date.

CURRENT MEDICAL LITERATURE

MEDICINE.

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

LIMITATIONS OF SERUM THERAPY.

In *The Medical Record*, May 6th, Berg discusses the necessary limitations of serum therapy in our present state of knowledge. The pathological bacteria, which have been identified with specific infectious diseases, may be divided into three groups, according to their toxin-producing qualities:—

First, those bacteria which produce in living cultures outside of the body, best shown in fluid media, as a free secretion, a virulent real toxin. The chief members of this group are the diphtheria and tetanus bacilli. A subsidiary member is *B. pyocyaneus*.

Second, those bacteria which secrete little or no free toxin in living cultures, but do contain a powerful toxin, known as an endotoxin (Buchner-Oppenheim) in the living bacterial cell, which is partly set free only upon the death and disorganization of the bacterial cells. To this class belong by far the largest number of known pathogenic bacteria. Good examples are the pneumococcus, the typhoid bacillus, the streptococci, etc.

Third, those bacteria that produce no free toxins, nor have in the bacterial cells endotoxins of any power, but in which the cell plasma contains other poisons in addition to the protein poisons which all bacterial cells in common contain. For our purpose the most important member of this group is the tubercle bacillus.

It is in the first of these divisions that our most successful advances have been made, while in the third practically no discovery of therapeutic value is recorded. The limitations of the first or the use of antitoxic serums are:—

(1) That the bacteriological cause of the disease must be positively identified and known.

(2) That it must be an organism which produces a free specific toxin, and virulent enough to be effective in the immunization of animals.

(3) That the experimental injection of the antitoxic serum in sufficient quantities be successful in saving animals from death when injected with or immediately after a fatal dose of the toxin specific to the organism.

(4) The bacterial cause and its toxin being both specific, the specificity of the action of the antitoxic serum follows as a natural sequence and must be recognized.

(5) The combination between toxin and antitoxin being a chemical one, there must be an absolute quantitative relation between the amount of toxin injected and the quantity of antitoxin required to neutralize it.

(6) That the antitoxin, when used for curative purposes, must be injected before the union of the toxin with animal cells, has become sufficiently firm to cause pathological and destructive changes in the body cells tissues and organs. For the antitoxin only antagonizes and neutralizes free or partly free toxin. The time element is, therefore, of importance in antitoxic serum therapy.

In the second, much experimental work is being done; and advances in our knowledge of disease may be confidently expected along this line. It will be found that the following limitations will bar some of the supposed discoveries of specific agents.

(1) The bacteriological cause of the disease must be positively identified and known.

(2) The experimental injection of the bacteriolytic serum in sufficient doses must be successful in saving animals from death when injected with or immediately after a lethal dose of a living corresponding bacterial culture.

(3) The bacterial cause of the disease being specific, the specificity of the bacteriolytic serum follows as a natural sequence.

(4) Since the antiserum has a destructive or bacteriolytic action upon the pathogenetic bacteria, their action being dependent upon the combined presence of two known substances, namely, the alexin or complement an unstable substance (present in the normal living body and in fresh serum) and the immune body (present in bacteriolytic sera), and since only a small amount of the alexin is present in the body, in quantity sufficient to produce only a very limited bacteriolysis, it follows that unless the antibacterial serum be freshly drawn, thus securing the unchanged alexin present in the blood of the immune animal, the antimicrobial action of the bacteriolytic sera is limited by an insufficient amount of alexin present in the body of the patient. Wasserman, recognizing the impossibility of having the bacteriolytic sera freshly obtained for each case, advises for this purpose the injection of the fresh serum of non-immunized horses or oxen in addition to the anti-serum itself. This recommendation, however, can hardly, for obvious reasons, be considered as having solved the problem.

Under all circumstances it is absolutely necessary that the bacteriolytic serum be fresh.

(5) The bacteriolytic sera have a quantitative relation to the amount of bacteria which they can destroy. At best the antisera protect only against a limited amount of bacterial infection. When this increases beyond a certain figure no amount of anti-serum will protect or cure the animal. Hence very large doses are necessary, sometimes repeated. Thus

the antistreptococcus serum is used in doses of 150 to 250 c.c., repeated if symptoms do not improve.

(6) While enthusiasts might claim that the bacteriolytic action of the antisera seen in animals which are the subject of experimental infections occur also in patients suffering from infectious diseases, no curative effect can possibly occur with regard to pathological changes which have already been produced by the bacterial infection. So that the later the antiserum is used the less the chance of its having any curative effect.

MYXEDEMA FOLLOWING EXOPHTHALMIC GOITRE.

N. B. Foster reports this case, and says that these cases of myxedema following exophthalmic goitre are rare enough always to excite interest. This patient, a woman 57 years old, declares that until 1887, she had always enjoyed good health. At this time she returned from South America and she noticed that her neck was considerably swollen. She was extremely "nervous," and her eyes were "swollen." She was told that she had a goitre. Over a year ago she noticed that her skin was very dry and came off in fine scales; her hair was dry and became very thin. She became "puffy" all over. Her memory became defective. She vomited several times a day clear mucus, which had an extremely offensive odor. On presenting herself to the writer for treatment, the thyroid gland could not be felt. The pulse was regular, 100 to the minute. The patient was put on a thyroid extract, in addition to general tonic treatment. Improvement was very slow, but after two months she left the hospital, far from well, however. It seems that she is now as well as she will ever be, but she is doomed to drag out a miserable existence. It is evident that there is another element in this type of myxedema besides deficiency of thyroid function, or else the administration of the gland extract would produce better results.—*Am Journal of Med. Science by Med. World.*

AN EMERGENCY POISONING CASE.

In *The Medical World*, May 6th, 1905, Dr. Wainwright, of New York, makes a useful suggestion that physicians should provide themselves with a case for use in emergency poisoning cases to prevent loss of valuable time from lack of proper equipment. He has one made to his specifications as follows:

The case is compact and handy, neatly finished in black leather, with a substantial handle. Its outside dimensions are 12 inches long, 4 1-4 inches wide, and 6 inches high. The contents are as follows: One stomach

tube, one tongue forceps, one mouth gag, one 2-oz. glass syringe, one hypodermic syringe. It also contains large bottles of magnesium sulphate, of zinc sulphate in 20-grain powders, powdered mustard, calcined magnesia, and chloroform. The 1-oz. vials contain amyl nitrite, alcohol, iron dialyzed, acetic acid, oil of turpentine, and aromatic spirit of ammonia. The 1-2-oz. vials contain powdered ipecac, powdered opium, potassium bromide, chloral hydrate, potassium permanganate. The hypodermic tablets are of strychnine sulphate, morphine sulphate, pilocarpine muriate, apomorphine hydrochlorate, nitroglycerin, digitalis, and atropine sulphate.

It is believed that this emergency poisoning case contains practically all the essential means for carrying on a successful fight against the effects of poison in the human system.

The case also contains a manual on acute poisoning, giving special symptoms, simple tests, chemical antidotes, physiological antagonists, and treatment.

†

ANTIPYRETIC TREATMENT BY EVAPORATION.

In *The British Medical Journal*, April 8th, a suggestion comes from Dr. Henry, of Melbourne, for a somewhat novel method of lowering the body temperature in febrile cases, to obviate the work of baths.

The patient's bed is covered with some waterproof, over which is placed a sheet of towelling, on which the patient reclines, covered by a similar sheet. A cradle is now placed over the bed to the dome of which is attached a small electric revolving fan, surrounded by a wire cage; while affixed to the cradle is a small rose through which water slowly sprays, in fine droplets, on to the towelling covering the patient. The fan causes evaporation and hence cold, which can be varied by varying the rate of the fan.

A CASE OF STRYCHNINE POISONING IN A CHILD.

Dr. Pooler reports in *The B. M. J.*, April 8th, a case in which a child, aet 8, under treatment for post-diphtheritic paralysis for some time with a medicine containing M.V., Lig. strychninæ hydrochlor. to the dose, was given a dose so large as to contain about 45 minims or between 1-2 and 1-3 of a grain of the drug. The symptoms appeared in about five minutes, and it was two hours and a quarter before medical aid was procured. Zinc sulphate, grs. xxx, was given, and strong tea, the stomach was washed out and emesis established. The child, though collapsed,

recovered and in two days was running about as usual; this recovery was to a great extent spontaneous, for the fits had ceased before treatment began. Doubtless the immunity derived from a lengthy course of treatment was a factor in preventing a fatal result.

IRON ACETATE IN THE TREATMENT OF PNEUMONIA.

In *The B. M. J.*, April 15th, there is an article by Robson, of Leeds, on the treatment of pneumonia by iron acetate, a method he has used with success for years. The prescriptions he uses are R. Liquor, ferri perchlor M XV., liquor ammon. acetat, ʒr. ii; aq. chloroform ʒss (adult dose.) Take every four hours in water when given alone; take every six hours alternately with the strychnine mixture, when this latter is needed. R. liquor strychninae, m.v.; aq. chloroformi ad ʒss ft. mist. Take every six hours, alternating with the above. This treatment is kept up till well over the crisis. He never uses quinine or antipyretics, and rarely uses digitalis; but finds this treatment adequate to most cases with a special value in severe broncho pneumonia, occurring in infants or children; and in catarrhal and lobar pneumonia, occurring in debilitated subjects.

ACUTE FATAL PNEUMOCOCCUS PLEURISY, RESEMBLING CLINICALLY ACUTE LOBAR PNEUMONIA.

In *The Glasgow Medical Journal*, May, Stever reports a case of acute fatal pleurisy due to the pneumococcus, which simulated lobar pneumonia very closely.

The patient was an active, healthy young man of 29, taken ill with a severe pain in the right side, slight dry cough, temperature 102 degrees, tubular breathing and deficient resonance behind. The symptoms persisted with increasing dulness, pain became less, respirations 35; a sudden change showed itself on the fifth day, pulse weak and 140, respirations 50, temperature 104.5, unconscious. A pint of turbid, yellow fluid was drawn off from the right pleural cavity. The patient became weaker and died, apparently from toxæmia. From the fluid, cultures showed pneumococci.

The interest in this case, of such fatal pleurisy, is its resemblance, up to the last, to lobar pneumonia. It is of a type which, according to the literature, is very rare, and seems to be an argument in favor of considering the disease as a septicæmia, rather than as an acute specific fever.

CEREBRO-SPINAL MENINGITIS FOLLOWING SCARLET FEVER

In *The Glasgow Medical Journal*, May, M'Kenzie, of Ruchell Fever Hospital, reports a case of this rather uncommon sequence.

When the patient came under observation, he was recovering from the symptoms incident to a scarlet fever infection. After a month's undisturbed convalescence, during which desquamation was fairly profuse and typical, he was allowed up. On the third day after getting up, he was seized with headache, sore throat and fever, accompanied later by an erythematous, scarlatiniform rash, and, later still, by a septic rash. The throat infection was severe, and characterised by great oedema and tonsillar ulceration, and, in the swab there was found abundance of short-chained streptococci; associated with the throat condition, there was cervical adenitis, double otorrhœa, and joint pains. At the end of a fortnight, the temperature had begun to settle and there was such an amelioration of his condition as to justify a hopeful prognosis. The temporary improvement was immediately followed by symptoms pointing to a cerebro-spinal complication, and suspicion was confirmed by examination of the cerebro-spinal fluid. This began four days before his death, with vomiting, pain in the back and limbs (not related in joints). Kernig's sign appeared on the third day and he became rapidly weaker, with great restlessness.

The post-mortem showed a purulent pial infection at one base of the skull, with infiltration, congestion and pressure results, but no interruption of continuity of the dura nor connection with the sinuses. In the cord there was a general, purulent infiltration of the pia and arachnoid. Smears showed abundance of staphylococci and streptococci. No growth was obtained from cultures from the lateral ventricles, the blood was not tried, and examination of the liver and spleen failed to show the presence of micro-organism. The substance of the cord was not affected, though there was dilatation of the vessels. The nerves showed within the spinal membranes, some round-celled infiltration of the sheaths; but this extended no further.

In this case the infection was probably from the throat, by the blood or lymph channels; and, while clinically it might have been regarded as merely an "anginose" attack, the post mortem findings prove its meningeal character.

ACUTE EPIDEMIC DYSENTERY.

Lawrence B. Pilsbury, Lincoln, Neb. (*Journal A.M.A.*, July 15, 1905), reviews briefly the history of the study of the dysentery bacillus. He calls attention to the cultural characteristics of the bacillus as described by Shiga, and reviews the bacteriologic reports of various investigators. He gives the results of investigations made with the Shiga bacillus and with the *Bacillus dysenterix* of Flexner. The article includes a summary of 237 clinical cases.

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 SHOCK AND COLLAPSE.

T. P. Lockhart (*Lancet*, April 1, 1905) says that surgical shock is a condition produced by exhaustion of the vasomotor centers and the resulting great fall in blood-pressure. Collapse is a similar condition caused by lowering of the blood-pressure from hemorrhage or paralysis of the vasomotor centers. In surgical operations shock most frequently results from operations upon the abdomen, the most important factors in its causation being injury to or exposure of the peritoneum, the length of the operation, injury to organs richly supplied with nerve fibres, as the stomach, uterus, and kidneys, evisceration, and extensive and prolonged manipulations. In operation upon parts other than the abdomen the most important factors in causing shocks are injury to large or important nerve trunks or injury to parts richly supplied with nerve endings, the area of the wound, the time of exposure of the tissues, and hemorrhage.

Another important factor in the causation of shock during surgical operations is the anesthetic. Ether and the C. E. mixture are the best anesthetics for cases where there is danger of shock, chloroform, on account of the fall in blood-pressure which follows its administration, being very unsuitable for such cases. The time occupied in performing the operation is always an important factor, more especially in old people and children. The condition of the patient prior to operation is important, especially as regards the condition of the nerve centers. In the treatment of shock stimulants, and especially strychnine, are absolutely contraindicated, as they tend to increase the severity of the condition and to retard recovery. Shock can be produced in an animal by the administration of strychnine alone, and it is as reasonable to treat shock by injection of strychnine as it would be to attempt to cure a dying horse by kicking it. The position with the head down and the foot of the bed raised is of considerable value in the treatment of shock, and should be more extensively used.

Compression of the abdomen either manually in an emergency or by application of a tight abdominal binder is a most effectual method of treating shock in all cases. The establishment of an artificial peripheral resistance by the application of external pneumatic pressure affords an absolutely certain method of maintaining the blood-pressure, and though not at present a practical method should some day prove of great value. The intravenous infusion of salt solution or physiological serum will raise the blood-pressure in all degrees of shock. As a method of treat-

ment in shock it is disappointing, as its action is fleeting and it cannot be continued indefinitely. In the collapse of severe hemorrhage it is effectual and lasting in its effects. The introduction of saline solution into the abdomen at the end of an abdominal operation is a valuable method of combating shock, and is not contraindicated by the presence of pus in the abdominal cavity.

One of the most effectual methods of treating shock that we possess is by the administration of drugs such as adrenalin and ergot, which raise the blood-pressure by increasing the peripheral resistance independently of the nerve centers. The treatment of shock by the administration of these drugs is as yet in its infancy, and only a small number of cases have so far been treated in this way. The experimental evidence is, however, very complete, and the few clinical cases where these drugs have been used are very encouraging. The use of these drugs instead of the stimulants which are now so popular, but which have been shown to be useless, will probably result in many lives being saved.

PENETRATING WOUNDS OF THE ABDOMEN.

In a recent paper, M. L. Harris discusses this subject and comes to the following conclusions:—

1. In penetrating wounds of the abdomen, there are absolutely no known symptoms which indicate injury to any of the viscera, except in the case of wounds in connection with the urinary tract, stomach, and occasionally the lower bowel.
2. Except those relating to general shock, all symptoms following such wounds indicate either internal hemorrhage or peritonitis.
3. To wait for symptoms of perforation of the intestine means to wait until peritonitis has developed therefore.
4. Every bullet or stab wound which penetrates the abdominal cavity should be operated on at the earliest possible moment in order to anticipate the advent of peritonitis.
5. No time should be wasted in attempting to demonstrate the presence or absence of intestinal perforation by such means as the rectal insufflation of gases or vapors, or the analysis of recollected intraperitoneally injected air or liquids.
6. It is essential to systematically examine the entire gastro-intestinal canal in all cases, regardless of the point of entrance of the wounding body.
7. Whenever the alimentary canal has been perforated, suitable drains (the author prefers the so-called cigarette drains) should be placed either through the operative incisions or counter-incisions, as may appear best suited to the individual case.

INJECTIONS IN GONORRHOEA.

R. Lucke, in *The Antiseptic*, states if gonorrhoea attacks the posterior portion of the urethra within 14 days of the onset, the patient has almost certainly had previous attacks. In the first attack posterior urethritis seldom occurs before the third week. In treatment a distinction should be made between first and second or subsequent attacks. In a first attack it may safely be assumed that the mechanism by which the posterior urethra is normally excluded from the anterior is reliable. Injections under considerable pressure may be given with advantage during the first 14 days; inflammatory symptoms subside and the gonococcus is mechanically removed from the surface of the mucosa. If the solution employed is of sufficient bacterial power the occurrence of posterior urethritis is usually prevented. Protargol is the most generally useful drug, though in cases with very acute inflammatory symptoms antiphlogistic remedies, such as sulphate of thallin, should inaugurate the treatment.

In cases of recurrent gonorrhoeal infection, or of a first attack, which is not seen until the third week of the disorder, it is always doubtful whether the compressor urethrae is competent, and in the early stages injections under pressure should be avoided. The anterior urethra may be irrigated through a catheter, or irrigation with permanganate of potassium by Janet's method may be tried. If circumstances do not permit of irrigations, injections may be given, but the posterior urethra should be shut off by pressure on the bulb and no retention of the injection by compression of the external orifice of the urethra should be attempted. When the discharge has become scanty and no longer contains the gonococcus, i.e., when the organism has been removed from the surface of the urethral mucosa, injections of strongly bactericidal solutions, such as protargol, are indicated, and should be continued until cure is effected; usually for about four weeks.

MY CHANGES OF VIEW IN APPENDICITIS WORK.

R. T. Morris says that although formerly he used to forbid morphine altogether his views on the subject have changed and he now gives it cautiously in cases in which there is great restlessness. The drug is still regarded as a double-edged sword, however. Both gauze packing and iodoform gauze have been abandoned altogether, as well as the use of buried sutures of silkworm gut. A standard length of one and one-half inches for the incision has been adopted for nearly all instances, including cases of abscess and peritonitis, and it has been found safer to deal with adhesions by touch than by sight. The time limit has also been

greatly reduced, and now it is common to have the time from the first incision to the last suture occupy not more than seven to eight minutes. All patients are operated, even if moribund, a preliminary infusion of salt solution being given; adhesions are freely separated if necessary but not otherwise, and the idea of flushing out the abdomen has been dropped. After eliminating the features which seemed to have a special death rate of their own, viz., gauze packing, iodoform gauze, long incisions, and the expenditure of time in unnecessary detail of work, one hundred consecutive operations were published with a two per cent. death rate. The author does not favor the removal of the normal appendix in the course of other operative work, and he now uses a cigarette drain in all cases in which pus or septic debris have been left in the peritoneal cavity. The dictum of operating as soon as the diagnosis is made holds good, with certain exceptions, but it is still a question what to do with patients who are convalescing from the attack. In interval cases it now seems best to operate only when on palpation the appendix is found to be the definite seat of chronic infection or of adhesions which cause symptoms.—*Medical Record*, May 27, 1905.

EXAMINATION OF THE RECTUM AND ITS VALUE IN DIAGNOSIS.

C. J. Drucek speaks of the lack of thoroughness displayed by the average practitioner in handling patients with rectal disorders. These diseases are very common, yet they are often treated without any examination at all, or with only a very cursory one. The author considers the matter in detail, first discussing the subject of taking the history of a patient suspected of having a rectal malady, and a copy of a suitable record form is given. The preparation of the patient for examination by means of enemata, etc., the question of tables and illumination, and examination by inspection, are considered at length. It is stated that digital examination is the most important of all methods, as 80 per cent. of all rectal cases may be diagnosed in this way and the other 20 per cent. by the history and an examination with the speculum. The technique of digital examination is described in full, and in speaking of instrumental methods the author says that the probe has no place in the diagnosis of rectal diseases, and very little in the treatment, except in fistula. In conclusion Drucek says that rectal surgery especially interests doctor and patient, because it can be done in the office under local anesthesia, and the results of careful work are both positive and prompt, so that it is advantageous to devote greater attention to it.—*Medical Record*, July 15, 1905.

GYNAECOLOGY.

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

DIFFERENTIAL DIAGNOSIS BETWEEN ENDOMETRITIS, ABORTION AND TUBAL PREGNANCY.

DUDLEY in his latest edition of "Principles and Practice of Gynaecology," says :—

The membranes thrown off in the form of dysmenorrhœa (Exfoliative Endometritis) closely resemble, in gross appearance, those of early abortion and tubal pregnancy. The differential diagnosis between these conditions is, therefore, important :—

Exfoliative endometritis.	Early abortion.	Tubal pregnancy.
1. No history of pregnancy.	1. History of pregnancy.	1. Atypical history of pregnancy.
2. Dysmenorrhœa pain and discharge of membrane at each menstrual epoch.	2. Discharge of membrane with pain at time of abortion.	2. Discharge of decidual membrane usually between the fourth and ninth week of pregnancy
3. No enlargement of uterus or Fallopian tube.	3. Enlargement of uterus but not of Fallopian tube.	3. Enlargement of Fallopian tube on affected side.
4. Chorionic villi and amnion present.	4. Chorionic villi and amnion present.	4. Absent from uterus, chorionic villi and amnion in Fallopian tube.
5. No fœtus.	5. Fœtus discharged from uterus.	5. No fœtus discharged from uterus.
6. Membrane may be exact cast of endometrium, or may be in shreds.	6. Membranes may envelop fœtus and may be cast off whole or may be in fragments or shreds.	6. Membrane, not associated with fœtus, cast off entire or in irregular fibrous fragments.
7. Usually incurable.	7. Self-limited, or curable by treatment.	7. Not incurable.

DIFFERENTIAL DIAGNOSIS BETWEEN PREGNANCY AND MYOMA.

DUDLEY gives the following valuable tabular statements on differential diagnosis.

Pregnancy.	Myoma.
<ol style="list-style-type: none"> 1. History of pregnancy. 2. Uterus soft and elastic. 3. Consistence varies with uterine contractions. 4. Cervix soft. 5. Regular and uniform increase in size of uterus. 6. Later, ballottement, foetal heart-tones. 7. Palpation of foetus. 	<ol style="list-style-type: none"> 1. Absent. 2. Usually irregular in form, harder. 3. Uterine contractions not marked—very important sign. 4. Hard, or not so soft. 5. Growth slower and irregular. 6. Absent. 7. Palpation of myoma.
Hæmatocele.	Myoma.
<ol style="list-style-type: none"> 1. History of tubal pregnancy. 2. Sudden appearance, shock, severe pain, and evidence of hemorrhage. 3. Consistence of mass usually soft, later may be hard. 4. Not sharply outlined. 5. Later, mass shrinks and becomes harder or may suppurate. 	<ol style="list-style-type: none"> 1. Absent. 2. Absent. 3. Usually hard. 3. Sharply outlined. 5. Commonly increases in size; may decrease after menopause.
Chronic metritis.	Myoma.
<ol style="list-style-type: none"> 1. Uniform enlargement. 2. Uniform hardness. 3. Uterus not larger than two or three times the normal size. 	<ol style="list-style-type: none"> 1. Enlargement usually irregular. 2. Uterus softer than tumor. 3. Size may increase to thirty or forty pounds.

INFLAMMATORY DISEASE OF THE UTERINE ADNEXA AND ITS TREATMENT.

H. Grad first considers the anatomy of the adnexa, the etiology of inflammatory processes in this region and their pathology and relation to pelvic abscess and peritonitis. The symptomatology and course of acute and chronic salpingitis are then elaborated and the question of diagnosis is taken up. In this connection, the subject of ectopic pregnancy is discussed, a condition which not only frequently enters into the diagnostic possibilities but also may be a sequel of a previous tubal inflammation. Considerable space is given to the subject of treatment, and the exposition of the palliative methods is very full. The author believes that this is very important, as the natural termination of these lesions is in resolution and cure, and he says that procrastination in operative measures and judicious persistence in general treatment is to be strongly urged. The use of opiates requires especial care in order not to mask the symptoms, and yet not permit the patient to suffer needlessly. Local treatment may or many not be necessary, and antiseptic applications and irrigations with liberation of pus and absolute cleanliness are the keynote in the treatment of the various lesions of the urethra, vulva, vagina, and cervix. The operative treatment in acute and chronic cases is then described, the author calling attention to the danger attending radical operation during the acute exacerbations, which he terms a questionable procedure. Vaginal drainage will usually bring about a cessation of symptoms with improvement in the patient's condition. The technique of pelvic operations is treated at length, special stress being laid on the matter of conservative measures and their advisability when possible. Vaginal section by a T-shaped incision is commended for use in suitable cases.—*Medical Record*, June 3, 1905.

OBSTETRICS AND DISEASES OF CHILDREN.

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

GONOCOCCUS INFECTIONS IN CHILDREN.

Lately considerable attention has been attracted to the virulence of gonococcus infections in children's institutions. A recent article by Dr. L. Emmett Holt, *N. Y. Med. Jour.* and *Phil. Med. Jour.*, March 18th, 1905, *et seq* is a careful report of his experience with these infections, and is of great importance to those in charge of such institutions.

The article is based on a brief account of the gonococcus infections in the New York Babies' Hospital. From 1894-1898, there was an average of about nine cases of gonococcus infection per year. These

took the form of vaginitis and ophthalmia chiefly, though in 1896, the first case of arthritis developed and died of meningitis. In 1899, the infection became epidemic. Three cases of vaginitis were admitted to a summer cottage in the beginning of June, eight others were admitted during the summer, and 15 girls contracted gonococcus vaginitis, all being inmates of the same cottage. Every care was taken to prevent the spread of the disease without avail. Separate nurses were provided for infected cases, and all napkins were boiled and disinfected. The napkins from the infected cottage were laundered separately from the others.

The type of disease was moderately severe. Profuse, yellowish-green muco-pus discharge from the vagina marked each case. No case of ophthalmia developed. In 1901, sixteen cases of vaginitis were received and 22 developed in the wards; eight cases of ophthalmia were admitted, and three cases acquired.

In 1902, three cases of multiple gonococcus arthritis developed, one in a male aged two and a half months, and another in a female infant of one year, without vaginitis. None of the three had ophthalmia.

No port of entry was discovered. In all cases the diagnosis was confirmed by withdrawing pus containing the gonococcus from the infected joints.

In 1902, the Baby Hospital moved into their model new building, but even here infection broke out and was as difficult as ever to control. In the first six months in the new hospital, from five cases admitted there developed 29 cases of vaginitis, and eight cases of gonococcus arthritis. In 1903, ten cases of vaginitis were admitted, 55 acquired; one case of ophthalmia admitted, one acquired; two cases of arthritis admitted, ten acquired.

The larger number of cases of vaginitis in the later years is probably the result of the careful routine examinations made of each house case. Sixty per cent. of the cases of vaginitis were so mild as to have escaped clinical observation had it not been for the severe examination.

Holt then had other children's institutions in New York carefully examined, and found in all the condition was as bad or worse than in the Babies' Hospital.

He concluded that gonococcus infections, especially vaginitis, are extremely frequent in institutions for children, highly contagious and very difficult to control.

With regard to the clinical manifestations, Holt states that the three principal forms are vaginitis, ophthalmia and arthritis. The cases were all under three years of age. Only one case of gonococcus urethritis in a male was seen, he was two years old and was admitted with the disease. A clear history of infection, at his home, was obtained. There were no

cases of endocarditis, pericarditis, peritonitis or pelvic inflammation, and none of proctitis.

Vaginitis, when well marked, is easy of detection, but in mild cases which are kept clean, it is very difficult to detect, and may remain unnoticed for some time. Constitutional symptoms, even in severe cases were few and insignificant. Urethritis was uncommon and seldom severe.

The ophthalmia was as is usual in infants.

Arthritis was encountered in 26 cases, 19 being male and seven females. Four of the females had vaginitis, while in only one of the males was there other clinical evidence of gonococcus infection, i.e., ophthalmia. Sixteen of the cases were under three months of age. A single joint was involved in but five cases. In most cases four or five joints were affected. The finger, metacarpal and ankle joints were most frequently attacked. The local symptoms were well marked, rapidly developing articular swelling, redness, tenderness being acute, and suppuration occurring within a week. The pus withdrawn from the joints was always thin seropus. The general symptoms were of a pyaemic character. Fourteen cases died but in many cases the pyaemia could not be blamed, as the children suffered from marasmus.

The pathological process in the joints is an acute synovial inflammation rarely involving the cartilage or other joint structures and no destructive changes were observed.

Complete recovery followed in most cases. In a few slight stiffness remained and fibrous ankylosis was noted in only two cases.

Holt records facts to prove that this disease invariably is carried from case to case by the nurse in charge.

With regard to the port of entry in males Holt has no proof, but suggests it is the mouth, and that infection results from the nurse swabbing out the infants' mouths with a piece of cotton, wrapped around her finger tip.

No evidence was ever obtained that either nurses or servants coming in contact with the children suffered from this disease.

With regard to prophylactic measures Holt considers that two things are essential: 1. Exclusion of cases of gonococcus infection as far as possible; 2. if admitted, absolute quarantine.

In exclusion of cases a vaginal smear must be carefully examined by an expert before the diagnosis of freedom from infection can be maintained.

The quarantine to be effectual must extend to nurses and attendants, as well as to the infected cases. One difficulty is the prolonged quarantine necessary, as all cases are of a very chronic character and very resistant to treatment.

All laundry of infected cases should be separate. Swabs should consist of gauze and cotton, and destroyed after being once used. Sponges and wash cloths should be abolished.

The most scrupulous precautions should be taken with reference to the nurse's hands, by bathing in solution of disinfectants after changing each napkin. Individual thermometers are essential.

After an outbreak in a ward general fumigation should be carried out as in the case of scarlet fever.

No treatment has proved altogether satisfactory in Holt's experience.

INFANT FEEDING.

F. S. Churchill, Chicago, (*Journal A. M. A.*, May 27), discusses the embarrassments of infant feeding when breast milk is not available, and the unsatisfactory results of the common practice of diluting cow's milk with water in such cases. He summarizes practically as follows: Cases of difficult feeding in infancy are: (1) Those of fat indigestion; (2) those of sugar indigestion; (3) those of proteid indigestion. Each of these may occur alone or in combination with the others. Proteid indigestion is most common, but fat indigestion is also frequent. Each must be treated individually, the form of indigestion present must be ascertained if possible, and appropriate measures be adopted. The treatment is almost exclusively dietary; the fats and sugar can be regulated by varying the amounts of cream and sugar in the food. The composition of cow's milk, with its high caseinogen and low lactalbumen content must be remembered in treating proteid cases, the caseinogen must be cut down or eliminated, if need be, and the lactalbumen retained. This twofold object is attained by feeding whey. Increase in quantity and quality of the food must be made gradually. In conclusion, he suggests the desirability of careful study of artificially fed infants and publication of the results.

PYLORIC STENOSIS IN INFANCY

Charles M. Scudder, Boston (*Journal A. M. A.*, May 20 to 27), reviews the literature of pyloric stenosis of infancy, and describes the symptoms, diagnosis and treatment. He recognizes two groups, the subacute or chronic, and the acute fulminating cases. While most cases are fairly typical, in some the differential diagnosis is difficult, and a careful study of each symptom and the sequence and grouping of symptoms should be made till the diagnosis is reached by a process of exclusion. He has little

faith in the medical treatment, and believes that the condition is practically hopeless without operation. The results of operations since 1898 show a saving of over 50 per cent of the cases, of which probably all would have died if let alone. An analysis of the fatal cases shows that many of them were due to mistakes or errors of technic, too late operation, etc. The operation should be rapid, free from causes of shock, sepsis or hæmorrhage, the parts to be handled gently and isolated outside of the abdominal cavity. The Loretta operation is condemned. Pylorotomy is too severe and pyloroplasty is not recommended save in exceptional cases. Some form of gastroenterostomy is best for most cases, but owing to the shortness of the infant mesentery and other reasons the anterior operation should be avoided if possible. The Finney operation of gastro-pyloro-duodenostomy may be suitable in some cases, or if not feasible, Köcher's gastro-duodenostomy may be useful. After-care is of vital importance, and if possible an expert in feeding a baby should have charge. Absolute quiet is essential, and rectal feeding may be needed for a few days. Scudder does not discuss the etiology to any extent, but thinks that a congenital hyperplasia may occur and a spasmodic contraction of this, after birth, is frequent if not the rule.

CONGENITAL LESIONS OF THE DIAPHRAGM AND RESPIRATORY INSUFFICIENCY IN NEW BORN CHILDREN.

A. Mori, Florence, Italy, *Brit. Jour. of Chil. Dis.*, March, 1905, remarks that congenital hernia of the diaphragm is comparatively frequently encountered. The author records three cases observed in the Clinic of Pestalozza at Florence. In all three cases the placenta presented a remarkable condition of hydramnios. The liver in each case was enormously developed. The condition has generally been ascribed to an incomplete closure of the diaphragm. The author doubting this view was led to investigate the topography of the different intra-thoracic and abdominal organs in connection with the constitution of the diaphragm and the resistance of its muscular aponeurotic, and serous elements, noting at the same time the ratio of the volume and weight of the liver to the dimensions and weight of the whole foetal organism.

He concludes from his observations that diaphragmatic hernia is consequent upon increased intra abdominal pressure. The primary cause of this pressure and phrenic displacement is due to an increase in volume and weight of the liver in consequence of circulatory and parenchymatous alterations of syphilitic origin.

The clinical symptoms may be explained by the pressure exercised by the displaced viscera on various organs; cyanosis, dyspepsia, intestinal obstruction, etc.

As indicative of the condition the author mentions displacement of the cardiac impulse, epigastric indrawing, enormous enlargement of the liver, detection of gastric and intestinal sounds in the thorax, and the differences between the percussion notes of the two sides of the thorax. Occasionally deficiency of expansion of one side of the chest may be noticed while the transmission to the chest wall of the gastro-intestinal peristaltic movements is frequently to be noted.

With regard to treatment but little can be done. It is rare that operative measures can be of the slightest benefit.

ACUTE PYELITIS OF INFANCY WITH REPORT OF A CASE.

R. G. Freeman, *Arch. Ped.*, March 1905, reports the case of a male infant, eight months old, fairly nourished, who suffered from some slight bowel disturbance for about three weeks, when it suddenly was taken very sick, the temperature running to 105 degrees F. It was treated for gastro-enteric symptoms for some two weeks, when, on examination of the urine, it was found to be acid and to contain a large amount of pus. Citrate of potash, $2\frac{1}{2}$ grains every two hours, with $\frac{1}{2}$ grain of urotropin every four hours, with careful regulation of the diet, which consisted of modified milk, resulted in rapid improvement. The urine planted in agar gave a pure culture of bacillus coli communis.

The author is of the opinion that the condition frequently escapes notice from the fact that the urine is not examined as a matter of routine in infants, from the difficulty in obtaining it, especially in the case of females.

TREATMENT OF MENSTRUAL PAINS OF VIRGINS.

Several days before the expected menstrual period Touvenaint (quoted in the *Therapeutic Review*, August, 1904) prescribes, three times daily, 15 drops of the fluid extract of senecio vulgaris in a hot infusion of lemons. As soon as the menstrual period appears the patient is put to bed, poultices containing laudanum applied to the abdomen, and suppositories containing 1-15 grain each of extract of cannabis indica and belladonna are inserted. Enemata containing laudanum are also advised, or 10 drops each of tincture of viburnum prunifolium and piscidia erythrina is given four times daily in a hot infusion. For the lumbar pains friction is used with:—

Chloroform, 10 grammes;
 Oil of musk,
 Essence of cloves, aa 5 grammes;
 Ether, 15 grammes;
 Alcohol, 90 grammes.

The Canada Lancel

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No. 12

EDITORIAL.

THE PROPOSED NEW PROVINCIAL HOSPITAL IN TORONTO.

No doubt our readers are well aware of the main facts in connection with the New Provincial Hospital movement.

The Ontario Legislature voted \$300,000 towards bettering the hospital facilities in Toronto for clinical teaching. This money to go into the present General Hospital, or a new Provincial Hospital provided such should be erected.

The bill also provided that the City of Toronto might give \$200,000 towards the purchase of a new site, should such be decided upon, as the General Hospital trustees came to the conclusion that it would not be expedient to build on the present site.

The proposed site in the centre of the city will exceed in value the present General Hospital site by perhaps \$300,000. This would mean a loss to the city in taxes of about \$6,000; or, at 4 per cent., the equivalent of \$150,000 in capital.

Then, again, the present income of the General Hospital is \$25,000 a year from lands given it about 60 years ago by the Government of the Province of Upper Canada. This represents a capital of at least \$650,000.

These various sums make the total of \$950,000 from the Province, and \$350,000 from the city, or a grand total of \$1,300,000.

It was felt by many members of the profession, and this view was shared in by many citizens that, if so much money of the people was put into the scheme, the new hospital should be open to any medical practitioner in good standing to attend his own patients, provided they paid for themselves.

A meeting of the medical profession was called on July 6th to discuss the matter. At this meeting, Dr. Charles Sheard, Medical Health Officer, moved the following resolutions:—

1. The material of the public wards shall be available exclusively for the Faculty of Medicine of the Toronto University, but all other accommodation in the hospital shall be equally available to all other practitioners of good standing in the city.

2. A public ward patient shall be defined as one who is unable to pay for his medical attendance.

3. The municipality of the City of Toronto to be represented upon the board of hospital trustees, numerically equal with those appointed by the Ontario Government.

4. In the new hospital accommodation is to be afforded as far as possible to patients sent in upon the city's order.

Dr. R. A. Reeve, Dean of the University Medical Faculty, seconded the above resolutions, which were carried, and it was felt that the matter was in a fairly satisfactory form, as Dr. Sheard had said in answer to a question, that he would recommend special public wards for the general profession, in order to avoid confusion in the matter of clinics.

The subject came up before the City Council on 10th July. Those representing the hospital scheme asked for the \$200,000 without conditions, and the by-law received its first and second readings to give the money unconditionally. The third reading was set down for 17th July. During the week a good deal of opposition was developed against the Council giving such a large sum without conditions.

At this meeting of the Council, Controller John Shaw moved, seconded by Alderman Dr. Harrison, as follows. "But the proceeds, or any portion of the money so raised, shall not be paid over by the City Treasurer until the new hospital trust is formed with city representation thereon, consisting of at least two appointed by the City Council, and then only when the new board so formed shall undertake to allow or permit all patients paying their way in the new hospital the right of employing their own surgeon or physician, and shall undertake that accommodation shall be afforded in the new institution, as far as possible, to patients sent in on the city's order."

After a good deal of discussion this was carried by 14 to 8 on the following division: For—Controllers Shaw and Ward and Aldermen Fleming, Harrison, Chisholm, Lynd, McBride, Coatsworth, Stewart, Vaughan, Noble, Dunn, Graham and McGhie; Against—Mayor Urquhart, Controllers Hubbard and Spence, and Aldermen Hay, Geary Church, Keeler and Jones.

Alderman Geary moved that the words, "Subject to the regulations of the hospital board," be added to the clause permitting patients paying their way to employ their own doctor. This was agreed to.

Legal opinion has been secured to the effect that, regardless of the ward or the hospital charges therefor, all patients who pay their own way will enjoy the privilege of selecting their own medical attendants, whether on the staff of the hospital or not. It makes no difference whether the charges made by the hospital board be adequate to de-

fray all the costs of maintenance, provided the patients pay what is demanded from them, they possess the right of choice as to doctor.

The above are the simple facts, so far as we have been able to gather them by watching the progress of events during the past two months.

THE INCREASE OF INSANITY.

There appears to be good grounds for the general belief that insanity is on the increase. So far as Canada is concerned, Dr. Burgess, in his address at the American Medico-Psychological Association, made this quite clear. The report of the Inspector of Asylums for Ontario also emphasizes this same fact. In 1884, there were 8 insane to every 5,000 of the population; but in 1904, there were 14 to every 5,000. The average daily number in the asylums in 1884 was 2,867, and in 1904 it had increased to 5,500.

The report condemns the custom of confinement of the insane in jails. It suggests that some small, but separate building be erected for these cases.

The revenue for 1904 was \$106,167, and twenty years ago it was \$48,135. Since Confederation Ontario has expended upon these institutions \$16,000,000.

Housekeepers head the list of occupations, 296 patients having succumbed to the monotony of the daily round. Laborers come next, with 124, and farmers close up with 122; domestic servants are next, with 46, clerks 14 and carpenters 13.

Of mental causes of insanity, worry comes first, with 70 cases, domestic troubles 43, adverse circumstances 39, fright and shock 22, love affairs 15, religious excitement 7. Intemperance in drink heads the list of physical causes, with 50. overwork being next, 37. The married admitted during the year were 462; the unmarried 496.

THE CANADIAN MEDICAL ASSOCIATION.

We wish to call attention to the meeting of the National Association this year at Halifax, on August 22nd, 23rd, 24th and 25th. It is just twenty-four years since the Association met in Halifax. The President, Dr. John Stewart, in behalf of the profession of Halifax and the east, invites all to attend and partake of the pleasures of a trip to the Maritime Provinces, and the hospitality of the people down by the sea. We hope to see this the largest meeting in the history of the Association.

THE TREATMENT OF MENTAL DISEASES IN HOSPITALS.

This subject is again taken up by Dr. Campbell Myers. He strongly advocates the treatment in general hospitals of early cases of nervous and mental diseases. He contends that many of these patients would recover and thus escape the stigma of having been in an asylum. He points out that in some countries this is now becoming a common practice. It is stated that the results, so far, have been very satisfactory. It would enable nurses and students to become more familiar with this class of patients. Those whose minds become unbalanced could be admitted at once without certificate, and placed under observation. Many suicides would also be prevented. It would be valuable from an economic point of view also.

 CHANGE THE NAME "ASYLUM."

As the name originally comes to us through the usages of good writers, there should be no objection to it, but in practice there has grown up a strong feeling in the mind of the public against sending persons to an asylum. It is thought to be a stigma on those who are committed and upon their friends. The name could, therefore, be changed to one less objectionable, such as "Hospital for Nervous Diseases." This would remove, also, one of the grave difficulties in the minds of those who require commitment as they often say, "don't send me to the asylum."

 A COMMISSION IN LUNACY.

In all our asylums the principle which should govern appointments is the one of fitness for the positions to which these persons are appointed. At the present moment there are in Canada 18 asylums for the insane, and 12 of these are under political control.

In New York, the superintendent is chosen by the board of management, and must have had at least five years experience in the care of the insane and asylum work. He, in turn, selects his assistants. In this way a more efficient service is secured than when the medical staff of an asylum owes its appointment to political influences.

This would introduce into the asylums of the country the principle of promotion as the reward of faithful and efficient service. It would also tend to introduce a more scientific spirit. If appointment in the first

place and promotion afterwards came to a person because he had done good work along the lines of mental and nervous diseases, or had shown his special fitness for the management of such cases, there would be better hope for the advancement of knowledge on the many phases of insanity.

What the taxpayer, the patients and the profession is entitled to is the best result for the cost of maintaining these institutions. That this could be secured by the creation of a Lunacy Commission as compared with the present system, there can be no doubt. Such a commission would take over the care of the insane, would appoint the medical superintendents, and, along with him, the assistants. Appointments would be made on merit, and retention in the service would depend on the quality of work done. Under such a system our asylums would be heard from as true centres of research and scientific progress.

THE SCIENCE OF PROLONGING LIFE.

The highest duty of the state is to protect its people, and there is no form of protection so important as the protection against disease.

In the case of consumption there are at least 8,000 deaths annually in Canada from this disease in its ordinary form, not considering the many forms of tuberculosis of various organs. And yet this disease is a preventable one. Why not prevent it then? It comes in the duty of the state. These cases should be reported and placed under proper instruction and safeguards thrown around those who are affected.

At the recent meeting of the Ontario Medical Association, Dr. Charles J. Hastings, of Toronto, read a very able paper on the enormous waste of life among children. Though he said nothing new, it was most timely to have such a careful presentation of all the facts. There is absolutely no need for such a high infant mortality. It can be reduced, it ought to be reduced, it must be reduced. The question comes in "How can it be reduced?" We think along the lines suggested by Dr. Hastings. There should be a medical inspector of public schools. He would travel the province over, and would inspect the schools from the sanitary point of view and the children from their health standard. Much information would be gathered as to cases of neglect and proper steps could be taken to remedy these. Proper literature could be prepared and distributed throughout the schools.

Some steps have recently been taken looking towards the early and more efficient care of the insane. This should appeal to all. There are many instances where it would be well to have a short probation period before formal commitment to asylum takes place. The care of

such cases would be much more expensive, however, than that of the ordinary run of patients. To aid the general hospitals of the province in this work, the Government might arrange for a special allowance to such patients for a short period. The Government grant is now 17 cents per day. It might be made large enough, along with the municipal grant, to bring the receipts from such patients up to a paying level to the hospitals. If this were done, a most beneficent work could at once be commenced.

Another subject of much importance is engaging the minds of many public spirited and charitable people—the treatment of inebriates. For the society which has undertaken the task of caring for this class, we wish the best success. It is to be hoped that those who have the means at their disposal will come forward and give aid to such an extent as will enable the society to commence at once the treatment of those who suffer from the effects of intemperance. Already a start is being made, and there is no doubt the movement will gain strength.

CANADIAN MEDICAL ASSOCIATION.

The following is the *Preliminary Programme* of the meeting of the Canadian Medical Association to be held in Halifax, N.S., August 22nd to 25th, 1905 :

President's Address, Dr. John Stewart, Halifax; Address in Surgery, Dr. Francis M. Caird, Edinburgh, Scotland; Address in Medicine, Dr. D. A. Campbell, Halifax; Address in Gynecology, Dr. Howard A. Kelly, Baltimore; Address in Ophthalmology, Dr. J. W. Stirling, Montreal; Discussion on Renal and Ureteral Surgery, Introduced by Dr. A. Primrose, Toronto; Two cases of Retro-Ocular Neuritis, Dr. Geo. H. Burnham, Toronto; Paper, (title to be announced), Dr. H. A. Bruce, Toronto; The Symptoms, Diagnosis, Prognosis and Treatment of Neoplasms Affecting the Central Nervous System, Dr. D. A. Shirres, Montreal; Chorea, with an Analysis of 130 cases, Dr. Robert King, Halifax; Rare Forms of Aneurysm, Dr. Maude E. Abbott, Montreal; The Buried Suture, Dr. J. M. Elder, Montreal; Dentigerous Cysts, or the Removal of the Inferior Dental Nerve for Tic, Dr. M. C. Smith, Lynn, Mass.; Combination Operation for the Radical Cure of Inguinal Hernia, Dr. F. N. G. Starr, Toronto; Two case reports, (1) A case of Chylo-Thorax, (2) Further Notes on a Case of Myelogenous Leukaemia, with Disappearance of the Splenomegaly and Myelocytes, Dr. D. G. J. Campbell, Halifax; Physical and Clinical Researches of Radium, Dr. Myron Metzenbaum, Cleveland, Ohio; Prostatectomy, Dr. E. W. Cushing, Boston, Mass.; The Surgery of the Stomach in Non-Malignant Conditions, Dr. G. E. Armstrong, Montreal; Dislocations. (with a lantern demonstration), Dr. J. Alex. Hutchison, Montreal; The Fever of Late Syphilis, Dr. Arthur Birt, Berwick, N.S.;

Postural Albuminuria of Children, Dr. W. H. Eagar, Halifax; The Prodromata of Insanity, Dr. W. H. Hattie, Halifax; The Treatment of Smallpox without Pitting, Dr. Archibald Leitch, St. Thomas, Ont.; Tracheotomy as a Remedy in Severe Whooping Cough, Dr. A. B. Atherton, Fredericton, N. B.; Recent Fracture of the Clavicle, with Operative Treatment, Dr. J. W. T. Patton, Truro N.S.

In addition to the foregoing several have promised papers, but have not yet decided upon the title of same.

DR. J. N. E. BROWN CHOSEN.

The Board of Trustees of the Toronto General Hospital has appointed Dr. John N. E. Brown superintendent of the hospital in succession to Dr. Charles O'Reilly. The appointment came as a surprise to Dr. Brown, as well as to many friends of the hospital, who believed that an accountant rather than a physician would be chosen to deal with its affairs. It is generally admitted, however, that Dr. Brown is an ideal choice. He has been absent from Toronto for some years, having gone to the Yukon Territory shortly after the great gold discoveries there. He became Medical Health Officer of Dawson City, undertaking a task of no light dimensions when it is remembered that Dawson City sprung up like a mushroom, and was populated by the offscourings of the earth. Then he became Territorial Secretary of the Yukon Territory. Last winter on returning to Toronto he went to Johns Hopkins University, Baltimore, for a season of experiment and study. Dr. Brown is by no means unfamiliar with hospital work, having been for a time chief obstetrician at St. Michael's Hospital. He is the husband of the well known newspaper writer, "Faith Fenton," whom he married at Dawson City. We hope Dr. Brown may fill the position as long as did his predecessor and leave it with as many kind wishers.

DEATH RATE SHOWS SLIGHT INCREASE.

The returns made for June to the Provincial Board of Health of cases and deaths of infectious diseases, including deaths from all causes are the most complete in the history of the department since the Act came into force in 1897, requiring municipal clerks to make monthly returns. Out of 777 divisional registrars in the Province, 760 have complied with the regulations and made returns, representing a reporting population of 2,059,515, being 90 per cent. of the Province.

The total deaths from all causes are 1,933 or 31 more than for June last year, but this may be accounted for through 30 more division registrars having reported than in June a year ago, and it is pleasing to know the death rate per 1,000 is no higher, being 11.2 for both periods.

In the table of infectious diseases appended it will be noticed that measles have become very prevalent as compared with the same month last year, there being no less than 420 cases reported, with 11 deaths, or twice as many as that caused by scarlet fever. Diphtheria caused four more deaths, although the cases reported are 45 less, which makes a case mortality of 18.8.

The extent to which tuberculosis prevails in the Province is very great when it is considered it has caused 207 deaths, or 83 more than all other infectious diseases. It is to be regretted that so few municipalities have taken advantage of the Act respecting municipal sanitaria for consumptives, and assist those unfortunate people who are victims of this most insidious disease. Meanwhile the disease continues its onward course, carrying off its hundreds each month.

The following comparative table shows the number of cases of infectious diseases for June last, as compared with the same month of last year:—

Disease.	1905.		1904.	
	Cases.	Deaths.	Cases.	Deaths.
Smallpox.....	19	0	40	1
Scarlet Fever... ..	96	5	136	5
Diphtheria.....	212	40	257	36
Measles.....	420	11	41	1
Whooping Cough... ..	40	8	46	9
Typhoid.....	43	19	40	15
Tuberculosis.....	210	207	212	196
Total.....	1,040	290	772	263

A death rate of about 20 per cent. is surely too high for diphtheria. The early administration of antitoxin should reduce this rate to almost zero. We fear that in some poor patients this potent remedy is not employed, and think that the municipality which denies to a poor child the benefit of antitoxin is as censurable as would be a surgeon who allowed a patient to bleed to death without making an effort to arrest the hæmorrhage.

PERSONAL AND NEWS ITEMS.

Dr. J. L. Anderson, formerly of Cannington, has decided to locate at Waterford, Ont.

Dr. Kippen, late of Manitoba College, is practising his profession in Dubuc and vicinity.

Dr. J. R. O'Brien, of Ottawa, has gone to Britain. He will visit the hospitals there and in Paris.

Dr. James A. Cowper and Miss Viola Ball were married in Holy Trinity Church, Welland, on June 22nd.

Dr. Barrett, of Renfrew, has purchased Dr. Hughes' practice in Galt, as the latter is removing to Toronto.

Dr. and Mrs. Matheson have sailed from Montreal, for a trip in England, Holland, France, Germany, Austria and Italy.

Dr. Dunn, of Beeton, who sold his practice to Dr. Hodgson, of Beaverton, a short time ago, intends going to Edmonton.

Dr. and Mrs. Murray McFarlane, of Toronto, have gone to California and Oregon. They will return about the end of August.

Dr. G. E. L. Mackinnon, late of Williamstown, has received the appointment of house surgeon in the Royal Victoria Hospital.

Dr. F. E. McLoughlin, of Hamilton, was recently married to Miss Downey of Toronto. He will continue his practice in Hamilton.

Dr. Wm. Read has taken over the practice of the late Dr. E. Harvey, of Wyoming, and will take up his professional work there this week.

Dr. John F. Armstrong, of Oil Springs, who was at one time connected with the staff of the London Asylum, was recently married to Miss Sarah Murdoch, of London.

Dr. Harold W. Dingman, Toronto, a former Pictonian, who is visiting in town, has left for Saginaw, Mich., where he will enter St. Mary's Hospital as house physician.

Dr. A. E. McLaughlan, of Toronto, has located in Desboro. The field recently supplied by Dr. Pickard will find in Dr. McLaughlan a worthy and skilled successor.

Dr. Costello who was recently visiting friends in Arnprior, Ont., returned to Calgary to open a practice. He is the late house surgeon of the Water Street Hospital, Ottawa.

The marriage of Dr. Georgs A. Sutherland, of Embro, to Miss Jeanette Munro, daughter of Col. James Munro, M.P.P., took place on Wednesday, the 26th of July.

Dr. Wm. Hendry has been appointed senior house surgeon of the Toronto General Hospital, in succession to Dr. Rountree, who leaves this week. The appointment is for six months.

Dr. Jackson, who has been surgeon at the Home for Incurable, Toronto, during the past year, will conduct Dr. Bowles' practice at Woodhill while the latter is absent in England.

Dr. Wilmot Graham, son of ex-Ald. R. H. Graham, has returned from Edinburgh, where he passed his examinations last month and will spend the summer at his parents' cottage, Port Carling.

The resignation of Dr. Langrill as Medical Health Officer, he having been appointed recently as medical superintendent of the City Hospital, Hamilton, was accepted by the City Council 26th June.

Dr. Irving Cameron, of Toronto, is among the prominent medical men who will this month be admitted Honorary Fellows of the Royal College of Surgeons at the quarter-centenary celebration in Edinburgh.

Mr. John Ross Robertson has given \$75,000 for the erection of a Nurses' Home in connection with the Hospital for Sick Children, Toronto. This is much needed and will be much appreciated.

Dr. Bright, of Drayton, was married on July 13th to Miss Estella Gunn, a graduate nurse of the Toronto Western Hospital, and for some time lady superintendent of the Royal Alexandra Hospital, Fergus.

Dr. Roberts' application for the position of Medical Health Officer, made vacant by the appointment of Dr. Langrill as superintendent of the City Hospital, has been favorably considered by the Board of Health of Hamilton.

The marriage of Miss Eva Maude Pettit, daughter of Mr. Richard Pettit, and Dr. Alexander Dufferin Stewart of Fort William, took place at Glenwillow, Middlesex County, the home of the bride's parents, on Thursday, the 22nd June.

Dr. C. C. Elliott, who is leaving Wardsville in the fall, has disposed of his practice to Dr. A. G. McMillan, a graduate of the Western University, who during the past year was senior house surgeon at St. Joseph's Hospital, London.

The Board of the Sick Children's Hospital have appointed the following gentlemen as house surgeons from July 1: Dr. Black, Dr. Strathy and Dr. Spohn. Dr. Bennett will take up an appointment as house surgeon at the institution on January 1.

Hon. Dr. R. A. Pyne, Minister of Education, left, July 19th, for England. While away he will make a study of the board school system, as well as of the various educational institutions. Dr. Pyne expects to be absent about six weeks.

On Wednesday, June 14th, at the Octagon, Bowmanville, the home of the bride's parents, Miss Mabel A. Tait, eldest daughter of Henry C. Tait, Esq., was united in marriage with Dr. J. H. Elliott, Physician in charge of the Muskoka Cottage Sanatorium, Gravenhurst.

Dr. A. G. Sinclair, formerly of Rossland, has decided to make his residence in Vancouver, B.C., and practise his profession there. Dr. Sinclair is widely known in the Dominion both in medical and political circles. Before he moved to the West he was a member of the House of Commons.

A very pretty house wedding took place at the home of Mr. and Mrs. John Reycraft, Victoria avenue, Ridgeway, on Wednesday afternoon, June 28th. The bride was their daughter, Miss Bertha, recently of the Moulton Ladies' College staff, Toronto, and the groom, Frank C. Neal, M.B., M.R.C.S., L.R.C.P., of Peterborough.

The Board of Hospital Governors of the Hamilton City Hospital met at noon to-day and agreed to go on building the new wing to the hospital. The total cost was figured at \$44,170, not including the installation of a central heating plant or elevators in the new building. Contracts were let, subject to favorable consideration by the City Council.

Dr. R. J. Manion, of Fort William, who has been house surgeon in the Water Street Hospital, leaves for his home after having spent a year at that institution. He will remain in Fort William but a few weeks, when he intends going to England. His associate at Water Street Hospital, Dr. Nagle, leaves also and will go to Almonte, which is his home.

Dr. J. W. Rowntree temporarily received the appointment to the position of medical superintendent of the Toronto General Hospital, vacated by Dr. Charles O'Reilly. Dr. Rowntree is a native of Thistleton, Ont., and was born in 1877. He was educated at Weston, the Toronto Junction High School, and Trinity Medical College, graduating M.D. in 1903. He has been on the house staff of the General Hospital for a year.

A very representative gathering of residents of Albemarle and district to the number of forty sat down to dinner at the Arlington Hotel on Friday evening, June 9th, at the farewell banquet to Dr. Ross, formerly of Rossland and Nanaimo, who after four years' residence there has left to seek professional success in the larger field of Vancouver city. An address to Dr. Ross, expressive of the sentiments of the community, was read and presented to him.

Dr. Bruce Smith, inspector of Asylums and Prisons, has returned from a tour of inspection of those institutions in the eastern part of the Province. During his absence he visited the hospitals, asylums and jails at Perth, L'Orignal, Smith's Falls, and Brockville. A fact which attracted the attention of Dr. Smith was the few insane persons confined

in the jails and in that part of the Province. In Toronto jail there were at this time last year 36 lunatics, at present there are only three.

The Northern Alberta Medical Association, at a recent meeting, elected the following officers:—Honorary President, Dr. McInnis, Edmonton; President, Dr. Harrison, Edmonton; Vice-president, Dr. McIntyre, Strathcona; Sec-Treasurer, Dr. T. H. Whitelaw, Edmonton; Committee, Drs. Wilson, Smith and Clendenan, all of Edmonton. The Association meets on the first Thursday of each month at Edmonton. The Association is a very active one and will undoubtedly have a decided influence in the West.

OBITUARY.

P. L. PHILIP, M.D.

The death occurred on July 10th of Dr. P. Leslie Philip of Brantford, at the age of 69 years. Deceased was one of the best-known practitioners in the province, but owing to a stroke of paralysis had not practised during the last two years. He was unmarried.

C. G. LARGE, M.D.

The death occurred at the Brandon Hospital, on 5th July, of Dr. C. G. Large, of Sinclair, Manitoba. The deceased gentleman was widely known in that province and had many friends and acquaintances in Brandon, where he was a frequent visitor. For several years Dr. Large practised in Alexander, and from there he went to Griswold, but for some time past his home has been at Sinclair. He was highly esteemed for his personal qualities and for his ability and skill as a physician.

T. G. JOHNSTON, M.D., M.P.

The late, Dr. Johnston of Sarnia, was the son of T. W. Johnston, M.D., who came to Canada in 1832 from the north of Ireland and settled on a farm in Moore township, Lambton County. The father adopted medicine as a profession and studied at Louisiana Medical College, graduating as a physician after four years in that institution. He began his

practice in Sarnia, where the son was born August 4th, 1849. Dr. Johnston, Sr., was in his latter years Registrar of Lambton County. The son received his education at the public and grammar schools, Sarnia, and at McGill University. He entered the medical department of the latter institution in 1867 and graduated M. D. four years later. He succeeded to his father's medical practice in Sarnia and carried it on successfully. He assisted in the establishment of a general hospital in that town. The late Dr. Johnston was an active participant in public affairs. During two terms, 1896 and 1897, he was Mayor of Sarnia and was for four years a member of the School Board. He also served in the Municipal Council several years. When a vacancy in the representation of West Lambton occurred owing to the elevation of the late Judge Lister to the Bench, Dr. Johnston was the choice of the constituency in 1898. He was re-elected at the general election of 1900 and 1904.

The late Dr. Johnston always took an active interest in militia affairs and served as member of the Lambton provisional battalion during the Fenian Raid of 1866-'67, receiving a medal for his service. He was a member of the Church of England, was identified with the Masonic body, R. A. M., Knights Templar of St. Simon of Cyrene, Scottish rite, and Consistory at London, and also belonged to the I. O. F. He was married in 1873 to Miss Frances, daughter of the late George Brown, of Goderich. Two sons, Kenneth and Godfrey, and three daughters were the issue of the marriage. Kenneth served in South Africa with the first Canadian contingent. About a month prior to his death he suffered from an attack of erysipelas. General blood poisoning resulted and he died in Ottawa where he was in attendance upon his Parliamentary duties.

JOSEPH B. BEDARD, M.D.

Dr. Joseph B. Bedard, a graduate of Laval University, was found dead in bed 5th July, by his father. His wife had been visiting friends in Ottawa. Deceased's brother is Deputy-Prothonotary of Montreal, and his father is a well-known notary. He was 35 years of age, and his death is attributed to heart failure.

W. W. MEACHAM, M.D.

Dr. W. W. Meacham, for many years a prominent member of the Legislature, died, July 27th, at his residence, Warsaw, after a short illness from appendicitis. The late Dr. Meacham, who was 64 years of age, removed to Warsaw four years ago from Napanee. He is survived by a family of three children—one daughter and two sons.

BOOK REVIEWS.

THE SURGICAL ASSISTANT.

A Manual for Students, Practitioners, Hospital Internes and Nurses. By Walter M. Brickner, B.S., M.D., Assistant Surgeon, Mt. Sinai Hospital, Out-Patient Department, etc. 360 pages. 123 Original illustrations and 116 illustrations of surgical instruments. New York: The International Journal of Surgery Co., 1905. Price, \$2.00 net.

This splendid manual is one of the really important books of the year, inasmuch as it fills a place in medical literature that has hitherto been unfilled. It certainly meets a wide-spread demand in a highly acceptable manner, and it is sure to attain immediate and lasting popularity.

The book is not too large for the doctor's overcoat pocket, not the nurse's satchel, yet it covers the entire subject. The first two chapters deal, respectively, with the general conduct of the assistant and the hospital interne and contain much practical sense and sound advice for young men to take to heart. Chapter three treats of assistance in examinations and dressings, fracture reductions, the manipulation of plaster-of-Paris, etc. Chapter four gives in great detail an illustrated, systematic scheme for the preparation of an operating room. Chapter five describes the immediate preparation of the patient and of the assistant himself, in which the technique of asepsis is thoroughly impressed. Chapter six is a very practical article on the anesthetist. The two succeeding chapters take up the preservation and preparation of surgical accessories and the details of "instrument handling." They are brimful of "wrinkles" and useful hints. Chapter nine describes all the various manipulations concerned in assistance at the wound, from the proper manner of holding the hands and body to the method of managing an irrigator tip. A most valuable chapter is the tenth, concerning itself as it does with those important matters that may confront an assistant left to watch a patient just after operation. Vomiting, urination, pain, the arrangement of the bed and other numerous details are succinctly dealt with, and a valuable table for differentiation between shock and concealed hæmorrhage is incorporated. The management of these and all other emergencies that may arise is given in great detail.

The second part of the book (chapters eleven to twenty-five) deals with the most commonly performed operations, describing them step by step, from the assistant's standpoint. A regional classification is here adopted. With each operation is given a list of the instruments and accessories required, and the manner of preparing them. The complete technique of intravenous infusion is accurately described.

A useful appendix to the work consists in the preliminary preparation and routine after treatment of operative cases, the various methods or preparing suture material, iodoform gauze, etc., etc., and a formulary of surgical solutions and wound applications, etc. In a second appendix are printed illustrations of general surgical instruments, thus placed to be convenient for reference.

It is a book that no young practitioner should be without, as it will prove of the greatest value to him in his everyday work. Likewise, it should be in the hands of every nurse and hospital interne. Its use will not only assure greater efficiency in everything pertaining to surgical operations but will prevent all the embarrassing delays and annoyances caused by inexperience or lack of knowledge.

AMERICAN EDITION OF NOTHNAGEL'S PRACTICE.

Malaria, Influenza, and Dengue. By Dr. J. Mannaberg, of Vienna, and Dr. O. Leichtenstern, of Cologne. Entire volume edited, with additions, by Ronald Ross, F.R.C.S., F.R.S., Professor of Tropical Medicine, University of Liverpool; J. W. W. Stephens, M.D., D.P.H., Walter Myers Lecturer in Tropical Medicine, University of Liverpool; and Albert S. Grunbaum, F.R.C.P., Professor of Experimental Medicine, University of Liverpool. Octavo volume of 769 pages, fully illustrated, including eight full-page plates. Philadelphia and London: W. B. Saunders & Company, 1935. Cloth, \$5.00 net; Half Morocco, \$6.00 net. Canadian Agents, J. A. Carveth & Co., Limited 434 Yonge St., Toronto.

This new volume in Saunders' American Edition of Nothnagel's Practice represents the latest word on the subjects of which it treats. And more than that: It is the undisputed authority on these subjects. For this American edition Dr. Ross has made many additions to the article on Malaria, so many discoveries having been made since the appearance of the original article. The articles on the Mosquito and its various relations to Malaria come from the authoritative pen of Dr. J. W. W. Stephens, of Liverpool. The Influenza and Dengue sections are equally well written. The untiring labor of the editors in preparing this work for the English speaking market is evidenced on almost every page by the lengthy and valuable editorial interpolations. This is the tenth volume in the series, and the eleventh one (that dealing with Diseases of the Kidneys and Spleen and with Hemorrhagic Diseases) is promised very soon. When the series is completed it will undoubtedly form the best practice of medicine in existence.

SAUNDERS' POCKET MEDICAL FORMULARY.

By William M. Powell, M.D., author of "Essentials of Diseases of Children"; Member of Philadelphia Pathological Society. Containing 1831 formulas from the best known authorities. With an Appendix containing Possological Table, Formulas and Doses for Hypodermic Medication, Poisons and their Antidotes, Diameters of the Female Pelvis and Fetal Head, Obstetrical Table, Diet-list, Materials and Drugs used in Antiseptic Surgery, Treatment of Asphyxia from Drowning, Surgical Remembrancer, Tables of Incompatibles, Eruptive Fevers, etc., etc. *Seventh Edition, Revised.* In flexible morocco, with side index, wallet, and flap. \$1.75 net. Philadelphia and London. W. B. Saunders & Company, 1905. Canadian Agents, J. A. Carveth & Co., Limited, 434 Yonge St., Toronto.

When a work has reached its seventh edition there can be no doubt of its practical usefulness. And it is not at all surprising to us that Saunders' Pocket Medical Formulary should have attained such popularity, for we know of no similar work containing so much useful, practical, and accurate information in so small a compass. In this new seventh edition there have been added over 460 new and valuable formulas, selected from the works and private practices of the best authorities. The editor has shown rare discretion in the elimination of many obsolete formulas, inserting in their newer and better ones, embodying a large number of approved new remedies. In its new edition this Formulary is thoroughly representative of the most recent therapeutic methods, and its convenient size and mechanical get-up make it the most desirable work of its kind on the market.

 ATLAS AND TEXT-BOOK OF TOPOGRAPHIC AND APPLIED ANATOMY.

By Prof. Dr. O. Schultze, of Wurzburg. Edited, with additions, by George D. Stewart, M.D., Professor of Anatomy and Clinical Surgery, University and Bellevue Hospital Medical College, New York. Large quarto volume of 187 pages, containing 25 figures on 22 colored lithographic plates, and 89 text-cuts, 60 in colors. Philadelphia and London: W. B. Saunders & Company, 1905. Cloth, \$5.50 net. Canadian agents, J. A. Carveth & Co., Limited, 434 Yonge St., Toronto.

In the preparation of this book Professor Schultze had in mind the need of a work that would combine the features of a text-book with the educational advantages of an atlas. He has produced a work of great merit, and not alone the anatomist but more particularly the general practitioner will find it of constant value. Professor Schultze has presented his own methods for the study of anatomy—methods proved to be correct and practical by many years of clinical study. Throughout the work the value of knowledge of topographic anatomy in bedside diagnosis is emphasized. The many colored lithographic plates and the numerous text-cuts, sixty of which are in colors, are of exceptional excellence. Indeed, both for accurateness of detail and artistic beauty we have never seen their equal. The greater portion of the dissections from which these illustrations have been made are from the author's own preparations. Dr. George D. Stewart in editing the work has added many valuable notes.

A TEXT-BOOK ON THE PRACTICE OF GYNECOLOGY.

For Practitioners and Students. By W. Easterly Ashton, M.D., LL.D., Fellow of the American Gynecological Society; Professor of Gynecology in the Medico-Chirurgical College of Philadelphia. Octavo volume of 1079 pages, containing 1046 new and entirely original line drawings. Philadelphia and London: W. B. Saunders & Company, 1905. Cloth, \$6.50 net; Half Morocco, \$7.50 net. Canadian agents, J. A. Carveth & Co., Limited, 434 Yonge St., Toronto.

Dr. Ashton's Practice of Gynecology is a new departure in medical text-book making. The author takes up each procedure step by step, the student being led from one step to another just as in studying any non-medical subject. Nothing is assumed, Dr. Ashton is every instance not only telling what should be done, but also precisely *how to do it*. All the methods and details of technic described have been thoroughly tested by the author himself, so as to assure their value and accuracy. A very commendable feature is the departure from the old routine method of devoting a general chapter to physical examination. In place of this the author presents the examination of each organ separately before describing its diseases, thus greatly aiding the student in familiarizing himself with the technic. A distinctly original feature consists in the line drawings made especially for this work under the author's personal supervision from actual apparatus, living models, dissections on the cadaver, and from the operative technics of other authors. There are ten hundred and forty-six of these illustrations, showing the procedures and operations without obscuring their purpose by unnecessary anatomic surroundings. Definite and precise instructions are given regarding the preservation of specimens of morbid tissues and secretion, and their delivery in good condition to the pathologist. The fore part of the work, dealing with antiseptic technic, shows great care in its preparation, Dr. Ashton wisely describing only those methods which he employs in his own practice, in order that the reader may have a clear and definite conception of the subject. Very special attention has been given to the consideration of visceral injuries, and we know of no other work on gynecology or general surgery discussing this important subject with the same amount of detail. This is decidedly a work for the general practitioner as well as for the student; and a good one.

MISCELLANEOUS.

THE TREATMENT OF TUBERCULAR EXACERBATIONS.

Exacerbations are a common feature of preliminary tuberculosis, as everyone knows who has had much experience with these cases. Indeed, they are almost characteristic of the disease. A tuberculosis patient may get along quite comfortably for weeks, and even months,

without treatment, suffering very little and with little or no loss of weight. Sooner or later, however, over-exertion and error in diet or some unknown cause, brings on what seems like a bad cold or an attack of grippe or some such symptom. Then the temperature and cough grow worse, loss of strength or flesh go on rapidly and the patient either dies of the attack or makes an imperfect recovery, to go much as before the attack, but upon a lower physical plane. The more advanced the lesion, the more severe and frequent the exacerbations. In the treatment of many cases I have found that they are most successfully handled as follows:—

The patient is put to bed upon an exclusive milk and Bovinine diet, the quantity of milk and Bovinine is rapidly increased until the patient is taking from four to five quarts of milk and from four to six ounces of Bovinine each day. Under this complete and full nutrition, better results can be obtained than by any other line of treatment.—*Dr. R. D. Mussey, Ohio.*

A SUCCESSFUL TREATMENT OF LEG ULCERS.

To ascertain the cause of leg ulcers is of the greatest importance. A tuberculous, diabetic or syphilitic ulcer will require much closer study as to the constitutional condition than of the local treatment. Anything interfering with the venous flow, such as constipation, must be immediately corrected, and the patient's general nutrition looked out for. The leg should be rendered surgically clean by the generous use of *sinol* soap, followed by irrigation of Thiersch solution. No matter what the cause of the ulcer may be, it is wise when possible to confine the patient to bed with the foot elevated during the course of treatment; the limb should be firmly bandaged, extending from the toes to a point several inches above the ulcer.

If possible, excision of the veins of varicose ulcer should be performed. Ulcers covered with unhealthy granulating surface or sloughing edges, should be curetted after which thoroughly irrigated with Thiersch solution and dressed every twenty-four or forty-eight hours with a hot Thiersch pack. When the surface presents healthy granulation, applications of Bovinine pure should be made, changing them three times in twenty-four hours. The most careful toilet of the limb should be made at each dressing. As a rule, the basis of all chronic ulcers is made up of an unhealthy granulating mass, consequently, it is impossible to bring about a cure until this has been removed. It will be readily appreciated that an ulcer thus covered cannot absorb, consequently the great nutritive properties contained in Bovinine cannot be effective. This mode of treatment may be applied successfully to any form of ulcer, no matter what the cause may be.—*J. Ryle, M.D., Stamford, Conn.*

ECTHOL IN STINGS FROM BEES.

Dr. W. H. Barnett, of Hufins Texas in the Alkaloidal Clinic for November 1904 says: I am satisfied that ecthol, a combination of echi-nacea and thuja, will prevent the sting of bees from hurting one. Take dram doses every hour for three hours before he commences to work with them. The reason for the faith that is in me is this :They used to hurt me. Last summer I was taking it for a skin disease and while under its influence I was stung by a wasp on the face and neck. When stung I started to the house to get something to stop the pain and swelling that I expected to suffer with, but instead of pain and swelling as heretofore when stung, there was no more of either than a mosquito or a gnat would cause.

INTESTINAL ULCERATION.

By A. F. FOYE, M.D., Washington, D.C.

The patient in this case was a woman 82 years old. Her trouble was of several years' standing, during which time she had been unsuccessfully treated for various forms of gastro-intestinal affections. I found that there was a great deal of pain, at times very acute, in the region of the duodenum and a careful examination of the daily stools showed a number of black crusts which, with other symptoms, indicated an ulcer. As there was much acid fermentation and gastric disturbances, I thought the use of Glyco-Thymoline would be effective and began with table-spoonful doses every three hours. The results were wonderful. Not only were the gastric conditions corrected speedily, but the pain and soreness was lessened in the duodenal tract and the quantity of black crusts in the stools greatly lessened. I had the patient under the care of a trained nurse and told her to keep up the Glyco-Thymoline treatment and closely watch the stools and report to me daily. This was done and the improvement steadily continued until after some three weeks' treatment, there was no pain or soreness and no trace of the crusts. Her appetite had returned and she could digest and assimilate her food without any distress, something she had been unable to do for a number of years. After another week or so I found that every indication pointed to a cure and discontinued the treatment. That was over a year ago. She has not had the slightest return of the bad symptoms and her general condition is remarkably good for a woman of her age. She could not have lived six months had her trouble continued. As it is, she apparently has a number of years of life before her and as Glyco-Thymoline alone was used, the inference that it saved her life is not over strong. I cannot say too much in its praise.

ANTIKAMNIA AND ITS THERAPEUTIC INDICATIONS.

Antikamnia is an American product, and conspicuous on this account and because of the immense popularity which it has achieved, it is to-day in greater use than any other of the synthetically produced antipyretics. The literature is voluminous, and clinical report from prominent medical men in all parts of this country, with society proceedings and editorial references, attest its value in actual practice in an endless variety of diseases and symptomatic affections, such as the neuralgia, rheumatism, typhoid and other fevers, headaches, influenza and particularly in the pains due to irregularities of menstruation. Antikamma has received more adverse criticism of a certain spiteful kind, particularly directed against its origin—and because of its success—than any other remedy known; critics have seemed personally aggrieved because of its American source, and that it did not emanate from the usual "color works," but their diatribes have fallen flat as do most persecutions and unreasonable and petty prejudices. The fact stands incontrovertible that antikamnia has proved an excellent and reliable remedy, and when a physician is satisfied with the effects achieved he usually holds fast to the product. That is the secret and mainspring of the antikamnia success. It is antipyretic, analgesic, and anodyne and the dose is from 5 to 10 grains, in powder, tablets or in konseals taken with a swallow of water or wine. When prescribing Antikamnia, particularly in combination with other drugs, it is desirable to specify "in konseals," which are rich flour capsules, affording an unequalled vehicle for administering drugs of all kinds.

ENTERO-COLITIS AND CHOLERA INFANTUM.

Antiphlogistine produces results in cholera infantum that can not be obtained in any other way. Pain is reduced, restlessness is soothed and the tossing, moaning patient falls into a quiet restful sleep. And why not? A moment's thought will convince you that, since the intestines and possibly the peritoneum are inflamed, an application which so rapidly reduces inflammation in other parts of the body must have a beneficial action here. Consider also, that in this case, acting directly upon and reflexly through the solar and hypogastris plexuses, it relieves the shock which is so invariably a serious part of the symptom complex.

Apply hot to the abdomen about $\frac{1}{8}$ -inch thick and cover with absorbent cotton.