

Technical and Bibliographic Notes / Notes techniques et bibliographiques

The Institute has attempted to obtain the best original copy available for scanning. Features of this copy which may be bibliographically unique, which may alter any of the images in the reproduction, or which may significantly change the usual method of scanning are checked below.

L'Institut a numérisé le meilleur exemplaire qu'il lui a été possible de se procurer. Les détails de cet exemplaire qui sont peut-être uniques du point de vue bibliographique, qui peuvent modifier une image reproduite, ou qui peuvent exiger une modification dans la méthode normale de numérisation sont indiqués ci-dessous.

- | | | | |
|-------------------------------------|---|-------------------------------------|---|
| <input type="checkbox"/> | Coloured covers /
Couverture de couleur | <input type="checkbox"/> | Coloured pages / Pages de couleur |
| <input type="checkbox"/> | Covers damaged /
Couverture endommagée | <input type="checkbox"/> | Pages damaged / Pages endommagées |
| <input type="checkbox"/> | Covers restored and/or laminated /
Couverture restaurée et/ou pelliculée | <input type="checkbox"/> | Pages restored and/or laminated /
Pages restaurées et/ou pelliculées |
| <input type="checkbox"/> | Cover title missing /
Le titre de couverture manque | <input checked="" type="checkbox"/> | Pages discoloured, stained or foxed/
Pages décolorées, tachetées ou piquées |
| <input type="checkbox"/> | Coloured maps /
Cartes géographiques en couleur | <input type="checkbox"/> | Pages detached / Pages détachées |
| <input type="checkbox"/> | Coloured ink (i.e. other than blue or black) /
Encre de couleur (i.e. autre que bleue ou noire) | <input checked="" type="checkbox"/> | Showthrough / Transparence |
| <input type="checkbox"/> | Coloured plates and/or illustrations /
Planches et/ou illustrations en couleur | <input checked="" type="checkbox"/> | Quality of print varies /
Qualité inégale de l'impression |
| <input checked="" type="checkbox"/> | Bound with other material /
Relié avec d'autres documents | <input type="checkbox"/> | Includes supplementary materials /
Comprend du matériel supplémentaire |
| <input type="checkbox"/> | Only edition available /
Seule édition disponible | <input type="checkbox"/> | Blank leaves added during restorations may
appear within the text. Whenever possible, these
have been omitted from scanning / Il se peut que
certaines pages blanches ajoutées lors d'une
restauration apparaissent dans le texte, mais,
lorsque cela était possible, ces pages n'ont pas
été numérisées. |
| <input checked="" type="checkbox"/> | Tight binding may cause shadows or distortion
along interior margin / La reliure serrée peut
causer de l'ombre ou de la distorsion le long de la
marge intérieure. | | |
| <input checked="" type="checkbox"/> | Additional comments /
Commentaires supplémentaires: | | Continuous pagination. |

The Canadian Practitioner and Review.

VOL. XXVII. TORONTO, SEPTEMBER, 1902.

NO. 9

Original Communications.

VENTRO-FIXATION, ITS VALUE AND RESULTS.*

BY J. ALGERNON TEMPLE, M.D.

Professor of Obstetrics and Gynecology Trinity Medical College, etc., Toronto.

GENTLEMEN,—I promised the President I would open the discussion on "Ventre-Fixation, its Value and Results," but this, of course, does not imply that I have to read a paper on the subject or enter into any description of the operation, for I am quite sure you are all familiar with the method of doing it. The idea is to have a discussion on the subject by those who have performed the operation, and get an expression of opinion as to its utility and after effects. For my own part, I may briefly say I entirely disapprove of abdominal fixation and I never perform it. There may possibly be some cases suitable for this operation but I think they are very few; while on the other hand I think that ventral suspension of the uterus is a very excellent operation for rebellious and obstinate cases of retro-version that all other treatment has failed to cure.

Ventre-fixation, hysterorrhaphy, abdominal fixation and hysteropexy are a few of the names given to this operation. The object of the operation is to replace a retro-deviated uterus which has refused all other methods of treatment and secure it by means of sutures so placed as to unite the anterior uterine wall to the anterior abdominal wall by the formation of a permanent adhesion, thus rendering the uterus a fixed body in its new situation.

Professor Olshausen, of Berlin, reported the first case in October, 1886, and Howard Kelly his first case in November, 1886. These were cases of ventral fixation, since which time the

*Read at meeting of Ontario Medical Association.

operation has undergone many changes and modifications, till now we have a very simple and effective method, thoroughly tested and recognized as one of the useful and scientific operations, in properly selected cases. But it is now uterine suspension and not uterine fixation. There is a wide difference between these two operations.

I am decidedly of opinion that even uterine suspension should only be undertaken in persistent cases of retro-deviations which have refused all other methods of treatment and where the woman's health and personal comfort are seriously interfered with. I don't think sufficient effort is made to cure a retro-deviated uterus nor that sufficient time is given to the treatment. My experience is that there are very few cases of uncomplicated retro-versions or flexions that cannot be cured without any operation.

If after a legitimate trial of treatment, it may be for months, you fail to secure a relief to the symptoms and the woman continues to suffer from bearing down pains in the pelvis, a sensation of weight, constant backache, frequent micturition, inability to walk or work without increasing these symptoms, with an increase of suffering at the monthly period, several reflex nervous symptoms, such as headache, neuralgia, dyspeptic symptoms, then I have no hesitation in saying by all means suspend the uterus. If these symptoms happen in a working woman dependent on her own efforts to earn a living, then perhaps I would advise operation earlier.

If at time of operation the adhesions are found to be very extensive, it is questionable if the operation is advisable. Extensive raw surfaces necessarily are left, exposing the patient subsequently to intestinal adhesions, and if the adnexa are found diseased it would possibly be better to remove diseased and useless organs entirely. In my experience a woman with a uterus permanently fixed to the abdominal wall is an everlasting sufferer from constant pain and discomfort; and if she becomes pregnant is exposed to many dangerous complications. I could quote many authorities to bear me out on this point, but I will content myself with a few quotations from Howard Kelly, viz. :

UTERINE FIXATION DURING PREGNANCY.

1. Marked retraction of the scar due to tugging of the adherent uterus.
2. Constant pain in hypogastrium.
3. With the advance of pregnancy the cervix retracts into the pelvis, and may even become displaced posteriorly, up into the abdominal cavity.

4. Anterior portion of uterine body fails to expand and forms a large fleshy, tumorous mass obstructing the superior strait, while the posterior wall becomes very thin.
5. Abortion or premature labor is of frequent occurrence.

DIFFICULTIES DURING LABOR.

1. Labor has been delayed some weeks beyond term.
2. Labor has become powerless owing to the inability of the thinned out posterior uterine wall to expel the fetus.
3. The labor may be obstructed by the mass of tissue in the anterior uterine wall as by a tumor.
4. The proper expansion of the cervix is interfered with by its abnormal high position in the abdomen.
5. Malpositions are more frequent.
6. The uterus during labor may tear loose from its attachments, with the formation of a large hematoma at point of rupture.

I think I have advanced enough evidence to prove that ventral-fixation, at all events in a woman who has not passed the child-bearing period of her life, and who may become pregnant, is not a desirable operation, nor do I think I am putting it too strongly when I say I do not think it a desirable operation under any circumstance.

In conclusion, I wish to say a few words regarding ventral-suspension which I believe to be a very desirable operation, and one that may safely be done at any period of a woman's life, without exposing her to any of the inconveniences or risks of fixation.

In ventral suspension we aim at suspending the uterus, not fixing it, from the anterior abdominal wall through the medium of two newly formed ligaments, so that the uterus still has free play in a lateral and vertical direction, while at the same time it is unable to retrovert. By the old method of fixation the anterior wall of the uterus after extensive scarification was permanently fixed by broad adhesive surfaces to the abdominal wall and the woman's future comfort greatly interfered with, the action of the bladder much impaired and the dangers of pregnancy considerably increased. The sutures which are now inserted for suspension of the uterus in time draw out a thin muscular fibre from the abdominal muscles and a similar one from the uterine wall, so that eventually the uterus becomes suspended by the formation of two new thin ligaments from 2 to 3 inches long, and the uterus retains its natural mobility, in a lateral or vertical direction, while at the same time it is quite impossible to retrovert it, the distension of the bladder is not interfered with nor is the course of pregnancy.

The presence of these ligaments is easily demonstrated by a bi-manual examination, and their presence has also been proven by a subsequent opening of the abdominal cavity for some other cause. Prof. Pearse reports 239 ventral suspension operations, with the following results: 131 cases relieved of the symptoms for which treatment was sought; 49 improved; 31 not improved; 20 became pregnant and went to full term; 8 miscarried, and of those who did miscarry it would appear that the percentage was no larger than in a similar number of cases of pregnancy where no operation had been performed; and of the 20 cases who became pregnant and went to full term all the children were born alive and the labors were normal.

STRICTURES OF THE ESOPHAGUS.*

By A. B. WELFORD, M.D., WOODSTOCK, ONT.

In this paper I shall confine my remarks more particularly to stricture occurring at the lower end of esophagus or cardia. An average normal esophagus is about 18 inches, which includes the distance from the incisor to the beginning of the esophagus (6 inches); the next (2 inches) is the cervical portion; 6½ inches is the thoracic; and the last (1½ inches) is the abdominal. Strictures of the esophagus may be (a) congenital, (b) spasmodic, (c) cicatricial—tumors pressing from within; (d) carcinomatous—growths pressing into lumen.

(a) Congenital stricture we will not enter into.

(b) Spasmodic or spastic strictures are always the result of a neurosis, or a reflex, or functional nature. They are distinguished from the firm closure by the attacks being frequently intermittent. They occur in paroxysms; are due to mental disturbances, exhausting sicknesses, neuralgia, gastric cancer, metritis and pregnancy, etc., and are found more frequently in neurotic and hysterical individuals.

The obstructive spasms can be readily, as a rule, overcome by the passage of a large sound, and they disappear readily under chloroform. They may exist for years without injuring the health of the individual.

(c) Cicatricial strictures are the usual result of some caustic or corrosive substance, or foreign bodies swallowed either accidentally or intentionally, injuring the mucus membrane. These injuries are most frequently met with in the lower part of the tube, for it is a well-known fact that when substances are swallowed they are hurried down the upper part of the

*Read at meeting of the Ontario Medical Association.

esophagus, and are temporarily arrested, just above the cardia, before they are finally emptied into the stomach, thus giving the caustic substances a longer action upon the tissues, and consequent greater destructive effects.

Syphilitic and tubercular ulceration are uncommon in this situation. The formation of the obstruction is gradual, and the patient may only complain that the food lies heavily upon the stomach; all of the food not having at once passed into the stomach.

Then gradually solid food passes with such an effort that semi-solids are chosen and preferred, and then fluids are resorted to, and even these in diminished quantities. Then the symptom of regurgitation appears; the nourishment being returned unchanged, except for the admixture of mucus or saliva; as solid substances are unable to pass, more tension is put upon the muscular walls, and the repeated efforts to pass on or reject these substances ends in more or less dilatation. This dilatation may be assisted by a previously existing diverticulum, although this is rare in the cardiac end of the esophagus.

The collection of food in the dilated part will often produce coughing, and this effort stimulates regurgitation and vomiting. It is unusual to see blood in the vomited matter.

Now, if this regurgitated or vomited material be examined, it will be found not to contain any products of gastric digestion. The vomited material being generally of a grayish white or yellowish gray color, without any trace of bile whatever. This absence of bile is a very strong diagnostic feature.

In proportion to the increasing stenosis, emaciation will be prominent.

Pain is not a frequent symptom even in carcinomatous stricture, unless the stomach itself be involved. Once having established the fact that a stricture does exist, it is quite as important to establish the nature of the cause.

(d) Carcinomatous.—The new growths which lead to constriction of the cardia, resolve themselves into those which exert pressure from without, and those which are situated in the digestive tract, which grow from the wall into the lumen of the esophagus. Among those which develop from the outside may be mentioned:—

1. Abscesses.
2. Tumors of a malignant or fibrous nature growing in the mediosternum or retroperitoneum.
3. Osseous or periosteal tumors from the vertebral column.
4. Aneurisms of the large blood-vessels.

Constricting neoplasms of the cardia are always carcinomatous, and have a greater tendency to spread upwards in

the esophagus than downwards to the stomach. In considering the nature of a stricture in the cardia the simple cicatricial one may be excluded in the absence of the patient's never having swallowed any corrosive substance, or having inflicted no injury to the tube by a foreign body.

The history of the case will readily exclude the spasmodic variety. A diverticulum is usually situated in the upper third, so that by a process of exclusion a cancerous stricture may be diagnosed even in the absence of a tumor, pain, or emaciation. The emaciation is more rapid in carcinoma than in cicatricial stricture, owing both to the malnutrition and carcinomatous intoxication.

Carcinomatous strictures seldom occur before the age of 30.

The treatment of a simple cicatricial stenosis is by the careful passing of graduated gum elastic sounds or by any kind of sound most preferred, and this may have to be persisted in for years. But if it is impossible to introduce a sound, then a gastrostomy must be done, and the stricture dilated from below, or by persistent efforts from above.

The treatment for a carcinomatous stenosis will necessarily be the same. There is more danger of perforation in this case.

I would strongly advocate the much earlier performance of gastrostomy than is usually done, as you then have your patient in a much better condition physically, and the wound will heal more kindly and be in a more comfortable shape for feeding when the stricture becomes finally closed.

I will recite the following case, which has some interesting yet conflicting points in the usual symptoms of carcinomatous stricture of the esophagus:

Mrs. J. M., aged 49 years; height, 5 feet 7 in.; weight when in good health, 135 lbs. Seven years ago she first noticed a small hard lump in the right breast about the size of a marble, which gradually increased with a great deal of pain for 2 years, when it was removed in the Hamilton Hospital, evidently by the wide method. During the next 3½ years she had good health, with no apparent recurrence; her right arm from the shoulder down to the finger tips is very much swollen and edematous, but gives her no pain and is useful to her. About 1½ years ago she had a very sore throat and bad cough, which persisted for nearly six months, and then she first noticed a slight difficulty in swallowing, which has gradually increased, with occasional regurgitation of food and mucus, and which is generally preceded by a fit of coughing. Examination of the regurgitated matter shows the absence of peptones, acid or bile. There is considerable dyspnea and a peculiar change or softening of the voice. She has never had any pain nor spat up any blood. She has been able to take semi-solid food much longer

than she could fluids, and never had any injury to her throat by the accidental swallowing of any foreign body, acids or alkalies.

Her physical condition, when first seen by me, on March 16, 1902: she was pale and emaciated; weight, 98 lbs. A peculiar voice, similar to that when the recurrent laryngeal nerve is pressed upon. Temperature normal. No evidence of aneurism or any tumor in the cervical region; both pulses equal and normal; unable to swallow the slightest particle of nourishment for the last 2 weeks; a sound cannot be passed.

Laryngoscopic examination of throat—vocal cords normal, a small ulcer size of a split pea at the right hand base of the epiglottis within the larynx, covered with a grayish substance, a wiping from this and some of the expectoration was submitted to Dr. Amyot for bacteriological examination and no tubercle bacilli could be found. On March 24th, 1902, a gastrostomy was performed in the usual way and a retrograde dilatation up to a No. 10 gum elastic bougie—an examination through the wound could not detect any tumor of the cardia. The leakage from the fistulæ is neutral, no HCl., the No. 10 bougie is now passed once a week without any difficulty and she is able to swallow all kinds of food the same as her husband. She has had no bleeding through the fistulæ since the 20th of April, her voice has much improved and the ulcer has healed in the larynx. She has gained 10½ pounds since April 20th and drives herself to my office once a week from her home, seven miles in the country. The leakage from the fistulæ is now strongly acid, as tested with litmus. I have no doubt in my own mind but that this is a case of carcinomatous stricture and all the symptoms indicate it, but how is the return of HCl. to the stomach to be accounted for?

This specimen formerly belonged to a Mr. Thos. Brandow, aged 71, whom I saw in consultation with Dr. Hossack and to whom I am indebted for this specimen, the history of which is: twenty-five years before his death—which took place two years ago—he was eating some bread and butter and plum jam when he was seized with a severe coughing fit which gradually subsided; he frequently had these coughing fits but not severe, when a year before his death he had all the symptoms of esophageal stricture. When I saw him he was unable to swallow anything, a gastrostomy was proposed to him but he declined the pleasure and gradually died of starvation. I have not had the specimen microscopically examined, but it looks very much like an epithelial cancer as the result of the irritation or trauma caused by the lodged plumpit.

CIRRHOSIS OF THE LIVER IN THE YOUNG.*

By J. T. FOTHERINGHAM, M.D., TORONTO.

Last November I was reminded of the saying that if an odd case of accident or disease happens in one's practice one will shortly see two more, by a series of three enlarged livers which came under my attention within about three weeks. Each patient was a female, and their ages were respectively, 29, 6 and 12 years. As in no case was *post mortem* examination available as a means of imparting exactitude to my research, I may state in advance that I do not pretend to any great scientific value for this paper, and do not even claim that each case mentioned is simply one of cirrhosis. The details of the cases in brief are as follows:

Case 1.—Mrs. A., aged 29, seen in consultation last November with Dr. J. C. Mitchell, of Enniskillen.

Family history.—Unimportant.

Personal history.—First pregnancy three years ago, with icterus and albuminuria at time of delivery, but good recovery and no serious illness before or since, till the present.

Present illness.—Delivered at full term six weeks ago. For some weeks before had jaundice, albuminuria, pallor, anemia, marked breathlessness, and much bronchitis, or at any rate over-secretion from the bronchi. By four weeks after labor, which seemed normal and had caused much temporary relief, she began to suffer again as before.

Present condition.—Temperature, 101-2F.; pulse, 100 to 120; respiration, 30 to 40, pale, breathless, orthopneic, syncopal, jaundiced, but not severely so.

Digestive system.—Tongue clean, blue and cyanotic, appetite poor. Diarrhea nearly constant of late. Spleen much enlarged; liver very large, down to level of navel, smooth, hard and painless. Some ascites, and a good deal of tympanites.

Genito-urinary system.—Urine contains albumin and is scanty and ill smelling (full examination not made).

Circulatory system.—Very anemic (blood examination not made). Heart very rapid, second sound relatively accentuated, some irregular duplication at apex, great dilatation and diffusion of impact, evidently myocardial change.

Respiratory system.—Fine râles here and there all over. Has been some consolidation of left base behind, now clearing up. A moderate effusion exists in left pleural cavity. Death occurred about five days after I saw her. The probable sequence of events here was, I think, as follows:

(a) Toxemia during first pregnancy, shown in both albu-

* Read before the Huron Medical Association at Stratford, July 10th, 1902.

minuria and icterus at that time, hemic and reaching both the liver and the kidneys in the blood.*

(b) Cirrhosis of the liver, biliary in type, not portal, the organ being now both cirrhotic and "nutmegged" from state of circulation.

(c) Splenic enlargement, due probably both to chronic venous congestion and to "vital reaction" to toxins reaching it by the blood.

(d) Myocardial degeneration, with dilatation, due to chronic toxemia.

(e) Low inflammation of bases of lungs, with edema, and later pleural effusion.

Case 2.—Mrs. G's girl, seen in consultation in March, 1900, and again in November, 1901. History of chronic intestinal dyspepsia, with tympanites, etc. Large, well grown, but flabby child, with mild, chronic icterus, for past three months little or no ascites, very protuberant abdomen, capricious appetite, foul, irregular stools, diarrhea and constipation alternating, and the usual train of symptoms seen in chronic intestinal indigestion. Examination showed very large, smooth, hard, painless liver, lower margin down almost to navel, and left almost, if not quite over to left side of body. No heart or other visceral complication. After spending the winter in Bermuda, she is now at home doing very well, playing about all the time, and with health apparently restored. Examination of the liver this week shows it to be much smaller, though still distinctly enlarged, but soft and natural to the touch, and free from tenderness.

Case 3.—H. H., brought to Children's Hospital from country last November, aged 12. A well grown girl, well nourished, had been at school till three weeks before, when the parents began to notice swelling of abdomen. Father said he could feel hard lump in epigastrium a year before. Previous history very indefinite; nothing beyond the ordinary digestive disturbance of childhood—malaria, alcohol and syphilis all definitely excluded.

Present condition.—Abdomen enormously distended with fluid, very breathless, face edematous and typically suffused and congested by obstructed venous return; not able to walk 20 feet, nor to lie down, particularly on left side. Edema of

* This toxemia is familiar to us in the form of scarlatinal nephritis, and in those cases of hepatic cirrhosis which die from sudden so-called "uremic" poisoning instead of the gradual effects of circulatory embarrassment, though one must remember the important point that it is parenchymatous and not mainly interstitial in its effects, as seen in scarlatinal nephritis. I am not, of course, in a position to deny that the whole trouble arose from an undetected or unreported valvular lesion of the heart, perhaps of long standing, with compensation breaking down under pregnancy and parturition.

face, chest and lower limbs, appearance typical of chronic and very advanced valvular disease. No kidney lesion, urine normal; no cardiac lesion, but sounds loud and ringing; no murmurs; pulse regular though small; heart displaced upwards very decidedly. Liver pushed up to nipple line on right side. Tapping of abdomen done November 9th, and 130 ounces fluid removed, clear, greenish-yellow, no fibrin or flakes in it, quite non-inflammatory in character. On the 13th a second tapping withdrew 96 ounces of a similar fluid. This child was taken from the Hospital for Sick Children, and on the advice of an outside man, who is reported to have said that it was peritoneal tuberculosis, was sent in to the General Hospital, where an exploratory incision was made, and the diagnosis of cirrhosis of the liver confirmed. The omentum was anastomosed; and though the fluid at first returned I was informed some weeks after from her home that she was then doing very well, and had very little ascites, having apparently largely recovered her circulatory balance, though no one would, of course, call this a complete cure, for the organic change in the liver has gone beyond full restoration. As some one has said, we might as well say that chronic valvular lesion is cured when ruptured compensation has been temporarily restored by rest and digitalis.

Points of similarity of all these cases are: 1. Age—childhood and early adult life. 2. Sex—all three female, contrary to usual experience, 22 of a series of 26 quoted by Osler from Schachmann being males. 3. Etiology—extreme indefiniteness, also frequently seen in such cases. Alcoholism, syphilis, malaria and chronic lead or other similar intoxication can be reasonably excluded with certainty in each case, as well as valvular lesion, a very common cause of the hepatic enlargement known as mixed "nutmegging" and cirrhosis. I freely admit that in the absence of histological examination an element of uncertainty prevails, not as to the gross anatomy of the organ, but as to exact histological condition. One point in which Case 3 presents a striking difference from the other two, is in the presence of ascites and other evidence of extreme portal obstruction. Ascites is rare in such cases, but of course the rule in ordinary "portal" cirrhosis.

To turn aside for a few moments to an academical discussion of this disease, one need scarcely remind one's self of that most useful modern distinction of cirrhosis of the liver into (*a*) portal cirrhosis, (*b*) biliary cirrhosis, and (*c*) mixed cases. In portal cirrhosis the irritant, usually alcohol, reaches the organ by the vein and sets up the well known changes, development of scar tissue along the larger vessels so as to produce the multilobular or hobnailed type, or around the finer portal

radicles to produce the unilobular type. One is struck by the unsettled state of pathological opinion on this disease. In Allbutt's system, Vol. IV, the article by H. P. Hawkins, of St. Thomas's Hospital, rejects the view that biliary cirrhosis, that is cirrhosis due to mischief *via* the common duct, exists as distinct from portal cirrhosis. It is spoken of as "problematical," and though the problem of biliary cirrhosis is discussed at great length, the writer declines to accept the views of Hanot, Charcot, Hayem, Cornil and others, and claims that though the clinical features are very different from those of multilobular cirrhosis, the "difference depends partly upon the anatomical arrangement of the new fibrous tissue." The statement made in the same article can scarcely be accepted by any possibility, that it is "doubtful whether any cases of unilobular cirrhosis of the liver own any other cause than alcohol, and possibly malaria." It seems to be the case that while most livers cirrhotized by alcohol, and particularly by spirits, are very soon atrophic, some alcoholics, particularly beer drinkers, show a combination of fatty parenchymatous change with fine cirrhosis, the organ being enlarged, which justifies the view that some hypertrophic cirrhoses are alcoholic. Indeed the combination of cirrhosis with fatty degeneration usually results in enlargement. These views, however, do not at all justify a refusal to accept the possibility of the existence of a true biliary cirrhosis, overgrowth of bile canaliculi, particularly in the periphery of the lobule, with accompanying fibrosis and general increase of the organ in size, the irritant being either (a) a nonpyrogenetic ascending cholangitis from the common duct and intestine, or (b) a blood-borne one affecting the canaliculi from above and causing a descending cholangitis. One may easily in this connection establish a very suggestive analogy between the liver and the kidney. In the latter organ it has been long recognized that there may be (a) a parenchymatous inflammation (large white kidney) from blood-borne irritants, *e.g.*, scarlatinal toxins, to which the large "biliary" type of cirrhosis seems to correspond closely in some cases; (b) chronic contracting interstitial vascular change, due to alcohol in many cases, to gout, etc., the exact counterpart of the contracted liver in both etiology and disturbance of function, but differing in this very important point that epithelial degeneration is not so prominent a feature in the liver as in the kidney, and (c) mixed cases of parenchymatous and interstitial inflammation. It is about this latter group of cases in the liver that dispute seems mainly to have persisted.

In the *Encyclop. Med.*, Vol. VI, the article by H. D. Rolleston, of St. George's Hospital, supports in a very convincing manner the view that there are two distinct groups of

cases, (a) portal cirrhosis, commonly multilobular, though sometimes unilobular and fatty, and those often hypertrophic. (b) Biliary, always hypertrophic, and due either to (i) ascending cholangitis, the secondary infection being an essential in the process as well as the obstruction to the free outflow of bile, due in many cases to primary simple gastroduodenitis, or (ii) to descending cholangitis, the process being begun at the upper end of the biliary "tree" in the periphery of the lobule, and consisting mainly in proliferation of the normal bile canaliculi, under the influence of an irritant brought there by the blood. By this infection theory the liver condition is only a local manifestation of a general infection, and arguments in its favor are given by Rolleston *loc. cit.* as follows:

(a) Other irritants, *e.g.*, toluylenediamin produce it experimentally. (b) The frequency of fever. Can this not be due in very many cases to the intestinal intoxication, by ptomaines and leucemains? (c) The splenic enlargement, which sometimes precedes, and is often relatively greater than that of the liver. (d) The leucocytosis, which is not found in portal cirrhosis, as if the system were reacting as it does to other infections, *e.g.*, the pneumococcus, or in appendicitis. (e) Glandular enlargement, not only in the portal fissure but sometimes in more distant parts.

To these arguments one may add the most suggestive work of Adami, of McGill, three or four years ago, in which, while investigating the Pictou cattle disease for the Dominion Government, he isolated and grew a distinct, and constantly occurring organism.

One is tempted to accept the opposite view of an ascending cholangitis, particularly in the case of children with their frequent gastroduodenitis and catarrhal jaundice. There is little doubt in my own mind that both the children I have spoken of began in this way. Gilbert and Fournier regard the process as due to the colon bacillus with an ascending infection. They have found the colon bacillus in blood withdrawn from the liver by puncture during life, and subsequently in the liver and spleen in the same case. Hayem also found the diplococcus pneumoniae in blood aspirated from the spleen during life, in a group of cases closely associated, if not identical, with hypertrophic biliary cirrhosis, in which there were enlargement of spleen, with jaundice and recurring fever. He gave them the name "chronic infectious jaundice." And the analogy between this view and the well known origin of bronchopneumonia from an ascending bronchitis is a particularly tempting one. Of course the chronicity and the absence of suppuration make it necessary to assume that the organism cannot be a pyogenetic one.

I may conclude my very hurried and imperfect handling of a complicated and undecided subject by reminding ourselves that here, as so constantly elsewhere in medicine, one must be on his guard against attempting to generalize too widely, or to adopt too Procrustean a system of classification, and on the other hand against making too many pigeon-holes with their contained theories. The truth, probably here as on other occasions, lies in the midst, and the error of the opposing champions lies not so much in either theory as in their notion that their own theory is always right, and the other man's always wrong.

THE DIAGNOSIS OF STONE IN THE BLADDER.

BY A. GROVES, M.D., FERGUS.

The diagnosis of stone in the bladder is by no means theoretically difficult but in actual practice the existence of a stone is often overlooked even when its presence is suspected and search made for it. There came recently under observation a patient with symptoms of stone in the bladder but nothing could be found by sounding, although this had been done on two occasions by one of the oldest surgeons in Canada, who gave a positive opinion that there was none present, but the symptoms came from a large and sensitive prostate. Shortly after he came under my care, and by using Bigelow's evacuator the click of a stone against the tube was quite distinct, and on operating its diameter was found to be slightly over an inch. The reason it was missed by the sound was because it lay deep down behind the greatly enlarged prostate so that the sound passed over it. With the evacuator the outward rush of water drew the stone against the tube with a distinct click. A second case was presented, in which the most careful sounding failed to find a stone, but with the evacuator not only was it found but being of small size it came away in the eye of the tube. Given then the ordinary symptoms of stone and if the sound does not reveal it, I make it an invariable rule to use the evacuator, and if with this no stone is found the evidence is pretty conclusive that none exists unless indeed it be encysted, and in my experience this is an exceedingly rare condition. In children the large tube cannot be used nor is there indeed great need of the evacuator with them for there is no prostatic hypertrophy and the contractile bladder will usually bring the stone at once in contact with an ordinary sound.

Selected Articles.

MY EXPERIENCES IN WAR--A CONTRAST, 1885-1900.*

BY LIEUT.-COL. G. STERLING RYERSON, M.D., C.A.-M.S. TORONTO, ONT.
Knight of the Order of St. John of Jerusalem in England.

I wish to say how much I appreciate the honor done me by your association in inviting me to be present and to take part in this most interesting meeting. I do not know of an occasion when medical officers whose experience covers so long a period of time from 1861 to 1902, and so wide a sphere of action, the Philippines, South Africa, Cuba and the war of the Rebellion, have been gathered together to compare notes and to deduce from the sum of their experiences something which may be for the public benefit. I am not one of those who believe that the time is at hand when there shall be no more war, and that the best efforts of humanity will be devoted to the arts of peace. I am rather of the opinion of my late friend Surgeon General Hamilton, who thought that so long as man had a cerebellum he would fight.

Wars are more frequent and more bloody at the end of the 19th than in the 1st century. Education and religion have not eradicated nor even lessened man's love of war. Indeed, the conditions of the every-day struggle for existence, is of the nature of war. Thomas Jefferson said that the world needs a little blood letting every twenty years, and history shows that there has been a war of more or less magnitude at these intervals of time.

To the medical profession falls the honor of mitigating the horrors of war and of minimising the ills and suffering of those who fight for their country. Our work of mercy knows neither race, creed nor color. A broad humanity covers them all.

I have been asked to say something about the medical side of the war in South Africa, but I cannot do so to my own satisfaction without relating briefly some of my experiences in the North-west rebellion in Canada in 1885, especially as the two campaigns present many interesting points of contrast, and it will add another campaign to the records of to-day's discussions.

* Read at the 27th annual meeting of the Alumni Association, Buffalo University Medical College, May 2nd, 1902.

On the night of March 27th, 1885, I was roused from a comfortable slumber by the ringing of my telephone. Imagine my surprise when the commanding officer of my regiment ordered me to parade at 8 a.m. next day with my ambulance corps, prepared to leave for the North-west, where a rebellion of half-breeds and Indians had broken out. The rest of the night was spent in preparation and in hunting up my men. Our departure was postponed two days to enable arrangements for transport, and the like, to be made. On the morning of the 30th we left Toronto for the front. On April 1st we reached Ricotasing, the then end of the Canadian Pacific Railway's tracks, on the north shore of Lake Huron. A long gap of forty-two miles had now to be crossed in open sleighs during the night with a temperature of twenty degrees below zero. The snow was from four to five feet deep, the track through the forest narrow, and any deviation from the beaten path meant an upset in the dark. After an all night drive we arrived nearly perished with cold, at Camp Desolation. We camped in the snow at this place until April 3rd, without tents or cover save our blankets. One man went stark mad, removed all his clothing, and would have leaped into the fire had he not been prevented. On this date we embarked in open flat cars running on rails laid on the snow, which gave a serpentine movement to the train.

We ran 150 miles in this way, arriving at Port Munro late in the evening. On Easter Sunday, April 5th, we marched twenty miles across the ice to McKellar's bay, then again took "palace" flat cars for twelve miles to Jack Fish Bay, where the night was passed; next day we marched twenty-two miles to Winston, through snow and slush, then more "palace" cars to Nepigon, reaching there at 10 p.m. There still intervened fourteen miles between the ends of the track. It was intensely dark, cold and raining. All around was the gloomy primeval forest; between us and comfort lay a stretch of ice covered to the depth of a foot or more with slush and water. Plunging, struggling along arm in arm, the regiment advanced. Hour after hour the weary struggle proceeded and day was breaking when the head of the column debouched on terra firma again. Exhausted, the men threw themselves on the seats of cars and fell asleep instantly. The details of this march have never been published fully until now, and I think you will agree with me that it was a wonderful performance, especially when it is considered that the men were fresh from the counting house and shop and factory, without any preliminary training for the field.

You will ask what were the physical effects of such a trial of endurance? They were less serious than you might expect.

Three men broke down by the revival of old rheumatic affections, one man lost his toes with frost-bite, one became acutely insane, but eventually recovered, one had orchitis secondary to gonorrhœa, one accidental fracture of the ulna, one accidental gunshot wound of the thigh, a dozen or more snow blind from the terrible glare on the march across the ice in daylight. A small casualty bill considering the circumstances. The gunshot wound was interesting. A correspondent was showing his self-cocking revolver to an officer when it went off. The ball entered the thigh close to the outer side of the femoral artery, ran upward toward the abdomen for about five inches, when it abruptly turned backward and was lost in the loose tissue at the back of the thigh, where it still lies. I ascribe our successful march partly to the food, which consisted of fat pork, bread, butter and biscuits, enabling the men to withstand the cold. No rum ration was issued. Alcohol means death to men benumbed with cold.

My experience leads me to believe that total abstinence in active service under hardship is a factor for good,—in very hot and very cold climates at any rate. We traveled by train to Qu'Appelle station, 2,150 miles from Toronto, where our march of 250 miles across the prairie began. When the alkali plains were reached the men, who could not be prevented from drinking the water, suffered severely from diarrhea, which was controlled with difficulty.

On April 24th was fought the action at Fish Creek, my first experience of Indian fighting. The half-breeds and Indians were driven off with a loss on our side of eight killed and forty wounded. That night it rained, snowed and froze, so that the outposts and sentries had a hard time of it, though strange to say very few came into hospital as a result. My North-west and South African experiences lead me to believe that Canadians are as hardy as army mules, and that they can kick quite as hard on occasions. The engagement at Batoche took place from May 9th to 12th, at which our loss was eight killed and forty-six wounded. This brings me to a consideration of the wounds inflicted.

The weapons used by the enemy were Winchester, Sniders and smooth bore guns with a few Sharpe rifles. The Winchester produces a small wound of entrance and a huge wound of exit. The Snider, a large entrance and a huge exit. When bone was hit it usually splintered and fractured in all directions; an exception was the case of a man who was shot through the condyles of the femur at short range. A clean hole was bored without apparent involvement of the joint or shaft of the bone. He made a good recovery. Where joints were entered there was extensive destruction of parts necessitating resection or amputation.

Joints into which fractures entered became permanently ankylosed. I observed that even slight wounds were slow of healing. A tough scar formed which separated very slowly—a great contrast to the Mauser wounds. Of pyemia there was only one case, that of a man who refused to have his leg amputated for a penetrating wound of the knee-joint. The primary dressings were crude, the first aid packet not being in use at that time. Multiple wounds were unknown owing to the slow firing of those days compared with the present. Wounds of the brain were all fatal. One man carried a round two ounce ball in his head for a week when he suddenly died, probably from secondary hemorrhage. All who were shot through the abdomen died—contrast the penetrating wounds of this region by the Mauser bullet—as did also those suffering from penetrating wounds of the chest. Slugs and round balls bruise and lacerate, but if not at very close range run around bone.

A curious wound is produced by two round balls flattened on one side; there is one wound of entrance and two of exit, often very remote one from the other, so one is puzzled to know where is the other wound of entrance. Secondary hemorrhage is common, owing to the laceration and bruising of vessels which do not give way at once.

To continue my narrative, we advanced by boat or by trail until we reached Fort Pitt, whence expeditions were sent out in chase of Big Bear. With his capture ended this trying little war, fought entirely by Canadian volunteer soldiers. It will give some idea of the vastness of that northern land when I say that when we turned toward home we had 3,500 miles to travel, and that we were ten days coming down the Saskatchewan river by boat, traveling twenty hours a day, for there is little night in those northern latitudes in summer.

SOUTH AFRICA.

I come now to the second part of this paper, my experiences in South Africa. On the 21st of January, 1900, I embarked for South Africa, on the troop ship *Laurentian*, with "D" and "E" Batteries, Royal Canadian Artillery, and on the 29th day from sailing landed at Cape Town.

We landed in a cape "southeaster"; fine, sharp dust was blowing in all directions. It was intensely hot, temperature, 105° in the shade. Along the docks lay transports three deep. On shore, negroes, malays, Chinamen, Colonials, English Tommies and Highlanders jostled and swore in their respective tongues. Horses, mules, oxen, steam traction engines added to the noise and confusion. Mountains of food and war-like stores encumbered the dock. Above, the sweet blue sky of

South Africa, in the distance, the towering heights of Table Mountain with its table cloth of cloud. What a contrast to the silence, the gloom of the forest, and the bitter cold of the north shore of my former experience!

Three days later I left for the front in a comfortable saloon carriage,—another contrast. How curious a land is South Africa? A land so often described, but yet indescribable. A vast area of plain studded with natural fortresses, called kopjies; traversed by great chains of mountains and wide rivers, which to-day are dry and to-morrow are rushing torrents, which none may cross, a land without herbage or trees, yet of a fertile soil, needing only water to render it most prolific of vegetation, as may be seen about Cape Town and in southern Cape Colony. Through the vast area meanders a little narrow guage railway, so narrow that horses cannot stand athwart the little cattle tracks, but must stand sideways or with twisted necks and endure the torment of a long confinement and the want of water and proper sidings for disembarking them. Is it any wonder that they suffered and died? The road runs slowly upward for a 1,000 miles until a level of 6,500 feet above the sea is reached. Great ravines and dry water courses intersect the country, which must be spanned with bridges, and these were blown up by the enemy as they retired before our forces. On this toy railway all supplies of food, munitions of war, men, guns, horses, mules, forage, hospital equipment had to be carried for the army. The task was not an easy one.

After two days and nights of travel, I arrived at Orange River, then the immediate base of supplies for Lord Roberts's army. A few thousand men guarded the great stores of food and warlike supplies, but a large portion of the camp area was covered by a general hospital of 500 beds, under the command of Lieut.-Col. Battersby, R.A.M.C. The patients were most comfortably disposed in galvanized iron huts, ingeniously constructed so as to be easily unscrewed and removed. Comfortable beds and bedding were provided, a fair number of female nurses were on duty and the much abused hospital orderly was much in evidence. The experience of this war has confirmed the experience of private life,—that men do not make good nurses. They have not the ready sympathy nor patient unselfish devotion to duty that women possess, and I believe that in the future the number of army nurses will be largely increased and men retained for the heavier work of lifting patients, and the like. The pay of the army nurse should be increased in the British service,—it is too ridiculously small. In Canada a nurse ranks as a lieutenant and has corresponding pay and authority over the men employed in the wards.

A few days later I pushed on to Modder River of sad

memory, a shallow trench of muddy water bordered with bushes, a river which was a little later to play so large a rôle in the production of enteric fever. To the south lay a plain as level as a billiard table with no more shelter for marksman than was afforded by a few crumbling ant heaps. Behind the river were kopjies of considerable height. A couple of miles away to the left arose the belting crags of Magersfontein. Here I first saw Mr. Johnnie Boer, as a prisoner of war. Tall, swarthy, rugged, unkempt, he is a typical frontiersman. I have seen many of his kind in the great West. I pushed on to Kimberley, where I arrived a week after the relief of the siege. It was surprising to notice how little damage had been done to the town by the bombardment. For weeks 100 pound shells fell in the place at regular intervals all day, yet little damage was done. Every one I met had hairbreadth escapes to relate and pieces of shell to show, which might have killed them but did not. Food was scarce and the principal item of diet was soup of unknown composition. Of wheaten bread there was none, but a heavy black kind, made of rye flour and bran was abundant.

There were comparatively few sick in the town, but soon the sick and wounded began to arrive in large numbers from Paardeberg, whence 1,000 came in one day. Under this pressure the drill hall, Masonic Temple, public schools and other buildings were converted into hospitals, and every effort was made to meet the requirements of the situation. The medical staff worked night and day, and as at Bloemfontein a few weeks later, did all that men could do, and, as usual with our profession, got little thanks for it.

The cause of the epidemic is to be found in the consumption of the Modder River water, there being no other to be had, fouled by the enemy, imprisoned at Paardeberg drift by Lord Roberts's army, and filled with the carasses of dead men and animals. This led to the great epidemic at Bloemfontein, a month later. Owing to the pressure on the narrow gauge railway, of which I have already spoken, it was impossible to get a full equipment of hospital supplies either to Kimberley or Bloemfontein.

I had now the opportunity of studying the wounds inflicted by the Mauser bullet, the Lee-Netford, and artillery fire. I cannot give you the latest statistics of the percentages of death from wounds, but it is very small as compared with former wars. Up to the end of 1900, 12,637 officers and men had been wounded, of these only 732 had died. Men shot through the chest had been on duty again in four weeks, men shot through the abdomen were at work in five weeks or less, in six weeks men shot through the knee joint were able to walk about without

assistance. Nothing like it had ever been seen in war before. I attribute these results to the aseptic character of the bullet, its high velocity, to the prompt application of the first aid dressing, and to the eminently efficient treatment which the wounded received at the hands of the medical officers. The Mauser bullet has justly been described as a merciful one. Its action, however, upon human tissues, depends upon the range at which it is fired. It has been noticed that when it is fired at short ranges, within 200 yards, it has an explosive action. The nickel case seems to expand and become detached, causing a severe lacerated and contused wound, which heals but slowly. If it strikes at this range it crushes and destroys it. At longer ranges it makes a clean drill hole in bone, and if it strikes soft parts only, a very small wound is made, there being little difference between the wound of entry and that of exit, with but little bleeding, unless a large vessel is injured.

In the case of the soft nosed or dum-dum bullet the injury is severe, the wound of entry is small, but that of exit is very large; great masses of tissue are torn off with much contusion. When it strikes bone the bullet mushrooms and pulverizes and disintegrates it. If the range is very long, 2,000 feet or more, the soft nose bullet mushrooms and causes an extensive wound notwithstanding the range. It has been alleged that explosive bullets were used by the Boers. I have never seen a case which would justify this statement, nor have I ever seen an explosive bullet, but I have seen Mauser cartridges, which were split at regular intervals, evidently in process of manufacture, and I have seen them with the tips filed off.

As to the so-called poison bullets they were simply green with verdigris, the action of the grease in which they are usually dipped to preserve them from damp. This would rub off in the barrel when fired. Besides Mausers, the Boers used thousands of Martini-Henry rifles, which, as you know, throws a heavy chronicle ball similar to the Snider. The wound produced is extensive. You will recollect my statements relative to the Snider.

I had the opportunity at Kimberley, Bloemfontein and elsewhere of examining considerable numbers of Boer wounded and of observing the action of the Lee-Metford bullet. It inflicts a wound very similar in character to that of the Mauser, though the bullet is somewhat heavier and larger. The effect of shellfire is interesting. To begin with the smallest, the "pom-pom." I have known a shell of this class to go right through a man's face from front to rear, leaving a large hole, without exploding. Generally when they strike bone they blow a man all to pieces. They very seldom hit directly, but a man may be filled with small fragments. The noise they make in

exploding is terrifying to the most hardened soldier. Common shell fly into a number of fragments which tear and lacerate frightfully, generally necessitating amputation. Shrapnel shell contain 100 round bullets, which spread out fan-shape when the projectile bursts, and are usually deadly when they strike, but I once saw a Boer shot through the stomach from side to side by one of these missiles without seeming to be much inconvenienced by it. Lyddite has not been found as effective in land fighting as was expected. If the shells fall on soft ground they do not explode, when they hit a rock the concussion and explosion is terrific and destroys everything within reach. The fumes cause severe headache, which the Boers say is counteracted by a few drops of vinegar.

Compared with my experience in the North-west campaign Mauser wounds are innocuous. For instance, I have known a man to be shot through the knee-joint and walk in four weeks. He rejoined his regiment and in the next action was shot through the same joint again, with the same result. Penetrating wounds of the chest, unless they opened a large vessel, generally were followed by recovery. The experience of penetrating wounds of the abdomen is that they are immediately fatal if a large vessel is wounded, but wounds of the viscera are almost harmless. They are best left alone as resections have not been followed by good results. I have observed that perforations of the stomach heal readily if the viscus happens to be empty at the time, and the soldier refrains from drinking water. After two or three months discomfort is often complained of, caused possibly by adhesions which have formed. It will be interesting to learn the ultimate result of these wounds. A case of perforating wound of the liver, which came under my notice had rather hard luck, the patient was brought about forty miles in an ambulance, and when seen was in a state of collapse. He recovered from his wound and was taken down with enteric fever; from this also he recovered, when he was attacked with dysentery from which he succumbed.

Wounds of the brain and its membranes are, of course, generally fatal, but I saw one recovery from very extensive destruction of the calvarium with contusion of the brain, followed by sloughing. He developed epileptic symptoms. I have heard of lodged Mauser bullets in the brain with recovery, but I have not seen a case. I have, however, seen an extensive laceration of the frontal lobe with loss of the eye make a good recovery, and I have seen both eyes shot out by a bullet passing transversely behind, and one in which the optic nerves were divided without much injury to the eyeballs.

I have thus far related some of my surgical experiences which form the dramatic side of war. Let me now say a few

words about the medical aspect, which after all is the more important, for statistics prove that in war while 5 per cent. die from wounds or are killed forthwith, 15 per cent. die of disease, and the South African war is no exception to the rule.

Enteric or typhoid fever is the great scourge of armies in temperate climates to which in hot ones dysentery and cholera are added. I heard of no case of cholera in South Africa, but in East Indian campaigns it is a prominent feature. It is a sort of "bull" to say that prevention is the great remedy, yet it is so. The sanitation of armies leaves much to be desired. Every army should have a chief sanitary officer with a large staff under him who should have full power to act peremptorily. It is generally a quartermaster's work, a layman who knows nothing or next to nothing of his duties, or does not attend to them at all and men die like flies. Contaminated water was largely responsible for the epidemics in South Africa, but a large factor was the exposure of food for the troops to the action of myriads of flies which probably came straight from a feast on the saliva of enterics. The latrines were open and alive with flies. Urine passed on the sand dried and was blown hither and thither. The same can be said of solid excreta. Rigid sanitary arrangements would save thousands of lives in war as in peace.

In conclusion, allow me to say a few words about the use and abuse of the Red Cross. Under present conditions with long range arms of precision, the arm band worn by the individual is useless. It cannot be seen. At long range ambulances with their white covers cannot be distinguished from transport or ammunition wagons. The cross on the white field is so small it cannot be discerned. The Boers made crosses the whole size of the wagon which was better. Colonel Neilson, D.G.M.S., Canadian Army, makes a suggestion which I think is a good one—namely that all connected with the medical service on the field of battle should wear red and that the tilts of the ambulance wagons should be painted red. All nations now have a field service dress according to the climate in which war is being carried on. The British red coat and the American blue will never be seen again on active service. Is it not a good idea to make the life-saving service as conspicuous as possible and thus avoid the regrettable "Red Cross incidents" which are a constant source of contention?

I cannot too warmly state my appreciation of the honor you have done me in asking me to be present to-day, and I wish the University of Buffalo God speed on her mission,—enlightenment and progress.—*Buffalo Medical Journal.*

DILATATION OF THE STOMACH.

By T. CLIFFORD ALLBUTT, M.D., F.R.C.P., F.R.S.,

Regius Professor of Physic in the University of Cambridge, Physician to Addenbrooke's Hospital, etc.

In opening a discussion on the subject at the Manchester meeting of the British Medical Association, Dr. Allbutt confined his remarks chiefly to the atonic or non-obstructive dilatations of the stomach, as the obstructive dilatations were, comparatively speaking, well understood. Atony and atonic dilatation had not received the attention they deserved, atonic dilatation, indeed, being neglected by some physicians, and by a few even denied. Acute dilatation of the stomach he was disposed to attribute to compression of the gut by the distended viscus itself about the junction of the duodenum and jejunum. "The stomach," he said, "is supported more firmly at the cardiac than at the pyloric end; and in any case its mean position is more vertical than is generally supposed, especially when empty. In estimating atonic dilatation, especially in its lesser degrees, the area of the cardiac moiety is therefore to be carefully observed. The stomach may drop as a whole into the mid-abdomen or hypogastrium, and this independently of more general enteroptosis. Gastroptosis is not necessarily attended with dilatation. In this case the stomach assumes a wallet shape, the cardiac and pyloric orifices approaching each other; or if the pyloric end slip more than the cardiac the position of the organ is more vertical and to the left. In this latter case the more muscular pyloric moiety is apt to become dilated by the gravitation of retained contents. The relation of gastritis to dilatation of the stomach is little understood. It would seem that excess of hydrochloric acid is not necessarily, or perhaps usually, in its earlier stages a consequence of gastritis; it may rather be the cause of it. During life the presence or extent of gastritis is often assumed on very slender grounds, and even our *post mortem* knowledge of it leaves much to be desired. Relaxation of the stomach, due primarily to muscular failure, and therefore appearing first in the pouch and fundus, may depend upon toxic causes or mere atony. Such gastric distension, advancing to dilatation, not uncommonly retards convalescence from such diseases as typhoid fever and rheumatic fever. When the condition follows slow digestion with fermentation, anemia, or mere inanition, the muscular failure is primary. That spasm of the pylorus may cause dilatation of the stomach, as, for example, in ulcer, hyperchlorhydria, or lumpy contents of the stomach, seems not improbable. Such morbid action is consistent with what we know of other

sphincters; but atonic dilatations rarely seem big enough to be due to a permanent spasmodic contraction of the pylorus; nor is the muscular coat, as we should expect, hypertrophied. In atonic dilatation peristalsis does not become visible. That the nervous system may be concerned in paresis of the stomach seems likely enough; not only that continuously depressing causes may act in this way, but that sudden and grave mental shock may be quickly followed by considerable atonic dilatation of the organ. The effect of alcohol, in so far as it may be a cause of dilatation, may act directly as a poison to the muscular fibre or indirectly by extension of inflammation outwards. Atonic dilatation of the stomach is no rare consequence of exhaustion by excessive athletic exertion or mental stress, especially in young people of delicate constitution. Dilatation of the stomach is far from being rare in little children and infants; in them it often comes on acutely, but if the condition be understood it is readily relieved by emetic or the tube. The symptoms of atonic dilatation, to an observer not forewarned, are often indefinite, if not misleading. There may be little or no loss of appetite or dyspepsia; in an early stage of the disorder food often relieves a sense of sinking. Vertigo, sleeplessness, heaviness, lassitude and fatigue, and mental depression may divert attention to the nervous system. Flatulence, indeed, is rarely absent, but the tongue may be clean, vomiting slight or absent, the bowels constipated or the stools occasionally lienteric. The heart is apt to flutter or to intermit, and the abdominal aorta to throb. In extremest cases the pulse falls in volume and pressure, the hands become chilly, the nails livid, and the face thin, drawn and sallow. By physical signs we may determine the size and position of the stomach. In thin persons gastroptosis is not difficult to ascertain (in well-nourished persons it never seems to occur), and it is for the most part curable by rest, massage and better nutrition. When, as is usual, the dilated stomach occupies (approximately) its normal position detection of the disorder by physical signs will, generally speaking, be easy. Under ordinary circumstances peristalsis is never visible, as in obstructive dilatation, and the signs of distension are chiefly notable to the left of the middle line and under the lower ribs; the ballooned stomach is apt to push up the diaphragm and to encroach upon the thorax. The area of resonance may rise to the fifth or fourth rib and may extend to the posterior axillary line. Such a stomach often accompanies diseases of the heart and plays a large part in the patient's distress. Physical examination must be made at various periods of digestion and when the stomach ought to be empty. In health the stomach after a meal should contract upon its contents, when an area of dulness rather

than of resonance will become apparent. Even in acute indigestion there is a considerable grip of these contents, a grip often attended with stomach-ache, but in atony, with or without static dilatation, an area of resonance at the cardiac-end will be found almost immediately after a meal; even four or five hours after a meal the vault remains high and, behaving capriciously under gaseous influences, at no time does it contract in any regular periods. Thus the pyloric moiety, in its turn unable to withstand the gravitation of its contents, increases from its comparatively small transverse diameter until the stomach as a whole may assume a uniform, thick, sausage shape, the upper outline of which may include the nipple and the lower the navel. Strangulation by sharp flexure of the pyloro-duodenal portion may occur in particular cases, but such cases are not so common as we suppose. Dropped kidney is often rather in association with atonic dilatation or gastroptosis than a cause of them, though Sir William Bennett and Mr. Bidwell have incidentally relieved dilatation by fixation of a right kidney. Dilated colon may be mistaken for a dilated stomach, and in rare cases the error may be unavoidable; but in the vast majority of instances by discriminating percussion, even without intubation, these two organs may be distinguished. The stomach may no doubt be wholly concealed by the colon, but ordinarily some narrow area of stomach resonance can be obtained, when a difference of percussion-note, either in pitch or clang, can be made out. In difficult cases syphonage or insufflation may help us; Von Ziemssen recommended in such cases alternate inflation of colon and stomach. The tuning-fork, ausculto-percussion, and coin-tapping, in my experience, add little or nothing to what careful percussion can reveal. In a healthy stomach no squelchy sounds should be obtainable; they are usually obtainable in atonic dilatation, but rarely amount to the succession splash of obstructive dilatation. If before breakfast squelching can be obtained after the drinking of a tumbler or two of water we have to deal with a flabby and extended stomach. The use of the tube is of cardinal importance for diagnosis if not for treatment, but among private patients in England this method is resented, and makes but little way. The normal fasting stomach contains at least from 20 to 30 cubic centimetres of residual fluid, and may hold even 100, but quantities above 100 cubic centimetres are morbid. In the normal state this residuum should not contain any particles recognizable as remnants of food, seeds, grit, or fibre in vomit or stool should be carefully noted, and the date when they were swallowed ascertained. The larger the residuum and the more obvious the relics of food the worse the case. A considerable admixture of mucus

may indicate the presence of gastritis. In atonic dilatation sarcinæ and torule are not usually found, lactic acid but rarely and in small quantity. The quantity of water accepted by the stomach gives us little information; individual tolerance is very variable, but in atonic dilatation the return of it is very feeble, or perhaps is obtained only by expression or syphonage. Illumination of the stomach from within is of little service. From radiography we may hope for some more information. Chemical tests for the delay of ingesta, such as salol or potassium iodide, may corroborate but cannot dictate a diagnosis. The treatment of atonic dilatation must largely depend upon the causation of the individual cases; particular symptoms will often indicate the means of their own palliation. Vertigo, often very severe, and lassitude after meals often depend upon distension of the stomach, and may be quickly relieved by careful regulation of diet and restriction of fluid at meals to the lowest quantity. In sleepless cases, besides these measures, hydrotherapy expertly carried out is often the more useful, as it takes the patient away from work and care into a bracing climate. In heart disease, after much disappointment in the use of specific remedies, the cure or relief of an atonic dilatation of the stomach may be attended with remarkably good effects. Such patients, under the guise of a light diet, will consume quantities of farinaceous puddings, often well sugared, which disengage gases readily. Thirty years ago I traced a state of anemia and debility apt to appear in colliers and others engaged in similar work to dilatation of the stomach, a dilatation due to want of home meals and to the consumption of large quantities of liquid with heavy food rich in carbohydrates. Mastication must be carefully provided for and papain I have found to be a very useful aid in digestion. The abuse of corsets and belts must not be overlooked. In these cases rest not only after, but also before, meals is of importance. In some emaciated persons the full Weir-Mitchell system may be necessary, especially in gastroptosis; in all a long rest and change of air are of the first importance, nor should such persons on returning to their ordinary occupations expose themselves again to excessive stresses and other causes of exhaustion."—*Medical Press and Circular*.

Progress of Medical Science.

OBSTETRICS AND GYNECOLOGY.

IN CHARGE OF ADAM H. WRIGHT, JAMES W. F. ROSS, ALBERT A. MACDONALD
AND K. McILWRAITH.

Cesarean Section in Placenta Previa.

Schauta questions the value of Cesarean section in this condition and says that for many years he has used the method of bimanual version, followed by the attachment of a weight of about three pounds to the fetal, leg which is brought down through the vagina. The expulsion of the fetus, assisted somewhat by the continued traction exerted by the weight, is left to the natural sources until the umbilicus emerges from the vulva. From this point the case is managed in accordance with the usual method of dealing with breech presentations. A compilation of his cases during the past ten years shows a total of 234, of which 16 ended fatally. In some of these cases placenta previa could hardly be credited with the mortality. Even allowing this, however, the percentage, 6.8, is not a high mortality, especially in view of the condition in which the patients are brought to the hospital. The advocacy of Cesarean section in all cases, which necessarily includes all cases where the simplest opening of the amniotic sac suffices to stop the hemorrhage, hardly deserves serious consideration. He, therefore, limits his remarks to severe cases of central or total placenta previa. To replace version by Cesarean section in those cases would only add dangers to those already existing. The operation cannot be at once performed even in well-equipped hospitals, while version is always available. Deep narcosis is necessary and there must be a certain amount of blood lost, for often copious hemorrhage cannot be avoided. The placenta must be peeled off after removal of the fetus with the danger of uterine atony. He does not perform conservative Cesarean section in cases that were handled before entrance by untrustworthy people, provided the indication for operation is not absolute. Very few cases brought to the hospital conform to this indispensable requirement. The question whether the section promises to reduce maternal mortality in these cases, he thinks must be answered in the negative. As regards the chances of the fetus, he believes that they would be better if Cesarean section could be performed immediately on the appearance of the first hemorrhage, but if we look over the reports of

cases we find only a small number of these children are fully developed. In his 234 children, only 92 were matured and the mortality of premature children is much more in these cases because they suffer from asphyxia due to the partial separation of the placenta from the uterus, and, therefore, he holds that we would not obtain better results as regards fetal mortality by operation.—*Jour. A.M.A.*

Suspension of the Uterus.

Dr. Hunter Robb, Cleveland, Ohio, in speaking of the advantages, disadvantages and results of suspension of the uterus, insisted that suspension and fixation are not interchangeable terms, the latter procedure being always undesirable. Before we are able to speak with certainty as to the results we must have more accurate data, which can only be obtained by a more rigid classification and a subsequent analysis of sufficiently larger series of, 1, uncomplicated cases of malposition; 2, those cases of malposition in which other pathologic conditions are present, but in which the malposition is the indication for operation; 3, those cases in which the suspension is only a supplementary operation.

Robb believes that in suspension we have a method of permanently relieving a large percentage of patients suffering from obstinate retroflexion. Difficulties in future pregnancies are mainly the result of fixation operations and not of suspension. Hernias, adhesions and localized or general sepsis are due to faulty technic and should not occur.—*Jour. A.M.A.*

Lung Embolism in Placenta Previa.

Voigt gives the history of a case of placenta previa in which, after the successful delivery by version of a living child with the mother in apparently good condition, when all danger seemed past, there was a sudden change characterized by excessive pallor, difficult breathing and loss of pulse. The absence of hemorrhage, the impeded respiration and other symptoms all indicated embolism in the lungs. By means of heart massage, subcutaneous injection of stimulants and saline infusions and external applications of heat, heart action revived and the patient eventually recovered. For the last five weeks before delivery there had been almost daily bleeding, so there were present all the conditions favorable to the formation of a thrombus. In the treatment of embolism the most important point is to strengthen the heart action by overcoming all opposing circumstances and rendering respiration as easy as possible. Secondly, to avoid any embolic relapse by absolute rest in bed, aided by small doses of morphine.—*Amer. Med.*

Vaginal Hysterectomy for Cancer with Four Months Pregnancy.

Baldwin reports the case of a woman of 28, with four children, suffering from too frequent and profuse menstruation. Examination showed a cauliflower growth springing from the posterior lip of the os and filling the entire vaginal vault. In the operation the cauliflower tissue was first broken off with the fingers and then the cervix was amputated. To prevent infection the vagina was re-sterilized, then the uterus opened and emptied of a four months' fetus and placenta, after which the uterus was easily removed through the vagina. Microscopic examination confirmed the diagnosis of cancer, but it is one of the few cases in which there has been no recurrence within three years after hysterectomy for cancer of the cervix. Baldwin considers it better to remove growth, fetus and uterus all in one operation, as in this case.—*Amer. Med.*

Deciduoma Malignum.

The histology, as well as pathology of this disease is still a mooted question, the growth being either a sarcoma or carcinoma or a combination of both, and being derived either from maternal or fetal structures or both. In view of existing knowledge, Ladinski thinks the name deciduoma malignum is the most appropriate. Clinically, however, he says the disease presents a clear and distinct picture, and its diagnosis, which is most important, should not be difficult. Pregnancy is an absolute concomitant or precursory condition of deciduoma malignum, and the chief clinical features are: (1) History of recent parturition or abortion, especially if a hydatid mole has been discharged or placenta retained; (2) profuse hemorrhage occurring at irregular intervals, without apparent cause, and not amenable to the ordinary means of treatment, and which recur in spite of repeated curettages—the presence of a constant sanguineous discharge during the intervals of hemorrhage; (3) a persistently large and hyperplastic uterus and cervix, with a patulous os; (4) pain in the pelvis; (5) anemia, rapid loss of flesh and strength, and cachexia; (6) characteristic nodule in interior of uterus in the early stage. This nodule begins as one or more minute, dark-colored or reddish nodules, and springs from the endometrium, either by a broad base or pedicle—it is soft, spongy, friable and bleeds very profusely on touch; (7) the presence of metastatic deposits, especially in the vagina and lungs, the latter producing cough and bloody expectoration. It is the most fatal of all neoplasms, and considering the rapid progress of the disease, the treatment should consist of complete extirpation of the uterus and vaginal metastasis, if present, as soon as the diagnosis is made from the clinical signs

or histologic examination. Any measure short of this will only aggravate the condition. This should be resorted to, even in the suspected presence of metastatic deposit^s in other parts of the body, for in a few cases these secondary deposits disappeared after the primary tumor was removed. Ladinski describes a case in detail, and appends a collation of 132 authentic cases.—*Amer. Med.*

Rubber Gloves in Obstetrical Practice.

Since the advent of rubber gloves it has been my practice to use them in all my obstetrical cases, and recently, while effecting an instrumental delivery, with my patient lying across the bed with buttock well over the edge of the bed, the child slipped from my grasp and fell to the floor, rupturing the cord. The child being dead, no damage was done, but, nevertheless, the occurrence was decidedly embarrassing. This was due to the slippiness of the gloves, and could have been avoided by the use of a piece of sterile gauze between the gloves and the baby.

In publishing this, it is my desire to call the attention of others to the danger and also the means of avoiding it.—*C. B. Powell, M.D., in "N.Y. Med. Jour."*

Curetage of the Puerperal Septic Uterus.

In all cases of puerperal fever about seventy-five per cent. are non-septic and about twenty-five per cent. are septic. Therefore, the ignorant operator, indifferent as to precise methods, if he curettes all cases, will do an indicated operation in about three-fourths. What will be the result of his work in the other one-fourth—the septic cases?

The commission of the American Gynecological Society, appointed in 1898, made an analysis of every case of puerperal fever reported in the literature of the world for the five preceding years, covering the period during which the bacteriology of the puerperal state was actively promulgated. The two men whose observations are the most reliable and whose treatment of septic cases is identical, Whitridge Williams and Krönig, applied no local treatment whatever to the inside of the uterus, doing nothing to it other than what was necessary to establish the diagnosis; and only having a mortality of five per cent.

Here, then, we have a basis upon which to work, and we are warranted in saying that excepting epidemics of particular virulence, but five per cent. of women with puerperal sepsis will die if the uterus is left alone. The normal mortality of puerperal sepsis then is five per cent. How is this modified by the mistaken curettagé of the puerperal septic uterus?

In the analysis made by the commission mentioned, we found that curettage of the uterus when bacteriological examination had been made and the streptococcus found gave the frightful mortality of twenty-two per cent. Since being appointed a member of this commission, and for two years previously, I have adopted and perfected a certain method of treatment which I applied to all cases in which I found the streptococcus present in the uterus. This method of treatment which has been described gave no mortality either in my hands or in those of the gentlemen who have adopted it, except in one class of patients, and these were those who had been curetted before coming into my hands. There were ten such patients, three of whom died, a mortality of $33\frac{1}{3}$ per cent.; and the lesions remote from the pelvis and in the pelvis which were found at the time of operation were in these curetted cases far more general and of a more serious nature than in any others I have seen.—*W. R. Pryor, in the "Med. Mirror."*

Editorials.

THE HYGIENE OF FASTING.

The *Literary Digest* has something to say about the hygiene of fasting. It tells us that all the great founders of religion have prescribed a certain amount of fasting for their disciples. The reason given is not only the knowledge that it is well for man to conquer his bodily desires, but also the experience that most persons eat too much. To overload the stomach with food is quite as unhealthy as to deluge it with beverages.

The late Charles Purdy, of Chicago, told us that the greatest dietetic sin of the average American was his meat-eating propensity. He eats meat generally twice, frequently three times, a day, thus laying on his secretory organs a task in the disposal of waste products that is physiologically prodigious. We may say that the average Canadian and the average Englishman are equally offenders in this respect. Of course there is nothing new about this sort of preaching. The facts stated have been recognized in all ages of the world.

We may tell the public all about the evils resulting from excessive meat-eating, such as premature hardening of the arteries, premature old age, so-called heart failure, Bright's disease, rheumatism, gout, etc. Our audiences generally give us a fairly respectful hearing, but go on eating meat as before while in what is generally known as good health. The same may be said concerning other dietetic errors, such as the excessive use of sweet and starchy foods.

While we have to regret our utter helplessness in the great majority of cases, no matter how well intended our missionary efforts may be, we must certainly admire the foresight of those who in the early days prescribed fasting for their disciples.

PRELIMINARY EDUCATION IN GREAT BRITAIN.

At the recent meeting of the Ontario Medical Council, one of the members stated that the standard for matriculation for medicine in Ontario during recent years was probably higher than that of Great Britain. That statement was correct; but, before we can derive much comfort from it, we have to consider

what it means. It happens that there has been a strong feeling in England for some time that the British standard for matriculation has been too low.

We learn from the *British Medical Journal* that the following are the requirements at present: English Language, Grammar, and Composition; Latin Grammar, Translation; Arithmetic, Algebra to Simple Equations, Euclid I-III; Greek, or any Modern Language; Logic. A table is published showing the standards of the matriculation examinations for the various professions. The *Journal*, in an editorial on the subject, tells us that the table "shows in particular two things: (1) That the requirements in general education for medicine are decidedly lower than those for other professions with which medicine ought to be supposed to rank, and that, therefore, its requirements are below what is possible in the present state of secondary education; and (2) that the recommendations lately made by the Council of the British Medical Association are no more than what is wise and moderate under the circumstances."

With such a condition of things connected with medical educational matters in Great Britain, our Medical Council in Ontario is quite justified in raising its standard without regard to the present requirements in the Mother Country. Whether the new regulations will give us a well-balanced list of requirements for matriculation in medicine we know not; but we think it will generally be conceded that the Council has taken a very important step in the right direction.

SANITATION AT SUMMER RESORTS.

Great improvements have been made in the sanitary arrangements at many of our summer resorts in recent years. Dr. Bryce, Secretary of the Provincial Board of Health, deserves much credit for the good work he has accomplished in many localities, but especially in the Muskoka district. A few years ago he pointed out the grave dangers which then existed, and recommended prompt action to counteract them. He was greatly assisted by the Muskoka Lakes Association, which accepted his recommendations in their entirety, and urged the residents to co-operate.

The result has been quite satisfactory. The caretakers of hotels and cottages are not allowed under any circumstances to discharge animal matter into the lakes. All sewage is received in septic tanks, from which the liquid portion is allowed to flow through a system of tiles laid a few inches below the surface of the ground. The various steamers on the lakes are now extremely careful to avoid as far as possible throwing overboard refuse matter. Many vessels have adopted methods of filtration of all refuse liquids. Dr. Bryce considers that the waters of the Muskoka lakes may now be used for drinking purposes with perfect safety.

Many of the resorts in other parts of Ontario are under exceedingly good managements. Among the best of these is DeGrassi Point, on Lake Simcoe, where Drs. Temple, Macdonald and Burnham, of Toronto, have summer residences. When we come to certain localities much nearer Toronto, where large numbers are huddled together in all sorts of habitations, we regret to say that sanitary regulations (if any can be said to exist at all) are sadly crude in their nature. There is much work for Dr. Bryce yet to do before the sanitary conditions can be considered satisfactory at all the summer resorts of Ontario.

THE CANADIAN MEDICAL ASSOCIATION.

The next meeting of the Canadian Medical Association will be held in Montreal, September 16th, 17th and 18th. Through the kindness of the General Secretary, Dr. George Elliott, of Toronto, we were able to announce in our July issue the complete arrangements which had been made up to that time. We have not now much to add. The Local Committee of Arrangements have, we understand, completed their programme, and will be ready on the morning of September 16th to extend a hearty welcome to all the visiting members.

Many of the older members of the Association have very pleasant recollections of meetings held in Montreal. There is, perhaps, no city in Canada where the resident physicians extend to the visitors such boundless hospitality. We are told that from a literary point of view the coming meeting will be far above the average.

Intending delegates should take note of the following additional information issued from the Transportation Department: Owing to a clerical error relating to points east of Montreal, the announcement should have read—If ten (10) or more delegates are in attendance from Quebec City, Megantic and east thereof, holding Standard Convention Certificates, delegates from such points will be issued tickets free for return.

A side trip *via* the Richelieu & Ontario Navigation Company has been arranged, to Quebec City from Montreal at \$4.00 for the round trip.

The time limit for delegates attending from points west of Fort William has been extended to the 12th of October, permitting delegates from the west to arrive home by that date.

Delegates may go and return by the Richelieu & Ontario steamers in the usual way by asking for that route and obtaining a Standard Convention Certificate.

The Entertainment Committee, of which Dr. H. S. Birkett is Chairman, has arranged the following programme: Tuesday, a garden party; Wednesday, the Grand Trunk Railway has invited the members of the Association to inspect the Victoria Bridge and will take them to Lachine where a lunch will be served. In the evening there will be a smoking concert in the Victoria Rifles' Armory.

A fine list of papers has been promised, which in addition to clinics in the various hospitals and the Pathological Museum, will comprise a programme which will prove both interesting and instructive.

Any further information may be secured by applying to the Local Secretary, Dr. C. F. Martin, 33 Durocher street, Dr. J. Alex. Hutchison, Chairman of the Transportation Committee, 70 McKay street, Montreal; or to Dr. George Elliott, 129 John street, Toronto, General Secretary.

PROVISIONAL PROGRAMME.

The General Meetings and Evening Addresses will be held in No. 111 Lecture Room, Medical Faculty, McGill University. The Sections will meet in other lecture rooms of the same building.

FIRST DAY.

- 9.30 a.m.—General Meeting: Proposal of Members, Notices of Motions, etc., Striking of Committees.
10.30 a.m.—Meetings of Sections.

SURGICAL SECTION.

- Papers—A. Prinrose, Toronto—Filariasis cured by operation.
Dr. Perry Goldsmith, Belleville—Hemorrhage in Removal of Adenoids and Tonsils.

- Papers—H. D. Hamilton, Montreal—Complete Occlusion of Posterior Naris.
 Dr. Casey A. Wood, Chicago—Empyema of Frontal Sinus.

MEDICAL SECTION.

- Papers—John Hunter, Toronto—Pleurisy as associated with Tuberculosis.
 A. E. Orr, Montreal—On Blood Pressure.
 G. A. Charlton, Montreal—Anemia due to Toxines.
 Dr. J. R. Clouston, Huntingdon—The Country Doctor of To-day.
 2.00 p.m.—General Meeting.
 3.00 p.m.—Address in Surgery by John Stewart, of Halifax, N.S.
 5.00 p.m.—Garden Party at the Residence of Mr. Jas. Ross, Peel St.
 8.15 p.m.—President's Address, followed by Lantern Demonstration on the Exanthemata, by Dr. Corlett, of Cleveland, Ohio.

SECOND DAY.

- 8.00 a.m.—Exhibition of Cases at the different hospitals.
 Montreal General Hospital : Surgical Cases.
 Royal Victoria Hospital : Medical Cases.
 Hotel Dieu : Medical Cases.
 Notre Dame Hospital : Surgical Cases.
 9.30 a.m.—General Meeting : followed by a discussion on "Diseases of the Gall Bladder and Bile Ducts."
 (a) Medical Diagnosis—Introduced by Dr. A. McPhedran, Toronto.
 (b) Medical Treatment—Introduced by Dr. A. D. Blackader, Montreal.
 (c) Surgical Diagnosis—Introduced by Dr. Jas. Bell, Montreal.
 (d) Surgical Treatment—Introduced by Dr. J. F. W. Ross, Toronto, followed by Dr. G. E. Armstrong, Montreal.

2.00 p.m. MEDICAL SECTION.

- Papers—Dr. J. F. Macdonald, Hopewell, N.S.—On Tuberculosis.
 Drs. Starr and McKenzie, Toronto—Multiple Sarcoma.
 Dr. Maude E. Abbott, Montreal—Methods of Classification in Medical Museums.
 A. D. Shirres, Montreal—Degeneration of Spinal Cord in Anemias, etc.

SURGICAL SECTION.

- Papers—G. A. Peters, Toronto—A New Symptom of Intestinal Paralysis in Peritonitis.
 Dr. A. H. Ferguson, Chicago—Removal of Prostate by Perineal Incision.
 G. E. Armstrong, Montreal—Treatment of Prostatic Hypertrophy by Suprapubic Incision.
 Dr. J. O. Orr, Toronto—Artificial Astigmatism.
 Dr. Burnham, Toronto—Sympathetic Ophthalmia.
 Dr. Monod, Montreal.
 Dr. A. E. Garrow, Montreal.

OBSTETRIC AND GYNECOLOGIC SECTION.

- Papers—Dr. Robinson, Ottawa—Normal Labor.
 Dr. Laphorn Smith, Montreal.
 Dr. Lockhart, Montreal.
 Dr. Chipman, Montreal.
 8.15 p.m.—Address in Medicine by Dr. Wm. Osler, Baltimore, followed by Reception in Engineering Building at 9 o'clock.

THIRD DAY.

8.00 a.m.—Exhibition of Cases at the different hospitals.

Montreal General Hospital : Medical Cases.

Royal Victoria Hospital : Surgical Cases.

Hotel Dieu : Surgical Cases.

Notre Dame Hospital : Medical Cases.

9.30 a.m.—General Meeting : Reception of Reports from Committees.

General Business.

10.30 a.m.

Papers—Dr. Robinson, New York—X-Ray Treatment of Cancer.

Dr. Girdwood, Montreal—X-Ray as Diagnostic and Curative.

W. F. Hamilton, Montreal—X-Ray as Diagnostic Agent in Thoracic Diseases.

S. F. Wilson, Montreal—On the Use of High Potentials in X-Ray Work.

The afternoon will be given over to an excursion by rail over Victoria Bridge and thence to Lachine (through the courtesy of the Grand Trunk Railway). From here the Steamer Duchess of York will make the trip up Lake St. Louis and run the Lachine Rapids, arriving in the city about 5.30 p.m. (Lunch on board Steamer.) At 8.30 a "Smoker" will be given in the Victoria Rifles' Armory, Cathcart street.

The Proposed Bill for Treatment of Inebriates at St. Michael's Hospital.

After a service of eight and a half years as one of the attending physicians of St. Michael's Hospital, Dr. A. M. Rosebrugh, of Toronto, felt compelled, over a year ago, to retire therefrom to enable him to devote more time to the study and treatment of inebriates and the adoption of the proposed bill for their economic treatment. Upon his retirement he was presented by his confreres with a testimonial as follows :

Resolved, That in view of Dr. Rosebrugh's long and faithful service at the hospital, and also in view of his devotion to the interests of the unfortunate inebriates, we, the attending staff of the hospital, desire to place on record our appreciation of those services and to wish him every success in the line of work he has mapped out for himself.

Resolved, Secondly, that we take this opportunity of expressing our unqualified approval of the proposed bill now under the consideration of the Ontario Government for the economic treatment of pauper inebriates, and we would be much gratified if members of the medical profession could see their way to an endeavor to bring their personal influence to bear on behalf of this important measure, and more particularly with a view of securing the co-operation of their representatives in the Ontario Legislature.

This testimonial or endorsement was signed as follows : J. B. Anderson, H. A. Bruce, Graham Chambers, I. H. Cameron, James F. W. Ross, J. Guinane, A. H. Garratt, H. J. Hamilton, Walter McKeown, T. F. McMahon, R. B. Nevitt, Wm. Oldright, G. Silverthorne, G. A. Bingham, J. F. Uren, L. M. Sweetnam, D. J. Gibb Wishart, Jas. MacCallum, A. Primrose, C. Algernon Temple.

Personals.

Dr. Lelia Skinner has removed to 49 Carlton Street.

Dr. Frederick Winnett, of Toronto, has returned from Europe.

Dr. Thos. M. Armstrong, formerly of Alliston, has removed to Toronto.

Dr. D. Gibb Wishart, of Toronto, spent the month of August on the Georgian Bay.

Dr. Edmund E. King, of Toronto, spent the first two weeks of August at Hastings

Dr. J. J. Cassidy, of Toronto, is spending the greater part of the summer at Long Branch.

Dr. J. Knox Niven, who returned from South Africa recently, has been appointed house surgeon at Victoria Hospital, London, Ont.

Dr. Harley Smith, who was knocked down on Spadina Avenue and Queen Street, August 2nd, by a waggon, is recovering rapidly, and is attending to his practice.

Dr. McIlwraith, of Carlton Street, who has been one of a party of friends which included Prof. Renous, of Johns Hopkins University, returned from a successful fishing trip at Stony Lake, July 28th.

Dr. W. H. Groves, formerly of Burnhamthorp, has been appointed surgeon of the *Tarquah*, the vessel selected for the use of the Hon. Jos. Chamberlain and the colonial party at the naval review at Spithead.

T. J. Moher, M.D., has been appointed to the position of assistant superintendent of the Asylum for Idiots at Orillia. He will assume his duties on September 1st, and succeed Dr. Clare, who has been transferred to the Asylum for the Insane at Brockville.

Dr. George H. McLaren, son of Lieut.-Col. McLaren, was appointed by the Board of Hospital Governors to the position of resident physician recently vacated by Dr. Edgar. Dr. McLaren will begin his duties at once. He graduated at Trinity University in 1899. He has had hospital experience as resident house surgeon in the Carleton County Hospital at Ottawa, in the Toronto General Hospital, and also in the Hamilton Hospital during his vacations. He spent six months in Edinburgh, and also took the L. R. C. P. S. examination in London.

Obituary.

J. A. S. BRUNELLE, M.D.

Dr. Brunelle, of Montreal, Surgeon at Hotel Dieu, and Professor of Pathology at Laval University died suddenly at Mountain View, New York, August 6th, aged 50.

GEORGE WATERS, M.D.

Dr. Waters, of Cobourg, died after a prolonged illness of three years, August 1st, aged 65. He received his medical education in the Toronto School of Medicine and graduated M.D., (Tor.) in 1868. He was a man of unusual ability, and was soon recognized in Cobourg, where he settled immediately after graduating, as a very skilful physician. He acquired a large practice, and was universally respected by all classes of the community. He was a prominent member of the Liberal party in politics, and was at one election a candidate for the Dominion Parliament.

WILLIAM HENRY KLOCK, M.D.

Dr. Klock died at his home in Ottawa, August 4th, aged 41. He was a graduate of McGill University of the class of '85. After spending some time at post-graduate work in Edinburgh and Glasgow, he settled in Ottawa where he practised until a short time before his death.

THOMAS CHRISTIE, M.D., M.P.

Dr. Christie, member of Parliament for Argenteuil, Quebec, died at Lachute, August 5th, aged 78. He was in many respects a remarkable man, and certainly the most popular man in the County of Argenteuil, where some of his election contests—especially two in which he and Hon. J. J. C. (afterwards Sir John) Abbott were pitted against each other—were of the most vigorous sort. The *Toronto Globe* says of him: "He was a quiet, kindly old man, and his chief strength with his constituents was his known devotion to duty. He was the Doctor McClure of Argenteuil. No distance was too great nor night too wild, dark or cold to cause him to hesitate, even for a moment, when the call from a bedside reached him."

ELIZABETH A. M. CAMERON.

Elizabeth A. M. Cameron, wife of Irving Heward Cameron, M.B., and daughter of the late Henry Hower Wright, M.D., died at 307 Sherbourne Street, Toronto, August 28th, 1902.

Correspondence.

MEDICAL LITERATURE.

To the Editor of CANADIAN PRACTITIONER AND REVIEW.

SIR,—Both the authorities and the professors generally of the medical colleges in Canada have hitherto displayed chronic indifference with regard to the creation of a permanent medical literature for this country. At present they show no disposition to change their minds.

The medical institutions of Canada are either faculties of universities or, like Trinity Medical College at Toronto, in direct affiliation with universities. Nevertheless, neither their university associations nor the time-honored standing of medicine as a learned profession, nor yet personal ambition, has led the professors to become authors of medical books. The college authorities on their part have been content to forego literary standing for their institutions, to the extent even of depending entirely on foreign authors for the text-books and books of reference required in the courses of study. This admission of inferiority deserves animadversion. *Sera nunquam est ad Conos, mores via.* Hopes of reformation are to be entertained.

I make no comparisons with the older countries of Europe, but cross the international boundary into the United States, which is a young country like Canada, be it observed, where a striking contrast is exhibited between the vigor and progress of our neighbors in the creation of a national medical literature, and the Canadian inertia and backwardness under comment. Actuated by a praiseworthy ambition, numerous professors of American medical colleges, likewise many physicians on the staff of large hospitals, although not professors in colleges, have written books in great numbers on all the various branches of medicine, which have extensively displaced European text-books for college use, as well as in the libraries of physicians in the United States. They have done the same in Canada.

American medical authors have gained a position of equality with those of Europe in the great medical world of letters. The first move yet remains to be taken by Canadian professors of medicine to acquire similar standing. The general catalogues of medical books are in evidence. According to custom the annual announcements of the Canadian medical colleges contain lists of the text-books and books of reference recommended to the students for study, and adopted by the professors as authorities. Not a work mentioned in those lists, that I can discover, is written by a professor in any of those colleges. The

majority of the books are of American production. The balance are European. Such abject dependence on foreign authors for college text-books is most censurable.

An excuse for this condition of affairs has been heard to the following effect: The demand for works written by Canadian medical authors would probably be confined to this country, and on account of the small population would be published at a loss. This excuse implies that Canadian professors of medicine have no love of authorship of medical literature for its own sake, which I am loath to believe. For its rejection one reason is supplied by the well-known aphorism, "there is always room at the top" for medical men. Let the professors of Canadian medical colleges write books of as high a grade of excellence as that which they boast is maintained by their institutions in the education of students to become successful physicians, both at home and abroad, and their works will be read on their merits outside Canada. With regard to the home demand, I point out, there are 6,000 physicians in Canada, the number constantly increasing, who are available to purchase Canadian medical works, and are doubtless willing to do so if they are really meritorious. The authorities and professors of the Canadian medical colleges can easily arrange the details of the college curriculums to secure the use of designated Canadian text-books by their immense attendance of students.

The policy should be established for Canada to acquire like standing with the United States in the medical world of letters. Following precedents set in other important activities, as an expeditious move towards the desired production of superior Canadian medical text-books, I suggest that a conference be held of representatives from the medical colleges of Canada to procure united and harmonious action. I trust there are professors of high scholarly and professional attainments available to write such books.

Yours truly,

LUCIUS S. OILLE, M.D.

ST. CATHARINES, August 6th, 1902.

IS MUSKOKA A GOOD PLACE FOR CONSUMPTIVES?

To the Editor of CANADIAN PRACTITIONER AND REVIEW.

SIR,—I notice in your August number a letter from Dr. Playter, in which he answers the question, "Is Muskoka a good place for consumptives?" It is a somewhat revised copy of a letter signed "Medical Practitioner," which appeared in the *Ottawa Citizen* of June 13th and the *Montreal Star* of July 5th.

Your correspondent, after informing us he has given a good

deal of attention to the meteorological conditions and elevations of many localities in Ontario and Quebec states that he thinks Muskoka is not a good locality for the tuberculous. Had your correspondent studied the meteorological conditions of Muskoka amongst the "many localities," he would be in a better position to undertake to answer the question so often propounded to him; but when he comes to the conclusion that Muskoka "is too damp, and otherwise very unsuited for the tuberculous," from data supplied by (1) "a patient now under my care who spent last summer in Huntsville;" (2) "a well known Toronto practitioner, who could always wring water from his shirt after it had hung in his room all night when up there," and (3) "a physician who has resided many summers in Muskoka," I fear we cannot attach much weight or importance to his opinion.

Before giving publicity to such a letter why did it not occur to Dr. Playter to look up the records of the Meteorological Service of Canada, where he can get very accurate data.

Now what are the facts regarding moisture of the air in Muskoka? As perhaps more cases of tuberculosis are sent to Gravenhurst than to any other point in Muskoka, let us take the observations recorded at the Gravenhurst station of the Meteorological Service of Canada. Mr. R. F. Stupart, the director of the service, has kindly given me the table of mean relative humidities observed here for the year 1901. The mean for the year is 75.83%. The observations taken at the Gravenhurst station by Mr. T. M. Robinson for the past twenty years show the mean yearly temperature to be about 42 degrees. If your correspondent has really studied climatology as much as he leads us to believe, he will scarcely classify a climate with mean relative humidity of 75.83%, and mean temperature of 42 degrees as moist. For the first five months of 1902, January to May, the relative humidity is but 62%, so that for these months the climate is well within the term "dry." Frequency of mists, as observed by his patient at Huntsville, is at great variance with the last issued report of the Meteorological Service (1899). The Gravenhurst station reports four fogs; the year previous ten were observed. I hope his statements regarding the climate of the Gatineau mountains with their "sparkling air" and "highly vitalized oxygen," and of the other districts nearer Toronto, are based upon more accurate information than that from which he draws his conclusions regarding the climate of Muskoka.

As for the question, "Who can name a case of well marked tuberculosis, say in the early second stage, who has been in any marked measure benefited by residence there?" I would refer your correspondent to a paper I read before the Canadian Medical Association in Toronto in 1899, showing marked improve-

ment in 120 out of 155 cases in all stages. Also to a report in the *Canada Lancet*, September, 1901, page 268, showing of 99 further cases in all stages marked improvement in 70. Many of these cases have been at work again for periods varying from one to four years, in offices, factories, stores, railroads, house-keeping and other employment.

The question of the permanency of the benefit derived from sanatorium treatment in Muskoka will form the subject of a paper to be presented before the Canadian Medical Association in Montreal next month.

J. H. ELLIOTT.

GRAVENHURST, ONT., August 18th.

SURGICAL HINTS.

Never allow a patient with a fractured leg or thigh to lie in a bed which sinks in the middle. This can always be remedied by passing boards under the mattress.

In patients suffering from the effects of violent blows upon the jaws never remove a tooth just because it is loosened. Its tendency is to become again firmly attached, and hence it is always best to wait.

To use a styptic in a case of external hemorrhage is to acknowledge one's inability to properly bandage or compress, or to pick up a vessel. It should always be a procedure of last resort, only permissible in some emergency.

In fractured limbs occurring in children it is always best to employ a plaster of Paris bandage rather than some other form of apparatus. As they cannot realize the necessity for immobilization they will nearly always manage to get rid of anything else.

There is no better recognized rule than the one that every patient, after severe intra-abdominal operations, suffers from severe thirst, and that the free administration of fluids will often cause uncontrollable and dangerous vomiting. Never leave a vase of flowers near the bed, for patients have been known to help themselves from it. Some have even been known to pick up a hot water bag applied to the feet and drink its contents. To diminish thirst use frequent enemata of normal saline solution and give teaspoonfuls of hot water by the mouth, until after all vomiting is stopped.—*International Journal of Surgery*.

Book Reviews.

A System of Physiologic Therapeutics. A practical exposition of the methods other than drug-giving useful in the treatment of the sick. Edited by SOLOMON SOLIS COHEN, A.M., M.D., Professor of Medicine and Therapeutics in the Philadelphia Polyclinic.

Volume I-II Electro-therapy. By GEORGE W. JACOBY, M.D., Consulting Neurologist to the German Hospital, N.Y. City, etc., with 163 illustrations. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut Street, 1902.

The system is the first of its kind to be published in America or in the English language, and in many respects differs from similar work in other tongues. These two volumes, which are the first of the series of eleven, are especially worthy to introduce the system to the American medical profession. The system is practical rather than encyclopedic. Each book, while complete in itself, also forms part of an organic whole, and has been written and edited with relation to its place in the system.

Part I, Electrophysics, is divided into six chapters—chapter i., Functional Conceptions; ii., Frictional Electricity; iii., Dynamic Electricity; iv., Effects of the Electric Current; v., Other Methods of Attaining and Altering Electro-motive Force; vi., Varieties of Electro-motive Force.

Part II, Apparatus required for the Therapeutic and Diagnostic Use of Electricity—chapter i., Frictional Electric Apparatus and its use; ii., Galvanic Apparatus and its use; iii., Sources of Current Supply for Diagnostic and Therapeutic Purposes, and the apparatus necessary for its use; iv., Apparatus for Altering Electro-motive Force; v., Roentgen Rays or X-Rays.

Volume II, also in two books, on diagnosis and therapeutics. In addition to Dr. Jacoby's thorough treatment of the general subject of electro-therapy, this volume contains several articles on the use of electricity, in surgery and the specialties of writers of experience and authority. In order that each of these supplementary chapters might be complete in itself, and for convenience of reference, some repetitions of material likewise to be found elsewhere have been permitted to stand. In every such case, however, some new facts have been added or the old facts have been discussed from a new standpoint; so that the reader gains in information more than the book loses in theoretic symmetry. Electricity in Diseases of the Eye, by Edward Jackson; In Diseases of Throat, Nose and Ear, by Wm. Scheppegeggrell; In General Surgery, by J. Chalmers Da Costa; In Gynecology, by F. H. Martin, and In Diseases of

the Skin, by A. H. Ohmann-Dumesnil. We can most cordially recommend this system to our readers. Knowledge of these subjects treated of would appear to be absolutely essential to every man who in medical practice desires to be honestly considered "up-to-date."

A Manual of Otology. By GORHAM BACON, A.M., M.D., Professor of Otology in Cornell University Medical College, New York. With an introductory chapter by CLARENCE J. BLAKE, M.D., Professor of Otology in Harvard Medical School, Boston. New (3rd) edition. In one handsome 12mo volume of 437 pages, with 120 engravings and 7 plates in colors and monochrome. Cloth, \$2.25 net. Lea Brothers & Co., publishers, Philadelphia and New York.

This manual is favorably known to all aurists, and the demand for it has been such that the third edition is just now issued.

It is a book written by a specialist for the student and for the general practitioner. The author has succeeded admirably in his effort to include in a compact volume the essentials of otology. To accomplish this he has left out theoretical discussions, and has made every part of the book as practical as possible. The author's wide clinical experience has enabled him to seize upon those points most likely to come to the notice of the family physician and to properly emphasize them. While written for the family physician, however, it is a book which no specialist can read without profit.

If one may be allowed to suggest, the index should be improved when the next edition is called for. It seems unaccountable that such subjects as "Finnitus" and "Vertigo" should not appear in their usual places. The subjects are, of course, properly considered in the body of the work.

The scope of the manual may be judged by the titles of the chapters, which are: I, Anatomy and Physiology; II, Methods of Examination; III, Diseases of the Auricle; IV, Diseases of the External Auditory Meatus; V, Diseases and Injuries of the Drumhead and Middle Ear; VI, Acute Purulent Otitis Media; VII, Adenoid Growths, Enlarged Tonsils, Diseases of the Nasal Passages; VIII, Chronic Catarrhal Otitis Media; IX, Chronic Purulent Otitis Media; X, Granulations and Polypi, Caries and Necrosis of the Temporal Bone; XI, Diseases of the Mastoid Process; XII, Intracranial Complications; XIII, Diseases of the Sound-Perceiving Apparatus; XIV, Deaf Mutism.

The book may be warmly commended for its conciseness, its clear descriptions, its excellent illustrations, and because in its methods of treatment it is modern and thoroughly practical.

J. T. D

Morphinism and Narcomania from opium, cocaine, ether, chloral, chloroform and other narcotic drugs; also the etiology, treatment and medico-legal relations. By T. D. CROTHERS, M.D., Superintendent of Walnut Lodge Hospital, Conn.; Professor of Mental and Nervous Diseases, New York School of Clinical Medicine, etc. Handsome 12mo of 351 pages. Philadelphia and London: W. B. Saunders & Co., 1902. Cloth, \$2.00 net. Canadian Agents: J. A. Carveth & Co., Parliament Street, Toronto.

The alarming increase in the last few years of morphomania and the associated various narcomanias imperatively demands immediate attention by the medical profession. Every year the increasing prominence of this psychosis calls for more exact studies, with a fuller recognition of the conditions and causes of the disease. Medicolegally, questions of responsibility have been asked with increasing frequency, and there has been no literature and no study of the subject to afford an intelligent answer until this present volume was initiated.

The special object of this work has been to group the general facts and outline some of the causes and symptoms common to most cases, and to suggest general methods of treatment and prevention. The object could not have been better accomplished. The work gives a general preliminary survey of this new field of psychopathy, and points out the possibilities from a larger and more accurate knowledge, and so indicates degrees of curability at present unknown. The author shows his absolute familiarity with his subject in the clear, concise and in every way admirable work which he has given to the profession, whom he has placed under merited obligations.

Dr. A. M. Rosebrugh, of Confederation Life Building, Toronto, intimates that hereafter he proposes devoting himself more exclusively to the medical treatment of alcoholism. A little over a year ago the doctor retired from the medical staff of St. Michael's Hospital (to which institution he has given his services gratuitously for over eight years) to enable him to devote more time to the study and treatment of inebriety as well as to promote the adoption of the proposed bill for the treatment of indigent inebriates. Dr. Rosebrugh will devote himself more especially to the home-treatment of incipient inebriety.

EXPERIENCES WITH THE USE OF ASPIRIN.*

By DR. F. WIELSCH, VIENNA.

The therapeutic action of salicylic acid in rheumatic affections is so marked that we are accustomed, in enumerating the various specific remedies, to mention salicylic acid among those in the first rank. Unfortunately, salicylic acid and the salicylate of sodium have a number of undesirable by-effects, which are responsible for the fact that frequently we are compelled to abstain from their use, and almost always from any prolonged administration.

With the hope of retaining the beneficial action of salicylic acid and eliminating its objectionable features new derivatives are constantly being introduced, and although their number has become quite considerable none of them has been able to displace the salicylate of sodium. Even though their by-effects are not identical with those of the salicylate, they exhibit other disagreeable properties due to the other components.

In aspirin, or acetyl salicylic acid, no effect was to be expected from its other component, and hence there only remained the fear that the salicylic acid split up in the organism might produce sequelæ similar to those of salicylate of sodium. Clinical observations, however, showed that while the therapeutic action of aspirin was at least equal to that of the salicylate of sodium the sequelæ of the latter are usually absent, or at least are less intense and unpleasant.

My experiments with the drug were made in the medical clinic of the University of Vienna, under the direction of Professor Neuser. Even the first case illustrates the superior effect of aspirin over that of the salicylate of sodium.

Case 1. A. B., 40 years old, suffered in the autumn of 1897 with pains in the left knee, which became swollen, together with the foot and toes. For a number of weeks she took salicylic acid until vomiting ensued. Improvement was not obtained, and, on the contrary, the right knee and ankle began to swell. Citric acid in water afforded some amelioration, but no permanent result, while the use of sulphur baths for three months proved equally inefficient. On April 20th, 1899, when admitted to our clinic, the shoulder joints were found painful; the elbow joints in a position of flexion, puffed, and eliciting a grating sound when moved. The right wrist was deformed, the left somewhat less. The movements of the left hip joint were quite free, while the right was completely fixed; both knees were markedly swollen and flexed at an angle of about 150°. The ankles were painful. Walking was impossible.

*Translated for the CANADIAN PRACTITIONER AND REVIEW from *Wiener Med. Presse*, No. 5, 1902.

The patient received sodium salicylate, fifteen grains five times daily, which produced gastric oppression, tinnitus, and later vomiting. April 26th, she was given eight grains of aspirin and fifteen grains of bicarbonate of soda, three times daily. They produced no gastric disturbance of any account, although the patient complained of eructations of unpleasant gases. The bicarbonate of soda was therefore omitted and aspirin alone administered. Under its use the patient improved remarkably, the appetite returned, and on May 2nd the pains in the joints had completely disappeared. The swellings as far as they were not due to chronic articular changes subsided, and the others were improved by massage to such an extent that the patient was able to walk about with the aid of a cane, and on May 31st left the hospital.

Case 2. M. W., 22 years old, was admitted to the clinic with a complicated lesion of the heart, and owing to pains in the knee and ankle was unable to walk about. Aspirin, forty-five grains daily, caused complete disappearance of the pains in three days.

Case 3. M. M., 19 years old, had suffered since her 17th year from recurrent articular rheumatism. She complained of pains in the hips and swelling of the ankles. Aspirin, sixty grains daily, relieved the pains after four days, although movement of the hips still gave rise to some discomfort.

Case 4. M. B., 26 years old, had suffered since eight days with pains in the left wrist and shoulder joints, left knee and hip joints, and both ankles. The joints were reddened and swollen. Aspirin, ninety grains daily was administered, and at the end of four days she was completely free from pains, while the joints were readily movable, both actively and passively, and no longer showed any swelling.

Case 5. M. B., 19 years old, was attacked towards the end of September with swelling of the ankles and spasms in the facial muscles, especially the eyelids. Soon afterwards the upper and lower extremities were also affected with muscular spasm, showing the peculiar character of chorea. When admitted to the clinic, November 6th, the patient had chronic twitchings of the face and extremities, in the latter especially on walking. After the administration of aspirin, seventy-five grains daily, the condition improved to such an extent that the patient was able to leave the hospital at the end of eight days without any marked signs of disease, the twitchings having almost completely disappeared.

Case 6. S. A., 41 years old, was attacked two years ago with acute rheumatism. In April, 1899, the pains recurred in the knees and ankles, and she complained of pains in the neck. August 16th, 1899, the left knee joint was markedly swollen,

the skin tense, shining and reddened. It was excessively painful to the touch. The tibia was also sensitive to pressure. The right knee joint was less painful, while the ankles were swollen, the skin reddened, movement restricted, with marked tenderness to pressure. There was a complete loss of appetite. Aspirin, fifteen grains, was given four times daily, and on August 18th the right knee joint was painless: the redness and swelling of the ankles had disappeared, while the left knee joint had lost its redness, but was otherwise unchanged. August 20th, the swelling of the left knee joint had also disappeared, but some pain persisted. The appetite constantly increased, although from now on the condition remained unchanged. While the swelling disappeared, the movements in the left knee joint were restricted, so that the patient limped with the left leg. September 5th, aspirin was discontinued, and six days afterwards the patient left the hospital.

Case 7. M. H., 11 years old, had suffered with cardiac trouble since her 7th year. In May, 1899, she caught cold, complained of headache, and pains in the neck. Later the left ankle became reddened, swollen and painful, while fever occurred. Notwithstanding three days' rest in bed, the pains increased, and the knee joints began to swell. Moor baths and steam baths were employed, without success. September 9th, 1899, her condition was as follows: Left wrist joint somewhat swollen and painful; the right lower extremity was the seat of an anesthetic zone in the territory of the anterior cutaneous nerve. The knee and ankle were painful, somewhat reddened, and markedly swollen. The treatment consisted of seventy-five grains of aspirin daily. September 16th, the swellings had receded considerably, and the pain had completely disappeared, so that the patient could be discharged improved.

Case 8. E. K., 38 years old, was attacked with pains in the hips and later in the other joints twelve years before, after bathing. She recovered under salicylic acid treatment. At the age of 30 there was a recurrence, and at that time salicylic acid was badly tolerated, and its administration always followed by vomiting. Since then the patient has suffered frequently from attacks of pain in various joints, lasting for hours and disappearing spontaneously. Her present attack dates back fourteen days, the pains persisting in the left ankle and knees. These joints began to redden and became swollen. Finally the right shoulder and elbow joints were involved. Ichthyol ointment and other applications proved successful. Salicylate of sodium caused vomiting. Salipyrin was badly tolerated, but gave transient improvement. On admission to the hospital the elbow and shoulder joints were painful, but not reddened. She also presented a complicated valvular lesion of the heart.

Aspirin, fifteen grains, was given five times daily, and salicylvasogen applied externally. On the next day the shoulders were free from pain, and after another three days the other joints were also relieved. At the end of eight days the patient left the hospital cured, with the exception of the cardiac lesion.

Case 9. R. O., 24 years old, has suffered from cardiac trouble since a previous attack of acute rheumatism. Fourteen days ago both knees became swollen and painful, these symptoms disappearing after rest in bed. They reappeared two days ago, and were unimproved by rest in bed and medical treatment, on which account the patient sought the hospital, December 19th, 1899. At that time there were present over the knee, leg, and dorsal surface of the feet isolated, reddish, infiltrated patches. The knees were painful on movement. Aspirin was given in doses of forty-five grains daily. December 23rd, the pains in the knees were less marked, but the elbow joints were painful. December 25th, all the pains had disappeared, there being only traces of the erythema. Tinnitus occurred, for which reason aspirin was discontinued. December 27th, all the disturbances had vanished, and on the following day the patient could be discharged.

Case 10. A. K., 24 years old, had suffered since fourteen days with loss of appetite, vomiting, headache and constipation. A week later pains occurred in the knees, calves of the legs and feet, which gradually extended to the thighs, hips and back, finally, large red patches appeared on the chest, back, face, hands and feet. The fingers and hands began to swell up. The eruption was so itchy that the patient was unable to sleep. Calomel, seven grains, was administered, followed by aspirin, 75 grains. As early as the following day the eruption began to disappear, and the pains in the joints subsided. After four days the patient could be discharged completely cured.

Many similar cases could be cited. Those which have been reported comprise only a part of the observations made during a part of the first year after commencing the use of aspirin. Since then, aspirin has been permanently adopted in the clinic, and has been given equal place with the salicylate of sodium. Having continued our observations now for the last three years in hundreds of cases, we feel that we may justly assume to have collected sufficient data to entitle us to a positive decision regarding the value of aspirin as an anti-rheumatic.

Summarizing the results obtained, not only in the cases referred to above, but in the many others which are not described here, we are able to say that aspirin is to be preferred to salicylate of sodium, especially on account of its taste. While salicylate of sodium, owing to its sweetish taste, excites

aversion sooner or later, aspirin has a slight acidulous flavor. This taste is not marked, and never unpleasant or nauseating. In fact, some patients who took aspirin by mouth regarded it as tasteless. This comparative tastelessness is one of the properties which enables it to be given for prolonged periods. When aspirin has reached the stomach it never causes vomiting or discomfort. Occasionally there is eructation, but this can be easily avoided by administering it after eating. The appetite never was impaired, but rather became better. This was due to the fact, as shown by experiments in the test-tube, that aspirin decomposes extremely slowly in the presence of acid, and during its brief sojourn in the stomach therefore undergoes practically no decomposition. When salicylate of sodium is ingested, it combines with a large part of the hydrochloric acid in the stomach and free salicylic acid is formed, while aspirin does not affect the gastric juice. The salicylic effect does not manifest itself until the drug reaches the alkaline intestinal juice, where it is decomposed into acetic and salicylic acid. As one of its components, the acetic acid, produces practically no by-effects, the action of the second constituent alone is to be considered. Several hours after taking a dose of aspirin there is some sweating, with a fall of temperature in febrile cases.

Deafness was never observed during its use as well as heaviness in the head and delirium, while tinnitus was present in a few instances. Some patients were free from tinnitus after aspirin, although salicylate of sodium, even in small doses, at once produced this symptom.

In rheumatic articular pains the aspirin treatment acts as a sedative. Especially violent pains became more bearable at the end of twelve hours and disappeared at the end of two or three days. The swellings of the joints subsided perceptibly if they were recent and purely of rheumatic character, although in chronic cases the effect, as might be expected, was much slower and less reliable, and had to be supplemented by massage, steam baths, and hot compresses. In cases resulting from gonococci the analgesic action was likewise favorable, but not so marked as in true rheumatism. The heart, if already affected, was not influenced either for the better or worse. Collapse or very serious symptoms were never observed in any case.

We administered aspirin ordinarily in amounts of sixty grains daily, or, at the most, ninety grains, in doses of eight to fifteen grains after meals. This dose was exceeded in two instances without any advantages or disadvantages. If the salicylate of sodium had been given in a similar manner we would have often had occasion to observe unpleasant by-effects, compelling us to discontinue it, while aspirin has been given

for weeks without any such necessity. The urine always gave a salicylic acid reaction.

If we compare our observations with those of other authors, they coincide almost completely as far as the use of the drug in acute rheumatism is concerned. They also noted a reduction of temperature and subsidence of the pains and swelling in acute rheumatism and improvement in the chronic form. Less favorable results have been obtained in gonorrhoeal urethritis, these consisting only in palliative effects. Disturbances of the digestive tract are reported only in very rare instances; in fact, one author found that when the drug was given on an empty stomach it never caused the least discomfort.

Among these authors the one who is least satisfied is Gazert, who gave the remedy in doses of forty-five grains, and observed gastric disturbances in one-third of the cases treated; but even he noticed such disturbances very rarely under doses of fifteen grains. Almost every author mentions isolated instances of tinnitus.

Aspirin has been praised in other rheumatic affections, especially in diseases of the eyes. In conditions of non-rheumatic origin, such as pleurisy with effusion, it is also said to have proved serviceable. In a case of pleurisy in our clinic the quantity of urine failed to increase during its administration, nor was there any other change observed, although the patient was almost constantly bathed in perspiration.

A number of authors have tried aspirin as an anti-neuralgic, and have found it serviceable in facial neuralgias, migraine, pains of gout, inoperable cancer of the uterus, ulcer of the stomach, tabes, etc.

As regards the use of aspirin as an antipyretic in diseases of a non-rheumatic character, we have had no experiences of our own, while those of other authors are divergent. While it is praised in influenza, and even in malaria, we are warned against its use in typhoid. In this disease it was tested by Kropil and Gazert in several cases, and both observed serious symptoms after its administration. In the fever of tuberculous persons it should also be used cautiously, the initial dose not exceeding $1\frac{1}{2}$ to 3 grains, as otherwise the reduction of temperature may be too abrupt and debilitating.

The final conclusion from my own observations as well as those of others, is that aspirin is a salicylic acid preparation with a pronounced and pure salicylic influence. It is equal to the salicylate of sodium in its antirheumatic action, and deserves preference over the latter, especially on account of the absence of by-effects. For this reason it is possible to give aspirin up to the point of obtaining a decided salicylic action wherever this is feasible, and also of administering it for continued periods in chronic cases.

Selections.

Epistaxis.

The older methods of treatment for this condition, while ordinarily reasonably positive and satisfactory, must give way to the newer method of the employment of the extract of the suprarenal gland. Not only is the application of this solution followed by almost instantaneous blanching of the mucous membrane and stoppage of the hemorrhage, but it has a very wide range of effect. Except in aged persons with a cardiopathic condition causing the epistaxis the method is universally applicable and valuable.—*The Clinical Review*.

Normal Salt Solution.

Himmelsbach, in *N. W. Lancet*, recommends, as a matter of great importance, relatively small and repeated injections of the normal salt solution subcutaneously. The quantities formerly given in this manner, from one to three pints, are entirely unnecessary, and according to his statement an equally specific effect can be produced upon the renal organs when the solution is given in smaller amounts, as shown by the elimination which is many times greater than the quantity injected. This has the advantage that the time taken to do the operation is curtailed, which is of great importance in children. Lenhartz advocates injections subcutaneously of two to six ounces every three or four hours, and states that they have a better diuretic effect and cause less strain on the kidneys than a pint given several times a day.—*Medical Review*.

Combined Operations in Pelvic and Abdominal Surgery.

In summing up the evidence in favor of combined operations, it may be said, experience has demonstrated, on the one hand, that several operations performed at the same sitting do not compromise the life of the patient to any appreciable degree; that the extra time, within reasonable limits, required for the execution of the various procedures does not necessarily augment the dangers to be anticipated from any surgical act; that repair in the individual parts involved goes on as uninterruptedly and successfully, and that convalescence is as rapid and satisfactory as when but a single uncomplicated operation is performed. While, on the other hand, following the passing of the ordeal, the patient's mind remains tranquil and undisturbed by the dread of possible future treatment and the fear of the anesthetic, convalescence is not retarded by the presence of morbid structures or conditions left behind, and recovery is not partial, but total and complete.

Therefore, in every instance, whatever is necessary should be

done, whether the conditions lie within the pelvis, the abdomen, or both; and the limit of execution, should be gauged only by the general condition of the patient, her behavior under the anesthetic, and the inherent dangers of the operations to be performed. These, together with experience, skilful operating, strict asepticism, and watchful care of the patient, are the *sine qua non* of success.—*Manton, Phila. Med. Jour.*

Varieties of Enemata and Methods of Preparing the Same.

Of much practical value is a knowledge of not only the indications for the employment of rectal injections, but the different varieties thereof and their immediate method of preparation. A physician's resources are oftentimes abundantly enlarged by a practical adjustment to circumstances in this direction. For instance, purgative enemata may be necessary in patients who cannot well bear, or who respond feebly to cathartics by the mouth. After abdominal operations a purgative enema may be called for, and also in cases of intestinal obstruction and in many varieties of abdominal pain. Then again to supplement aperients given by the mouth cathartic enemata may be resorted to, likewise in almost all cases preceding operative work in the abdomen. An aperient enema should also be given before rectal and vaginal examinations, and before the administration of an anesthetic.

The simplest form of an enema for unloading the bowels is a mixture of soft soap and warm water, the activity of which may be increased by adding about half an ounce of turpentine, a handful of salt or a little molasses. In lieu of a watery enema (sometimes objectionable on account of the quantity necessary—one to three pints) four to six ounces of warm olive oil, two to four ounces of castor oil, or one ounce of glycerine, may be used. A little turpentine will aid any of these. Turpentine has always seemed especially valuable when there is much intestinal flatus.

Nutrient enemata become highly valuable in quite a number of conditions, among which may be mentioned persistent vomiting of pregnancy, gastric neuroses of other types, gastric ulcer, and other gastric diseased states, various intestinal conditions and operations upon the stomach and bowels, and sometimes in diseased conditions of the mouth, throat and esophagus. Nutrient enema usually are made up with peptonized milk, to which is added beef tea or extract, beaten eggs, various gruels and brandy as may be desired.

A cleansing enema should always precede one containing nourishment. A disregard of this rule has caused many a failure.

Normal salt solution, consisting of one dram of salt to one

pint of water at a temperature of 100° F., is now very commonly employed to overcome collapse after operations and general shock from hemorrhage or other cause.

In cases of heart failure, opium poisoning and other forms of depression, stimulating enemata are many times of value. These may consist of brandy and hot water, strong hot coffee, aromatic spirits of ammonia with hot water. While the water should be hot, care should be exercised that it is not at such temperature as to damage the mucous lining of the bowel.

Medicines may sometimes require administrations per rectum. Chloral, the bromides, strychnia, opiates, etc., in proper solutions and dilution, undoubtedly can be made effectual in this manner. In order to be certain of the use of the full portion of the drug, when used in this way, it is best to make a separate and smaller mixture of the medicament which may be injected and followed by such quantity of diluent as can readily be retained. In this manner one can be certain of the administration of all of the drug intended.

The old "starch and laudanum" enema, so often mentioned in text-books in relation to the treatment of diarræa, has frequently been misapplied or not used at all because of ignorance in its preparation, and thus a means almost always readily at hand is lost. The starch and opium enema is made up as follows: a tablespoonful of ordinary starch is rubbed up first with cold water, a thin paste resulting. Boiling water is then added to the consistency of thick gruel. When the preparation is cool such quantity of the tincture of opium as desired is thoroughly incorporated. A high injection with a soft tube is always best.

If a patient can for a time maintain the knee-chest position after an enema, so much the better; but if not, it is more desirable to lie prone upon the abdomen or upon the left side.

Only gentle force should be exerted in giving a rectal injection.

In the experience of some, cold solutions for purgative effects have appeared better, and not without reason is it argued that cold enemata, and not warm, are indicated in those conditions where they are employed almost constantly.—*The Clinical Review*.

The Physiology of Sleep.

It is a remarkable fact that concerning the phenomenon which occupies fully one-third of our lives, there should be so scanty reliable data that no satisfactory explanation has hitherto been arrived at. Sleep is often spoken of as twin brother of death. This, however, is merely poetic fancy. Sleep is in fact, the most important means of repelling death. It is the Nature's great recuperative agent. It is essential

to health, and often forms the most vital factor in the treatment of disease. And yet regarding the physiology of sleep we remain practically in the dark. Even what we may term the pathology of sleep throws but meagre light on its mechanism. A recent writer in our brilliant contemporary, *The Academy and Literature*, attempts to show that sleep is dependent on certain chemical processes, where through the agency of carbonic acid, the nerves are anaesthetised or reduced to immobility. Such a view has certainly much to support it, and what we know of the action of anaesthetics would not lessen the possibility of such being in some measure a probable explanation. The physiology and pathology of sleep stand in need of serious investigation. Accurate knowledge as to the best means of procuring sleep might then be expected to release us from the grasp of a limiting empiricism.—*Medical Press and Circular*.

Observations Concerning Cholelithiasis.

Boas, Berlin (*Muenchener Medicinische Wochenschrift*.—Much has been accomplished in recent years in determining the etiological factors involved in the development of gall-stones. Based upon animal experimentation and careful observation, these new theories are apt to be lasting. Unfortunately, progress in the diagnosis of cholelithiasis has not gone hand in hand with the pathogenesis. Atypical cases of gall-stones are still very rarely diagnosed by those moderately skilled in diagnosis. The author calls attention again to a point in diagnosis to which he referred several years ago, and which has not received proper consideration. At that time he stated that in cholelithiasis there is marked pain upon pressure in the region of the twelfth dorsal vertebra, two or three finger-breadths to the right of the spinal column, extending sometimes to the posterior axillary line, etc. The same exists in acute attacks, and continues for a long period after the acute period has passed. It can even exist for years during the latent period. The pain in the marginal and vesical region may have long since disappeared, while the dorsal pains remain. There are cases, however, in which this sign is absent. In determining the sensitiveness of the liver in inflammatory conditions, attention should be given to the following three regions:—(a) the border of the liver and the region of the gall-bladder; (b) the subcostal portion of the liver; (c) and the posterior surface.

In the differential diagnosis, duodenal ulcer, gastric ulcer and hyperchlorhydria, intestinal neuroses, etc., must be duly considered.

In the discussion of the treatment, the author touches upon the use of Carlsbad water, the proper diet, forced breathing and massage.—*Inter-State Medical Journal*.

Miscellaneous.

Lumbago.

Lumbago, or pain in the back, it is hardly necessary to explain, is a symptom and not a disease. In its ordinary form it is a painful manifestation limited to the muscles of the back, which serve to regain or maintain the erect position, hence it is very apt to follow a strain or effort such as that involved by remaining standing in one position for an unduly long time. Very often the so-called lumbago coincides with, and is probably due to, some functional disturbance of the kidneys; indeed, pain in the back is always an early and prominent symptom of renal congestion. The precise significance of the pain can only be ascertained by further examination and observation. The rheumatic form of lumbago is a very distressing and obstinate affection, but except for the irksome disability which it entails has not much importance. That due to the kidneys, on the other hand, may pass off as suddenly as it has come, or it may prove to be the prelude of graver trouble, according to the degree to which the renal functions are disturbed.—*Medical Press and Circular.*

The Viewpoint in Medicine.

If asked such questions as "How are you getting along?" "How is everything?" "How does the world use you?" nine out of ten will reply in a way going to show that in calculating the degree of success, dollars and cents is the factor with which we compute our progress. Such answers as "I find plenty of opportunity to do good," "Nothing delights me more than the practice of my profession," are rarely heard. "Business is bad," or "Business is good," or "Collections are slow," or "Collections are brisk," are the replies most likely to be received not only in commercial life, but in professional as well. It is said that we get what we want in this world. If money be the chief object for which we strive, its accumulation will be the *summum bonum* of life; if something else—professional honor, scientific investigation, public beneficence—these, too, may be realized. Is it not often true with many of us that what we are hoping to make is secondary only to what we fear we may lose? As professional men—physicians—do we not find ourselves reckoning, too often perhaps, financial gain rather than fraternal good? The sum of our success cannot always be told in figures. When the steward comes to give an account of his stewardship, success will not depend altogether upon the multiplication of the one or the two or the five talents, as the case may be, but rather upon the uses to which they have been put. It may be asked, "Are we not entitled to pecuniary reward?"

Certainly. But viewed from the higher plane it must ever be incidental and subservient. Our mission is to heal. More than seven centuries ago, Maimonides, one of the greatest physicians of the Middle Ages, offered the following prayer: "May the love of my art actuate me at all times; may neither avarice, nor miserliness, nor the thirst for glory or a great reputation engage my mind; for, enemies of truth and philanthropy, they could easily deceive me and make me forgetful of my lofty aim of doing good to Thy children. Endow me with strength of heart and mind, so that both may be always ready to serve the rich and the poor, the good and the wicked, friend and enemy, and that I may never see in the patient anything else but a fellow-creature in pain." A better motto has never been formulated than the one of Esculapius Hippocrates and Aristotle—one that should ever influence the physician in the unselfishness of his chosen calling: "*Not for ourselves alone.*"—*St. Paul Medical Journal.*

Who Should be a Surgeon.

"Every slow and slovenly physician who never did any mechanical work in his life, whose hands are like an elephant's foot, whose joints are as stiff as a thirty-year-old cow's, considers himself a surgeon, competent to practice surgery. So it has kept on and to-day with modern, clean surgery and the wonderful result and the constant lessening in mortality, it is still worse.

"When it is known how large a number recover after operations, every tyro thinks he can do the same thing. He sees perhaps a surgeon operate from a distance, sees how quick and easy it is done, and thus forthwith he rushes in 'where angels fear to tread.' He does not see the years' practice and experience that were required, he does not notice a thousand and one details of an operation, he does not see all the preliminary preparations.

"In the first place he is a poor diagnostician; he will operate on cases that he should not operate upon, he will operate on them when they should not be. In cases that need operation, he hesitates, he trembles, and the 'golden moment has escaped.' Many men just out of college rush out to operate, and the more difficult the operation the more anxious they are to do it. They have seen operations from their seats and know a little anatomy, forthwith they are surgeons. Some old practitioners who have practiced a quarter of a century or more, hearing about the wonderful results and the great fees received by surgeons in the medical centres, forthwith buy a new edition of surgery, read up, and proceed to operate. Fortunately some of these, after they have killed a dozen people, see the error of their ways,

give up and return to practice. If anyone should hint to these people that they are not competent to practice surgery on account of lack of training, they feel very indignant and they say, 'Why, you had to learn. You killed a lot of patients learning this.'

'Because we were obliged to do this in order to open the path for the future, in order to save life, and to lessen suffering for coming generations, that does not say that every Tom, Dick and Harry has got to learn this over again, has got to make those same mistakes we have made. We made the mistakes but have tried constantly to teach the rising generation of surgeons how to avoid the mistakes.'

"The man who has never done any mechanical work, or who was not raised on the farm, or who was not allowed to make a little sleigh or a baseball bat when he was a boy, or who never worked around in the garden, or played ball or the piano, or who never made pills in a drug store, the man who had never *developed a mechanical hand from his earliest childhood*, will never be a good surgeon. The man who simply studied all his lifetime, and whose father was kind enough to buy him everything from a waggon to a book, who was never taught to draw and to cultivate an artistic eye or to develop the sense of symmetry and proportion, *that man will never be a surgeon*; it is not in the nature of things.

"If I read, for instance, in a cheap medical journal an editorial something like this: 'We've quit sending. We do our own surgery, having to provide for our own wife, our own children, ourselves. If we don't know how to do an operation we'll go to the post-graduate schools and learn how, and charge accordingly. If we haven't the skill that comes from experience, we'll get it just as the professor got it, by doing the operation at every opportunity till we become adepts.'

"And who can blame us if we determine to do our own work ourselves? Are we not equally M.D.'s, with equal privileges? This reference of cases to specialists is in many cases unnecessary anyhow. Very often it is simply because the doctor is too busy to attend to the matter himself. But the real remedy is for him to charge enough to make it worth his while to buy books and apparatus, to take special instruction and to do the work.

"Do you have many cases of eye, ear, nose and throat affections? Open your purse-strings. Come to the city and take a post course; buy the apparatus. It will cost you up to \$500, but if you cannot make \$1,000 a year out of the results, you are not much of a business man, and not apt to succeed as a doctor.

"If a layman should be careful in selecting his physician, how much more careful should he be in selecting a surgeon? How absurd to let anybody operate who says he can, unless it is known he has had some practice and some experience.

"Finally, you will ask me, 'Who could or should be a surgeon?' and in answer I will say that he must be a well educated physician, must have been a general practitioner and a good therapeutician."—Abstract of Paper by DR. CARSTENS in *Transactions of the Michigan State Medical Society*.

The Treatment of Phthisis With Blue Light.

Kaiser (*Wien. Klin. Woch.*), after making a series of investigations on this subject, draws the following conclusions: (1) Tubercle bacilli in pure culture were killed in thirty minutes by the blue light at a distance of five metres, while they survived the equal illumination by an ordinary arc lamp. (2) Tubercle bacilli in pure culture were pasted on a patient's back, and the blue light was directed on the patient's chest at a distance of five metres for thirty minutes; this was repeated for six days. The bacilli were "weakened." (3) Pure culture of tubercle bacilli were illuminated by a light concentrated through a hollow lens containing a solution of alum and methylene blue with ammonia; they were killed. (4) The same lens was used, and the light was split up into the spectral colors by means of a carbon disulphide prism. Cultures lived in red and yellow light, but were killed in from blue-violet to ultra-violet. (5) A photographic negative with an unused film was pasted on a patient's back in such a way that all light was excluded. The film was illuminated through the patient's body, and a blurred "positive" was obtained.

Following these experiments, Kaiser tested the blue light in two cases of advanced phthisis; after six days night sweats ceased and cough became less; after six weeks (up to the present) diminution of bacilli in sputum. In a case of tuberculous abscesses in the thigh and knee flexion, all treatment that had been applied before (for three months) failed to do any good; as a result of blue light there was healing of all abscesses in four weeks. A case of "weeping" eczema in a child of "tuberculous character" was cured in five weeks.

The author concludes that (1) blue light kills tubercle bacilli; (2) the heat rays are excluded by the hollow lens with cooling arrangement; (3) action of the light is independent of the distance and intensity of the source of light; (4) the light can pierce the body sufficiently strongly—only the chemical rays do so; (5) pure blue light acts strongly as a resorbing agent; and (6) blue light has a local sedative action if the rays are concentrated, and may even produce anesthesia.