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.

- ☐ Coloured covers / Couverture de couleur
- ☐ Covers damaged / Couverture endommagée
- ☐ Covers restored and/or laminated / Couverture restaurée et/ou pelliculée
- ☐ Cover title missing / Le titre de couverture manque
- ☐ Coloured maps / Cartes géographiques en couleur
- ☐ Coloured ink (i.e. other than blue or black) / Encre de couleur (i.e. autre que bleue ou noire)
- ☐ Coloured plates and/or illustrations / Planches et/ou illustrations en couleur
- ☐ Bound with other material / Relié avec d'autres documents
- ☐ Only edition available / Seule édition disponible
- ☐ 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.
- ☐ Additional comments / Commentaires supplémentaires:

- ☐ Coloured pages / Pages de couleur
- ☐ Pages damaged / Pages endommagées
- ☐ Pages restored and/or laminated / Pages restaurées et/ou pelliculées
- ☑ Pages discoloured, stained or foxed/ Pages décolorées, tachetées ou piquées
- ☐ Pages detached / Pages détachées
- ☑ Showthrough / Transparence
- ☑ Quality of print varies / Qualité inégale de l'impression
- ☐ Includes supplementary materials / Comprend du matériel supplémentaire
- ☐ 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.

THE

MONTREAL MEDICAL JOURNAL.

A Monthly Record of Medical and Surgical Science.

EDITED BY

GEORGE ROSS, A.M., M.D.,

Professor of Practice of Medicine, McGill University; Physician to the Montreal General Hospital.

T. G. RODDICK, M.D.,

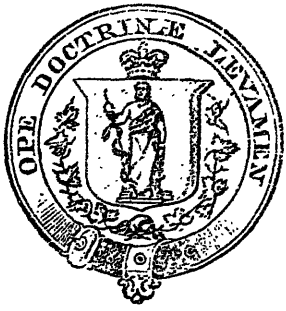
Professor of Clinical Surgery, McGill University; Surgeon to the Montreal General Hospital, etc.

AND

JAMES STEWART, M.D.,

Professor of Materia Medica and Therapeutics, McGill University.

VOL. XVII.



Montreal:

PRINTED & PUBLISHED BY THE GAZETTE PRINTING COMPANY.

1889.

THE

MONTREAL MEDICAL JOURNAL.

VOL. XVII. JULY, 1888. No. 1.

Original Communications.

ABSTRACT OF CLINICAL LECTURE ON ABDOMINAL TUMORS,

Delivered at the Montreal General Hospital, April 16th, 1888,

BY T. JOHNSON ALLOWAY, M.D.,
Instructor in Gynæcology, McGill University; Assistant Surgeon to the Hospital; Gynæcologist to the Montreal Dispensary.

GENTLEMEN,—For the interesting case before us I am indebted to my colleague Dr. Wilkins, under whose medical care she has been during the past two months. Her history is as follows:

"A. B., aged 18, admitted to hospital Jan. 20th, 1888, cigar maker, nationality Irish, states that she is weak, dyspeptic, and suffers from palpitation; has pains in back: menstruation absent for past two months.

Feb. 2nd.—Noticed abdominal distension, with obstinate constipation during the past week.

Feb. 22nd.—Much distension and headache; some pain during abdominal palpation. Find it impossible to cause bowels to be evacuated with any drug except croton oil. This drug has to be given her every two or three days.

April 16th.—Examined by Dr. Alloway under ether. Previous to examination abdominal measurements were: At umbilicus, 33 inches; between umbilicus and pubis, 34½ inches."

It rests with us now to find out what kind of tumor is giving rise to the abdominal enlargement in this girl. And to do this we must proceed carefully and in a methodical manner. She

states that the enlargement has existed for two months, that it has been of rather sudden formation, and that she does not think it has of late grown any larger. It sometimes, however, becomes altered in size at different periods of the same day. The tumor is tender, giving her some pain on pressure, especially over the epigastrium.

Does this tumor spring from the true pelvis or from the abdominal cavity? Does its growth extend upwards into the abdominal cavity or downwards into the pelvis? Knowledge on this point we will obtain by palpation and percussion. We will now consider how much the tumor affects the symmetry of the abdomen.

On inspection, we see that the abdomen is symmetrically enlarged. Its enlargement extends from the pubis to the sternum, having an equal rotund appearance; there is no bulging of the flanks with flattening of the upper surface. We notice that the normal depression of the umbilicus is not altered, as in solid and fluid tumors distending the abdomen to this extent. The superficial veins are also not to be seen. There are no lineæ albicantes observable.

On measurement, we find that the distance between the sternum and the pubis although somewhat increased in its total length, the umbilicus retains its normal position—about one inch nearer to the pubis than to the sternum—and is about on a level with the highest point of the crest of the ilium on each side, and midway between these two points. This condition we could have in ascites, but in the case of an ovarian tumor there is often considerable alteration in the above measurements.

On palpation, the abdomen feels soft and resilient. On compressing the abdomen firmly between both hands there is no change in density of the tumor, as we get in cases of advanced pregnancy from an occasional systolic contraction and hardening of the uterus. We cannot get a distinct sense of fluctuation in any part of the tumor; no solid moveable body on deep pressure as if within a fluid.

On percussion, we obtain a clear note all over the abdomen to within an inch of the pubis. In fact the whole of the region

of the false pelvis and abdomen is tympanitic on percussion. This clear note extends downwards on each side to the lowest point of the flanks, and it is not altered in character by change of position of patient.

On auscultation, we get no bruit nor fœtal heart ticking, nor aortic sounds or impulse. In fact auscultatory evidence is nil, with the exception of considerable gurgling sounds heard all over the abdomen.

Now that we have made use of the chief methods of physical diagnosis applied in such cases, we will endeavor, through the principal of "exclusion," to arrive at a correct diagnosis in this somewhat obscure case.

Is the girl pregnant? As to age she comes within the range, 15 to 45. She has a voluminous abdomen, but the enlargement is that of pregnancy at full term, and its commencement dates back only two months. We cannot have a nine months pregnancy with a two months history. The patient, it is true, has been for some months in a state of amenorrhœa, but her anæmia would account for that to some extent. The symmetrical rotund appearance of the abdomen on inspection gives the impression of possible pregnancy, but on auscultation, palpation and percussion the evidence of such a condition is positively nil. We may therefore safely exclude pregnancy.

Have we an ovarian, parovarian tumor, or ascites? When an ovarian tumor is large the abdominal enlargement is general, as it also is in ascites. But when of moderate size the enlargement is often partial—more to one side, and more below the umbilicus than above. In ascites, the flanks of the abdomen protrude and the front is flattened or normal. In a simple ovarian cyst the bulging is more in front and inclined somewhat more to one side than to the other. In ascites the change of position of patient produces more immediate change in shape of abdomen, from the ease with which free fluid gravitates to the most dependant part. In ovarian and ascitic dropsy the umbilical depression is obliterated; when, however, there is much ascitic fluid surrounding an ovarian tumor the umbilicus bulges forward. In this case you notice the normal depression is unaltered.

Now as regards the superficial veins, which are not seen in this case, they may in the case of an encysted tumor become prominent. The epigastric veins, seen as a fine network of capillaries, is due simply to absorption of the cutaneous fat, the vessels becoming more prominent and visible through the thinned and distended skin. This condition, therefore, has no diagnostic value. When, however, some of the larger veins in their course from the inguinal region upward run to the hypochondriac and axillary regions, or even up to the clavicles, anastomosing with branches of the axillary, internal mammary and intercostal veins, the impediment to the circulation may be of several kinds: in the heart, the trunk or large branches of the inferior cava. Pregnancy, large tumors or coagula causing obstruction in any of these vessels will throw the circulation into the superficial veins.

Movement on respiration often gives us information in these cases. In the case of an ovarian cyst, on deep inspiration the tumor may be seen to rise and fall. In ascites this characteristic sign does not occur unless a coil of intestine is much distended and moves with the diaphragm, but percussion will discover the error.

In the case of an ovarian tumor, percussion would give us a dull note in front and clear at the flanks. In ascites, a clear note in front and dull in the flanks, and these signs would alter with change of position of patient. It will also change with the degree of pressure exerted on the part percussed, and with the height to which the shoulders of the patient have been elevated. In both we get fluctuation, which in the case of ascites varies with the position of patient. In the case before us we can obtain no such sign.

We are now reduced, as you see, to pretty narrow limits as regards diagnosis; to clear up matters we will anæsthetize the patient and employ the bimanual method. Now, gentlemen, we find that the supposed tumor has entirely disappeared, and that the enlarged abdomen has become as flat as can be. The uterus I find measures 5 cm., and no evidence of a pelvic tumor or other abnormal condition. We will now withdraw the anæsthetic and

allow the patient to return to sensibility; and we notice that the abdomen begins to enlarge again gradually until it has reached its usual prominence. We now feel justified in making a diagnosis of "phantom tumor" or hysterical tympanites. This condition is peculiar to hysterical women, and is most frequently accompanied with a bowed condition of the lumbar region, called "lordosis," supposed to be due to an hysterical spasm of the psoas muscle. In many cases we also have a distinct wavy tremor passing along the abdominal surface when the patient is being examined. This phenomenon was first noticed by Osler of Philadelphia. Instances have been reported where such cases have been operated upon for ovarian tumors. Simpson reports no less than six cases, and Bright reports the case of a woman who entered Guy's Hospital with an unhealed incision in the centre of the abdomen. She had a distended abdomen, and was recognized as an hysterical patient formerly under the care of Dr. Marcet. Sir Spencer Wells, in his book on Abdominal Tumors, reports some interesting cases of this strange disease having come under his observation.

In my next lecture, gentlemen, it is my intention to show you another case of abdominal enlargement of a not less interesting, though very different character.

REPORT ON DISEASES OF CHILDREN.

By A. D. Blackader, M.D.,
Instructor in Diseases of Children, McGill University; Assistant Physician, Montreal General Hospital.

During the past twelve months some important contributions have been made to our knowledge of the etiology of summer complaint in infants. One of the most important has been the discovery by Dr. Victor Vaughan, of Ann Arbor, of tyrotoxicon, a poisonous substance produced in milk under favorable circumstances by the action of an organized ferment—apparently the clostridium butyricum of the butyric ferment, or if not it, one frequently developed in association with it. This poison was first discovered in some cheese and afterwards in some specimens of milk and ice cream that had produced symptoms of acrid poisoning in those that had partaken of them. Since then it has been

isolated and its properties examined by several chemists, who have corroborated Dr. Vaughan's statements. It is apparently one of the diazo-benzol salts. In small doses it induces severe vomiting and purging; the first stools are fæcal, but the subsequent ones are serous, like rice-water in appearance, and alkaline. With the continued administration of small doses from day to day the vomiting and diarrhœa continue, leading to rapid emaciation and death. The post-mortem appearances are very similar to those found after death from cholera infantum, the mucous membrane of stomach and small intestine being blanched and somewhat softened. The conditions favoring the production of tyrotoxicon in milk are a comparatively warm temperature, 98° to 100°, with the exclusion or only limited supply of air, and any conditions of uncleanliness or impurity in the milk. Simple souring of the milk is produced by the lactic acid ferment, which decomposes part of the milk sugar into lactic acid. This change of itself could scarcely be deleterious, but, frequently associated with the lactic acid fermentation, we have an accompanying weak butyric fermentation with the formation of small amounts of this tyrotoxicon. Hence, clinically, we frequently find the use of sour milk by infants followed by diarrhœa.

Prof. Vaughan says (*Med. News*, June 18, 1887) that we have evidence for believing that this poison is an important factor in the causation of cholera infantum and similar diarrhœas of children—the violence of the attack varying with the amount of the poison present. When we remember that these diseases are most prevalent among the poor classes of our large cities where fresh milk is almost unknown, we can readily understand their frequency. By such people milk is often not obtained until it has begun to sour; it is then kept at a high temperature, and often in a most foul atmosphere. In this state it is fed to little ones depressed by poverty and everything that poverty means. Moreover, we all know from actual observation how little attention is given to the food of children. Cows stand and are milked in filthy barns and yards; their udders are not generally washed before milking, and the vessels in which the milk is kept are not as clean

as they should be. In bottle-fed infants, also, very defective care is given to the bottles, and crusts of decomposing milk accumulate round the neck of the bottle and in the tube and nipple, and lead to the rapid decomposition of the entire contents. One of the most important advantages secured to breast-fed children arises, Dr. Vaughan thinks, from the lessened dangers of their milk being infected with germs which may produce these poisonous ptomaines. He does not claim that decomposed milk is the sole cause of the summer diarrhœas of children, nor that tyrotoxicon is the only poison that may be developed in milk. It is only one of a large class of bodies which are produced by putrefaction, and many of these are cathartic in action.

Dr. Christopher of Cincinnati (*Med. News*, March 3, '88) also writes: "From clinical studies I am inclined to believe that tyrotoxicon is not the sole cause of summer complaint, though a frequent one, but that there are other ptomaines and other chemical products concerned." But it is not alone with such poisonous ptomaines as may be formed outside of the body that we have to do. We are all aware of the fact that the butyric acid ferment frequently does develop in the stomach, probably through the ingestion of food already tainted or adherent to food otherwise perfectly pure. Given such a fermentation once started in the intestine, the constant ingestion of albuminous, and especially of milk, food by the infant, supplies the means of keeping it up, while the surrounding conditions of heat and moisture and the paralyzed state of the secretion of gastric juice accompanying these conditions, make the intestine a culture ground in which such ptomaines are rapidly developed. "The ptomaines most frequently produced under these circumstances act like hydragogue cathartics, others act more particularly on the large intestine, and possibly some are concerned in the production of fevers."

Another fact that has been brought forward lately, of the exact importance of which we are not yet able to judge, is the part played by some species of bacteria in assisting digestion. M. Pasteur has made experiments on seventeen species found in the mouth. Of these many were found to act on starch,

changing it into glucose, and others on albumens, changing them into peptones. Among these, six resist for more than twenty-four hours the action of the gastric juice at the temperature of the body, while the bile and pancreatic juice have no distinct action on them. Vignall, in corroborating these experiments, says the action throughout the alimentary canal must be considerable, for a series of numerations showed that there were more than twenty millions in a decigramme of fæcal matter, six species of which were similar to some found in the mouth, but most were of different species. How much assistance these bacteria of health may render, and how much their action may be changed by pathological conditions, must still be a matter of speculation.

In what way has the knowledge of these poisonous ptomaines affected our treatment of these diarrhœas? Principally by distinctly emphasizing certain of the results of our previous clinical experience. It is obvious that the cleansing of the alimentary tract as far as possible from this fermenting matter by a smartly acting purgative must be our first step. For this purpose the treatment of every case should be begun by a full dose of castor oil or a powder containing calomel and soda.

At the same time all further administration of milk, as being an effective medium out of which the ferments can manufacture these poisons, must be stopped until we feel assured we have no longer to dread the action of these germs. It is well in some cases where the stomach is irritable to allow it a complete rest for several hours. Then one of the following foods may be given in small quantities: barley or rice-water, toast-water, egg-albumen water, mutton or chicken broth. Jacobi recommends the following mixture as being useful at the time: 5 oz. barley-water, 1 to 2 drachms old whiskey, white of one egg well mixed, and a little salt and sugar added; later on, an equal quantity of mutton broth may be added to this recipe. Another formula for a food to replace milk is the following by Foreschi: Dried egg albumen, 3¼ drachms; oil of sweet almonds, 8¾ drachms; sugar of milk, 10 drachms; carbonate of soda, 8 grains; chloride of sodium, 6 grains; neutral phosphate calcium, 40 grs.; water to one quart. Make an emulsion.

The amounts to be given of any of these foods and the frequency of administration must be determined by the powers of the stomach to retain and digest them. In all severe cases it appears advisable to assist gastric digestion by the administration of pepsin in some form.

As these germs, so far, have been found to develop only in acid media, it is wise to give antacids to maintain alkalinity, and probably none is superior to carbonate of lime in the form of chalk mixture, to which carbonate of bismuth may be added. The dose must be large enough to be effective, and repeated frequently. Much yet has to be learned regarding the powers of the several germicides. Sodium salicylate, owing to the strong recommendations of Dr. Emmet Holt, was largely used last year. And in the out-patient department of the Montreal General Hospital my results from its use were in general good. In full doses frequently repeated, it occasionally produced symptoms of cardiac depression, and increased the irritability of the stomach. Jacobi prefers resorcin, giving gr. iv to x per diem in solution, or as a constituent of powders. Starr and Keating, and many European writers, prefer naphthalin, which they give in half to one-grain doses every two hours, in powder or suspension, flavored with coffee or aromatics. Salol has been used with benefit by Forchheimer of Cincinnati, but has not seemed to fulfil first anticipations.

[Since writing the above, Dr. Vaughan has given us some results of his further investigations, and in an address before the New York Academy of Medicine (*Med. News*, June 9, '88) says: "One of the surest methods of destroying the life of any plant or animal is to withdraw all the sources of food supply. Germs in the intestine of a child may be destroyed in this way. Escherich has shown by actual demonstration that the bacteria normally present in the stools and intestines of the young fed upon milk disappear wholly and speedily when the administration of milk is stopped and a meat diet is substituted. A radical change in diet is therefore one of the most certain methods of changing the nature of the bacteria. Some thrive in a given medium, but when the medium in which they exist is changed,

they find that the new conditions of life influence their rate of growth and reproduction. If the new conditions are unfavorable to the old resident, it is displaced by an invader; or if it grows it may lose its virulence in the new medium and be no longer able to elaborate the chemical poison or ptomaine. . . . In a large number of experiments I have invariably found that a small quantity of milk containing tyrotoxicon added to any quantity of good milk will soon render the whole poisonous, but when added to beef-tea or solution of egg albumen, the amount of chemical poison is not increased." In another series of experiments which were made to determine the value of certain germicides in the destruction of the tyrotoxicon germ, it was found that one part of mercuric chloride to 24,000 parts of milk is sufficient to destroy its activity. One part of sodium salicylate to about 200 of milk was also effective, as was resorcin in the same proportions, but naphthalin in this strength was wholly without effect.]

The action of these germicides may be powerfully assisted by copious enemata to wash out the large bowel. Dr. Booker recommends a Nelaton's catheter attached to a fountain syringe, which should be introduced gently, as high up into the rectum as possible, and a gentle steady stream be kept up until the water returns clear. The water may be rendered more antiseptic by the addition of some germicide, such as salicylic acid or sodium benzoate. Ehring (translated in *Arch. Pediatrics*, May, '88) recommends washing out both of the stomach and large bowel in these cases, and says that the tube in the throat and stomach gives very little trouble even to the youngest infants, and is only contra-indicated in very feeble children and in impending collapse. The best position for irrigating the intestine is the knee-elbow, but as this is impracticable in very small children, the dorsal decubitus is recommended with an inclination to the right side.

So long as our object is to relieve the bowel of poisonous ptomaines and irritating germs, so long must opium be withheld or given very sparingly. Later on it may be advisable to give it to moderate pain and diminish excessive peristalsis and secretion.

In addition to the above treatment, should excessive secretion continue, and the infant suffer from abundant serous discharges, more powerful astringents may be given, such as aromatic sulphuric acid, nitrate of silver, or acetate of lead. Astringents should also be used in enemata.

In the way of prevention, the following precautions are of manifest value :—

1. The careful regulation of the feeding of infants, especially such as are bottle-fed, conserving their powers of digestion as far as possible by regularity in the amount and hours of feeding. Infants and children should not be given milk to assuage thirst, but should have pure water, either filtered or boiled, offered to them freely between their hours of feeding. Parents should be taught to consider milk as a food only to be given at meal hours, not as a drink to be gulped down rapidly on an exhausted stomach.

2. The value of careful general hygiene cannot be over-estimated.

3. As milk must necessarily form the greater part of an infant's food up to the age of two years, the following rules laid down by Prof. Vaughan should receive attention : Cows should be healthy; the milk of any animal indisposed should not be mixed with that from perfectly healthy animals. They should be fed with wholesome food, and receive pure water to drink. They should not be heated or worried, and their udders should be washed before milking. The milk should be at once *thoroughly* cooled, and should be kept at a temperature not exceeding 60° in a thoroughly aired place which has *no* connection with any drain or cesspool. The only vessels in which milk should be kept are tin, glass, and porcelain.

4. But to those living in cities it is impossible to be sure that the above instructions are absolutely carried out; hence it is important that all milk used for infants should be sterilized. This can be effected by having the milk carefully brought to the boiling point as soon as it is received, and then cooled rapidly in closely covered vessels. If necessary this may be done twice daily. In a very interesting article (*Amer. Jour. Med. Science*,

May, '88) Dr. Jeffries of Boston gives the result of some careful experiments in the sterilizing of milk and foods for infants. In the commencement he says: "It is a curious fact that while all older people are chiefly fed on sterilized food—that is, cooked food—infants are fed on food peculiarly adapted by its composition and fluid state to open a home to bacteria." His directions for sterilizing are very simple and easily carried out. The flasks and bottles in which the milk is to be kept are to be sterilized by heating them in an oven for thirty minutes at a mild baking heat. This is an advantage, though not an absolute necessity. The milk, as soon as received, is to be placed in these flasks or jars in a steamer containing boiling water. Any cooking steamer with a perforated false bottom and a tightly-fitting cover will do, the only essential being that the heat must be sufficient to keep the water in the steamer in active ebullition. The milk should be steamed when first received, preferably in the flasks, from which it is to be fed to the infants. This requires a few more bottles, as many as the infant is fed times during the day, but will well repay for the trouble. If the milk is allowed to stand before steaming, the advantages of the method are done away with in great part. The milk may be sweet, but has already been acted upon by bacteria, and is certainly unhealthy. In case a sufficient number of flasks cannot be afforded, the milk should be steamed in a few larger ones, kept stoppered with cotton wool, and drawn from as needed. Fifteen minutes steaming is advised, or more. The entire mass of fluid must be heated up to the boiling point, and kept there for ten minutes.

5. In all cases of diarrhœa careful disinfection of the soiled diapers should take place at once. It is certain that the fæces contain the bacteria, and it is possible that the urine does also, considering the frequency with which albuminuria accompanies these diarrhœas.

QUARTERLY RETROSPECT OF OBSTETRICS.

PREPARED BY J. C. CAMERON, M.D.,
Professor of Obstetrics, McGill University; Physician-Accoucheur to the Montreal Maternity, &c.

Medicinal Treatment of Abortion.—Dr. A. Cordes of Geneva (*Annales de Gynécologie et d' Obstetrique*) discusses the medicinal as opposed to the operative treatment of abortion, dwelling chiefly upon the action of *Viburnum* and *Quinine*. The one is a utero-sedative, the other a utero-excitant. In threatened abortion, when the ovular attachments are not too much broken up, he finds that rest in the horizontal position, vaginal injections of laudanum retained for some time, and viburnum internally, give the best chance of staving off the attack. Like Dr. Jenks, he finds viburnum specially useful in repeated abortion. In his experience emetics, even in small expectorant doses, act as utero-excitants; cough-mixtures should therefore be given cautiously to women who abort easily. In incomplete abortion, the placenta and membranes being wholly or partially retained in utero after the expulsion of the fœtus, danger may arise from hemorrhage or septic absorption. From hemorrhage, when the adherent bit of placenta is living and maintains its vascular connection with the uterus; from septic absorption, when the retained portion has perished and is undergoing degeneration. Up to the third month the ovum is usually expelled entire; but between the third and sixth months the membranes are so tough and adherent that the afterbirth generally remains in utero. In these latter cases the examining finger often finds the retained portions wholly detached or easily detachable, and can hook out everything *en bloc;* but very often they are so firmly adherent that they can only be detached and removed in fragments, and in such cases quinine is of the greatest use. He agrees with Ramsbotham that a woman runs far greater risk from the retention of small debris partially adherent and decomposing than from a single large fragment. He thinks with Pajot that curetting or brushing out the uterine cavity for the removal of retained matters is apt to do harm, because thereby large fragments are divided up into small shreds, and as it is impossible

to clear them all away, the patient is exposed to greater risk of septic aborption. In his opinion instrumental interference should be reserved for cases of urgent danger, such as hemorrhage or acute septicæmia with fœtid discharges, and quinine should first be tried in all ordinary cases. Since 1876 he has used quinine as a routine treatment and has always found it to excite strong uterine contractions which soon detach and expel adherent debris. He gives thirty grains in divided doses during the first twenty-four hours, and rarely has to repeat it next day. When necessary, he gives fifteen grains in three doses the following day. He finds that plugging is rarely required, and with regard to ergot, he adopts Pajot's maxim that it should never be given as long as there is anything retained in utero. Though for a long time he has been on the look-out for a suitable case to curette or brush, he has not yet found one that would not yield to quinine. In France, Pajot and Tarnier are the great advocates of the expectant treatment, while Doléris and Nitot as warmly recommend instrumental interference. Undoubtedly much harm can be done with the curette, while quinine is comparatively harmless; Dr. Cordes' treatment, therefore, seems to be well worth trying, unless urgent danger calls for immediate interference. When the expectant treatment is employed the patient should be kept under observation till the uterus has emptied itself.

Mitral Stenosis and the Third Stage of Labor.—Dr. Hart reported three cases to the Obstetrical Society of Edinburgh, and after referring to the extreme danger of the complication and the cause of its fatality, formulated rules for its treatment. He strongly discountenances the marriage of women who suffer from mitral stenosis. When this condition complicates pregnancy he advises absolute rest and the continued use of strophanthus. He prefers this drug to digitalis, because it is a pure cardiac stimulant and does not cause contraction of the small arterioles. For the management of the case at the time of labor, his rules are as follows :—

1. Do not give ergot.
2. Do not be afraid of hemorrhage, even if abundant.

3. Be on your guard if the hemorrhage is slight.

4. If the circulation becomes embarrassed (dyspnœa, irregular cardiac action, etc.), push the strophanthus and dry cup over the cardiac region; if that fails, try venesection.

5. Even if the patient seems to be as well as possible, keep her under strict and constant observation the whole of the first day.

According to Dr. Hart, the retro-placental blood-clot and the gush of blood which so often comes in multiparæ when the placenta is separating, are to be regarded as salutary rather than otherwise. He says that thereby a mechanical reduction is effected in the bulk of blood, which, if returned to the systemic circulation, might embarrass the heart's action even in a healthy woman. He thinks that the retro-placental clot has nothing whatever to do with the separation of the placenta.

Fatal Poisoning after Intra-uterine Sublimate Douching.—Steffeck, of Hofmeier's clinic at Giessen (*Centralblatt f. Gyn.*), reports a fatal case of mercurial poisoning after two intra-uterine injections of a weak sublimate solution (1 to 5000). The patient, a multipara, aborted at the fifth month, and a macerated fœtus came away. After the placenta had been retained for twenty-four hours, the patient was etherized and an intra-uterine sublimate douche (one quart of 1 to 5000) administered; the placenta was then separated and removed, a second quart of hot solution injected, and a dose of ergotine given. One hour after the removal of the placenta symptoms of mercurial enteritis appeared, followed by stomatitis, acute nephritis, and death in seven days. The post-mortem appearances were typical of mercurial poisoning. The poison must have entered the circulation directly through the denuded placental site. Since that case, intra-uterine sublimate injections have been given up at Giessen. Douching (intra-uterine and vaginal), curetting, brushing, and all other operative treatments of the recently emptied uterus are attended with more or less risk; such measures should not be employed rashly, heedlessly, or as a matter of routine, but only when the indications are distinct and definite. When an intra-uterine douche is needed, the operator should see that the

solution is dilute, the current weak, and the outflow unimpeded. After the douche, it is a wise precautionary measure to run through a pint or two of very hot water in order to wash away any retained solution and stimulate uterine action. Frictions over the fundus sometimes help in securing a good contraction.

Incompatibility of Antiseptic Agents.—Dr. Boxall (*British Med. Journal*) has sounded a note of warning to which every obstetrician should give heed. He claims that antiseptic solutions often fail because they are variable in strength or are chemically incompatible. If too strong, they may cause local damage or be absorbed; if too weak or rendered inert by chemical action, they are inefficient. The borderland between safety and success is very narrow. The following table shows at a glance the results of his investigations:—

ANTISEPTIC.	INCOMPATIBLES.
1. Corrosive Sublimate Solution	Iodine. Soap, even if neutral or in small quantity.
2. Iodine Solution (with Potass. Iod.)	Corrosive Sublimate. Carbolic Acid. Soap.
3. Carbolic Acid Solution	Iodine. Condy's Fluid. Olive Oil.
4. Salicylic Acid Solution	Condy's Fluid. Soap.
5. Condy's Fluid	Carbolic Acid. Salicylic Acid. Olive Oil. Glycerine. Soap.

It seems, therefore, that soap antagonises the action of all the above antiseptics except carbolic acid; it is highly probable, then, that in obstetric practice, failure to ensure antisepsis has often been due to the hands being soapy when immersed in the disinfectant solution. It seems, too, that carbolic oil must be eliminated from among the disinfectants, as oil combines with phenol and fixes it. This quite tallies with Koch's observations that bacillus spores can live and grow after four months immersion in carbolic oil (1 to 20). In order to secure satisfactory results, it is therefore highly important not only to be sure of

the strength of the antiseptic solution, but also to avoid admixture with other antiseptics and prevent contamination with incompatible soaps and lubricants.

Intraplacental Transmission of Pathogenic Microbes from the Mother to the Fœtus.—Varnier gives an excellent review of the literature of this subject in the last number of *Annales de Gynécologie et d' Obstetrique.* When it was proved that liquids injected into the maternal vessels did not pass through into those of the fœtus, the controversy respecting the connections between the maternal and fœtal circulations was virtually settled. But it soon arose in another form, whether or not very minute elements or organisms held in suspension in the maternal blood are able to traverse the walls of the vessels and penetrate into the blood of the fœtus. The investigations of Brauel of Dorpat in 1857 and Davaine in 1865 seemed to settle this question also in the negative. They found that the embryos of animals which died of charbon showed no signs of the disease, nor did the inoculation of their blood (embryo's) give any results. Of late years their dictum has been challenged and disproved, for it has been shown by various investigators that the placenta does allow certain pathogenic agents to pass through, but prevents others. Chauveau has recently shown (*Annales de l'Institut Pasteur*, 25 Fev. '88) that—

1. The placenta sometimes allows the bacillus of charbon to pass from the mother to the fœtus, but sometimes it completely prevents their passage.

2. Though the placenta does not oppose an insuperable barrier to charbon bacilli, yet it manifestly acts as a filter, because it allows the passage of but a limited number of microbes which seem to be incapable, or only slightly capable, of multiplying in the young subject.

He did not explain, however, why certain micro-organisms, such as chicken cholera, pass from mother to fœtus in a constant manner, while others, such as those of charbon, pass through in certain cases only, nor why the fœtal micro-organisms are inferior in quantity and energy to the maternal.

M. Malooz (Liège) has published an important memoir (*Ann.*

de l'Inst. Past. 25 Mars, '88) proving that when micro-organisms overcome the placental barrier there must exist some histological changes in the chorionic villi, lesions generally due to the pathogenic action of the parasites themselves. He thinks there is not filtration, but something more—a lesion allowing direct communication between maternal and fœtal circulation. These lesions may vary in different cases; the same pathogenic agent may vary in its action upon different placentas, or according to its relative energy may act differently upon the same placenta at different times. Consequently the transmission of microbes from mother to fœtus is not a constant fact, but is as variable and inconstant as the properties of the parasitic elements themselves. Different circumstances must always be taken into account in estimating the possibility of fœtal infection by a certain species of micro-organism—*e.g.*, the degree of virulence, the greater or less degree of attenuation, the more or less distinctive action on cells and tissues, the time which elapsed between the inoculation and the death of the mother, the differences in the texture of the placenta in different animals, and notably the variable thickness (according to species) of the villous epithelium. Reasoning analogously with regard to the transmissibility to the fœtus of other diseases, such as variola, tuberculosis or pyæmia, we can readily understand that the fœtus will be menaced with infection whenever an alteration is produced in the placenta capable of breaking down its cellular barricade—*e.g.*, a hemorrhagic point in variola, a softening nodosity in tuberculosis, an abscess point in pyæmia.

It still remains unexplained why only a few bacilli are allowed to pass, and why they are incapable or only slightly capable of multiplying in the young subject.

Multiple Abscesses in Nursing Children.—M. Roulland (*An. de Gyn. et d' Obstet.*) contributes an interesting and suggestive paper upon this subject. He deals only with subcutaneous multiple abscess, and does not touch upon deep abscess or single superficial abscess. Bouchut attributed this form of abscess to diathesis, and distinguished the scrofulous, syphilitic and puerperal. Roulland entirely disagrees with these views, and holds

that diathesis may act as an adjuvant, but is not the actual cause. The so-called *purulent* diathesis claimed by some he considers unintelligible at the present day, and asks what is there in nursing children to favor the migration of microbes, their more abundant colonisation, or the decreased resistance of the organism against their invasion. He advances the view that this form of abscess is generally traceable to infection arising in the digestive tract, whence noxious alkaloids are carried off in the circulatory stream, and are partially eliminated by the skin. The proper treatment would therefore seem to be attention to the digestive functions.

Version and Extraction in Transverse Presentations—their relation in point of time.—It has long been a matter of dispute whether in transverse presentations it is better to perform version early and then wait till the os is fully dilated before extracting, or whether the os should be allowed to dilate fully so that extraction may immediately follow turning. In the Berlin clinic between 1876 and 1884 there were 310 simple uncomplicated cases of transverse presentations at full term. Winter, from an analysis of that material, came to the conclusion (1) that version should not be performed till the os is sufficiently dilated to permit of extraction, and (2) that the best results for the child are secured when version is followed immediately by extraction. Dohrn of Königsberg agrees with the first of Winter's propositions, but not with the second. His conclusions are : 1. Version should be performed only when the os is fully dilated, except in cases of emergency. 2. Extraction should be performed only for definite indications ; the interests of mother and child are best secured by the spontaneous expulsion of the fœtus. Dohrn says that when extraction immediately follows version the position and rotation of the fœtus are apt to be different from what they would naturally be in spontaneous delivery, and that the natural coaptation of the fœtus to the parturient canal is less dangerous than the artificial. He thinks that in transverse presentations, with partial escape of the liquor amnii, the danger to the fœtus has been much over-estimated, provided the patient is kept in the recumbent position and is in competent hands. He reports

152 cases of version followed immediately by extraction, with a fœtal mortality of 22; 29 cases of version without extraction without a death, the natural efforts accomplishing delivery in fifteen to seventy-five minutes.

The Credé Method of Treating the Placenta.—At the late Wiesbaden meeting of the German Naturalists and Physicians a number of excellent papers were read before the gynæcological section. Among other things, Credé's method came up for discussion, and Freund, Dohrn and Ahlfeld criticised it somewhat severely. In the last number of the *Archiv für Gynäkologie*, Credé defends his method against the attacks of his critics and makes short work of their objections. He maintains that the fundamental principle of his method is theoretically correct, has stood the test of experience, and has never been assailed; that the objections urged against it have been directed against secondary and unimportant details, and that some of the improvements suggested are not at all new, being already contained in his method, and those which are new are not worth anything. He concludes by saying that his method remains unchanged in its fundamental idea as well as in its subsidiary parts, and has suffered no loss of any consequence through the repeated attacks made upon it, and that there is no occasion to accept any one of the changes that has been proposed up to the present time.

Cæsarian Section and Craniotomy.—Until recently the American statistics of Cæsarian section have been very unfavorable as compared with those of Germany; but the successful cases of Lusk and Garrigues in New York, Jaggard in Chicago and Howard Kelly in Philadelphia have shown what is possible here in good hands and under favorable conditions. Although the improved operation, in its proper place, is a valuable addition to the resources of conservative midwifery, it has its limitations, and there is danger of its being pushed beyond its proper sphere. Its brilliant results in Germany seem to have fairly dazzled the profession and borne down all opposition, so much so that some of its enthusiastic admirers do not hesitate to say that craniotomy upon the living child is now unjustifiable. If such teaching finds

its way into our medical schools, it is bound to do a great deal of harm. If young men, as yet inexperienced in surgical manipulations, are taught that craniotomy is unjustifiable and that Cæsarian section is to be performed even in moderate pelvic contraction, much maternal life will be needlessly sacrificed and a wave of reaction will soon set in against the operation. It is one thing to recommend section as preferable to craniotomy when the operation is to be performed by a skilful abdominal surgeon with skilled assistance and under favorable conditions; but it is quite another thing when it is to be done by a general practitioner without special experience, and without that ample and intelligent assistance which a well-equipped hospital can alone supply. If the results in America are to be made as favorable as those in Germany, the operations must be done in hospitals by skilled men, and not in private by general practitioners. Already there are signs of a revulsion of feeling, and calm, thoughtful men are raising their voices in protest against the abuse of an operation which in its proper place is one of the grandest triumphs of modern surgery. Prof. Jaggard of Chicago is not one of the blind enthusiasts; his temperate and timely remarks (*Medical News*) are worthy of careful consideration. In reporting his own successful case of Cæsarian section he draws attention to the following points:—

1. The necessary maternal mortality of craniotomy performed under conditions demanded by Cæsarian section, with the best instruments and adequate skill, in contracted pelves with a conjugate of 6 to 8 cm., is zero. The maternal mortality of Cæsarian section is considerable. Shock incident to the operation, entirely apart from sepsis and loss of blood, is an element of danger which can never be wholly eliminated, and it is more difficult to get the necessary skill and conditions for Cæsarian section.

2. The consent of the patient obtained without direct or indirect coercion is an essential condition to the relative indication.

3. The life of an adult woman who has already contracted relations with society is of incomparably greater value, as judged by human standards, than the problematical existence of an unborn babe. Moreover, the expectancy of life in such children

is less than in those of normal birth. If the operation is done before the objective changes of labor are noticeable, there is risk of the premature interruption of pregnancy, a matter of obviously serious moment for the child. The mother is seldom able, even if permitted, to nurse the child. The offspring of rickety or osteomalacic women are often feeble, sickly and unable to resist the unfavorable influences of the environment, entirely apart from the effect of hereditary disease.

In France, Pinard takes strong ground against Cæsarian section in moderately contracted pelves. He reports 49 cases of Basiotripsy performed by seven different French operators for pelvic contraction of 5 to 8 cm. without a single maternal death. He refuses to admit a relative indication for Cæsarian section until its mortality has been reduced to nearly that of Basiotripsy; he would perform section for an absolute indication only (a conj. ver. below 4 to 5 cm.), when Basiotripsy is no longer possible.

Wyder of Berlin, in a paper read at Wiesbaden (*Archiv f. Gyn.*, Bd. xxxii, Hft. 1), protests against forcing Cæsarian section to entirely displace craniotomy upon living children. After comparing the relative advantages of craniotomy, C. section, and the induction of premature labor in contracted pelves, he says that a conscientious physician, in the case of a primipara with a moderately contracted pelvis, at a time when there is danger to neither mother nor child, could scarcely recommend an operation which has still a mortality of 17.5 per cent.; and if the patient is a multipara, she would hardly consent to a C. section if she had gone through labor successfully before. He brings the question home by asking whether a man would, under similar circumstances, recommend the section operation in the case of his own wife, sister or near relative. He does not think that it will ever entirely displace craniotomy upon living children. He is strongly of opinion that when the operation is performed, it should be done in well-organized institutions, by skilful hands, and under the best possible conditions. He concludes that—

1. In pelvic contraction of the *fourth* degree (5.5 cm. and under), if seen early, abortion should be induced; towards the close of pregnancy C. section is the only resource.

2. In pelvic contraction of the *third* degree (5.5 to 7 cm.), in the early months the induction of premature labor should be considered; failing this, the patient should be given the choice of C. section or craniotomy. As long as the mortality of C. section remains more than double that of craniotomy it is not right to recommend it as the proper operation in such cases, but the patient and her friends should be permitted a free choice.

3. In pelvic contraction of the *second* degree (7 to 8.5 cm.), or the *first* degree (8.5 to 10 cm.), C. section should not be recommended to primiparæ except in cases of urgent necessity, because it is very hard to tell whether labor will be difficult or not; nor to multiparæ unless previous labors have done badly and the patient and her friends earnestly desire a living child.

In the discussion which followed, Ahlfeld of Marburg supported Wyder, while Sänger and Korn took the opposite side. They all agreed as to the advisability of doing C. section operations in well-appointed hospitals.

Correspondence.

To the Editors of THE MONTREAL MEDICAL JOURNAL.

SIRS,— Sutton (*Lancet*, Feb. 1888) mentions the case of a Mussulman, aged 28, at Quettah, who was seized with vomiting, diarrhœa, cramps, collapse, and symptoms of cholera, but without suppression of urine. After four days of incessant vomiting a worm, an *ascaris lumbricoides*, was brought up. This case being quoted by the *Medical Recorder* brings to recollection two cases of a similar kind, where an *ascaris* was vomited on ship board. In one case, that of an emigrant boy, vomiting had persisted from the start, and relief was not experienced for seven days; in the other case, the patient was a young lady who was suffering very severely from supposed sea-sickness. Improvement followed the vomiting of the worm. Does this not suggest castor oil and santonin as a prophylactic measure?

Your obedient servant,

BOTHRIOCEPHALUS LATUS.

Reviews and Notices of Books.

A Manual of the Physical Diagnosis of Thoracic Disease. By E. Darwin Hudson, Jr., A.M., M.D. New York: Wm. Wood & Co.

In 1885 the late author of this work printed and published privately for the use of pupils and friends a small book entitled "Essentials of the Physical Diagnosis of Thoracic Disease." This little work was found both convenient and useful; the author therefore felt encouraged to put forth the present volume, which is an elaboration of the material of the "Essentials." A melancholy interest attaches itself to the manual, from the fact that the author died suddenly and at a comparatively early age just after his manuscript had been completed and before it had been placed in the hands of the printer.

The whole subject of physical diagnosis of the chest is dealt with in a very concise, even abrupt style, so that occasionally one is disposed to think that the material formerly served as lecture notes. The oft-told tale of percussion and auscultation is here told and well told again, spiced here and there with an original and practical observation. The directions for percussion are very good. The observation that the evidences of a latent pneumonia are sometimes to be found in the upper axillary region is one we have lately had opportunities of verifying at the bedside. Dr. Hudson believed, along with his friend Dr. Leeming, in the frequency of intra-pleural râles. "Given a limited or diffused area of sub-crepitus or crepitus beneath the ear, how are we to decide whether the cause is plastic pleuritis or localized pulmonary hyperæmia, or inflammation with exudation of serum, sero-lymph or lymph into capillary bronchi?" The râle is of pleuritic origin, he answers. "When the crepitus is localized, is over an area of tuberculosis or other infiltration, and is persistent for some time without pronounced bronchial breathing or voice, flatness on percussion, and when associated with constant dry cough—*i.e.*, no expectoration—the râle must be regarded as of pleuritic origin."

Directions then follow as to the mode of distinguishing the

causes of the pleural râle. Unfortunately our limited space will not allow us further discussion. We cannot approve of the synopsis of lung or heart diseases, savouring too much of the grinding class. The student would in this line of study do better with the full description of the standard text-book. The plates, to the number of nearly one hundred, admirably illustrate the text. Some are new to us, others are very old friends.

On Fevers: their History, Etiology, Diagnosis, Prognosis and Treatment. By ALEXANDER COLLIE, London: H. K. Lewis.

The observations contained in this volume, so the preface tells us, are for the most part based upon the study of over 21,000 cases of fever, which the writer has personally treated from commencement to termination. Consequently we look forward to a record of personal experience and original observation. In this we are disappointed, though we find instead a very well written handbook, representing what is known of the subject up to the present date. We must, firstly, express approval of the colored plates accompanying the volume, and more especially those representing various appearances of smallpox; they are well executed and true to nature.

The introductory chapter on the pathology of fever represents in a few pages the state of present opinion on this important subject. Germs have not won over our author completely, though he believes that "the germ theory, like the atomo-mechanical in physics, and the atomic in chemistry, may be a good working hypothesis, but it cannot yet be regarded as a complete explanation of the acute infectious diseases." And it will be seen that it has been the writer's life-work to study the practical aspect of fevers rather than to theorize upon their cause, for in the chapter on pathology he prefers to bring together extracts from various authorities on these matters, rather than to furnish the reader with his own explanations.

As with all who have had experience in the treatment of the fevers, the author strongly believes in the efficacy of alcohol in severe cases, and especially in those cases where there is an

inability to take ordinary food. We do not agree with him that alcohol "is particularly useful in convalescence when the patient feels his weakness, and, above all, in convalescence from enteric fever when the craving for food is strong and cannot be gratified." In this country at least we are disposed to think that the use of alcohol during convalescence is, for those not accustomed to its use, a dangerous experiment. The alcohol habit has often thus taken its origin.

In scarlatina it seems that the prognosis must be worse in England than in this country. We rarely meet with fatal cases, and as far as our knowledge goes the malignant form described by English writers is rarely, if ever, met with. Nor is it our experience that diphtheria in scarlet fever is usually fatal.

To the chapter on typhoid fever we turn with eager interest. With this disease Canadian practitioners are unhappily familiar. Dr. Collie's cases resemble very much our own, and the same doubts and difficulties beset the practitioner in either country.

When speaking of the diagnosis of the tubercular diseases, peritonitis, ulceration of the intestine, etc., from typhoid fever, Dr. Collie states that he has never met with enteric fever in a phthisical subject. This is an interesting statement. The coincidence seems to us not of very rare occurrence, though at the moment but one case presents itself to the memory. As to the resemblance between tubercular peritonitis and typhoid, the author "knows of no means by which a diagnosis may be made with certainty, although there is no doubt much room for the exercise of the gift of prophecy."

In the important matter of diet, caution is recommended in allowing solid food; "in a well marked case solid food should not be allowed until the patient has been free of fever for from ten to fourteen days." This seems somewhat outside the limit. Surely some change may be allowed before the fortnight of normal temperature has elapsed. Certainly in this country fish is not a desirable article with which to begin solids. We have generally found that our fish do not agree with fever patients as well as could be wished.

The bathing system, as so strongly advocated by modern

German writers, is not favorably regarded, and the statistics on which the statements in its favor are based are compared unfavorably with those of hospitals where the bathing system is not practised. "It is important to observe that it is in the small country towns of the continent that the 'antipyretic treatment' has been said to be successful, such as Halle, Jena, Heidelberg, Prague, Zurich, etc. It does not succeed in Vienna, London or Glasgow. In overcrowded cities the cases are more severe."

Hemorrhage of the bowels is treated mainly by opium, a procedure based on sound principles and eminently satisfactory in its actual application. The administration of the ordinary so-called astringents has always appeared to us a worse practice than therapeutical nihilism. To secure rest of the bleeding part by the administration of opium is the only requirement of the situation which we are in a position to fulfil. The action of the astringents can always be explained on *post hoc* principles.

The chapters on smallpox, typhus, and relapsing fevers are full of instructive observation, and entirely in keeping with the generally high standard of the whole work.

In conclusion, to our readers we recommend Collie on Fevers as a very well written summary of the subject, treated in a style such as renders it both interesting and instructive.

Ophthalmic Surgery. By Robt. B. Carter, F.R.C.S., Ophthalmic Surgeon to St. George's Hospital and to the National Hospital for the paralyzed and epileptic; and Wm. A. Frost, E.R.C.S., Assistant Ophthalmic Surgeon to St. George's Hospital, Assistant Surgeon to the Royal Westminster Ophthalmic Hospital. Illustrated with a chromograph and ninety-one engravings; 554 pages. Philadelphia: Lea Brothers & Co., publishers.

This is a handy volume, arranged in fifteen chapters, with an appendix containing specimens of the usual test types and test letters, together with a number of formulæ such as the authors have found most serviceable in ophthalmic therapeutics. The arrangement of the work is both practical and convenient; com-

mencing with a chapter on the anatomy and physiology of the eye, everything of practical value in this connection has been condensed into the smallest possible space. Throughout the whole work the same characteristic is conspicuous, viz., great condensation without omission of anything of essential and practical importance; at the same time it is fully up to the times in all the recognized progress of recent years in the science and art of ophthalmology. The style is easy and agreeable to a degree seldom attained by the writers of medical literature who aspire to the difficult combination of brevity and completeness. The book is, in fact, a thoroughly readable one, and we can cordially recommend it to every student of ophthalmology.

Outlines of Practical Physiology: Being a Manual for the Physiological Laboratory, including Chemical and Experimental Physiology with reference to Practical Medicine. By Wm. Stirling, M.D., Sc.D., Professor of Physiology and Histology in the Owens College, Manchester. With 142 illustrations. London: Charles Griffin & Co.; Philadelphia: P. Blakiston, Son & Co.

Of handbooks for practical work in physiology proper there are few in the English language, hence we are inclined to accept, without too careful a search for faults, books of this character that are moderately good, as there is a place for them, and Dr. Stirling's work is at least that. It is very comprehensive and concise, perhaps too much so for the ordinary student; it abounds in figures of apparatus, and supplies some cuts of the dissections required. These, from an artistic point of view, are rather poor, but answer the purpose sufficiently well. We should have been pleased, as theory has been introduced, to have observed a little more discrimination in the interpretation of certain experiments in departments which have lately been pretty well worked, and in which we were somewhat disappointed as to Prof. Stirling's presentation.

We have always been opposed to the burthening of the ordinary text-books of physiology with a great mass of technical details, even when well illustrated by plates. The handbook for

the laboratory or the cyclopædia is the place for such. Here they are not only fitting, but absolutely necessary. It is one thing to introduce enough technique to enable the student to understand in a general way how results are obtained, and a wholly different thing to furnish that knowledge of methods essential for the actual performance of experiments by instruments of precision. We think Dr. Stirling's book supplies a want, and we wish it well.

A Compend of Human Physiology. By ALBERT P. BRUBAKER, A.M., M.D. Fourth edition, revised and enlarged. Philadelphia: P. Blakiston, Son & Co. 1888.

This little work forms one of the series of so-called quiz-compends; but if any one purchases it supposing that it contains physiology in the form of question and answer he will be mistaken. It is purely a compend, and as such a very good one. Doubtless such works *may* serve some good purpose; but that, upon the whole, they are responsible for much injury to the mind of the student we are fully convinced. They are like a powerful medicine—very useful under wise direction, but not to be put into the hands of the inexperienced. The medical student has so much to do within the time allotted to this course of study that he is under constant temptation to take short cuts to the goal—the examination goal being, unfortunately, the only one generally before his eyes. To put such books as the above within easy reach involves, in our opinion, much responsibility. The author has discharged the task he undertook well, but we regret that such was ever assigned to him or anyone else. Students should make their own synopses; then, and then only, are they legitimately entitled to the generalizations of the subject.

Fever-Nursing. By J. C. WILSON, A.M., M.D. Philadelphia: J. B. Lippincott Company. 1888.

The author has put into book form a course of lectures given before the nurse-class at the Philadelphia Hospital, the object having been not only how fever patients are to be cared for, but also why they must be cared for in particular ways. Success

in this endeavor is likely to be achieved by the careful study of this work. Fever-Nursing will be found, we hope, in the hands of many hospital nurses as well as in many households. The work is divided into two parts—the one, Fever-nursing in General, to which the first three chapters are devoted; the other consisting of a concise clinical history of each of the fevers separately. The descriptions in the latter are not only well adapted for nurse-readers, but are in themselves well written, and bring to mind a vivid picture of those groups of symptoms with which experience has made us familiar. Several other handbooks on nursing are published in the same series; if all are up to the standard of Dr. Wilson's work, then they deserve the recommendation of clinical teachers as sound text-books for the use of the nursing staff.

Society Proceedings.

MEDICO-CHIRURGICAL SOCIETY OF MONTREAL.

Stated Meeting, March 2nd, 1888.

JAS. PERRIGO, M.D., PRESIDENT, IN THE CHAIR.

Muscular Atrophy.—DR. STEWART exhibited two cases of muscular wasting.

Extirpation of the Uterus.—DR. WM. GARDNER exhibited two uteri removed by the vaginal method. In the first case, the patient, aged over 50, was sent to him by Dr. A. A. Browne of this city. There was a history of menopause for several years, then hemorrhage and other discharges for eight or ten months, and severe pelvic pain for three or four months. Decided failure of strength and general health. On examination, a friable, ulcerated, easily bleeding condition of the cervix. No enlargement of the uterus or palpable involvement of vagina and broad ligaments. The diagnosis was cancer, and extirpation of the uterus advised. The patient consented, and the operation was done on the 18th of February. On opening the uterus the diseased action was found to have extended some distance within the cavity of the body, thus accounting for the severe pain.

The patient made an easy recovery, and left Dr. Gardner's private hospital feeling better than for months previously.

The second specimen was from a patient of Dr. C. O. Browne of Knowlton. She was aged 29, married twelve years; five pregnancies, all to full term, the last labor two years and four months previously. She had suffered from uterine symptoms and intense nervousness for six years. All the symptoms had been much worse for twelve months, during which time pelvic pain, hemorrhage and dirty-colored vaginal discharges were constant and pronounced. On examination, the uterus was retroverted and prolapsed, the cervix lacerated, of stony hardness, and the posterior lip occupied by an ulcer which Dr. Browne asserts to have existed for four months. The diagnosis was probable malignant disease, and extirpation recommended. Three weeks later she entered Dr. Gardner's private hospital and the operation was done on 1st March. The method adopted in this case was that practised by Martin of Berlin, the posterior cul-de-sac being opened as the first step. The patient made a tedious recovery. The pulse ranged for several days from 150 to 180, being, in fact, at times scarcely to be counted. Other symptoms were without any alarming feature. The pulse before operation was between 120 and 130. The specimen was pronounced by Dr. Johnston to be not malignant, but in view of the clinical character of the case, and the fact that the microscope was not always a certain means of diagnosis of cancer, Dr. Gardner felt justified in extirpating the uterus and ovaries in this case. The operation had been done in Germany several times for conditions well known not to be malignant, but not amenable to other methods of treatment. When the mortality has been reduced, as in Leopold's hands, to six per cent., as a result of improved technique and otherwise, then he (Dr. Gardner) considered it perfectly justifiable for certain cases other than malignant, and in future he intended to advise it for a limited number of such. This was the fifth case in which he had extirpated the uterus without a death and without alarming symptoms.

Dr. Roddick asked if Dr. Gardner would recommend extirpation of the uterus for chronic endometritis.

DR. GARDNER replied that the question was an important one that often presented itself to the gynæcologist. The operation is now done with comparative safety, and in selected cases would certainly operate in this way.

DR. J. C. CAMERON referred to the necessity of microscopic examination of the tissues removed by scraping before a diagnosis of malignant disease is made. The microscope is not used as much in America as it should be in such cases. The German gynœcologists are setting us an example in this respect.

Sutured Patella.—DR. BELL showed a patella which had been sutured five months previously. The patient, a young Norwegian sailor, fell from the rigging of his ship and fractured his patella nine weeks prior to the arrival of his ship in port. He had had no treatment of any kind. He was admitted to hospital on the arrival of his ship in port, when the patella was found to be fractured transversely through its centre. There was no sign of any union, and on flexing the leg the parts separated widely, so that the articular surface of the end of the femur could be distinctly felt through the skin. The patella was treated by paring off the rounded cartilaginous faces of the fracture and suturing with three strong sterilized silk sutures. The first dressing was not removed for six weeks, when the wounds were all perfectly and soundly healed and the patella apparently firmly united. A splint was applied for three weeks longer and then removed, and the patient allowed up and advised to practice passive movement of the joint. After three weeks of this passive motion the union of the patellar fragments seemed to be not so firm, and the patient was put to bed and a plaster-of-Paris splint applied. In six weeks more this was removed, and the house surgeon applied a light posterior splint of Gooch's ribbed splinting, and with this he walked about in perfect health and comfort until the 22nd of January, four months after operation, when he complained of a little fever and some pain in the leg and knee. On examination, the knee was found tender and slightly swollen, and a sore which had been produced on the skin by the corner of the splint and dressed with a little dry gauze was found to contain fully an ounce of pent up pus, which

was removed and the wound treated. He also had a suppurating ingrown great toe nail on the foot of the same side. Pyæmia developed, and the patient died in four weeks, just five months and a half after operation. The pyæmia was undoubtedly due either to the sore on the skin or the ingrown toe-nail, and could not have been in any way directly due to the operation, as the knee had been perfectly healed and free from pain or other symptom for over three months before the pyæmic symptoms appeared. At the autopsy, ulcerative endocarditis was found, as well as several purulent foci in internal organs. The patella was found to be perfectly united, the union being quite firm and evidently bony. The silk sutures were found just as they had been left at the operation, the silk being apparently unchanged.

Discussion.—DR. ARMSTRONG said he thought the specimen showed bony union, and asked Dr. Bell why he thought the union was not good when the dressing was taken off.

DR. BELL replied that there was movement at that time between the parts, though subsequently complete union occurred.

DR. RODDICK congratulated Dr. Bell on the excellent result of his operation, and was inclined to accept his explanation of the cause of the pyemia, as, if the knee had been the starting point, there would not have been such union, and the joint would have been seriously affected. He referred to a case of a young girl recently confined who came to hospital with a painful knee. The bursa patellæ was found enlarged, and on the inner side of the leg, two inches above the inner malleolus, was a small ulcer the size of a shilling, unhealthy and sloughing; proceeding up from this was swelling and suppurative cellulitis to the bursa patella, which also was in a state of suppuration. The bursa was opened, cleaned and drained, and the cellulitis and ulcer treated, with the result that the girl was well in two weeks.

DR. SHEPHERD saw the case with Dr. Bell in hospital. He found undoubted mobility after the dressing was removed, and did not think now that the union was a complete bony one, but the parts were no longer movable. He thought there was a line of fibrous union between the fragments. The pyæmia was not due to the operation, but to the sores on the leg and foot.

Stated Meeting, March 25th, 1888.

JAS. PERRIGO, M.D., PRESIDENT, IN THE CHAIR.

Subdiaphragmatic Abscess.—DR. SHEPHERD exhibited the patient whose case he had related at a previous meeting of the Society, and who had suffered from subdiaphragmatic abscess. When the case was reported to the Society a sinus remained below the costal cartilages on the right side. This had now completely closed, and the patient felt as well as ever he did. Liver dulness was normal, and breath sounds in right lung clear in every part.

The Bacillus Scarlatinæ.—DR. MCCONNELL read the following paper on this subject:—

The nature of the contagium of scarlatina is a question which has during the past year occupied a prominent place in English medical societies and periodicals. In December, 1885, an outbreak of scarlatina occurred in London, and it was supposed that the infection was conveyed by milk from a dairy in Hendon. The subject was investigated by Dr. Klein. Several of the cows were found to be suffering from an infectious disease characterized by vesicles and ulcers on the udders. From this Dr. Klein isolated a streptococcus. He also discovered a similar organism in the blood of scarlatina patients after the fourth day. Inoculation experiments were performed, and Dr. Klein concluded that the Hendon cow disease was identical with scarlatina. In a critical review of this subject by Dr. Geo. Thin at the Dublin meeting of the British Medical Association, doubts were cast upon these conclusions; and later, Prof. Crookshank was deputed by the Agricultural Department of the Home Office to make further investigations. Abstracts of the voluminous reports of the investigation were in December last and January of this year placed before the Pathological Society of London. The conclusions arrived at were that the *streptococcus scarlatinæ* of Dr. Klein was identical with *streptococcus pyogenes*, a micro-organism found in acute abscess, etc., and frequently found associated with a number of other affections, and that the Hendon disease was cowpox.

Researches regarding the nature of the contagium of scarlatina were made in the early part of 1887 at the bacteriological laboratory of Edinburgh University by Dr. Alex. Edington. Eight different organisms were isolated. A streptococcus, provisionally specified as *rubiginosus*, was found in 20 per cent. of the original tubes inoculated with scales from scarlatina patients during the stage of desquamation, or from the blood, and is apparently identical with Dr. Klein's streptococcus scarlatinæ. A bacillus was found to be present in the scales in every instance when examined after the third week, and in every case the same bacillus was found in the blood during the first three days of the fever. Rabbits and calves were successfully inoculated, producing a disturbance and appearance resembling scarlatina in man. The conclusions formed were that this bacillus (called *B. scarlatinæ*) was the specific cause of scarlatina, and that the other organisms were "merely concomitants and pass into the blood only after the vitality of the system and tissues has been lowered by the entrance of this specific organism."

In September last I inoculated test tubes of potash peptone gelatine from several cases of scarlatina, using sterilized capillary tubes, to which about an inch of the original glass tubing remained, this part being plugged with cotton wool; the finger from which the blood was taken being previously covered with lint saturated with a 20 per cent. solution of carbolic acid. In the first case the blood was examined about the beginning of the fourth day of the disease. The tubes, on being incubated, were all found to be sterile. The blood of another child in this family was examined on the second day of the disease, when almost a pure culture of Edington's bacillus was obtained.

On Oct. 13th, 1887, similar cultivations were made from a child, five years of age, suffering from scarlatina, on second day of fever; and also from her sister a few days later. The same bacillus was procured. The lower limb of the first child was in accordance with Edington's method of securing the desquamation, wrapped in sterilized cotton wool, after being cleansed and disinfected. The scales procured on the twenty-second day gave

an abundant culture of the same bacillus, associated with micrococci. The character of this organism, as you can ascertain from an examination of these stained specimens and cultures, are distinctive. Dr. Edington's description appeared in the *British Medical Journal* of August 6th, '87. The bacillus, which is motile, is from 2 m. to 5 m. in length and 4 m. to 5 m. in breadth; it is markedly aerobic, grown on jelly in the incubator at from 18°C. to 23°C., it will form a pellicle at the surface in from 24 to 36 hours. The time in which the pellicle will form and the rapidity with which it will liquify the gelatine is less where the material used is the last of a number of successive inoculations from tube to tube which increases its activity. The pellicle forms more readily on bouillon, is semi-transparent, looking like parchment, very firm, and formed by the interlacing of the bacilli into a felt-like membrane, it now becomes wrinkled and the margin may be pushed up the side of the tube ovoid; spores then form, and in three or four weeks the pellicle will disappear. It grows rapidly on milk and on potato, forming a citron-white pellicle, which becomes darker in color; grows less readily on agar-agar, and poorly on blood-serum. On plates the growth is characteristic. The colonies grow for a day or two before the gelatine begins to liquify; this occurring first in the centre, and proceeding outwards, the bacilli then become motile, and later assume the form of Leptothrix filaments. The colony then has the appearance of three zones—Leptothrix in the centre, actively multiplying bacilli at the margin, and motile bacilli at the edge of the liquified portion.

The point of chief interest is the fact that the bacillus is found in the blood only up to the third day of the fever, and not in the desquamation until the twenty-second day. The rapid growth of the bacilli is in harmony with the short period of incubation of scarlatina, and the finding of the bacilli in the scales is in accord with their well known infectiousness; and the prolonged duration of their infective powers is explained by the tendency to spore formation, even in the blood, which characterizes the bacilli. The practical utility of this addition to our knowledge concerning scarlatina was demonstrated by Dr. Jamieson,

—at whose suggestion the experiments were carried out,—even before the discovery of the real nature of the contagium, from the fact that by applying antiseptic remedies to the throat in the earliest stage, bathing the surface, and applying carbolized ointments as soon as desquamation began, he was enabled, without any special isolation of the patients, to prevent the spread of the disease to any other member of the family in which it occurred, even in instances where a number of young children were allowed to associate as usual with the affected member. During the last three years this happy result had invariably been attained. Although not yet fully trusting to these baths and anointing alone—that is, without isolation—one case where this was impossible illustrates the utility of these measures. In this family there were three children; the oldest had scarlatina on Dec. 15th last; the anointing was fully carried out, and although the children mingled together constantly, the others escaped the disease.

Further investigations will be required before this organism can be fully established as being the true specific cause of scarlatina, as evidenced by the first report of the committee of the Edinburgh Medico-Chirurgical Society appointed to investigate the subject, in which they stated their inability to infect calves by either blood or scales of scarlatina patients. Their susceptibility to scarlatina is a point claimed by both Drs. Klein and Edington in their experiments, but that we have in the antiseptic treatment of the skin and throat a means of preventing the spread of the disease seems well established, and should the claims of Dr. Illingworth for biniodide of mercury as an abortive in this disease be sustained, great advance has been made in the management of this prevalent affection, and the night of empiricism which has hitherto prevailed in regard to the treatment of this class of disease we may anticipate will soon give place to the light of scientific methods.

A Case of Lightning Shock.—DR. MILLS read a paper on this subject, and DR. BULLER gave the intra-ocular changes produced. (This paper will appear in full in the next issue of this JOURNAL.)

Stated Meeting, April 6th, 1888.

JAMES PERRIGO, M.D., PRESIDENT, IN THE CHAIR.

Alopecia Areata.—DR. ARMSTRONG exhibited the case and gave the following history: The patient is a young woman of 25; married last November. About a month after marriage noticed a large bald patch a little behind and to the right of the situation of the post-fontanelle. From that time to the present new patches have continued to appear at short intervals on different parts of the head until now there are twelve or fourteen patches, varying in size from a 20 cent piece to that of a half dollar, and situated back and front and at both sides. It is for this reason principally that I show the case. There is still a difference of opinion as to the etiology of this form of alopecia. Thus Duhring and Stelwagon, in Pepper's System of Medicine, Vol. IV, state that the disease is "not parasitic, nor is it contagious." Balmanno Squire, in the third volume of Reynolds' System of Medicine, defines the disease as contagious, and produced by a vegetable parasite, the *microsporon andonini*, and he inserts an illustration of the spores of the fungus. The appearance of these patches, situated on all sides of the scalp, suggests very strongly to me the idea that the disease is parasitic. If due to nerve disturbance, one must admit that some cause is acting which involves the terminal twigs of many different nerves and of several branches of the same nerve. I am not familiar with any variety of nerve disturbance at all analogous to the condition which obtains in this case of alopecia. The large patch, with several smaller ones appearing secondarily and subsequently, suggests the idea of contagion, the same as occurs in ringworm of the scalp. I know of an instance where father and son suffer from alopecia areata, the one having it some time before the other.

Discussion.—DR. BELL said the ordinary clinical history of the disease was against the theory of a parasitic origin. The pathology is very doubtful. He never made a practice of separating patients from the rest of the family, and in most cases there is recovery in a few months, but the hair is apt to come in

differently pigmented, if not white. Treatment was usually expectant, used a shampoo to keep the skin healthy, and gave tonics.

DR. TRENHOLME had seen coal oil, well rubbed in, restore the color of hair when the color was spoiled.

Fibroid of the Uterus.—DR. LAPTHORN SMITH exhibited a patient to illustrate the effects of electrical treatment, and read the following history:—

The patient came to me on the 19th March, very wretched in appearance, and leaning heavily on the arm of a friend, without whose assistance she was hardly able to walk. She measured 32 inches around the waist, although her normal waist measurement she said was 21 inches three years ago. I was unable to pass the sound any further than 3½ centimeters, but with it at this distance I gave her 50 milliampères with the negative pole during seven minutes. She came again on the 20th March, telling me that she had had less pain since and could walk better, and that her friends told her she was looking better. I gave her 150 negative for five minutes, which she bore well. On the 23rd she was menstruating, so I did not give her any electricity, but her belly was not at all tender to pressure, and the menstrual flow was more profuse than usual. On the 27th she came again, having ceased menstruating; instead of lasting fifteen days, as it did before treatment, it only lasted five days, but she lost more in the five days this time than she did in fifteen before—not more, however, than a woman should lose at a period. She measured 4 inches less around the waist. I gave her 150 positive for five minutes, the sound entering five centimetres. On the 29th March she measures only 27 inches around the waist, and she feels so much better that she thinks she will soon be able to return to work. I gave her 140 positive for five minutes.

March 31*st.*—She says she has a hollow at the pit of her stomach now instead of a lump. I gave her 125 negative during five minutes, which she bore well, the sound entering five centimeters.

April 3*rd.*—Waist measurement steadily decreasing, and she is hardly at all sensitive over the abdomen. Gave her 100 nega-

tive for five minutes. *5th*—Gave her 100 negative during six minutes, which she bore easily.

This is as far as I have got with the case, and of course I am only in the middle of the treatment; but the result has been so striking, and her previous condition having been so well authenticated, and she seemed so willing to come here to show herself, where it is not alway easy to bring them, I thought it would be interesting to the members to see one of the many cases of the kind I have at present under treatment.

Perforating Ulcer of the Stomach.—Dr. Armstrong also showed a specimen of round ulcer of the stomach, remarkable for its large size as well as the obscure previous history. The patient was a well-nourished, but anæmic, unmarried woman, aged 28, a nurse in the Western Hospital. For a year past she had complained of being out of sorts, at one time having well-marked left intercostal neuralgia affecting the seventh and eighth nerves of that side. She had also complained of burning pain at lower end of back, which was found to be due to a retroverted uterus, and which was relieved by the use of a suitable pessary. Her appetite had been poor, but she always denied suffering pain after eating, and had never vomited her food except once. For about a month or six weeks before the symptoms of perforation developed, she had nearly every day complained of severe abdominal pain, referred principally to the region of the umbilicus, and sometimes of pain in left iliac fossa. This was unaccompanied by corresponding pain on pressure. Her bowels moved every day, and the stools were of good color and formed, but not hard or dry. On Friday afternoon she suddenly took a severe chill, with severe pain referred at first to left iliac fossa. In a few hours symptoms of general peritonitis developed with vomiting of everything taken into the stomach. Death ensued forty-eight hours after the symptoms of perforation. At the autopsy there were the usual evidences of general suppurative peritonitis. The left fallopian tube was dilated to one inch in diameter, and contained pus. So far as could be made out, no rupture of tube had taken place. On the posterior wall of the lesser curvature of the stomach a large round perforation was

found, having a diameter of 1¼ inches. The edges were rounded and smooth. This is certainly a very unusually large opening.

DR. PERRIGO said that the patient was under his care in the Western Hospital for some time; she then had paroxysmal intercostal neuralgia, coming on every afternoon. Small repeated doses of quinine had no effect, but large doses gave relief. There was no history of vomiting or indigestion.

DR. BELL referred to a case recently shown by Dr. George Ross. The stomach of a girl aged 19 had several ulcers; two were completely healed and some partially, one had perforated and caused death. During life there were no symptoms referable to gastric trouble. No history of vomiting or indigestion.

Renal Tuberculosis.—DR. LAFLEUR exhibited the kidneys and bladder from a cases of renal tuberculosis. The right kidney was much enlarged, nodular, and could be distinctly mapped out externally. Its capsule was thickened and adherent to the liver, ascending colon and duodenum. On section, was found to consist of a collection of small cavities filled with creamy pus and caseous detritus, all communicating with pelvis of kidney. Ureter was dilated and infiltrated with tubercular nodules. In left kidney there was a small caseating nodule at the apex of one of the pyramids, and the rest of the organ showed marked amyloid reaction. Ureter normal. Bladder was filled with pus and its mucous membrane was ulcerated in several places and deeply pigmented. Vesiculæ seminales were normal. Epididymis of right testicle was tubercular. The lungs and liver contained miliary tubercles. The oldest tubercular deposit was found in some of the bronchial glands, which contained a gritty, mortar-like material.

Foreign Body in the Nose.—The patient was shown by DR. LAPTHORN SMITH, who stated that he had exhibited a somewhat similar case seven or eight years ago, that of a child about two years old which had been suffering for several months previous to his seeing it from a fœtid discharge from one nostril, which had been treated for catarrh. In that case the cause of the discharge was found to be a piece of wood much larger than could be forced into the child's nose, but which the child had

introduced in a dry and much smaller state. The present case was that of a girl 14 years old, who had been troubled with ozœna ever since she was 3 years of age, and the odor from which had become latterly so very unpleasant, that her parents were forced to keep her in a separate room from those occupied by the rest of the family. She had been treated for catarrh at several public institutions, but, probably owing to the fearful smell, none of the attendants had ever examined her nose carefully. Dr. Smith had himself hurriedly prescribed for her general health at the Montreal Dispensary some years ago, without examining her, as she was supposed to be suffering from the sequelæ of smallpox. But a few days ago she was brought to his office, when on examining her nose with a speculum and probe a hard, grey and glistening object was seen and felt. It was readily removed with a suitable pair of forceps, when it turned out to be a shoe button which she must have introduced ten or twelve years ago, and which he showed to the Society. The button was incrusted with phosphates. There was a little bleeding from the surface of the cavity which it had hollowed out for itself in the nostril. Dr. Smith said that his object in showing this case was to emphasize the importance of making a local examination in every case of this kind, as, if this had been done in the first instance, years of discomfort would have been saved the patient. Although only a short time has elapsed since the button was removed, the ozœna has completely disappeared, and the ulcerated surface was almost entirely healed.

Seven Consecutive Successful Ovariotomies.—Dr. Trenholme exhibited cystic ovaries and enlarged tubes removed last week from Miss G. G., a young woman aged 22, which makes the seventh operation performed since he was last at a meeting of the Society. The patient was of slight build and suffered from a persistent menorrhagia since the menses began. There were at such times severe pelvic pains, and she was unable to perform her daily work by which she had to obtain her living. On examination, finding both ovaries and tubes enlarged, while the uterus was normal, any possible treatment except the removal of the appendages was excluded. The specimens now shown

are much shrunken. The ovaries were as large as a small hen's egg, and so densely adherent that they ruptured during their removal. The tubes were as large as a small finger, filled with blood and so densely adherent that their removal was difficult. The opening into the abdominal cavity was about 2½ inches long, and closed with three silk-worm-gut sutures; horse hair was used for superficial sutures. A few layers of antiseptic gauze held in place by two straps of adhesive plaster completed the abdominal toilet.

Case 2.—Miss S., aged 28; always suffered during menstrual period. Of late has had to use morphia to relieve the increasing distress. All her family having become insane, and fearing for her own sanity, she consulted me. On examination, found enlargement of both ovaries and a small fibroid, size of a plum, in the posterior wall, at the fundus of the uterus. Removed appendages in my usual way. Result, perfect recovery.

Case 3.—Mrs. W., aged 30; always suffered since menses began, but of late the sufferings are intolerable without opiates. Has been under various treatment, but without relief. Found both ovaries cystic and right tube enlarged about one inch in diameter by 2½ long. Recovery from operation and her former sufferings good, but ulcers of rectum have retarded perfect restoration to health.

Case 4.—Mrs. R., aged 32; as a girl was a terrible sufferer during the flow of the menses; has borne three children. After the first, a thrombus formed in right side of pelvis, which was opened after several months suffering; subsequently bore two children, although the sac refilled and escaped several times. During past summer she caught cold, which caused intense suffering. On examination, found a tumor size of fœtal head on right side of uterus and above the former cyst, though close to it. While operating, the walls of the cyst were so friable that it was with difficulty that the thick tarry contents were prevented from entering the cavity of the abdomen. The operation was followed by a tedious convalescence owing to the refilling of the old abscess, which had to be tapped several times. Eventually she made an excellent recovery, although the walls of the abscess are still tender and form a small tumor.

Case 5.—Mrs. D., 22 years, mother of two children. History very like that of case 4. Sufferings are so severe during menstruation that she prefers death to life. On examination, found both ovaries enlarged, also left tube. Result of operation, perfect recovery and the acquirement of sexual pleasure, a thing never before enjoyed.

Case 6.—Mrs. S.; ovarian cyst, 18 lbs.; recovery perfect.

Case 7.—Mrs. C.; enlargement of both ovaries, left one behind the uterus. Diagnosis of suppurating cysts of ovaries. Operation was difficult on account of adhesions, which were very dense and universal. Both ovaries were about the size of hen's eggs and filled with putrid pus, which escaped into the peritoneal cavity. The rotten state of the cyst walls caused rupture with the slightest touch. A curious horn-shaped cyst sprang from the fimbria of the left ovary, back of the fundus uteri, and curling upward and forward over the uterus was attached by the point to the walls of the abdomen. It was about 1½ inches at base and 6 inches long, filled with clear fluid.

Electricity in Gynæcology.—Dr. Lapthorn Smith read the following paper on this subject:—

As all diseases of women may be attributed to disorders of the nerves of sensation, of motion, or of nutrition, three forms of electricity may be employed as remedial agents; and although the subject of electricity in gynæcology is too big a one to bring within the scope of a small paper, still I think I might briefly outline the various kinds of electricity used in gynæcology and the various diseases in which they are rationally indicated.

Disorders of sensation are the most numerous and, perhaps, the most important, because it is pain which most often brings a woman to consult us. In what exactly pain consists nobody knows, but this we do know, that when it depends on disordered innervation alone, we possess a certain remedy for it in the faradic current of tension, or from the long, fine wire. I have many times proved its efficacy in cases of ovarian neuralgia, and in some of them I believe that the necessity of oöphorectomy has been done away with. On this point, Apostoli says: "The current of tension alone is very well borne by nearly all

uteri, and in particular by those of hysterical patients; alone the current of tension, with a very great tolerability, and a much greater power of radiation than that of quantity, enjoys the remarkable quality of rapidly calming periuterine pain, and that, too, all the better, and in a manner all the more permanent, when it is employed in cases of neuralgia of an hysterical nature."

"In all neuralgias of the pelvis," he says, "whatever may be their origin, nature or severity, the element of pain can and always should be treated, most often successfully, by the faradic current, and always by the current of tension alone. It is harmless and efficacious only on condition that we conform ourselves to the following rules:—

1. Never to make the patient suffer and never to apply a stronger intensity than she can bear.

2. Make the operations last long and continue them until the appearance of a manifest sedation.

3. Make by means of the bipolar excitor an intra uterine application whenever possible or a vaginal one in other cases."

By these simple means, therefore, we can successfully treat a numerous class of cases, in many of whom the ovaries would have hitherto been removed, and that, too, without curing the pain, which was the very object of removing the healthy ovaries.

In the faradic current of quality—that is, from the short thick wire—we possess a rational treatment for all diseases of the uterus owing their origin, directly or indirectly, to relaxation or loss of tone of muscular fibre. This category includes all forms of flexions and versions, and prolapsus, as well as subinvolution and the pathological conditions resulting from it; for all displacements of the uterus (as may be seen by referring to this rough chart) are due to the organ being too heavy for its supports, or the supports being too weak to hold up the normal weight, or to a combination of the two causes in some cases. As far as flexions are concerned it requires no argument to show that the uterus is a hollow muscular column, held upright on itself by its own

tonicity, and that whenever the walls of that column become weak or relaxed; or whenever the superincumbent weight becomes increased, the column will bend, either forwards or backwards, according to certain principles. Also, it will be admitted by every one that relaxation of the muscular walls of the bloodvessels in the uterus will allow an increased quantity of blood to remain in it and thereby increase its weight.

But it is when we come to talk about the muscle in the uterine supports that people look at us blankly as though they had never heard of such a thing. This unfortunate ignorance of such important structures is probably due to the habit we have fallen into of calling these supports ligaments, which conveys the idea to our mind of fibrous tissue. Others, again, have been brought up with the idea that the uterus was held in its place in the pelvis by means of the folds of peritoneum, which in reality only cover the ligaments, and which are quite incapable of performing the functions which we know the ligaments of the uterus do perform. To those who do not see any muscular tissue in the uterine supports, it is folly to say that those supports can be strengthened by means of the faradic current, which has no beneficial action whatever on peritoneum or ligamentous tissue. I have not time now to argue this matter out, and I must assume for the moment that there is muscular tissue in these so-called uterine ligaments. Now, I have only to remind you that every time a muscle contracts, it developes, in consequence of its improved nutrition; the products of tissue waste being removed by the veins and lymphatics, and room being left for a fresh supply of arterial blood. With the interrupted current we can produce artificially many thousands of contractions at each seance, and in the course of a few weeks treatment we may even bring about hypertrophy of the muscular tissue, in the perineum, vagina, and ligaments. You know that the strength of the blacksmith's right arm is proverbial simply because he makes its muscles contract the most, and medical men engaged in administering faradism through their own bodies, *en route* to their patients, attest the fact that their arms become enormously increased in size thereby.

It is also generally admitted that faradism is an excellent remedy for chronic constipation, because it causes the muscular fibres in the intestine to contract and thereby develop. In fact the faradic current of quantity does directly and at the very spot just what ergot, quinine and strychnine do indirectly after being absorbed by the stomach and carried by the circulation to the affected parts.

While writing this I have just received a letter from a leading practitioner of Toronto, asking me if I could tell him what was meant by the quality current, a term employed in the writings of Engelman of St. Louis. The answer is that it is used to designate the current of tension, as opposed to the current of quantity; but I think it would be better to give the two latter more explicit terms, as both the current of tension and the current of quantity are currents of different qualities. This reminds me of another question which I am asked every day, viz.: Why won't the ordinary McIntosh faradic battery do for gynæcological work? Simply because it only contains one kind of induction coil; and if that coil is long and fine, it is not suitable for diseases characterized by relaxation of muscle. If, on the other hand, it is coarse, it is not only of no use, but positively hurtful in diseases characterized by pain. It is only on condition that the proper kind of current be given in the proper cases that we can hope to have satisfactory results.

You will naturally ask me what have been the results of the two faradic currents in my hands? In suitable cases eminently satisfactory; in unsuitable ones, disappointing. For instance, in cases of procidentia, due to increased weight of the uterus, the increased weight being due to areolar hyperplasia, the use of the faradic current alone will be disappointing, because it has not the power to cause absorption of fibrous tissue. It will, it is true, increase the strength of the supporting muscles, but in such cases something more is required, and that is to reduce the weight of the hypertrophied organ. Fortunately we possess in the continuous current, especially the negative, the means of causing the resorption into the circulation of the plastic exudation. It is a question for investigation whether the pelvic

muscles ever become so completely atrophied as to utterly fail to respond to the faradic stimulus. In that case, of course, it would be useless to employ it.

A brief outline of the following case might be of interest:—Mrs. R., aged about 70, came to my office in a pitiable condition. Her uterus was hanging outside of her body, and the cervix was lacerated and covered with star-shaped fissures and ulcerations. The organ was enlarged in every diameter, the sound entering nearly five inches, and it had a hard feeling to the touch. Her thighs were excoriated, and her clothing was stained with blood coming from the raw surface of the uterus, which stuck to them whenever she sat down At times she was quite unable to go about. From the 1st to the 18th of September I gave her six applications of the coarse faradic wire in the vagina, with the only result that she felt and was observed to be much stronger, and she was able to go about more. From the 18th September to the 16th October I gave her an intra-uterine application of the coarse wire faradism, with the result that the sound enters at most 4½ inches. As the uterus still came out of the body, though not so much as before, I decided to try the continuous current in order to improve the nutrition of the organ to such an extent as to make it return to a size and weight more nearly approaching the normal. In this hope I was not disappointed, for after giving her bi-weekly applications of the negative current of 100 milliamperes for five minutes each time from the 16th October till the 27th November I was enabled to make the following entries in my note-book:

Nov. 6th.—Uterus rarely comes out now, and when it does it goes back of its own accord when she sits down. *9th*—Excoriation on thighs all gone. *13th*—Uterus only been down once since. *16th*—Fissures on os completely healed. *20th*—Uterus remarkably soft to the touch. *23rd*—Sound enters only three and a half inches.

Dec. 1st.—Discharged for the present, as the uterus has not been down since last time of coming.

I did not see her again till April, '88, when I was called to attend her for paralysis. I took advantage of my visits to ascer-

tain the condition of the womb. I found it still soft, small, and well up in the pelvis, and she stated that it had never given her any trouble since.

This is only one of many similar cases. My general experience has been that we can surely relieve those cases of partial prolapsus, in which the patient complains of a dragging feeling in the back, and which I believe to be due to relaxation of the muscular tissues of the pelvis. Faradism alone is insufficient in those cases in which there is, in addition to relaxation of the supports, an increased weight of the organ to be supported, in which case the trophic action of the continuous current, preferably negative, will be necessary.

The continuous current will form the subject of another paper, but in the meantime I may say that the field for its use is daily enlarging, and, among many others, its employment in strictures is eminently satisfactory.

Stated Meeting, April 20th, 1888.

DR. TRENHOLME IN THE CHAIR.

Drs. J. A. Hutchinson, Brodeur and D. McG. DeCow were elected members of the Society.

Multilocular Cyst.—DR. TRENHOLME exhibited a large multilocular ovarian cyst which he had removed from a woman aged 40. The operation was not one of unusual difficulty, and the patient was doing well. It had first been noticed eighteen months ago, and had grown very rapidly.

Pyelo-Nephritis; Infiltration of Urine with Sloughing of Urethra.—DR. LAFLEUR exhibited specimens for Dr. Shepherd from a case of surgical kidney caused by enlarged prostate. Patient, aged 67, complained of retention of urine, which was relieved by catheterization and followed by infiltration of urine in perineum and scrotum, with formation of abscess between neck of bladder and rectum. Scrotum was œdematous and gangrenous. Through incision in perineum finger could be passed into a cavity about the size of a large walnut, between neck of the bladder and rectum, which contained some necrosed

tissue. Catheter passed through urethra could be felt at posterior part of this cavity for about an inch, the urethra having completely sloughed away in this situation. The pelvis and ureter of the right kidney were dilated and contained ammoniacal urine, but the organ appeared otherwise normal. The left kidney was enlarged, and its capsule was loosened in places. The pelvis and ureter were moderately dilated, thickened and deeply pigmented, indicating chronic inflammation, and contained very foul, thick, greenish-grey muco-pus. The apices of the pyramids projecting into calices of pelvis were necrosed, while the rest of the parenchyma was intensely inflamed, the pyramids being dark red with small yellowish areas, indicating formation of abscesses; in the cortex the same change was taking place, but not to such a marked degree. The walls of the bladder were much thickened, the mucous membrane deeply pigmented and roughened, while the cavity, which was contracted, contained a mixture of ammoniacal urine and dark green muco-pus. The prostate was enlarged, and friable on section. The immediate cause of death was croupous pneumonia affecting lower and middle lobes of right lung.

Concretio Pericardii.—DR. LAFLEUR also exhibited for Dr. Wilkins a heart showing complete adhesion of parietal and visceral layers of the pericardium from a patient who had suffered from severe attacks of acute rheumatism.

Suppurative Appendicitis with Pyæmic Abscesses of the Liver.—DR. LAFLEUR exhibited specimens from the case and reported that at the autopsy sinuses were found over the lower part of the abdomen, which converged more or less towards right iliac fossa. Pelvic cavity contained five ounces of thin, putrid fluid, with a few flakes of lymph, but the peritoneum was everywhere smooth and glistening. Appendix deeply pigmented and glued to tissues in iliac fossa by firm, inflammatory, fibrous tissue. At its middle was a perforation a quarter of an inch in diameter. From this point sinuses diverged in three different directions. One sinus, which appeared to be the oldest on account of the thickness of its walls and their intense slaty pigmentation, lay beneath the sheath of the psoas muscle, passing

upwards and backwards as far as the ligamentum arcuatum internum, where it formed a cul-de-sac. A second sinus was traced inwards and downwards over the brim of the pelvis into the loose cellular tissue around the bladder and rectum, opening externally in the perineum half way between the scrotum and the anus. The third sinus passed in a curved direction outwards to the abdominal wall, where it divided into several branches, running in the main parallel to Poupart's ligament, upwards towards the iliac crest and downwards into the scrotum. There was no abscess cavity in connection with appendix or cæcum. The liver was enlarged, and on the under surface of the right lobe was a fluctuating swelling the size of a large orange, which contained thick fœtid pus, and was traversed by bands of necrosed tissue. Another abscess cavity existed under the coronary ligament, and a third one, an inch and a half in diameter, was found on the upper surface of the right lobe, which was adherent to abdominal wall in that situation. The liver tissue around these cavities was studded with minute foci of suppuration, showing origin of the large abscess cavities from fusion of multiple lobular abscesses. There were no thrombi in the portal vein or in the vena cava and its main branches. The infection was probably conveyed to the liver from a small branch of the portal vein involved in inflammatory change about appendix or cæcum. The kidneys were anæmic and showed slight fatty changes in tubules. Pericardium contained five ounces of slightly turbid, yellow serum, with a small amount of adherent lymph. There were no endocardial changes. The spleen was enlarged and soft. Brain and lungs were normal. The immediate cause of death was perforation of the appendix.

Dr. Bell gave the following history of the case: The patient, a very stout man, was admitted into the General Hospital in July, 1887, suffering from symptoms of perityphlitis. He was discharged apparently cured in a few weeks, but returned in December with various sinuses over the lower part of the abdomen and scrotum; all these sinuses led into the right iliac fossa, which contained much dense inflammatory tissue. These sinuses discharged a large amount of fœtid pus. Dr. Bell, under whose

charge the patient was, opened up and scraped the sinuses and evacuated many pockets of pus, but could not find the source of the pus in the iliac fossa. The wounds were packed with iodoform gauze and a dressing of washed gauze applied. The The temperature, which had ranged from 100° to 103°F., became normal, and the patient gradually gained strength. Three weeks after he suddenly became maniacal. After this no dressings could be kept on, and the patient's condition gradually grew worse; the temperature became high and irregular, and two weeks later he died suddenly, apparently from collapse. He never recovered his sanity. There was no family history of insanity.

DR. SHEPHERD thought that the direct cause of death was abscess of the liver and pyæmia. The mode of origin of the sinuses from perforation of the appendix was the most interesting feature of the case. Even if a diagnosis could have been made early, the autopsy showed that treatment by abdominal section would not have been more effective. At the operation, owing to the fat in the abdominal walls the sinuses could not be traced. He regarded the iodoform poisoning as one of the incidents of the case, but not as the cause of death.

In answer to DR. RODDICK, DR. BELL said that the temperature was decidedly septic at first, but after evacuation of the sinuses it fell to normal and remained so for weeks. At the time of the operation, he was convinced that all the pus had not been evacuated.

Some Rare Forms of Extravasation of Urine.—DR. BELL read a paper on this subject, which appeared in the May number of the *Canada Medical and Surgical Journal.*

Discussion.—DR. FENWICK was with Dr. Bell at the operation for ovariotomy mentioned in the paper, and was greatly surprised to find the bladder so high up. Sometimes this accidental wounding of the bladder was unavoidable. He had himself once wounded a prolapsed bladder in an operation for hernia, but the patient ultimately made a good recovery. He had seen several cases of mania produced from the use of iodoform; the most recent case was that of a stout old gentleman on whom he had operated for lateral lithotomy. Iodoform dressings were

used, and the patient several days after became affected with mania, which lasted two weeks; he, however, recovered perfectly.

Dr. Shepherd said that the case of urinary infiltration following wound of the bladder during the performance of an ovariotomy was a very interesting one owing to the probability of death having resulted from iodoform poisoning. He had several cases of mania following operations, in all of which iodoform had been used, though only in small quantities, and he was in doubt whether to attribute the mania to iodoform, the anæsthetic, or to traumatism. In all cases there was an hereditary taint. Only one died, a case of sequestrotomy of the femur in a man aged 25. Acute mania came on in five days after the operation; only about one drachm of iodoform had been used. In another case, a pericæcal abscess in a man aged 40, acute mania came on on the second day and lasted one month. The patient ultimately recovered. A small amount of iodoform was used, and only at the operation. Several of the patient's immediate relatives had died insane, and the patient himself was subject to fits of ungovernable temper. The third was a case of amputation of the breast in a woman aged 60. A mild form of insanity followed from the anæsthetic, and the woman never completely recovered up to the time of her death, a couple of years after, from cerebral hemorrhage.

Dr. Roddick was very much interested in the cases of iodoform poisoning. He believed it is frequently due to idiosyncrasy. He had seen one case follow excision of the breast where iodoform had been used. There was a history of insanity in the family. The mania lasted ten days. He thought iodoform should be used with more care. Large quantities are unnecessary; he had found it to produce severe eczematous irritation of the skin. He now uses carbonate of bismuth in preference to iodoform, as it is less irritating. He also sometimes uses boric acid and naphthalin. Lately he had been using hydronaphthol with benefit. It is odorless and non-irritating. Referring to the case of infiltration of urine, he thought the explanation of the case by supposing perforation of the prostate and

posterior layer of the triangular ligament was not necessary, as it is well known that when the membranous portion of the urethra is perforated the urine escapes behind the anterior layer of the triangular ligament—the tendency of the fluid is to infiltrate backwards towards the rectum and not to come forward. If the posterior ligament be perforated, then the urine extends behind the pelvic fascia into the pelvis and is generally fatal.

DR. STEWART had seen Dr. Bell's first case and regarded it as a case of iodoform poisoning. It is well known that in cases of mania from any cause the mania remains long after the removal of the cause. Cases in which there is much adipose tissue are more liable to poisoning, because the fat decomposes the iodoform in contact with it.

DR. ARMSTRONG asked if it was necessary to use iodoform at all. Recent experiments have demonstrated that it is devoid of germicidal properties. He thought its use was unnecessary in the treatment of sinuses.

DR. TRENHOLME, referring to the case mentioned by Dr. Bell when the bladder was wounded, said he thought the bladder should never be emptied before an operation, as it is much more easily avoided when containing fluid. If it be accidentally wounded, then sutures of shoemaker's thread or silk should be used, not catgut, which is very unreliable.

Selections.

On the Relation of the Diseases of the Kidney, especially the Bright's Diseases to the Diseases of the Heart.—This was the subject of the Middleton Goldsmith lectures delivered before the New York Pathological Society, by Dr. J. M. da Costa. The lecturer first sets himself to solve the question, Whether disease of the heart in itself leads to disease of the kidney? The result of analysis is to the effect that it does not. Of 127 hospital cases (Pennsylvania hospital 76, and Jefferson Medical Clinic 51), set down as valvular disease of the heart, and in all of which the urine was examined for the most part repeatedly and at different times, and in many of which, especially

in the cases of the Pennsylvania hospital, autopsies are recorded, there were in 92, it is especially stated, no evidence of any kidney affection, as shown by the absence of casts, of albumen and in number of instances by the notes of the post mortem changes. The 51 at the Jefferson Medical College Clinic showed but 7 of coexistent renal disease, and when these 7 histories were carefully examined, it was plain that but three of them were really cases of Bright's disease. Of the remaining 4 cases three presented small amounts of albumen, due to congestion of the kidney. In another case the cause of the parenchymatous nephritis was plainly a pre-existent scarlet fever. Next, the cases from the Pennsylvania hospital are subjected to a similar critical examination, with a like result, so that out of the whole 127 cases of valvular disease of the heart, there were but 8 in which any true affection of the kidney really existed—anything more than mere congestion. And among these eight there was not one instance of the contracted or cirrhotic kidney. "I have, by the analysis of the cases, endeavoured to give you a proof how rarely valvular disease of the heart leads to chronic disease of the kidneys other than congestion. When it does, the form of affection is that of a chronic congestion, which, in its turn, passes into a parenchymatous nephritis." But how is one to know he has, as the result of the heart malady, simply a congestive condition of the kidneys or real Bright's disease? On the whole, the most important diagnostic sign with reference to the urine is found in the slight and varying amounts of albumen and in the infrequency of the casts. The character of the pulse, the absence of marked arterial tension, and the precise physical signs of the cardiac disease give us more valuable evidence, as do the absence of uræmic symptoms and of albuminuric retinitis.

Mitral narrowing is the form of heart disease most commonly associated with renal disorders, and next to that mitral regurgitation, so seldom with aortic disease that it is always a question whether a mitral complication is present when kidney engorgement is found. Pure hypertrophy and pure dilatation give us the same form of kidney derangement we have been studying.

But with reference to hypertrophy, unless the cavities are at the same time stretched, we do not find albuminous urine. Thus it existed in only 1 out of 10 cases, noted at the Jefferson Clinic. In pure dilatation, the urine is more commonly albuminous in traces. Still it does not exist in the majority of cases; and it does not appear until the last week of life, even though the dropsical swellings were enormous and the lungs turgid.

With regard to diseases of the kidneys and their combination with diseases of the heart, the combination is a frequent one. Diseases of the kidney are associated with valvular disease of the heart, with hypertrophy, with dilatation and pericardial affection. Dr. Da Costa then analyses the records of the Pennsylvania hospital for ten years of 101 cases of renal disease and those of the Clinic of the Jefferson Medical Clinic, 21 cases, from which he demonstrates that the character of the kidney affection in combination with the valvular lesion of the heart, is, in the vast majority of instances, the contracted kidney. Next stands acute Bright's, where also we find valvular affections, but without the hypertrophy so common in the first group.

The valve lesion is chiefly of the mitral, a thickening with here and there rough deposits. Next in frequency a lesion of the aortic valves, causing either narrowing or regurgitation. The lecturer thinks that a further cause of the valve affection is in the hypertrophy of the heart, forming part of the Bright's disease preceding some general thickening of the valve. The valve becomes stretched, but insufficiently to close the opening. And similarly changes occur in the aortic valves.

The frequent mention of rheumatism in the histories of cases is worthy of notice. Rheumatism may produce the valve injuries at the same time that it leads to other changes in the body; and thus be a general cause both for the valvular affection and for the disease of the kidney and of other textures.

The soft murmurs often heard in Bright's disease, sometimes at the apex, sometimes at the right base, are merely the result of the state of the blood or come from temporary perversion of valve action. Thus the mere hearing of a murmur in the

heart is not a sign of valve affection in Bright's disease, not even when there is coexistent hypertrophy. Such murmurs may be distinguished, as with ordinary hæmic murmurs, from those of organic origin. Diastolic murmurs are always organic.

The hypertrophy of the heart, which exists in combination with Bright's disease, *i.e.*, hypertrophy without valvular disease. The figures already quoted show that hypertrophy has no connection whatever with acute Bright's disease, but hypertrophy is the rule in the chronic form of the malady. Goodhart's (Guy's Hospital Reports, 1886) figures go to show that in 321 undoubted cases of granular kidneys there were 262 cases of marked hypertrophy of the heart. Other figures quoted prove that dilatation, which is pre-eminently of the left side, predominates in chronic parenchymatous nephritis, while pure hypertrophy does so in granular kidney.

It is not always easy to make out hypertrophy. Dr. Da Costa lays most stress on the altered condition of the sounds both at apex and base and the changed position of the impulse. The heart condition becomes a valuable means of prognosis. Where the heart is but slightly affected there will be reason to believe that the case will continue for some time, provided we do not observe signs of uræmic poisoning. Dilatation rarely predominates over the hypertrophy.

The various theories of the cause of the hypertrophy in Bright's disease are then reviewed, concluding with that in which he has most faith, that the hypertrophy, as well as to a great extent the vascular changes, are the result of a common process which takes its origin in the ganglionic nervous system. This view in its main features is the outcome of the researches of the lecturer himself, aided by Dr. Longstreth. Eleven cases are cited, five in detail, in which the cervical ganglia from which the cervical nerves arise were minutely examined, and the lecturer trusts that he has made clear that there exists, associated with the enlarged heart, marked changes in the ganglia of the sympathetic nerve from which the cardiac nerves arise. Suppose this change to be the cause of the lesions in the vessels, we can now readily explain them all. What the ultimate cause

of the lesion of the ganglia may have been cannot be stated, nor can we assume that one cause alone will determine it—gout, lithæmia, rheumatism, alcohol, lead, worry ?—(*Condensed from the Report of the New York Medical Record.*)

A Case of Tumor of the Spinal Cord; Removal; Recovery.—(Medical history of the case by Dr. Gowers.)—The patient was a man, aged 42, who had suffered for three years from localised pain beneath the lower part of the left scapula. The pain varied much; at times it was scarcely felt, at other times it was most intense, and then was increased by movement to such a degree as to render it impossible for the patient to walk. Many medical men were consulted, and the diagnosis varied between aneurysm and neuralgia. Hypochondriacal insanity was even suggested, on account of the irritability of the patient, whose mind almost gave way under the continued suffering. Four months before the operation, first the left and then the right leg became weak, and the loss of power gradually increased to complete paraplegia. The patient was first seen by Dr. Gowers (with Dr. Percy Kidd) on June 4th, 1887. There was then motor and sensory paralysis up to the level of the sixth or seventh dorsal nerves, with intense spasm in the legs, foot clonus, and rectus clonus. The urine was retained, and there was some cystitis. At the level of the sixth dorsal nerves there was severe pain around the trunk, greater on the left side, and increased to agony by any movement. The symptoms pointed clearly to compression of the cord by a morbid process outside it. Caries of the spine could be practically excluded; aneurysm was improbable, although not impossible. The diagnosis lay chiefly between a tumor of the spinal bones and a tumor of the membrane. The indications (described in the paper) made a meningeal tumor rather the more probable. Syphilitic disease could be excluded. An operation afforded the only chance of escape from certain death after intense suffering. Sir William Jenner saw the patient, concurred in the diagnosis, and sanctioned an operation. The patient was aware of the uncertainty of the result, but was extremely anxious

that something should be done.—(Surgical history of the case by Mr. Horsley.) The diagnosis of intradural tumor pressing on the cord appearing to be well founded, an operation was performed for its removal on June 9th. After some difficulty the growth was discovered and removed under strict antiseptic precautions. The wound healed by first intention, and the patient gradually lost the agonising pain, and at the same time gradually recovered motor and sensory power, as well as the control over the bladder and rectum. He remains in perfect health. Appended to the surgical history of the case was a table and analysis, in which the chief clinical facts relating to fifty-seven other cases were recorded, and from which it appears that operation is the only treatment to be adopted in such cases, and that, if it had been resorted to, 80 per cent. should have recovered, whereas all died.—Mr. Haward observed that a case so unique had little in common with the experience of many of them, and it was specially difficult therefore to discuss. One point had struck him forcibly, and that was the great mental change, the change as some had thought to insanity, that had been produced by long and severe pain. From another point of view it taught them that their ideas of the possibilities of interference with spinal cases must be entirely remodelled.—Dr. A. T. Myers inquired the nature of the tumor, of which they had heard nothing. —The Honorary Secretary stated that in the part of the paper which time had not allowed him to read it was fully described as a myxoma.—Dr. Percy Kidd remarked that the mental affection had been a very serious feature of the case, for, though he agreed with the author of the paper that it had only been a disturbance arising from acute and prolonged pain, yet several advisers had at the time considered it as genuine madness. The patient, he was glad to say, was in perfect health now, able to enjoy a dance, to walk at least three miles with a natural gait, and he begged to be allowed to express through him publicly his most heartfelt gratitude to Dr. Gowers and Mr. Horsley.—Mr. Godlee thought that a specially interesting point had been the very large amount of cerebro-spinal fluid which had been discharged. He was anxious to know if Mr. Horsley had con-

sidered it dangerous. In a case under his own care he had removed a large sacral tumor, and found in its centre a small spina bifida, which he had cut and ligatured. The discharge of cerebro-spinal fluid, though through a very fine hole, had been exhausting, and ultimately fatal to the child.—Mr. Herbert Page asked to say a word as having been the author of the statement in a surgical dictionary that trephining of the spinal cord could be of no advantage. He had limited that statement to the cases of fractures and dislocations. He desired not to be the last to congratulate Mr. Horsley on his brilliant success, and agreed with Mr. Haward that they would now have to reconsider much of the surgical treatment of the spinal column.—Dr. Gowers was called on to reply, but remarked that he had not noticed any questions or objections which it would fall to his lot to answer.—Mr. Victor Horsley at once admitted to Mr. Page that when he quoted his words he was only discussing questions of treatment of fractures of the spinal vertebræ, as would have been plain if he had succeeded in further compressing his paper so that it could all have been read to the Society that evening. In answer to Mr. Godlee he said that cases of escape of cerebro-spinal fluid generally did badly, because, he thought, of the septicity of the fluid. He had long been struck with the fact that the skin was not irritated when boracic acid an inch deep was heaped upon it, and it was by this means that he thought he had been able to keep the wound aseptic. The exact amount of the discharge of cerebro-spinal fluid he had not been able to determine, but he found it enough to completely soak a pad of wool two inches thick in twenty-four hours. He had noticed almost the same result with cerebro-spinal fluid in a head case. The large discharge in the present case he considered due to his having not been bold enough to take out the drainage-tubes after the first twenty-four hours, and so allowing a sinus to form. —*Proc. Royal Medico-Chirurgical Society; Brit. Med. Jour.*

Fatigue as a Cause of Disease.—Attention has of late years been directed to the rôle of fatigue in the production of disease, and numerous monographs have appeared,

taking up various aspects of the subject. Much has been written on fatigue of the heart (heart-strain) and the dilatation and enfeeblement thereby resulting. The existing knowledge on this subject is well summed up by Germain Sée in a paper on "Forced Heart," which was published in this journal in the earlier part of 1883. In 1878 appeared a very instructive monograph by Carrieu, "On Fatigue and its Pathogenic Influences," in which the author treats of fatigue of the different systems, muscular, nervous, glandular, of the organs of special sense, and of the cerebrum. Then he studies its pathogenic rôle, establishing the fact that fatigue may be the exclusive cause of disease. About the same time Bouley and Fournol made a careful study of the effects of fatigue and overwork in animals, in which they showed that in such animals a typhoid state rapidly supervenes, followed frequently by death with rapid cadaveric rigidity and putrefaction, subcutaneous and muscular suggilations, etc. Peter, in his clinical lectures, has made it apparent that similar phenomena may occur in the human subject, and has advanced his brilliant doctrine of *autotyphization*.

In a memoir read in 1880 before the Medical Society of Geneva, and entitled "Fatigue," Revilliod shows that the symptomatology of morbid states brought on by overwork (*surmenage*) assumes two principal forms—a typhoid form (oftenest observed) and a cardiac form. The latter is the "irritable heart," or "forced heart," concerning which so much has been written of late years. The typhoid form is sometimes febrile and sometimes afebrile, the febrile cases generally yielding speedily to rest and becoming afebrile. Multitudes of cases of sporadic fever, says Revilliod, occurring in the practice of the ordinary physician might be properly classed among the fevers due to fatigue or overwork. These, lasting from two or three days to a fortnight and lacking all the distinctive features of typhoid, are generally entered as "abortive typhoid," "ephemeral, "gastro-enteric," or "bilious" fevers.

The recent thesis of Victor Rendon, "*Les Fièvres de Surmenage*," (the fevers of overwork), is probably the most complete work that has yet appeared on the subject. According to

this writer, the pathological states which have fatigue for their cause all have a common character, *the typhoidal condition*. He adopts three divisions: (1) typhoid state without fever; (2) typhoid state with fever, but without lesions; (3) typhoid state with transient or permanent lesions.

(1) The first or lighter form is due to a slight degree of fatigue. It is a purely dynamic trouble. The organism soon rights itself by rest.

(2) If the excess of toil is sufficiently prolonged, and without regular periods of rest, the second form makes its appearance, the *acute form*, the true *fever of overwork*. Thus far only the liquids of the organism are altered.

(3) The third form is the result of still more arduous or more prolonged overwork (long, fatiguing marches, toil by day, with night-watching, overcrowding the brain at school, et.) Here there is alteration of the solids as well as the fluids. The organs which are the most likely to be affected are the heart and blood-vessels, the kidneys (as is also the case with infectious diseases) and the spinal cord. This form is called by Rendon the *grave form*. The denomination *sub-acute form* is reserved for cases where death supervenes from exhaustion before any of the morbid phenomena alluded to have had time to be produced. This last form has been noticed in over-driven animals, and in soldiers after prolonged and forced marches.

To explain the morbid effects of fatigue, appeal is made to the facts of physiological chemistry. Work engenders waste products. The function of muscle is the production and movement of animal heat. The material result of muscular life in action is creatine, creatinine, lactic acid, and certain azotized uncrystallizable extractives. The working brain produces leucine, cholesterine, etc. These products of disassimilation, when retained in the organism, are prejudicial to function and to life. Gautier has considerably augmented the list by his discovery of ptomaines and leucomaines. All these effete elements are the ashes by which the animal machine is clogged when the emunctories are oppressed and fatigued. Physiologists have given to these anto-intexications various names, which often only serve

to conceal our ignorance of the true cause: uræmia, cholæmia, cholesteræmia, creatinæmia, etc. The latter denomination is applied by Jaccoud to symbolize the toxic action of the entire group of extractive matters by one of its elements. To Revilliod we are indebted for the rather awkward name extractihæmia. "Here," says this writer, "in the impregnation of the organism with these waste extractives is the real lesion for which we are seeking, for common experience and physiological experimentation prove them to be eminently toxic. This is the explanation of the symptoms engendered by their excess in the economy, which are, in fact, those of fatigue: languor, prostration, myalgia, the 'typhoid state,' fever. We have a right to suppose that according to the predominance of certain extractives, according to the tissue which is the principal sufferer, according to the degree of oxidation, these effete principles provoke hemorrhages, as in three of my clinical cases (vii, xxix, xxx) thromboses (case xxvi) purpura, irritation and thickening, or rarefaction and destruction of the endothelium of the vessels and valves of the heart, vices of nutrition and degeneration of the heart-muscle, of the muscular coat of the arteries, whence arise disturbances of the local circulation, spasm and consecutive paralysis of the capillaries. Then, under the influence of an altered blood, there supervene œdema, congestions, infarctus, gangrenes (case xxvii). The entire nutrition suffers, the intellect is weakened and oppressed, for the accumulated extractives rob the brain and the blood of its oxygen, element necessary for the normal exercise of the vegetative, locomotor and intellectual functions."

The following are some of the facts on which these theories rest:—

(1) Good authorities, as Gubler and Revilliod, have noticed after the subsidence of fevers from overwork, and coincident with the amendment, copious discharges of urea ("*une veritable debâcle d'urée*). Rendon reports several cases in which the same fact was noticed. New experiments (W. A. Hammond and others) have proved that under the influence of hard work urea-production notably augments (33 grammes in a state of rest, 120 grammes after excessive muscular work).

(2) Chalvet in certain cases has proved the augmentation of extractive matters in the blood, while Ranke has shown that the muscle which is alkaline in a state of rest becomes acid by exercise, and that this acidity results from the presence of lactic acid; that this acid in excess has a deleterious action on the organism which manifests itself subjectively by the sensation of fatigue, followed by sleep. Ranke also affirms that the injection of the blood of an overworked animal produces the phenomenon of fatigue in the member which receives the injection.

(3) Liebig, from experiments of his own, finds reason to ascribe especially noxious properties to creatine (also a product of muscular waste), and he allies creatinæmia to uræmia. He has found creatine ten times as abundant in the blood of an overdriven fox as in that of a fox killed while in a state of rest. Since then Cuffer has produced dyspnœa strikingly like the so-called uræmic dyspnœa by injections of creatine.

We have not space to enter into the details of the experiments of Preyer and Keim, in which, by subcutaneous injections of lactate of soda in guineapigs, they succeeded in producing in them the symptoms of acute over-fatigue; nor into the profound studies of Professor Bouchard on the toxicity of the elements of the organism. Enough has been said to indicate what a fruitful field of inquiry is here opened up, and the possibility of rich acquisitions to our knowledge of the causes of disease in the future. In their search after the microbes, pathologists have made too little account of the effects on the economy of poisons which the economy itself generates.—*Boston Med. & Surg. Jour.*

Cases treated with Ipecacuanha Spray.—The ipecacuanha spray was originally introduced by Dr. Wm. Murrell for chronic bronchitis and other diseases of the throat and respiratory organs in consequence of the rĕputed success attending the use of a nostrum, in both London and Paris, by an irregular practitioner. Dr. Murrell reports a number of cases illustrating its effects in the *Med. Press and Circular* for April 25, 1888. It was difficult to obtain any clue to the composition of the secret remedy, as apparently the proprietor varied the

constituents from time to time in order to puzzle the analysts and escape detection. Some patients said that it was a clear, colorless fluid like water, while others were confident that it was yellow, or red, or even blue. Some thought it was tasteless, while others declared they recognized the not unfamiliar flavor of dry sherry. They all agreed, however, that it was used in the form of a spray, and that its effects were little short of marvellous, a few inhalations affording prompt relief, both to the cough and shortness of breath. It always loosened the phlegm, and frequently gave rise to copious watery expectoration. It obviously belonged to the class of medicinal agents which we call expectorants, and as there was no reason to suppose that it was a rare or unknown drug, the sphere of investigation was considerably narrowed, for many remedies were obviously unsuited for administration by this particular method. A number of preliminary trials were made, which speedily demonstrated that even if the specific were not ipecacuanha wine, that very useful drug entered largely into its composition, and that locally applied in the form of a spray it was capable of affording relief to congested and irritated bronchial mucous membranes. Sometimes the ipecacuanha wine, pure, or diluted with an equal quantity of water, was used with a small steam vaporizer, but more commonly the ordinary hand-ball spray apparatus, such as is employed for the production of local anæsthesia, was preferred. A solution in spirit, made of the same strength as the wine, was found equally efficacious. After a few visits the patient was usually taught how to use the apparatus himself. Most successful results are obtained from the employment of the ipecacuanha spray in cases of chronic bronchitis and bronchial catarrh. In fibroid phthisis there is often a marked improvement, even when no constitutional treatment is adopted. A single inhalation will sometimes restore the voice in cases of hoarseness due to congestion of the vocal cords. It is a matter of little importance whether the spray be given with a hand-ball spray apparatus or with a small steam vaporizer. In either case the spray must be warm, and the patient should not go out for some minutes after inhaling. Care should be taken to see that the spray really

enters the chest, and is not stopped by the arching of the tongue against the wall of the mouth. The best results are obtained by using the spray for about ten minutes three or four times a day. In the majority of cases of winter cough relief will be obtained in ten days.—*Therapeutic Gazette.*

Acute Peritonitis successfully treated with Saline Purgatives.—At the meeting of the Midland Medical Society, March 21, 1888, Dr. Suckling (*Lancet*, May 12, 1888) showed a man, aged 21, who was admitted into the workhouse infirmary on January 6, suffering from acute peritonitis. Three days before admission he was attacked with vomiting and pain in the abdomen; there was constipation. The abdomen was tense and tympanitic, and the abdominal respiratory movements were abolished. There was extreme tenderness above the abdomen; the legs were drawn up; the pulse small and frequent; the expression anxious. He had retention of urine and fever. No tumor could be detected in the right iliac fossa; vomiting was incessant, and pain about the umbilicus greatly complained of. Dr. Suckling thought that the peritonitis was set up by typhlitis, due to fæcal retention. Opium and belladonna were first given, but the vomiting and pain continued. Then half-drachm doses of sulphate of magnesium and sulphate of sodium, with ten minims of tincture of belladonna, were given every four hours. Improvement soon followed this treatment, several liquid motions being passed. On January 9 the vomiting, pain and tympanites had passed off, and a distinct fulness could be observed, with increased resistance to pressure in the right iliac fossa. The medicine was continued, with the result that the motions became more and more solid till the 14th. He continued to complain of dragging pain in the abdomen for some time; but in about three weeks he was able to get up, and five weeks after his admission was allowed solid food. He has since had two or three slight relapses, which at once yielded to purgatives and proper dieting; and at the present time there is a distinct indurated swelling in the right iliac fossa. Dr. Suckling was of opinion that in this

form of peritonitis. and in typhlitis due to fæcal retention, saline purgatives in moderate doses and with plenty of water were of great value.—*Therapeutic Gazette.*

The Origin of Typhoid Fever in Hospitals, and the means suggested for its Prevention.—(Reginald H. Fitz, M.D., in *Boston Med. and Surg. Journal*, May 24, '88.)—The most prolific, if not the sole source of typhoid fever is to be found in the patient himself. His dejections are almost absolutely proven to contain the poison of the disease, and it is possible that secretions from the air-passages may also be infectious. The most thorough-going preventive measures are those which shall destroy the influence of both these agents. The more we regard typhoid fever as contagious in the sense of smallpox and scarlet fever, the more efficient will be our preventive measures. Dried fæces and dried sputum are readily diffused by drafts of air. They are as readily inhaled or swallowed as the emanations from the most contagious of diseases. Prevention is best accomplished by destroying the emanations and burying the remains. The following special directions in typhoid fever are observed at the Massachusetts General Hospital :—

1. Mattresses and pillows (when liable to become soiled) are to be protected by close fitting rubber covers.

2. Bed and body linen are to be changed daily. Bedspreads, blankets, rubber sheets, and rubber covers are to be changed at once, when soiled by the patient. Avoid shaking any of these articles.

3. All changed linen, bath towels, rubber sheets and covers are to be immediately wrapped in a sheet soaked in carbolic acid (1–40). Remove to the rinse house as soon as possible, and soak six hours in carbolic acid (1–40). Then boil the linen for half an hour, and wash with soft soap. The rubber sheets and covers are to be rinsed in cold water, dried, and aired for eight hours. The bedspreads and blankets are to be aired eight hours daily.

4. Feeding utensils are to be thoroughly cleansed in boiling water immediately after being used.

5. Dejections are to be received in a bed-pan containing half a pint of carbolic acid (1–20). The nates are to be cleansed with paper, and finally with compress cloth wet in carbolic acid (1–40).

6. The bed-pan and cloths are to be carried to the tower. Add two quarts of carbolic acid (1–20) in divided portions to the contents of the bed-pan, mix thoroughly by shaking, and throw the liquid into the hopper. The bed-pan and hopper are to be cleansed with carbolic acid (1–20), and wiped dry. The compress cloths used for the above purposes are to be burned at once.

7. The corpse is to be covered with a sheet wet with carbolic acid (1–40), and removed to the Allen Street House.

8. After the discharge of the patient, mattresses are to be thoroughly beaten and aired every day for a week. The bedstead is to be washed with corrosive sublimate (1–1000).

9. These directions are to be followed until the patient is free from fever.

Salicylate of Magnesium in Typhoid Fever.—It will be remembered that a few years ago Desplats and Vulpian strongly recommended salicylate of bismuth in abdominal typhus. They claimed that it not only acted as an antipyretic in this disease, but also as an antiseptic and an antidiarrhœic. According to the views of Huchard the drug loses its value on account of its antidiarrhœal properties, for, he says, copious and free movements of the bowels carry off infectious substances better than anything else. He therefore recommends that salicylate of magnesium be used in its place, and cites a long series of cases in which the drug rendered most valuable service. Its action was much less styptic than that of salicylic bismuth. The manner of preparing the salt is as follows:

The salicylic acid is first dissolved in water, and while the solution is heated to boiling-point, carbonate of magnesium is added until the solution becomes saturated, and finally the salt crystallizes. These crystals form long, colorless needles, which are easily soluble in both water and alcohol, and have a rather bitter taste.

The action of the drug upon the typhoid patient is next observed in the disappearance of weakness, in the disappearance of the foul smell of the mouth, a decrease in the swelling of the abdomen, and a lessening of the decomposed odor of the fæces. The decrease of mortality in cases of ileo-typhus under this treatment is so great, says Huchard, "that the most enthusiastic followers of Brand's water treatment have just cause to be envious." In cases where the drug had been used from the first, complications were but rarely observed. It also has the additional advantage over other drugs in the fact that it may be given in very large doses without producing any disagreeable accompanying symptoms whatever.

P. S. Laut, of the Soc. de Méd. Pratique, said that he had used the drug as prescribed by Huchard for one year, and had always had the best possible results from such treatment. The drug acted both as an antipyretic and antiseptic. The desired result was obtained by doses of 50 to 100 grains daily. In cases where the diarrhœa is copious it is not contraindicated, as even in doses of 100 to 150 grains its laxative action need not be taken into consideration.

The formula of the salt is as follows:

$$\left(C_6H_4\begin{matrix}COO\\OH\end{matrix}\right)_2Mg+4H_2O.$$

It contains 74.6 per cent. of salicylic acid, and the daily doses, as prescribed by Huchard, contain only one-third the quantity of salicylic acid given by Vulpian, who, in the Hôtel Dieu, prescribed no less than 100 to 150 grains of acid "tale quale," to be given daily in wafers.

Salicylate of magnesium, as prepared by Von Heyden, is acid in reaction, and, as it is hygroscopic, is put up in glass bottles. To facilitate its administration the crystals are finely powdered. —*Pharmaceutische Post*, March 18, '88; *Therapeutic Gazette*.

A Successful Operation for Pyloric Stenosis.—Loreta's operation, or the digital divulsion of the pylorus for stenosis, with dilatation of the stomach, was performed, June 11th, by Dr. Wm. T. Bull at St. Luke's Hospital.

The patient, a man aged 37, had suffered for twenty months from daily vomiting, pain, acid eructations, and heartburn, and was much reduced in flesh, despite treatment by lavage of the stomach, careful diet, and internal remedies. He was made the subject of thorough investigation by testing chemically the fluids of the stomach, by Dr. F. P. Kinnicutt, and the diagnosis of stenosis from cicatricial contraction of an ulcer arrived at. The operation confirmed the diagnosis, the pyloric orifice being found so small as to admit only a bougie of a diameter of three-sixteenths of an inch. Through a wound two inches long near the pylorus the orifice was stretched gradually with bougies and the fingers till it was over two inches in diameter. No accident followed the operation, and the patient may be now (June 19th) considered out of danger. There has been neither pain nor vomiting, though for several days considerable quantities of liquid diet have been taken by the mouth. A full report of the case will be presented at the October meeting of the Practitioners' Society. This is the first successful case of this operation yet reported in this country.—*N. Y. Medical Record.*

Treatment of Early Phthisis.—Dr. J. Milner Fothergill, writing in the *Hospital Gazette*, says: "At one well-known hospital, quinine and cod-liver oil constitute the treatment of phthisis pulmonalis, and a very good line, too, but scarcely quite elastic enough. But the principle is there, viz.: to give tonic to the system, and to supply fat for the building up of healthy tissue. It is certainly good practise to give a bitter tonic, as strychnia, for instance, with a mineral acid, as phosphoric acid, with a little sulphate of magnesia, if constipation be present, as is very often the case. If the tongue carry a brown hue, indicative of hepatic disturbance, then sulphate of soda must be substituted for the Epsom salts, *malgré* its nauseous taste. The dietary should consist of fish, fat, and milk puddings, with a little meat. When the stomach is upset, then a little bismuth and soda may be given instead of the tonic; and the food should consist of milk, well-boiled, with some of the many prepared foods on the market, and

beef-tea with the same, or broken biscuit. When the gastric disturbance is allayed, then it is well to go back to the tonic. Blisters are of questionable advantage, and it is difficult to point out the indications for their use. Cod-liver oil may be given when the tongue is clean and the appetite vigorous. It should always be exhibited after food. The same may be said of chalybeates. These measures should be accompanied by fresh air—the purer the better. Bright sunlight, cheerful surroundings, pleasant companions, are matters of no little moment. As to a sojourn in a high-lying Swiss valley, it is in fashion at the present time, though, as one of the very best physicians in Great Britain remarked, 'the cases which will get well at Davos, are those which will get well elsewhere under intelligent management.' There is no altitude too lofty for the tubercle bacillus to climb, if there exist a bit of tuberculous lung to afford it a congenial home. Certainly a low-lying, damp locality, on a clay soil, must be abandoned for gravel or a chalk down; else the case will probably take the wrong direction. Now, for two minor or auxiliary matters. One is the use of inhalations. Plain steam is good in irritative cough with dry air-tubes. Iodine, carbolic acid, eucalyptus, Friar's balsam, or ordinary terebene, are often excellent medications and allay cough. The other is a resort to a cough linctus. On this matter opinions may differ. Some use paregoric to allay ceaseless cough, and do a great deal of harm very often therewith, though paregoric is the least objectionable of "cough medicines." The reckless resort to something "to allay the cough" has, in my experience, been too frequently followed by disaster to recommend itself to a thoughtful practitioner. Something to allay cough and preserve sleep at nights certainly does more good than harm; but "cough stuff" in the day is my abhorrence. It may be no more than prejudice, perhaps. Such, then, are the main lines on which a case of consumption in its early stages has to be carried on; and, on the whole, it will be found to be no unsatisfactory."

THE

Montreal Medical Journal.

VOL. XVII. JULY, 1888. No. 1.

THE ROYAL VICTORIA HOSPITAL.

But little progress has yet been made towards rendering the magnificent gift to this institution available for its benevolent object. The site selected by the donors was an irregular block of ten acres attached to the Mount Royal Park, and was the property of the city. When the donation was offered, the City Council agreed to grant the site to the corporation of the Royal Victoria Hospital. Later on, however, it was suggested to the municipal authorities that the reservoir which contains the water-supply of the city lay dangerously close to this spot, and that a general hospital in that locality might be the means of infecting the water and causing epidemic disease. On the strength of these representations two medical gentlemen were appointed to look into the question and report,—Dr. Geo. Ross acting on behalf of the Hospital, and Dr. S. Lachapelle, of St. Henri, on behalf of the city. These gentlemen held several meetings and discussed the sanitary aspects of the proposed site. As they were unable to agree upon the main principles of the question, they sent in separate reports. Dr. Ross' report deals with the subject of ærial infection, and shows that the experience of recent exhaustive examinations into the possibility of infection from contagious hospitals favor the idea that the communication of these diseases is thus effected only within extremely narrow limits—that the distance between the nearest point of the hospital and the reservoir would be many times greater than any such limits—that it has never been shown that a large body of water is capable of thus receiving germs of disease through the

atmosphere and conveying such disease to persons drinking of it. He did not therefore consider that ærial infection of the water in the reservoir was possible. The next section of the report deals with the question of contamination by escaped leakage and percolation. The trend of the surface and the direction of the rock-beds is shown to be entirely away from the water, and a reference to the levels proves that to reach the basin the sewage would require to run up-hill. It was, however, admitted that cracks or flaws in the rock might possibly direct fluids meeting them towards the reservoir. This was thought to be highly improbable, and a circumstance which could be guarded against.

Dr. Lachapelle thinks danger is not likely to be incurred from the drainage system, but he maintains that the microbes from cases of pneumonia, phthisis, &c., in the general wards of the hospital would pass through the windows, float over the water (more than 800 feet distant), and falling upon it, multiply therein at the rate of 300,000,000 per day—and predicts untold evils for the doomed city whose inhabitants draw upon this reservoir for their drinking water. The site is, therefore, by him unqualifiedly condemned.

We think, to convince others, Dr. Lachapelle's arguments would require to be supported by something more practical and a little less theoretical. If the wards of a general hospital are capable of contaminating the air to such a dangerous degree at a distance of over 800 feet, what shall we say of similar institutions placed in the midst of crowded localities? If there was the slightest foundation upon scientific facts for such wild statements, no hospital should be permitted to remain within a city's limits, but would have to be isolated at an enormous distance from all human dwellings and from all sources of drinking water. Fortunately, such is not the case, but, as our every day experience would suggest, and as science has established, these noxious elements cannot be propagated beyond very narrow limits through the general atmosphere, before becoming inert and free from all further capacity for harm.

THE MEDICAL ACT.

The proposed Medical Act for the Province of Quebec was introduced into the Legislature on the 21st May last. After its second reading it was referred to a special committee of the House. The supporters and the opponents of the Bill were then given an opportunity of being heard. It was well known that there was widespread and formidable opposition to it, although a considerable number of the profession in the Province were in its favor. In committee, Dr. E. P. Lachapelle spoke strongly of the desirability of the Bill becoming law, urging that it would unify examinations, raise the standard of medical education, and put us in a position to secure reciprocity with Ontario and with other countries. Dr. R. P. Howard, Dean of the Medical Faculty of McGill University, opposed the Bill upon the grounds set forth in the Faculty's petition to the Legislature. As this document is an important one as conveying concisely the reasons for the position taken, we reproduce it in full.

To the Honourable the House of Assembly of the Province of Quebec:

The petition of the undersigned members of the Faculty of Medicine of McGill University, respectfully represents:—

That for fifty-five years the Medical Faculty of McGill University has maintained a thorough and efficient course of Medicine, with Hospital and practical work and searching examinations, and has been the means of greatly elevating the standard of medical attainment in this Province and in Canada generally, and that in recent years its course of study has been extended, its lectures increased in number and its laboratories and other means of practical instruction greatly enlarged.

That it has always possessed and has had guaranteed to it at Confederation, as one of the Schools of the Protestant minority, the privilege of sending up its graduates for license to practice, and that this privilege has never in any way been abused by it. Farther, that the course of medical study requisite to entitle to practice has been duly fixed by law, and has always been adhered to by your petitioners.

That the proposed Medical Act, as prepared by the College of Physicians and Surgeons of this Province, contains several important enactments against which the University of McGill College earnestly protests:

I. One of the most important is the creating of a Central

Board of Examiners, who shall have the right to examine holders of the Degree in Medicine of this and other Canadian and British Universities for the license to practice their profession in the Province of Quebec. This is a serious infringement of the rights enjoyed by this University under its Royal Charter, and secured to it in the Act of Confederation. It is an impeachment of the honesty of the examinations conducted by the Medical Faculty of the University, for which there is no justification, and which is disproved by the high standing which the medical graduates of this University occupy throughout the Dominion. Moreover, there are serious objections to the proposed Central Examining Board:—One half of its members being composed of persons not engaged in teaching the subjects upon which they examine, they will lack that completeness of knowledge necessary to make reliable and fair examinations:—race and school jealousies will be certain to develop themselves to the detriment of the candidates and to the destruction of harmony and good feeling amongst the examiners themselves:—the standard of the examinations will be largely determined by the least efficient of the teaching bodies and great injustice will consequently be done to the best institutions:—several of the subjects of the Medical Curriculum are so comprehensive that considerable and important differences in the teaching of those subjects must obtain in the several schools, and prove formidable difficulties to the candidates.

II. The proposition of Section XXIX. of the proposed Act to transfer the power now vested in the Legislature of determining the preliminary qualifications, the duration of study, the subjects of the Curriculum, the time of holding the examinations, etc., to the Board of Governors of the College of Physicians and Surgeons, and to give that Board, by a vote of three-fourths of its members, the power of altering these vital and important matters is fraught with danger to the several Medical Schools of the Province, and tends to deprive them of valuable safeguards which they now possess.

III. The changes in the subjects of the preliminary qualifications of candidates made in the proposed Act are not in harmony with the system of education approved of, and in use in, the English Schools and Universities of this country, and which is recognized by the Educational Law, and differs in many important respects from that preferred in the Schools and Colleges of the majority.

Your petitioners would also represent that the Degree of B.A., as given by the Universities of this Province, should be received as the best guarantee for adequate preparation for professional study, and that this is especially important as

tending to induce students to take a regular University course, instead of merely cramming for arbitrary examinations.

Wherefore your petitioners pray that no legislation for the purpose of transferring the regulation of the course of study from the Legislature to a professional Board, or for obliging holders of the University degree to submit to an examination before a Central Examining Board before obtaining their license to practice, be assented to by your Honourable House; and also that the system of preparatory education now in use in the Protestant Schools and Universities and the Degrees in Arts conferred by the latter should be held as sufficient for entrance into the study of Medicine.

And your petitioners will ever pray.

The University of Bishop's College supported the same views. Dr. Hingston, President of the Provincial Medical Board, stated that the proposition to bring this Bill before the House was carried in that Board by a majority of only one vote. After short discussion, the committee unanimously decided to report to the Assembly against the Bill. The present Act, therefore, remains in force, and it will probably be some time before any radical changes in its provisions are demanded.

THE LATE GERMAN EMPEROR.

Next to the illness of the ill-fated President Garfield, we doubt if any case in recent times has excited so much and such widespread interest and sympathy as that of the late Emperor Frederick. Amongst the medical profession, this has been the case, not only owing to the difficulties surrounding the early recognition of the disease, but also from the diversity of opinions held as to its proper treatment as it passed through its various stages—whilst many will now think that the advice of the German surgeons who advocated instant extirpation of the affected part should have been acted upon. Still the statistics of total removal of the larynx are extremely discouraging—with hardly an exception, the operation has rapidly led to a fatal termination, and even the two patients submitted to the same procedure by no less celebrated an operator than Professor Bergmann himself, since the Emperor's illness began, rapidly succumbed. In view of the enormous fatality of the operation,

one can hardly blame those who decided against it and in favor of the palliative treatment adopted—a treatment which no doubt very much prolonged the life of the illustrious sufferer. The decision to adopt this course was mainly influenced by Sir Morell McKenzie, and under the trying circumstances in which he was placed, we believe that he did his duty faithfully and well, and has merited the distinguished honors bestowed upon him by his Sovereign. Throughout the case, the ablest pathologists in Germany were called upon to aid by making microscopical examinations of portions expectorated or removed for the purpose—and in the whole management of the case, the co-operation and consent of the most trusted surgeons of the Emperor's own country was obtained. The whole case is now a matter of history. Dr. McKenzie's early hopeful view, sustained as it was by the negative evidence of Prof. Virchow's reports upon the histological character, was necessarily destroyed by the subsequent course of events. He himself was certainly of opinion long before the fatal event that the affection was truly malignant disease. This statement is borne out by the fact that he reported to the present Emperor, before the post-mortem examination, that he believed the Emperor Frederick to have died of cancer. There is some reason for the opinion held by many that this view of Dr McKenzie was withheld for important state reasons. It is certain that no matter what course Dr. McKenzie followed, he would have been subjected to the unfavourable criticisms of the German press. That he has in some quarters been severely handled, is therefore no more than was expected. In looking back, however, upon the circumstances with calm and unbiased feelings, it seems certain that he acted for the best, and that the patient's life was prolonged to the utmost limit that was possible, considering the nature of his malady.

—We learn that a new medical society for mutual improvement has been started in Vancouver, B.C. The first president is Dr. Bodington, and secretary, Dr. A. M. Robertson (formerly of Brockville and of McGill University). We are glad to see this evidence of professional activity in the Pacific Province.

Medical Items.

SULPHUR IN SCIATICA.—Dr. Duchesne lately communicated to the *Société Thérapeutique* his successful use of this medicament in sciatica, following directions given to him by Dr. Guéneau de Mussy. The procedure consisted simply in spreading a thick layer of flor. sulphur upon a cloth and placing the member on it in bed. The cure was said by Dr. de Mussy to be effected with great rapidity, and he cited a case in which the application needed to be made during one night only. No attempt was made by Dr. Duchesne to explain the action of the sulphur; he said simply that its only visible effect, apart from that made upon the sciatica, was to quickly give the urine an odor of sulphuretted hydrogen.—*Monit. thérap.*

BOILED WATER AS AN ASEPTIC.—Microbian cultures flourish in the most concentrated solutions of carbolic acid; and this is also true of sublimate solutions actually as strong as usually recommended. The accidents occasioned by corrosive sublimate, by carbolic acid, and even by iodoform, are so frequent and so well known in the meantime, that one cannot too warmly urge upon surgeons the use of simple water, which after filtration and boiling at 100° C., or better at 120° C., if one has the proper apparatus, is certainly the best aseptic we have at our disposition. While solutions of hydrochlorate of morphine for hypodermic use, made according to the old method with distilled water, are full of micro-organisms and of microbes at the end of five to ten days of use, they are preserved pure and perfectly limpid during weeks, or even months, if water be employed which has been filtered and boiled.—*Gazette de Gynecologie.*

HOW A LONDON SURGEON WAS COMPLIMENTED.—The *Pall Mall Gazette* says: "There is a story going about so good that it ought to be made public, and so improbable that it must be true. A very eminent London surgeon—one of the lights of the profession—the other day observed a gentleman fall in the street. He went to his aid, and found he had broken his leg. It was only a simple fracture, but the man was badly hurt. The surgeon used his umbrella as a splint, and with his

own and borrowed handkerchiefs bandaged the limb tightly, put the patient in a cab, and drove to the nearest hospital. There they were received by a young surgeon or his *locum tenens*. "You've bandaged this very well," said the hospital surgeon. "You flatter me," said the great gun. "Not at all," said the other, "I suppose you have been attending an ambulance class. They say a little learning is a dangerous thing, but the little you've learnt you've put to good account. I can't give you your umbrella now, but if you leave your address it shall be sent home." "I had best give you my card," said the eminent surgeon. And he did so.

—The following poem is entitled by the author as "A Wish." Oddly enough, at his death it was entirely fulfilled:

Spare me the whispering, crowded room,
The friends who come, and gape, and go;
The ceremonious air of gloom—
All, which makes death a hideous show!

Nor bring, to see me cease to live,
Some doctor full of phrase and fame,
To shake his sapient head, and give
The ill he cannot cure a name.

Nor fetch, to take the accustom'd toll
Of the poor sinner bound for death,
His brother-doctor of the soul,
To canvas, with official breath,

The future, and its viewless things—
That undiscover'd mystery
Which one who feels death's winnowing wings,
Must needs read clearer, sure, than he!

MATTHEW ARNOLD.

THE PRACTICE OF LICKING SORE EYES.—At the recent annual meeting of the *Société française d'ophthalmologie* a curious communication was made by Professor Costomiris, of Athens. It seems that ever since the days of Æsculapius the Greek populace have practiced licking sore eyes as a method of cure. For this important office a person is insisted upon who has a clean mouth and good teeth and is not a smoker. If it is a girl, she must not operate during her menstrual period. The lickers must commence work before eating, and they are required to wash out the mouth carefully and then chew a certain quantity of *Galega officinalis*, to take away all germs from the tongue. Dr. Costomiris has watched the practice for

some seven years and found the results very satisfactory in a number of cases of opacities of the cornea, and in keratitis, parenchymatous and diffuse, also in chronic ulcers; so that he recommends it. Very often a member of the family is engaged to do the licking, as it is not easy to get outsiders. The practice may have arisen from seeing animals do the same in cases of eye troubles, and from the popular belief in the efficacy of saliva against wounds. Is it that the covering of saliva keeps out the microbes from the air?

—Some years ago a village quack in Devonshire who was a sort of Jack-of-all-trades, applied to the late Mr. Hawker, then vicar of Morwinstow, in North Devon, to compose for him a handbill such as would adequately describe his many qualifications. The rev. gentleman produced the following:—"Roger Giles, Surgin, Parish clerk and Skulemaster, Groser, and Hundertaker, Respectably informs ladys and gentlemen that he drors teef without wateing a minit, applies laches every hour, blisters on the lowest tarms, and vizicks for a penny a peace. He sells Godfather's Kordales, kuts korns, bunyons, dokters hosses, clips donkies wance a munth, and undertakes to look arter every bodies nayls by the ear. Joseharps, penny wissels, brass kanelsticks, fryinpans, and other moozikal hinstrumints hat greatly reydooced figers. Young ladys and gentlemen larnes their grammur and langedge, in the purtiest manner, also grate care taken of their morrels and spelling. Also zarmzinging, taycbing squadrils, pokers, and all country dances, tort at home and abroad at perfekshun. Perfumery and znuff, in all its branches. Blakin-brishes, herrins, coles, skrubbinbrishes, traykel, godly bukes and Bibles, mise-traps, brick-dist, morrel pokkerankerchers, and all zorts of swatemaits, including taters, sessages, and other gardin stuff, bakky, zigars, lamp oyle, tay-kittles, and other intoxxikatin likkers. Agent for selling gutty-porker souls."—*Hospital Gazette.*

A Curious Way to Advertise an Obstetrician.—The following curious items appeared in the *Cincinnati Enquirer*, under the head of Births:

"Flamin.—Saturday, the 9th inst., at 8-15 a.m., to the wife of D. W. Flamin, of College Hill, a ten-pound boy. Thanks to Dr. Wallingford, of Cincinnati."

"Gallion.—June 5th, to Mrs. Nona Gallion, of Liberty Street, a nine pound girl. Thanks to Dr. Wallingford."

One might suppose that Messrs. Flamin and Gallion would claim some thanks.—*N. Y. Medical Record.*