Technical and Bibliographic Notes / Notes techniques et bibliographiques

Canadiana.org has attempted to obtain the best 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.

Canadiana.org 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.

- ☐ 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.

☑ Additional comments / Commentaires supplémentaires: Continuous pagination.

THE

CANADA LANCET

A Monthly Journal of Medical and Surgical Science, Criticism and News.

THE OLDEST MEDICAL JOURNAL IN THE DOMINION.

Vol. XXX. No. 7. } TORONTO, MARCH, 1898. { Price, 30 Cents. $3 per Annum.

CANADA LANCET PUBLISHING CO., PUBLISHERS, TORONTO.

INDEX TO CONTENTS.

Accurate Administration of Lithia

To make fresh sparkling Lithia water of definite strength dissolve one of . . . . . .

WM. R. WARNER & CO.'S

ORIGINAL EFFERVESCENT

Lithia Water Tablets

IN A GLASS OF WATER.

Efficacious, Convenient, Inexpensive.

An Effectual Remedy in . . . .

Rheumatism,
Lithemia,
Gravel,
Bright's Disease,
Gout, Etc., Etc.

IT IS DIURETIC AND ANTACID.

Each tablet contains three grains (made also five grains) Citrate of Lithia, so that a definite quantity of soluble Lithia is administered in a pleasant form, besides having fresh water with each dose, presenting a therapeutic value of higher standard than the various Lithia spring waters. This is a scientific preparation of the highest standard.

Supplied by all Druggists, or by mail. Take no substitutes.

ORIGINAL WITH AND MADE ONLY BY

William R. Warner & Co.

PHILADELPHIA. NEW YORK. CHICAGO.

GRANULAR EFFERVESCING

BROMO
(WARNER & CO.)
SODA

As Prescribed by the Physician Will Cure

SICK HEADACHE, caused by indigestion and over indulgence—

HEADACHE resulting from protracted mental effort, and close confinement—

HEADACHE due to loss of sleep and rest—

NERVOUS HEADACHE occasioned by excessive grief or other causes—

DULL, THROBBING HEADACHE from overwork and disordered stomach—

HEADACHE from excessive use of tobacco or from over-heating—

BROMO SODA will quickly relieve NEURALGIC and RHEUMATIC HEADACHE.

Where nervous depression follows deprivation of alcoholic stimulants, opium, etc., when habituated to their use, **Bromo Soda** is recommended with utmost confidence as a prompt and certain remedy.

William R. Warner & Co.

PHILADELPHIA. NEW YORK. CHICAGO. LONDON.

SUPERIOR TO PEPSIN OF THE HOG

INGLUVIN

A Powder—Prescribed in the same manner, dose and combinations as Pepsin.

A Specific for Vomiting in Gestation.

The dose in such cases is 10 to 20 grs., mixed with water or sherry wine, in preference to placing the dry powder on the tongue.

. . . A potent and reliable remedy in 5 and 10 grain doses for the cure of

INDIGESTION, DYSPEPSIA, SICK STOMACH, MARASMUS.

It is superior to the Pepsin preparations, since it acts with more certainty, and effects cures where they fail . . . . . .

Prescribed by the most eminent physicians.

Prepared by WM. R. WARNER & CO., Phila.

From Prof. Roberts Bartholow's, M.A., M.D., LL.D., Work on Materia Medica and Therapeutics.

1879 INGLUVIN—This is a preparation from the gizzard of the domestic chicken—*ventriculus callosus gallinaceus.* Dose, gr. v.—ʒ j.

Ingluvin has the remarkable property of arresting certain kinds of vomiting—notably *the vomiting of pregnancy.* It is a stomachic tonic, and relieves *indigestion, flatulence* and *dyspepsia.*

The author's experience is confirmatory of the statements which have been put forth regarding the exceptional power of this agent to arrest the vomiting of pregnancy. It can be administered in inflammatory conditions of the mucous membrane, as it has no irritant effect. Under ordinary circumstances, and when the object of its administration is to promote the digestive functions, it should be administered after meals. When the object is to arrest the vomiting of pregnancy, it should be given before meals.

1889 and 1896 INGLUVIN is a * * preparation said to be made of the gizzard of the domestic chicken—*ventriculus callosus gallinaceus.* Dose, gr. v.—ʒ j. Ingulvin has the remarkable property of arresting certain kinds of vomiting—notably the *vomiting of pregnancy.* It is a stomachic tonic, and relieves *indigestion, flatulence* and *dyspepsia.*

Recent investigations have shown that Ingluvin owes its curative effects, not to any ferment corresponding to pepsin, but to a *peculiar bitter principle.* This result is the more satisfactory, since such an organ as the gizzard could hardly furnish the necessary quantity of a digestive ferment to effect the results now known to be produced by Ingluvin.

Under ordinary circumstances, and when the object of its administration is to promote the digestive function, it should be taken after meals. When the object is to arrest the vomiting of pregnancy, it should be given before meals.

But only the successful use of this agent and the apparent sincerity of the composition as given to the public would seem to justify its mention here.

INGLUVIN FORMULÆ.

Very frequently the physician deems it advisable, when prescribing Ingluvin, to add an adjuvant such as Nux Vomica, Gentian, etc. We therefore recommend the following formulæ :

℞ Ingluvin, 36 grs
Ext. Nuc. Vom. ¼ gr.
Ol. Res. Ginger, ¼ gr.
m. et. ft. caps. xii.
Sig.—One or two as may be indicated.

℞ Ingluvin, 60 grs.
Ext. Gentian, 12 grs.
m. et. ft. caps. xii.
Sig.—One or two as may be indicated.

℞ Ingluvin, 36 grs.
Oxalate Cerium, 24 grs.
Bismuth Subnit, 24 grs.
Ext. Nuc. Vom. ⅓ gr.
m. et ft. caps. xii.
Sig.—One or two as may be indicated.

Many physicians throughout the world are assuring us that Ingluvin is superior to Pepsin (a claim we have always asserted).

☞ Joseph F. Edwards, A.M., M.D., Atlantic City, N.J., writes that he places more reliance on Ingluvin than on Pepsin, and has not been disappointed.

Solubility, Reliability and Permanency are the requisites in a perfect pill as made by *W. R. Warner & Co.* and prescribed by the Medical profession with satisfactory results for the past 40 years. Friability is no proof of Solubility. Avoid substitutions and consequent disappointment. . . . . .

Pil. Sumbul Comp.

(WM. R. WARNER & CO.)

Ext. Sumbul, 1 gr. Ferri Sulph. Exs. 1 gr.
Asafetida, 2 grs. Ac. Arsenious, 1-40 gr.

DR. GOODELL—"I use this pill for nervous and hysterical women who need building up."

This pill is used with advantage in neurasthenic conditions in conjunction with Warner & Co.'s Bromo Soda, one or two pills taken three times a day. Per 100, $1.00.

Pil. Cascara Cathartic.

WARNER & CO. DR. HINKLE.

Each containing—
Cascarin, ¼ gr. Belladonna, ⅛ gr.
Aloin, ¼ gr. Strychnine, 1-60 gr.
Podophyl, 1-6 gr. Gingerine, ⅛ gr.
Dose—1 to 2 pills.

Pil. Peristaltic.

(WM. R. WARNER & CO.)

Each containing—
Aloin, ¼ gr. Strychnin. 1-60 gr.
Ext. Bellad, ⅛ gr. Ipecac, 1-16 gr.
Dose—1 to 2 pills. Per 100, 40 cts.

Pil. Persistaltic (Mercurial).

Aloin, ¼ gr. Strychnin. 1-60 gr.
Ext. Belladon. ⅛ gr. Ipecac, 1-16 gr.
Calomel, 1-10 gr.
Per 100, 50 cts. Per 500, $2.35.

Especially serviceable in the hard conditions of the bowels and torpidity of the liver, usual in connection with piles. This pill will produce free and copious evacuations, and render invaluable service when indicated.

Pil. Chalybeate.

(WM. R. WARNER & CO.)

Ferri Sulph. Fe SO_4 | Ferri Carb. Fe CO_3
Potass. Carb. K_2CO_3 | Potass. Sulph. K_2SO_4
3 grains. Dose—1 to 4 pills.

The above combination which we have put in pill form produces when taken into the stomach, Carbonate of the Protoxide of Iron (Ferrous Carbonate) in a quickly assimilable condition.
Per 100, 40 cts.

Pil. Chalybeate Comp.

(WM. R. WARNER & CO.)

Same as Pil. Chalybeate with ⅛ gr. Ext. Nux Vomica added to each pill, to increase the tonic effect. Dose—1 to 3 pills.
Per 100, 55 cts.

LIBERTY, Ohio, June 9, 1897.

Messrs. Wm. R. Warner & Co., Philadelphia.

GENTLEMEN—Last winter I unearthed a small vial of your Aloin Granules that by chance had been stowed away for *twelve years.* Having always used your Aloin Granules in my practice I of course used these, and, as far as I could determine, *they were as efficient as the day they were made.* I tried them on myself several times, with results as good as could be wished for. I have kept a few as a curiosity. They are O.K.

Yours truly, J. H. ADAIR.

Pil. Arthrosia.

(WM. R. WARNER & CO.)

For the cure of Rheumatism and Rheumatic Gout

FORMULA—Acidum Salicylicum, Resina Podophyllum, Quinia, Ext. Colchicum, Ext. Phytolacca, Capsicum.

Almost a specific in Rheumatic and Gouty affections. Per 100, 60 cts.

Pil. Digestiva.

(WM. R. WARNER & CO.)

A VALUABLE AID TO DIGESTION.

Pepsin Conc't, 1 gr. Gingerine, 1-16 gr.
Pulv. Nuc. Vom. ¼ gr. Sulphur, ⅛ gr.

This combination is very useful in relieving various forms of Dyspepsia and Indigestion, and will afford permanent benefit in cases of enfeebled digestion, where the gastric juices are not properly secreted.

As a dinner pill, Pil. Digestiva is unequalled, and may be taken in doses of a single pill, either before or after eating. Per 100, 60 cts.

Pil. Antiseptic.

(WM. R. WARNER & CO.)

Sulphite Soda, 1 gr. Salicylic Acid, 1 gr.
Ext. Nuc. Vom. ¼ gr. Dose—1 to 3 pills.

Pil. Antiseptic is prescribed with great advantage in cases of dyspepsia attended with enfeebled digestion following excessive indulgence in eating or drinking. It is used with advantage in Rheumatism. Per 100, 55 cts.

Pil. Antiseptic Comp.

(WM. R. WARNER & CO.)

Sulph. Soda, 1 gr. Salicylic Acid, 1 gr.
Ext. Nuc. Vom. ⅛ gr. Powd. Capsicum, 1-10 gr.
Concentrated Pepsin 1 gr. Dose—1 to 3 pills.

Pil. Antiseptic Comp. is prescribed with great advantage in cases of Dyspepsia, Indigestion and Malassimilation of food. Per 100, 55 cts.

FOR SALE BY ALL DRUGGISTS

WILLIAM R. WARNER & CO.

1228 Market Street, Philadelphia. 52 Maiden Lane, New York. 197 Randolph Street, Chicago.

The Canada Lancet.

VOL. XXX.] TORONTO, MARCH, 1898. [No. 7.

ORIGINAL ARTICLES AND COMMUNICATIONS.

A FATAL PNEUMONIA WITHOUT ELEVATION OF TEMPERATURE OR PULSE.

BY

GEO. S. RENNIE, M.D.C.M., L.R.C.S., Edin., L.R.C.P., London, Hamilton, Ont.

G. S., farmer, aged 72.

Family history: good, no tuberculosis.

PERSONAL HISTORY.—Has been a particularly healthy man up to the present time; was laid up with a bad attack of erysipelas in the left arm fifteen years ago. There was some necrosis of the bones of the fore-arm, so that there is only limited movement in that arm; has been working harder than usual in the fields all the past summer. Twenty years ago he was ruptured in the right inguinal region, and five years ago on the left side. These were both reducible. He wore a double truss in comfort until a year ago, when he took to a single one for the left side, as the right herina was retained without the aid of a truss.

PRESENT ILLNESS.—Was at work threshing Thursday, Sept. 23rd, and felt as usual until 6 p.m.; the left hernia suddenly descended and formed a hard lump, the size of a walnut. It gave him much pain, and it was ten or fifteen minutes before he could reduce it, during which time he suffered intense pain. He stopped work and went to bed, the pain increasing gradually in severity.

Since that evening his condition has been practically as follows:—Pain has been very severe, requiring much morphia, it has been felt generally over the abdomen and not localized to any one spot, and only varied with the amount of morphine he received. He vomited before Friday morning and has done so steadily since; the vomiting was unattended by much pain, but came on without much effort on the part of the patient. It was dark in color and of fecal odour, although he could not smell it himself. All fluids taken into the stomach have been ejected soon after. Bowels moved quite naturally half an hour after the descent of the hernia; since then he has swallowed nearly four ounces of castor oil, beside some purgative pills. The oil was usually vomited soon after being swallowed. He was given an enema of soap and water with turpentine on Friday morning, and has had one night and morning since, but there has been no movement of the bowels. Gas has been

brought up from the stomach in considerable quantity, but none has passed out of the bowels.

The doctor who attended him up to this time states that fever has not been present during the illness, and pulse never above normal, no cough, no expectoration.

Admitted to City Hospital September 29th. Six days after descent of hernia.

PRESENT CONDITION—Patient is a hardy man of 72 years.

Tongue—Dry, and coated at edges with white fur.

Expression—Somewhat anxious.

Pupils—Contracted.

Temperature 98; pulse 80; respiration 22.

Arterial sclerosis.

Pulse—Regular, fair volume, tension good.

Heart—Slightly hypertrophied.

Abdomen—Much distended, skin reddened from the effect of turpentine applications, tenderness all over, but especially in left iliac fossa; a loop of bowel is clearly outlined through the abdominal wall, and can be seen and palpated easily; nothing can be felt in either inguinal canal.

Urine—Normal.

A consultation was held shortly after patient's admission and it was decided that an immediate operation is necessary for obstruction of the bowels.

The peritoneal cavity opened; in median line upper portions of bowel distended with gas, filled with fæces and darkly congested; lower portions empty. A very small nuckle of bowel found constricted in left internal ring, and not large enough to extend for any distance into the canal. Internal ring incised and bowel liberated which had been tightly constricted and was greatly inflamed; internal ring stitched with chromicized catgut and abdomen closed and dressed.

Sept. 30th, 1897. Patient doing well, feels comfortable, no elevation of temperature, pulse 80, respiration 20.

Oct. 1, 1897. Patient wants to sit up, takes nourishment well, no pain, bowels moved, rested well, pulse 80, temperature normal, respirations 24.

Oct. 2nd, 1897. At 8 a.m., temperature normal, pulse 100, respiration 24. At 10 a.m, respiration had increased to 40 and patient was evidently very nervous and excitable. About 11 o'clock patient became suddenly cyanosed and died in a few minutes.

AUTOPSY NOTES TAKEN BY DR. FINDLAY.

October 2nd, 1897.

Body is that of a rather poorly nourished man, muscular system not well developed and bones very prominent.

ABDOMEN.—No distension or tympanites. There is an incision in the median line 4½ inches long, between the umbilicus and pubes. On removing the silk-worm gut sutures, the edges of the wound are found to be rather firmly adherent and covered with a layer of fresh lymph; no red-

ness is present and parts are in a very healthy condition. Examination of abdomen shows all organs to be in a healthy condition; no gas or fluid in peritoneal cavity. A small loop of small intestine situated in the left iliac fossa shows a slight amount of congestion and pigmentation. No constriction and bowel is quite patent.

KIDNEYS.—Quite normal.

THORAX.—On opening the thorax the left pleura contains about two ounces of turbid fluid.

LEFT LUNG shows layer of fresh lymph on its surface in spots. The whole of the lower lobe and the posterior portion of the upper lobe are dark in color and non-crepitant. On section the lower lobe shows the condition of grey hepatization and the upper one of red hepatization.

RIGHT PLEURA contains one ounce turbid fluid.

RIGHT LUNG has the same coating of lymph on its surface. The posterior portion of the middle and lower lobes are greatly congested, and on section are in the stage of grey hepatization.

HEART.—Slightly enlarged. Right auricle and ventricle engorged with blood, ante and post-mortem clots in right and left chambers.

The post-mortem examination of this case goes to show that double pneumonia was the cause of death and that the pneumonia must have developed some days before his admission into the hospital, as it was found, to a great extent, to be in the stage of grey hepatization, which must have taken a few days. The patient's temperature was never above normal from the start of his illness until a few hours before he died, when it reached 99½. His pulse never reached 100 until the morning of his death.

If time had permitted, a more thorough examination of his chest would have revealed some physical signs, but an operation was required at once to save his life and a pneumonia was not to be expected with normal pulse, normal temperature, no cough, expectoration or pain, and only slight rise in respiration.

As far as the operation was concerned it was successful, as the p.m. report shows, and had nothing to do in any way with cause of death.

EROSION AND SPLIT OF THE VIRGIN CERVIX.

Read by Dr. J. L. Davison, Professor of Clinical Medicine in Trinity Medical College, before the Alumni Association of the College, April, 1897.

MR. PRESIDENT AND GENTLEMEN,—The few remarks I shall make may be looked upon as a sort of curtain-raiser, though, I hope, not a farce, to the more important papers which are to follow this afternoon from our distinguished guests. I should apologize for not giving you something original. But in casting about for something which might be looked upon as at least partly original, and which should occupy only a few minutes' time, I was unable to select a suitable subject; hence the one you see upon your programme as something, if not original, at least new to most of you. Quite recently, while present as an expert witness at a

trial in which damages were asked from the City of Toronto, I heard Dr. Adam Wright, Professor of Obstetrics, University of Toronto, swear that a laceration of the cervix was undoubtedly caused by childbirth. Dr. Britton, of this city, followed with the same evidence, and, I may say, I was quite ready to make oath to the same thing, had I been called upon to do so, which, however, I was not.

In the case I referred to there was no denial as to the previous birth of children. In the Transactions of the College of Physicians of Philadelphia a few days later, I came across an article by Dr. C. B. Penrose, Professor of Gynæcology in the University of Pennsylvania, which materially changed my views regarding laceration and erosion of the cervix. I was at once seized of the fact that, in the case of a virgin, who had undergone an examination similar to the one made by Dr. Wright, by order of the Court upon the plaintiff, I would have given sworn evidence, in a court of law, which must have incriminated an innocent girl, and this through ignorance, which may, perhaps, be excusable; for, though I have searched through all the text-books in my own and several other libraries open to me in the city, I find no reference to the subject, touhgh Dr. Penrose asserts that a few of the text-books refer to it.

In conversation with several medical men of larger experience than my own I found an equal amount of want of knowledge on the subject; so I considered it would be new to most of you, and so should be interesting. To understand the condition of which I speak, a short resume of the morphology of the cervix, then, will be of use. Dr. Fischel, in 1880, worked this out and presented a paper upon it, from which I take what I think necessary to make clear the pathology.

He had made a series of investigations in the cervix of infants who had been still-born, or who had died soon after birth, and had found a condition which up till that time had been, he says, undescribed by any anatomist or gynecologist that had undertaken the study of erosions. Leopold had, a few years before, read a communication to a German medical paper, in which he stated he had seen such an erosion of the cervix and declared it was an anomaly of the new-born child unrecognized before that time.

In the discussion of his paper, Ahlfield stated that circulatory congestion of the uterus, and, apparently, also, erosions of the Mucous Membrane were of frequent occurrence in asphyxiated infants.

Fishel concludes from the above short notice that neither Leopold nor Ahlfield had made a microscopic examination of these erosions.

Now, let us remember that the uterus and vagina are formed by the union of the lower segments of the ducts of Müller, which ducts are lined by simple columnar epithelium. The theory as to the difference between the Mucous Membrane of the uterus and cervical canal and that of the vagina is, that during intra-uterine life a change begins at each end of the Mucous Membrane.

In the above this simple columnar epithelium which I said lines the ducts of Müller, gradually takes on a glandular type, while in the vagina, beginning at the uro-genital sinus, the columnar epithelium gradually changes into the squamous type.

Normally at the time of birth these changes should have covered the vaginal Mucous Membrane as far as the external os with epithelium of the squamous type, with *no* glandular structure in it.

But we find that such development, to such nice lines is not always to be found, and hence on twenty-eight cervices examined he found ten erosions of varying character and size; of these four were from fœtuses still-born at term, two from infants a few days old, one from an infant fourteen days old, and three from infants three, four and five weeks old, respectively.

He found that Ahlfield's assertion regarding asphyxia in connection with erosions had no value as to cause and effect, since five of the children born asphyxiated showed no erosion, while some that died at varying periods after birth did so.

The statement that the dividing line between the epithelium of the vagina and that of the uterus lies at the outermost end of the cervical canal is not always true; for it *may* be situated on the vaginal surface of the cervix, approaching more or less nearly the vaginal fornices.

Indeed, Fischel found it coinciding with the external os in only a minority of cases. Usually it lay *within* the cervical canal 2-3 *m. m.* above the external os.

He sums up that, in thirty-six per cent. of new-born infants the vaginal surface of the cervix from the external os towards the vaginal fornices is curved more or less extensively with a Mucous Membrane, which from the form of its epithelium, from its papillary character, and from its possession of mucous glands and crypts, must be regarded as a direct continuation of the cervical Mucous Membrane.

This aberrant Mucous Membrane is due, as we have shown, to a faulty development, and it is owing to its presence that we have erosions, which are thus readily and naturally accounted for even in the new-born child.

Erosions may occur, indeed, upon a spot normally covered with squamous epithelium, but considering that even in adults the erosions never pass the limits we have recognized, or those of the cervical Mucous Membrane viz: midway between the os externum and the vaginal fornix, it seems reasonable to suppose that, without actual trauma, those women only will have erosions who are predisposed to them by the congenital condition above alluded to.

Having thus shown that congenital erosions are common, and having given, we think, good anatomical reasons for their existence, Fischel goes on to show how the normally oval transversely os, with its lateral commissures may be injured, usually in labor; how these injuries alter its shape and appearance, until the laceration ectropiun described by Emmet is formed with which we are all familiar, having often seen it in women who have borne children, if, indeed, some of you may not have seen it, or what is very similar to it, in the virgin.

I am now able, says the author, to show a photographic representation of the cervix of a new-born infant, which presents an inferior degree of the condition. The separation of the lips does not extend all the way to the vaginal junction, but concerns only the lower two-fifths of the lateral corners. Nevertheless, the two lips, deprived of their commis-

sures, gape open, the crest of one being 9 *m. m.* from that of the other, exposing the cervical surface of both lips for a distance of 5-6 *m. m.*

This shows that a peripheral notching of the cervix is not always a sign of a previous labor, and is of great forensic importance, in that the proof of a former labor can no longer be claimed for such a condition of the cervix. Dr. Penrose gives in detail a case in which the cervix was amputated and submitted to a microscopical examination.

CASE I.—N. S.; white, aged twenty-five years, single. Menses began at fourteen years, occurred every twenty-eight days, and were of four days' duration. She had suffered for five years with profuse leucorrhœa, backache and slight left ovarian pain. She was a well-developed, strong woman. Careful questioning and observation rendered it most probable that she was virtuous.

She had never had local gynæcological treatment.

The ostium vaginæ was virginal. On the posterior margin there was a crescentic hymen, which was not, however, sufficient to prevent coitus. The vagina was small and virginal. The vaginal cervix was mushroom-shaped. The face of the cervix was flat, or very slightly, evenly convex. The face of the cervix projected (like the top of a mushroom) on all sides beyond the upper portion, which corresponded to the stock of the mushroom. The face was round, and about one and a half inches in diameter. The external os was transverse—one-third of an inch broad. Upon the face of the cervix were several scattered patches of erosion.

The cervix was amputated and microscopical examination was made by Dr. Lawrence S. Smith.

It was covered with squamous epithelium, except on the small patches of erosion where cylindrical epithelium was present. Racemose glands (like the normal glands of the cervical canal) opened all over the face of the vaginal cervix, in front, behind and to the sides of the external os. They were found as far as one half to three-quarters of an inch from the external os. These glands opened on the vaginal aspect of the cervix, where it was covered with squamous epithelium, and this epithelium extended to the ducts of the glands, which were lined with cylindrical epithelium. In fact, the vaginal cervix was a glandular structure. He holds that the condition is congenital, and due to the development upon the vaginal aspect of the cervix of these structures, glandular, which are normally confined to the cervical canal.

CASE II.—C. W., aged seventeen years, a modest school-girl of respectable parents. Careful questioning of her mother, father, and family physician rendered it extremely probable that the girl was virtuous. She had never had any local treatment of the uterus. She came to the University Hospital on account of painful and frequent urination. She was etherized and an endoscopic examination of the bladder was made. The appearance of the interior of the bladder suggested tubercular cystitis, though the disease subsequently yielded to local treatment.

While the girl was under ether an examination was made of the vagina and uterus. The ostium vaginæ was very small, and there was a well-formed annular hymen, which with difficulty admitted the little finger. Introduction of the index finger ruptured the hymen. There was a bilateral split of the cervix, which was most marked on the left side.

The depth of the split on the left side was three-eighths of an inch. There was no ectropion. There was an erosion surrounding the os. The uterus was in the second degree of retroversion. The integrity of the hymen was not regarded, because it was thought that retroversion would require correction. There was no leucorrhœa.

Now, this case as shown by the plate is one which I think so closely resembles a cervix laxated from abortion, miscarriage, labor, or possibly some other trauma, such as dilatation, that the majority of practitioners would not have hesitated to pronounce it due to a previous labor, though it was an undoubted case of congenital split. The importance of the condition is great from a jurists' point of view. I have never seen such a split in a virginal os, and shall be glad to hear the experience of those who have had more experience in gynæcological work than I have.

THE FUNCTION OF THE HAIR IN MAN.—Exner has published in a recent number of the *Wiener Klinische Wochenschrift*, an article on this interesting subject. He states at the outset that the disposition of the hair on the different parts of the body always serves a definite object. The study of the descent of man and of embryology has shown that our ancestors were entirely covered with hair, as are the anthropoid apes. According to Darwin the gradual disappearance of the hair is due to the repulsion felt by women for hairy men, and their liking for the opposite; that is, to sexual selection. In the same manner he explains the exaggerated development of the hairy scalp in women, and of the beard in men, for in women the long hair and in men the beard have always been considered as attributes of beauty.

As to the physiological functions of hairs it is admitted that they are modified sense organs, which have lost all connections with the nerves. It is probable that in primitive man the distribution of the hair upon the body was irregular, and that the length, color, structure and thickness of the hair varied with functions for which it was intended. The hair which has been left upon the body in the process of evolution has been left there for a definite purpose. Certain hairs serve as organs of touch, notably the eyelashes, the bulbs of which are surrounded by a network of nerve fibres, and in a less degree the hairs of the eyebrows. Both these serve to protect the eyes; for being sensitive they give warning of danger, so that reflex closure of the lids is produced. The eyebrows also prevent drops of sweat from running into the eyes, while the eyelashes keep out dust. The eyebrows and lashes also serve a purpose in sexual selection. The down which covers the body is also endowed with tactile sense; the hair in the region of the genitals and anus being the least sensitive. A thick growth of hair is also found in those parts of the body where friction must take place between contiguous cutaneous surfaces as in axillæ, groin, perineo-scrotal and perineo-vulvar regions. By experiment with pieces of skin covered with hair, Exner has shown that the hairy covering markedly diminishes the friction of the cutaneous surfaces.

In animals the hair serves to maintain and regulate the heat of the body, but in man the hair of the scalp alone serves this purpose. Hair is itself a poor conductor of heat, and retains air, also a poor conductor. in its interstices.—*Boston M. and S. Jour.*

SURGERY.

IN CHARGE OF

GEO. A. BINGHAM, M.B.,
Associate Prof. Clinical Surgery, Trinity Med. Coll.; Surgeon Out-door Department Toronto General Hospital; Surgeon to the Hospital for Sick Children; Surgeon to St. Michael's Hospital. 68 Isabella Street.

FRED. Le M. GRASETT, M.B., C.M., Edin. Univ.; F.R.C.S.E.; M.R.C.S., Eng.; Fell. Obstet. Soc., Edin.; Surgeon, Toronto General Hospital; Physician to the Burnside Lying-in-Hospital; Member of the Consulting Staff, Toronto Dispensary; Professor of Principles and Practice of Surgery, and of Clinical Surgery, Trinity Medical College. 208 Simcoe Street.

IS NOT THE MORTALITY FROM SURGICAL DISEASE LARGER THAN NECESSARY?*

BY CHARLES McBURNEY, M.D., NEW YORK.

With anæsthesia, asepsis, and greatly enlarged and improved operative surgery, the immediate danger to life from surgical interference has very greatly diminished, so that increased confidence has become established in the minds of surgeons, physicians, and patients that few cases of surgical disease can reach such an advanced stage as entirely to preclude the possibility of relief by operation. And it is true that many conditions which formerly were necessarily fatal because they were considered to be beyond the reach of surgery are now safely operated upon and more or less completely relieved.

Even partial success in these desperate cases is a very proper source of pride to the surgeon, and each one stimulates him to still greater effort to save those who are nearly moribund. The more desperate the condition and the greater the risk, the more intense his interest, provided the possibility of success by care and skill exists. This feeling is to a certain extent shared by the physician, who now, much more frequently than in former times, calls upon the surgeon for aid, even in very desperate conditions. In this way every surgeon becomes familiar with cases for which he can do little or nothing, because the disease has already gone too far.

During the last few years I have been especially struck with the rapidity with which many cases of surgical disease advance from a condition that is entirely curable to one that is entirely incurable, or from one that can be completely and radically treated to one that can be only partially relieved. Probably almost all surgical cases have their time limit, before which with proper treatment complete recovery can be assured, and after which, at least with our present resources, no efforts can be entirely successful. Exactly what this time limit is in each individual case we do not accurately know, but that there is such a limitation which is well

* Paper read before the Practitioners' Society on Friday, November 5, 1897.

worth our constant thought and study I am firmly convinced. Take, for instance, a case of strangulated hernia. Is there not undoubtedly a moment up to which the possibility, after relief of the strangulation, of a return of circulation in the involved gut still exists, and a moment immediately following when such complete re-establishment of the blood current becomes impossible? Or, in a case of progressive septic peritonitis, is there not a sharp limit to the time within which the removal of the primary source of the sepsis and of its local products is capable of putting an end to the disease? And does not after this limit immediately begin a period when such a condition of general sepsis is established as entirely precludes the possibility of recovery? Or in a case of carcinoma of the breast, is there not a brief period during which the disease is absolutely local and so open to radical cure, and immediately after this a period when invasion of lymphatic vessels renders operative work only palliative? As further instances I would enumerate carcinomata and sarcomata in many different parts of the body, cases of bowel obstruction due to whatever cause, all wound infections, and especially suppurative diseases involving or threatening to involve the peritoneum. All of these diseases, with certain rare exceptions, when old age or complications of various kinds render surgical treatment inadmissible, are at the proper time susceptible of complete and radical cure. In other words, there actually is a time limit before which death can be averted, and after which death is, immediately or remotely, inevitable.

The question that I would raise is: Do we to-day, with all our eagerness to improve the results of our surgical work, devote nearly enough attention to the limit of time when perfect surgery is possible?

Even leaving out the question of life and death, what shall we say in regard to the extension of disease from one tissue to another, calling at a late period for a much more extensive or mutilating operation than would have been required but a very short time before?

What an enormous difference between a case of strangulated hernia operated on at a time when a complete operation can be done and the hernia radically cured, and a case operated on at a later stage, when gangrene of the gut has occurred, calling for resection of the intestine, followed by intestinal anastomosis or a permanent artificial anus! Compare two cases of appendicitis, one operated on in the period of quiescence after the first attack, and the other operated on during the second attack, when suppurative peritonitis renders a wide-open wound necessary and a large bulging hernia naturally follows. Besides these more marked instances, many others could be given in which the transition from simplicity to complication is less clearly defined. To-day a diseased joint may be safely treated by resection; in a week amputation will be necessary to save life. In the case that I presented to-night, there was a prolonged period when simple extirpation of the tonsil would have been sufficient. When the patient came under my care, the disease had extended so far on to the lower jaw that it was necessary to sacrifice the whole of the ramus. The probability of inoperable recurrence of disease in this case is much greater than it would have been had the operation been done two or three months earlier.

It is clear, of course, that the mortality from surgical disease would be very much diminished if all cases could be subjected to treatment before the time limiting the possibility of perfect cure had been passed. The responsibility for not allowing this limit to be passed is then very great, and deserves the fullest appreciation. That in many cases the limit cannot at present be accurately defined is undoubtedly true, and that it will even be thoroughly understood in all cases is not probable. It is easy enough, however, to appreciate the initial stages of many surgical diseases, and knowledge of their natural history should enable a moderately careful professional observer roughly to anticipate the limit before which treatment may be safe and perfect. A natural comment on these observations might be made, that they are trite enough, and that every one knows that, as a rule, the earlier in any surgical disease proper treatment is begun, the more secure will be a completely favorable result.

The point that I wish especially to make is that the sense of responsibility in selecting the time for surgical interference is in many instances not sufficiently acute, and that delay, in some cases of a few hours, in others of days, and in others of weeks, actually directly leads to partial or complete failure, or even to death itself. It is not always easy to decide upon whom this important responsibility rests. Sometimes the surgeon himself is at fault; sometimes, and not infrequently, the responsibility for fatal delay belongs to the medical practitioner who first has charge of the patient; sometimes the division of responsibility among too many persons leads to the unfortunate result; and often enough no one is to blame but the timid patient and his ill-advising friends. I cannot but believe that many of the obstacles to complete surgical success could be removed, and the mortality from surgical disease largely reduced, if the grave importance of selecting the early stages of disease for surgical interference was more clearly realized. Failure to select the most favorable opportunity for surgical interference is responsible for a very large part of the mortality following surgical disease.

TREATMENT OF ACUTE PROLAPSUS ANI.

Acute prolapsus ani occurs frequently at childbirth, but as the patient has to keep her bed irrespective of the anal trouble the condition does not assume so much importance as when the sufferer is an active man of business, to whom the time and rest necessary for recovery are serious matters. A succession of these acute cases in many respects similar led me to adopt a treatment which has given encouraging results. The pathology of the condition appears to be a slipping or forcing down of the mucous membrane investing the sphincter and of the mucous membrane immediately above it. Spasm of the sphincters, impeded venous return, and edema result in the formation of an elastic and exceedingly tender, livid or purple swelling occupying either a portion or the whole of the circumference of the anal aperture.

The swelling can be returned above the sphincter without much difficulty by the finger, but in the course of a few minutes in many cases

the prolapsus has recurred. The application of heat or of cold in the form of an ice compress relieves the discomfort, but does not effect a cure or materially alter the size of the swelling. Astringents, either in the form of an ointment or of suppositories, I have found to be useless. Regulation of the bowels and the recumbent position are necessary, but a week often passes before nature brings about recovery.

It is obvious that if the prolapsus could be kept up for a few hours a speedy cure might be anticipated, and this led me to employ pads and a T bandage, but it was almost impossible to prevent the descent of a small swelling in this way owing to the awkward situation in the hollow of the buttocks. Under these circumstances, and in the absence of thrombosis, which would call for incision, I have successfully used as a pessary a full-sized Tait's cervical dilator. After replacing the prolapsus with the finger the vulcanite uterine dilator is lubricated and inserted for one inch up the rectum, and is retained in position by a collar of dentists' wax (Stent's composition) supported by cotton wool and a firmly-applied T bandage.

The pessary not only prevents a descent of the swelling while in position, but by its pressure it favors the absorption of the edema, and it empties the engorged veins; it should be inserted at night and retained until the following morning. This treatment I have found to bring about a complete cure; there has been no tendency to relapse, and the patient has been able to rise and resume his occupation without discomfort. Olive-shaped pewter pessaries have been used for this purpose, but they are dependent for their position and retention upon the action of the sphincters, which cannot be relied upon in these cases. In the chronic condition of prolapsus ani arising from atony of the levator and sphincter ani muscles much benefit cannot be expected from treatment by pessary.

The following case was the first one treated by me in this way. June 22, 1897, a man complained that for two days he had been in pain from a swelling which he took to be a hemorrhoid. On examination a tense, bluish, semi-lunar swelling was found occupying the right margin of the anus, the mucous membrane being continuous with the skin at the outer circumference. The patient stated that he had pushed up the swelling repeatedly, but that it always returned in a few minutes. This I found to be the case. I then gave him a full-sized Tait's dilator $2\frac{3}{4}$ in. long, and $\frac{3}{4}$ in. in greatest diameter, and conical in shape, for which a collar was made as described above so as to grasp the pessary thus improvised at one inch from its point and prevent it from slipping entirely into the bowel. The patient was directed to return the prolapse when in bed, and immediately to insert the pessary well lubricated and supported by a T bandage; he was also strongly advised to remain in bed on the following day until seen by me. Next morning, however, I received a note to the effect that he felt quite recovered, and I heard afterwards that the pessary was worn until 4 a.m., when it slipped out, but the prolapse did not show any tendency to return, and has not done so up to the present time.

SUBPERITONEAL LIPOMA MISTAKEN FOR AN INCARCERATED HERNIA.—Dr. Leonard S. Rau presented a lipoma removed from a stout woman of forty years, who had, twelve years ago, after a confinement, first noticed a small mass in the groin. When this mass protruded much she had been accustomed to reduce it by digital pressure, but on September 20, 1897, for the first time it could not be reduced. On September 23rd, when first seen by him, it was still unreduced. It was hard and about the size of a hen's egg. It could not be reduced by gentle taxis, so immediate operation was advised. Her general condition was excellent. The case was believed to be one of incarcerated inguinal hernia, and from the denseness of the mass it was assumed that the sac was very thick. He operated the same afternoon, and found the tumor surrounded by a thick capsule. The tumor was attached by a very long pedicle of peritoneum, which passed into the abdominal cavity. He carefully followed it up to the uterus, and positively excluded an ovarian hernia. The pedicle was ligated, the tumor removed, and the wound treated as in an ordinary Bassini operation. The wound healed by primary union, and the patient was allowed up on the tenth day. The mass measured six by five centimetres, and presented the appearance of fatty tissue between masses of fibrous tissue. The tumor was reported by Dr. Elsner to be a pure lipoma.

Dr. Rau said that he had been unable to find more than a few reported cases of subperitoneal lipoma. As a rule, the prognosis was good, and treatment consisted in removal of the tumor. The chief points of interest in the case related were: (1) the ability of the patient to reduce the tumor for so long a time; (2) the fact that it finally became irreducible; (3) the fact that, owing to the existence of the long pedicle, it must have floated free in the peritoneal cavity when pushed back; and (4) the differential diagnosis. The irreducibility was probably owing to an increase in the size of the tumor.

SURGICAL SHOCK AND HÆMORRHAGE.—Chase (*Am. Jour. Obst.*) maintains:—

1. The treatment of shock should be preventive and curative, and to a large degree the indications for the former define the lines of treatment in the latter.

2. The proper exhibition of preventive measures includes a careful study into the functional activity and organic status of all important organs, and such treatment by hygienic, dietetic and therapeutic measures as will elevate the standard of bodily and mental health to a degree in which the maximum power of resistance may be produced and maintained.

3. Special emphasis should be given to lithemic and uremic excretion, and the condition of the circulatory and nervous systems.

4. Knowledge as to inherited power of resistance to and recovery from serious diseases and accidents is of the highest value in determining the course of procedure and estimating the chances of recovery after capital operations.

5. A supply of facilities and drugs for meeting all emergencies should

be in constant readiness, with exact knowledge for the indication, dosage, physiologic and therapeutic effect of special heart tonics and stimulants, which include strychnin, digitalis, spartein, nitroglycerin, brandy and codein.

6. Limit the time of an operation to the shortest period compatible with thorough work and proper technic.

7. Save your patient from the shock of fear to the utmost, and in selected cases proceed to operation without informing the patient of your purpose.

8. In shock with hæmorrhage supply the volume of venous and arterial loss by direct transfusion of normal salt solution into the patient's vein.

9. Bear in mind the influence position has on the circulation under both shock and hæmorrhage, especially in anemic conditions of the cerebro-spinal nerve-centres and the heart.

There are few things without their uses in this world, and we now rejoice to find that the burglar has his uses as an involuntary agent in a surgical operation. Professor Brouardel, in a recent lecture, related the following case: A man had a pharyngeal abscess so deeply seated that his medical attendant was afraid to meddle with it. One night a burglar broke into the house, and on the sick man calling for help tried to throttle him. The abscess burst, deluging the burglar with pus and causing him to make a rapid exit. His intended victim, on the other hand, experienced instant relief, and made a rapid recovery.

A curious story in relation to hereditary suicide comes to us from Paris, which we give on the authority of Professor Brouardel. A farmer killed himself by hanging, leaving seven sons and four daughters. Ten of these eleven children, after they had each brought up families, took their own lives, and their several offsprings also committed suicide by various means and at various ages. The remaining survivor of the original eleven children is now a man sixty-eight years, and is supposed to have passed the probable age of his family's suicidal tendencies—at any rate, it is only charitable to assume so.—*Health.*

SURGICAL ITEMS.

I have no patience with the surgery which removes ovaries because they are too hard or too soft, or too big or too little, or because they are disabled by adhesions. My office boy can remove ovaries and tubes, but it requires the most profound surgical erudition to know what ovaries and tubes we can save, and it is that sort of skill in which the real benefactor of mankind delights.—*Norris.*

Where a large vessel is injured in an operation by a transverse division, not exceeding two-thirds of its circumference, the surgeon can resort to immediate suture without resection, and, if the field of operation

be aseptic, can feel more certain that he will have union of the vessel and continuation of the current than he could where he sutures the intestine as for the resection of the bowel. The importance of this concerns surgeons more in the treatment of aneurisms.—*J. B. Murphy.*

Where we have an isolated tumor of the brain, which has, by pressure, caused considerable displacement of tissue, or if we have a blood clot inside of the brain from injury or from disease, we will generally find upon opening the dura a movement of the foreign body towards the surface of the brain. If, then, we make an incision down to the spot through the brain substance, the natural impulse of the brain will tend to cause the extrusion of the foreign body, and, whenever possible, I prefer to allow the natural processes to throw out this foreign body, instead of making prolonged incisions in an effort to remove it.—*Macewen.*

The local conditions should be given nearly as much, if indeed not equal, prominence with the general condition in our decision of "When to Amputate." When in doubt, the wise surgeon, like the wise navigator, proceeds cautiously, and only when he is sure that he is right does he push boldly ahead. When applied to amputations, this principle means, to my mind, that when the line of destruction is positive and known, with general conditions permitting, we should amputate, but when the vitality or usefulness of the part, or the condition of the local tissues, is questionable even with favorable general conditions, we should postpone our mutilating operation until we are able to arrive at a safe conclusion.—*Bouffleur.*

I should lay it down as a rule that wherever a lesion of the large intestine demands a suture the line of union should, if possible, be supported by a thick layer of omentum. Even when the wound is on the serous surface its union will be made more secure, but when it is on the attached surface, where there is no peritoneum, the omental splint becomes indispensable. In wounds of the small intestine, which are disposed to heal readily, this procedure is not so necessary, and yet even here I should feel more safe from accident with this additional safeguard. In resections of the stomach, which are so liable to prove fatal from stitch insufficiencies, it would seem to me that the use of omental splints applied all around the sutures would add greatly to the safety of those operations.—*T. A. McGraw.*

FOR TAPEWORM.—

℞ Pomegranate root bark, 4 drachms.
Pumpkin seed, ½ drachm.
Powdered ergot, ½ drachm.

Boil together in eight ounces of water for fifteen minutes and strain.

Rub two minims croton oil with two drachms powdered gum arabic; then add one drachm of male-fern and make an emulsion with the foregoing decoction. The whole at one dose.

MEDICINE.

IN CHARGE OF
N. A. POWELL, M.D.,
Professor of Medical Jurisprudence and Lecturer on Clinical Surgery, Trinity Medical College; Surgeon to the Hospital for Sick Children, and to the Extern Department Toronto General Hospital; Professor of Surgery, Ontario Medical College for Women. 167 College St.; and
WILLIAM BRITTON, M.D., 17 Isabella Street.

THE TREATMENT AND PROGNOSIS IN GRAVES' DISEASE.

BY WALTER B. GEIKIE, M.D.C.M., D.C.L.,

Dean and Professor of Medicine, Trinity Medical College, Toronto, Canada.

This short article is prepared solely with the view of eliciting from medical men who have met with cases of exophthalmic goitre in their practice, the results of their observations regarding many points of interest in connection with this curious disease. I do not intend to give a systematic description of the affection in question. This can be found in any good modern text-book. Described many years ago by Parry, Basedow and by others more recently, it is much better understood and more widely known than formerly.

Opinions differ radically as to its real nature. The best modern authorities regard it as a pure neurosis, and functional only in character, although organic changes often develop during its course in the heart, thyroid gland and elsewhere. Some still speak of it as due to changes in the medulla oblongata; others, again, look upon functional and structural changes in the thyroid gland as the real cause of the malady. My own experience inclines me to view it as a neurosis pure and simple, although marked and characteristic structural changes supervene during its course, and may become permanent. Probably in the near future we shall learn more as to its exact nature. Already, it is satisfactory to note that cases are now far earlier recognized than formerly, and that their treatment is more successful.

From their first appearance its special features attract attention. These are few in number and easily borne in mind: 1. An unusual and more or less constant rapidity of the heart's action; 2. The early presence of more or less protrusion of the eyeballs; 3. A marked enlargement of the thyroid gland; a tendency to tremors or tremblings under very little, and sometimes no excitement, although this always increases it. It is not surprising that these indications of exophthalmic goitre, which develop more or less rapidly, and become often most distressingly marked, should cause much anxiety to the patients and their friends, as well as to their medical attendants.

With regard to the duration of ordinary chronic cases (for acute ones are seldom met with), what has been the experience of those who may read

this article? I have never met with an acute case, but have seen months, and one or two years, pass, before there was more that a partial improvement.

One case, a very bad one, in which the patient's circumstances were so poor that she worked on during her illness, when she should have had care and rest, recovered completely. But so serious was this case that the sight of both eyes was entirely lost from the excessive protrusion of the eye-balls during the disease. When I first saw her, which was years after her recovery, the story of her case was intensely interesting, but most sad.

Then as to the frequency with which relapses occur in this disease, it would be interesting to get the experience of the profession. Many speak of relapses being frequent, even after apparently complete recovery has taken place. Others think them not of so common occurrence.

There are also many points of great interest in connection with the prognosis. One of these is, the probability of the recovery being perfect. My own experience has been that the lighter or milder the case, the greater the probability of a perfect cure.

Another matter of interest is in connection with cases in which the symptoms greatly abate, the health indeed appearing to be perfectly restored, but in which the exophthalmos and thyroid enlargement continue noticeable; whether in such patients very slight causes may not lead to a return of the disease. From what I have seen, the conclusion appears correct, that provided the heart's action is normal as to frequency, and not too easily disturbed, these patients are not specially likely to have a second attack; which is tantamount to saying that provided the heart's action has become normal any other relic of the illness is comparatively unimportant.

I have observed, too, more or less scleroderma present when the attack has not been by any means of a serious character, and when afterwards the general health became all but perfectly restored. This is an interesting concomitant. It would be desirable to have others give their experience as to its occurrence in cases they may have attended.

Then as to the effects of pregnancy during the course of the disease, some high authorities speak very strongly as to its great danger; others remark that the affection has improved during gestation. This is another matter on which fuller information would be most useful.

As to the percentage of fatal cases, this is as yet hardly determined so as to be useful to the practitioner. My own cases have led me to the conclusion that every particular case has to be regarded per se; *i.e.*, if the symptoms are light and comparatively trifling, and show signs of abating, the prognosis is favorable, while under an opposite state of things it is the reverse.

As to treatment, what has succeeded best in my hands has been enjoining upon patients the necessity of a great deal of physical rest, at least ten or twelve hours a day if possible, and the avoidance of all mental worry. On this, great stress should be laid. These patients require abundant nourishment. Galvanism I have found most useful. Employed twice a day, and so applying the poles that the current may go from

the back of the neck through the thyroid gland and the heart, and even (the current being made very weak) through the eye-balls, this current has been continued for months, and in some cases for a year and a half, with good effects. Sometimes tincture of digitalis has been useful in moderate doses, 10 or 12 minims 3 times in 24 hours, in some cases, and useless in others. Iron has been found of great value and persisted in for a long time. As a nerve tonic, strychnine in small doses has been exceedingly beneficial. Quinine if given should, unless malaria complicates the case, be used in small doses only, such as 1½ grs. 3 times a day, with the iron and strychnine.

I know that many of the matters mooted in this paper have been quite recently discussed by Drs. Ord and McKenzie, of London, in an excellent article on exophthalmic goitre in the fourth volume of the new *System of Medicine*, edited by Allbutt, but a still wider discussion on the matters alluded to, and on many others, by practitioners who have met with and treated such cases, will do much good and tend to make the care of such cases more pleasant, and the results of treatment more satisfactory.

CLEANSING AND CLEANLINESS IN ABDOMINAL SURGEONS' OPERATIONS.

BY LAWSON TAIT, M.D.,

Neo. Ebor. Honoris Causa, M.D., St. Louis; LL.D., Albany, etc.

A few days ago I read the detailed description of an operation for the removal of a bullet lodged in the brain, the operation being done by one of our best-known European surgeons and a pronounced follower of the school of Lister. He first removed the dressing and exposed the scalp, which looked like a huge billiard ball, excepting for one ominous black spot where the bullet had bored its unkindly way. Then he took a scalpel which was dripping with antiseptic, a precaution which had not been taken with the foregoing bullet, and deftly incised the scalp. Almost all the time an assistant allowed a fine stream of warm water—sterilized by being boiled and allowed to cool to a safe temperature—to play from an irrigator upon the field of the operation. Then instrument after instrument was used, all evidently the subject of fear, for they all dripped with antiseptic, though the track of the wound and the locus of the infected bullet were left to the prey of the germs which had been carried there, and had been working about for forty-eight hours before the operation. The operator had not read Mr. Leedham Greive's interesting papers on how difficult if not impossible it is to sterilize the hands of the operator, for he consistently made no attempt in the direction, and yet he closed the wound with a parcel of cotton wool feebly impregnated with corrosive sublimate. He then addressed his surroundings on the marvellous results obtained in modern times by antiseptic surgery. In the museum of the Royal College of Surgeons is a large iron bar, technically known as a jumper, which went, under the influence of a charge of gunpowder,

from below the chin of the user and straight upward through the head and out at the vertex, carrying into the wound a lot of germs and leaving them there. No sterilized water was used about the superficial wound, and no corrosive sublimate was then employed, about the end of last century; yet the patient got well and remained so for years. The museums of this country and of others literally swarm with ancient specimens, which prove the receipt of serious cerebral injury with complete and permanent recovery, so that the belief, now seemingly established in the minds of surgeons for the present moment, that a stream of sterilized water and a few grains of corrosive sublimate in the superficial dressings give any greater security for recovery, has no foundation in fact, and is a mere temporal mental aberration.

Some few months ago I read a paper by the same surgeon as I have already quoted, on the subject of the influence of germs; and, in the short space of a column and a half of an ordinary medical journal, he used in thirteen instances such phrases as: "It is now fully established," "It is beyond dispute," "It must be universally acknowledged," "Smith has proved," "Jones' remarkable observations have established," and "A complete result of Robinson's original researches we must believe"; though in not a single instance would I, for one, admit anything of any one of the single assertions. It happens that those indicated as Smith, Jones and Robinson are three frequent contributors of papers on the application of the ever-advancing, ever-developing, ever-changing and never-ending conclusions of the bacteriologists to the practical work of the surgeon; and such men, always anxious for second-hand novelties, forget in one week what they said the week before. In their writings it is an easy matter to picture in detail the extraordinary phases of the evolution of the practice and principle of Listerism, though it is only fair to say that I use Lister's name here with this qualification, that he, while the originator and still the chief advocate of the doctrines so various and so varying, is not responsible for more than about half the nonsense which has grown round the original antiseptic religion. There have been a large number of surgical "Pauls," who have freely disseminated perplexing epistles to the various surgical churches of the world, and thereby much and very acrimonious differences have arisen.

The antiseptic generation has now sped its cycle from 1866 to 1896, and we have come back to the figure of the clock at which we started. The time exactly embraces my own surgical life. In Glasgow and Edinburgh I saw patients die of the same terrible infliction, no matter what had happened to them. I saw removal of breasts end with a fatality which seemed to rival that of amputation at the middle of the thigh, and yet in my own practice during the cycle, out of many hundreds of cases of removal of breasts—how many I could not venture to guess—I think it pretty certain that the mortality has been a long way under five per cent., and probably not been one per cent. In fact, I can call to mind only two fatal cases. The crowded wards, the deficient ventilation, the one saluc-ing-dish and the one sponge in each ward, the want of ordinary lavatory cleanliness, were the causes of the terrible results. The carbolic oil, the putty and the lac plaster may have had some countervailing influence

under the circumstances of these horrible old pest houses, but in practice outside such influences they were useless. These details, together with others which ended finally in the harmonious logic of the spray, marked the first epoch of the antiseptic cycle, a time during which it was devoutly believed that every germ was potent for evil and every resting spore was a surgical pest. Every germ, every spore, every scrap of harmless dust must, therefore, be submitted to a process of destruction by some potent chemical agent. This chemical agent was constantly changed. As soon as one was contrived, adopted, beloved and trusted, it was found by some new observers to be wanting when weighed in the clinical balance. The chemical manufacturers were nearly wild, and many of them were ruined by the continual changes, and the antiseptic market rate for years was something more variable than that of African gold shares.

When the spray was introduced I was led, by circumstances altogether outside of my own conviction, to range myself once more as a follower of the chemical antiseptic school, though I did not for a moment forget or neglect my old methods. I performed a hundred consecutive ovariotomies with a full and complete adoption of all the antiseptic precautions of the Listerian school of the period, and I published a paper in the Transactions of the Royal Medical and Chirurgical Society, contrasting the details of that series with those of a consecutive hundred in immediate opposition to them (and the contrast was not in favor of the antiseptic practice).

By this time I had become thoroughly persuaded as to the future progress of the antiseptic doctrines and practice, and I expressed my prophecy in what I called an experiment, though it was more of the nature of a satire.

I went through all the ceremonious observances with gradually diluted solutions, until I used nothing but boiled water, and then that was dispensed with. Finally, I used only ordinary tap water, and then I gave up the spray. This is precisely what has happened all round. The poisonous solutions were weakened bit by bit; the spray was abandoned, with an expression of shame that it had ever been introduced; rigorous hunting for germs was slackened, and the antiseptic belief so modified that it was at last accepted that not every germ was hurtful, but only such as might yet be identified.

But, on the other side, we found the cubic space allowed to each patient rapidly increased; new hospitals were built, and, above all, the segregation of surgical patients was enormously advanced by the erection of cottage hospitals all over the country. For my own part, between 1878 and 1880, I secured an accommodation of about forty beds, for the occupants of which had each a separate room; in fact, practically they may be said to have all had separate rooms. The effect was at once apparent, for my mortality went down from about thirty per cent. to less than five; and I had long runs of fifty, sixty, eighty, and once as far as one hundred and forty-six consecutive operations, without a death. Even hysterectomy, the most obstinate of all abdominal operations in yielding satisfactory results, has, within the last ten years, given me runs of thirty, forty, and even forty-five consecutive successes. What are the

explanations of all this? The answer is, that, though I cannot produce anything from which I can "absolutely prove," or "make it apparent beyond doubt," or anything of the cocksure order, yet I can give basic conclusions which will be with difficulty upset; and those who neglect them will have to bear serious responsibility in the criticism of the future.

The first conclusion at which I arrived concerning abdominal operations was, and it remains the strongest now, that the more the patients submitted to them are separated the better. For this purpose, and for the greater part of my practice, I adopted, as I have said, a room for each patient. Sometimes, with a press of work, I was tempted to "pack," as we used to call it—that is, put two patients in one room, after the first six or seven days; but I had so frequently to regret this that I ultimately abandoned it.

I am quite sure that there is much truth in one conclusion I have often advanced, that time has much to do with what will happen in the septic infection of an abdominal section. The fourth night is the critical night with all save hysterectomies, and with them that period is not to be so definitely fixed. If an ovariotomy is all right on the fifth morning the chances of the patient going wrong are small indeed. But if you "pack" them they will have hæmatoceles, stitch abscesses, pulmonary complications, mumps, and all sorts of secondary troubles, in a proportion far greater than if you keep them absolutely one in each room. These complications do not affect the mortality much, but they prolong the convalescence in a fashion of the most annoying kind. This has been still more impressed on me during the last three years, in which I have far more widely adopted the plan of operating in the houses of the patients, and leaving the subsequent treatment of them to their private medical attendants. This is now possible, seeing that I sedulously avoid anything in the shape of gratuitous work, whereas for more than twenty years I did not get payment of any kind for more than one-fourth of my clientèle, and not more than costs out of pocket for one-tenth of them. I am now, therefore, working solely in a class among whom it is possible to have all that is requisite in the way of accommodation in the houses of the patients, and after the operation is over I am seldom required to see the patients again, recoveries are so little interrupted. All this experience points out to me the extreme importance of segregation, and the uniform results of the work at the Sparkhill Hospital, not in the hands of one man but in the hands of all to whom it has been intrusted, prove this, as far as proof in surgery can go; for there segregation is carried out almost as completely as it can be carried out in the best houses, while the perfection of the sanitary arrangements provided by the committee of management is almost absurd in its completeness of detail.

All this, and the necessity for it, were enforced on my mind coincident with the complete banishment of any fears of germs, either wholesale or individual, though there still remained with me the wholesome dread of certain specific poisons, the nature of which I do not know—and I think I may safely say that their nature is equally unknown to everybody else. First of all of these, as deadly beyond all things known to me, is the poison begot in the peritoneum and the uterus of the puerperal woman, and in some subjects who have died after abdominal sections.

This brings me to speak of the third phase of the slowly developing Listerism or antiseptic doctrines of surgery, when it had begun to call itself "aseptic," and to adopt some of the minor doctrines and practices which I have been preaching and practising since 1881. All that I have been saying up to now leads me to that condition which, after segregation, constitutes my second general condition essential for success in abdominal surgery, and going a long way to explain our modern success—I mean cleanliness.

Cleanliness in surgery may be divided into general and specific. General cleanliness, such as close attention to cleaning wards and all in them, the cleaning of all linen, bedclothing, etc., and the personal cleanliness of the surgeon and the members of his staff, are matters I need not waste time over. The details of specific cleanliness are matters much more in need of discussion.

For a long time, in the earlier part of my practice, I allowed all properly introduced and qualified practitioners to visit it, and they came in great numbers, chiefly from America. But I soon had to stop this kind of hospitality, and to limit admission to such as came as serious-minded students, prepared to see and understand what they saw. The reason for this was simple. The "globe-trotter" came and saw one or two operations, and departed without understanding anything he had seen; and, if he published, he perversely misrepresented the facts. To this misrepresentation are due two misstatements, which even now appear at intervals in the medical journals of the continent and America. The first is, that I really am a devoted disciple of the chemical-germ-destroyer school, but that I have some substance in use which I will not disclose. The second is, that my secret is "water sterilized by boiling"; and this ridiculous blunder recurred only a few months ago at one of the great congresses of America, and, strange to say, from the mouth of one of my old pupils, Dr. Ricketts, of Cincinnati, who spent six months with me.

It is now fourteen years since I have used sterilized water for any purpose save to raise common tap water to the temperature required, so that the mixture would be probably five parts common tap or well water and one part water which had been boiled and possibly sterilized. The mixture would have a temperature of about 102° F., for my hands will not stand much more with comfort. I have yet to learn that such a mixture deserves the term of "sterilized."

My attention to specific cleanliness is as close as can be given. It may be divided between the instruments and hands of the operator and the abdomen of the patient.

Lawson Tait on English Trained Nurses: "I hail with great satisfaction all the wonderful inventions and devices of the modern operating-theatre for securing general cleanliness, for that cleanliness can be secured only by the work of women, and women in themselves have not the slightest idea of cleanliness save on the surface and unless they belong to the really well-educated classes. This is a fact which no one knows so well as he who has gone through the filthy drudgery of a gynecological out-patient department, where fifteen out of sixteen of the patients have lice or fleas upon them, and often both. This is the material fr m

which the great bulk of the so-called trained nurses are obtained, and with their training, unless most especially well looked after, they alter their habits only in the sense of the smart cap and an attractive uniform. They remain as dirty as ever, and it is therefore necessary to give them shelves and boxes of plate-glass."

[Trained nurses, as we know them in Canada, are, in the great majority of instances, ladies in every sense of the word. Statements such as the above would, as regards them, be libellous. If even approximately true, as regards English nurses, then the protests of the profession generally, and of the Ontario Medical Association, which killed the scheme for the Victorian Order of Nurses, as originally formulated, were timely and most useful. The new scheme does not provide for the wholesale importation of dirty midwives to raise our pueperal mortality to one in sixty, as it is, through their baneful influences in England.—N.A.P.]

All instruments with sliding tubes, screw, or Clendon joints ought to be abandoned; every joint should be capable of being unshipped, and after every operation every instrument used should be scrubbed with raw turpentine and a brush, and then well washed with soap and water. If this is done, simple immersion in cold tap water at the next operation is all that is wanted. Sponges—ah! they want a paper to themselves. They are, and ought to be, the terror of the operating surgeons, and I cannot stay now to say what I have to say about them, save that new sponges are bad, old sponges dangerous, and that none of them should ever be boiled. The Americans will have it that I boil my sponges; but I never did such a thing but once, and that ruined the lot.

Now I come to the real subject matter of my paper—the cleanliness or cleansing of the patients.

I see that a number of superstitious observances on this subject are still recommended, such as the application of an antiseptic pad to the abdominal wall for twenty-four hours before the operation.

I have never employed any such plans, being quite content with a soap-and-water washing of the skin to remove the dead fat and epithelium with which women are always coated, and generally thickly. If there were any real poison in the skin no antiseptic pad would remove it in twenty-four hours. The real poisons known to me as absolute realities, such as those I have spoken of as occurring in puerperal peritonitis, cannot be removed by any known germicide from the hands of the surgeon infected by them. Mr. Leedham Greives' experiments seem to show that it is impossible to cleanse the hands from the ordinary spores of decomposition, and yet we know that nowhere is epithelium reproduced and shed at so rapid a rate as it is on the hand. My knowledge of the terribly infective power of the puerperal poison, from my own experience and that of others, has been so emphatic and the lessons so disastrous that I am persuaded that the poison, whatever it be, permeates at least the whole epithelial layer and cannot be got rid of save by efflux of time and skin, and that it is not safe for any one so infected to operate till at least a fortnight or three weeks have elapsed. Have there not been lessons enough in the same direction by the spread of puerperpal fever from the hands of the accoucheur?

I am not alarmed by the conclusion to which Mr. Leedham Greives'

observations point, for I do not fear the ordinary germ poison at all. But still I take the precaution of keeping my nails short and clean, and washing my hands in raw turpentine the last thing before performing any operation, and then washing off the turpentine by ordinary soap and water. My reasons for this may be seen in the simple experiment of washing the hands three or four times in the ordinary way, and then in perfectly fresh water, repeating the process with the previous employment of turpentine. After this last water has stood for a few minutes there will be seen on its surface evidence of dirt of a very convincing kind. That dirt must be either in the clear turpentine or it must be a layer of dirt removed from the hands by the turpentine after having resisted the previous efforts with soap only. The latter conclusion is that accepted by me, and it accounts for my using turpentine on the patient's skin and my own, as well as on the hands of my assistant, in the rare cases in which I need one.

The final cleansing, and I think by far the most important of the lot, is the cleansing of the abdominal cavity during and after operations.

All the other details of every operation performed by me are conducted, as I have said, by the use of plain cold water, taken immediately from the tap or well, and raised, when necessary, to the desired temperature by the addition of the water from the kettle or boiler; nothing whatever is added to that water for instruments or sponges.

A careful search through the records of abdominal operations, particularly those for the removal of ovarian and other tumors, has not revealed any but the slightest and most casual allusions to any cleansing process till we come to the work of Charles Clay and Baker Brown, who freely mopped out the pelvic cavity with sponges through their large incisions. One of the most interesting recitals, for many reasons, is that of the first ovariotomy of which we have any record; that by Houston, of Glasgow, when he removed the glairy contents and cystic fragments of a ruptured and half-digested tumor with gelatinous contents. He makes no allusion of any kind to a process of cleansing, and yet it is certain that the contents of this ruptured cyst must have spread themselves throughout the peritoneal cavity and have coated every viscus contained within it, as I have seen on many occasions. In my earlier experience I thought such a case was that of all others which required a full peritoneal toilette, and it was to one such in the year 1875 that I owed the initiation of the process of washing as largely a substitute for, and certainly a great addition to, the process of sponging. Now I am quite sure that this is not the case, and for the reason that the gelatinous cyst contents are not dead material, but endowed with just that degree of vitality as to be able to resist the germs of decomposition, unless overdosed with them, just as Lister's blood clot did. In a properly aseptic operation, therefore, as Houston's must have been, the peritoneum will absorb what is left with perfect safety; and here it is that sponging is most especially dangerous and washing particularly safe The moment a sponge touches such material the surface of its framework is clogged and it will not absorb, while the gluey material is readily soluble in warm water. In the same way coagulated blood is not dead so long as it is safely locked up in living tissue and protected by it from the access of the germs of decomposition,

when it speedily dies, decomposes and becomes a source of danger. Clot adherent in layers becomes slowly organized, and after a period of weeks or months comes to have a system of full nutrition, progressing in this direction till removed or so altered as to be recognized with difficulty from original tissue. This is fully proved by the history of clot layers in cases of recurrent hæmorrhage in ruptured ectopic pregnancies, and in the process of cure of aneurism by arrest of the current through the sac. Bearing the fact in mind, therefore, that the displaced substances we have to deal with in cleansing the abdomen have different degrees of vitality, and therefore different degrees of resisting power, it will help us much in deciding not only how much cleansing is required, but as to the particular method in which the process should be carried out. These, at least, are the principles on which I have worked for over twenty years, and there has not yet been heard any utterance of weight against the almost uniformly admitted fact that my methods of cleansing have not only materially assisted the surgeon in his work, but that they have greatly diminished its mortality.

My early publications on this subject were met with claims for priority by others, as by Keith, who did not, however, advance any evidence on the subject, nor did others. But it would not matter if it were the fact, as it very likely is, that some one else or many others had poured out a jug of water into the peritoneal cavity before 1875; but certainly no one made any attempt to systematize the processes of peritoneal cleansing until I did so, or to show how best it could be done and which methods to choose under particular circumstances. All this I reviewed in a paper published in the *British Gynecological Journal* in August, 1887, and therefore I need not repeat it here.

First of all, let me say that if an operation, such as the removal of an ovarian tumor, has been conducted so well and so fortunately that nothing has entered the peritoneal cavity, the wound ought to be closed at once without sponge or anything else entering it. If, on the contrary, a mess has been made inside, it must be cleansed out; and the question is, to decide on the best method, and the weight of argument should always be against the use of sponges—they are so inherently dangerous, yet their use is often essential. Thus, in separating adhesions of the omentum to a tumor, nothing displays the ability and dexterity of a surgeon so much as a rapid folding up of a dry sponge in the damaged apron. Or, if the adhesion of the appendages to the pelvic wall bleed freely, the pelvis must be packed, and the packing will probably remove much dirt with it. Until two years ago, I always used sponges for this purpose, and would often have six or eight sponges squeezed tight down in the pelvis. Now, I iodoform gauze for this purpose. Who it was who led us into this important advance I do not know; but it is one of real value, for iodoform gauze stops oozing from parietal and visceral surfaces in a way that nothing else will do, save perchloride of iron. If, however, a ligature has cut through a rotten parietal, or a vessel has escaped the forceps and ligature and cannot be found, these washings out with a stream of clean water will speedily display the source of the bleeding and enable the vessel to be secured. I do not combine the two processes if I can help it, for they do not generally aid one another.

As I take it that pus is a substance already dead and generally decomposing—as Miller very characteristically defined it from his common-sense surgical pathology, "effete matter, a foreign body"—I take the utmost care to cleanse it all away, or anything which from my view more or less imitates it, such as loose blood clot and blood in solution. The method to be employed in this case is the continuous stream. The handiest method to serve this purpose is simply to reverse a stream of common tepid water through one of my ovariotomy trocars, and I use a large or small one according to whether I wish to dislodge and wash out loose clots by means of a large volume of water issuing from a large tube; or, on the other hand, if I want to wash carefully every inch of the peritoneal surface, I use a small tube with a gently flowing stream. If the tubes are not handy—and in our worst emergencies, like ruptural pregnancy, they may not be—a very efficient substitute is to open the wound as widely as possible, pull up the parietals, and to pour in with cautious violence one or more jugfuls of tepid water, insert the right hand into the abdomen, and with the left close the wound round the wrist as closely as possible. The process of washing may then be carried out as fully as is considered desirable.

If a tube of any kind can be obtained, it is better to use it, for it can be carried into every one of the complex interstices of the peritoneum, and the washing be thereby made most thoroughly. But let me caution the inexperienced operator against using a double tube for entrance and exit, as has recently been recommended in *The Lancet*. This is no new proposal, and when such is used the stream does not get spread, but returns at once, short circuited, as the electricians say, and without doing much cleansing. Care must be used to have the temperature of the water streams not lower than 100° F., and not higher than 103° F.; and it must be borne in mind that few women, and none whatever of the nurse type, have any sense of temperature in their hands. To them, "blood heat" may be anything between 75° and 120° F.

The further or secondary cleansing of the peritoneum is secured by the use of the drainage tube, to be considered at length in another chapter. So far as I have gone I have laid down the lines on which have been developed the wholesome and aseptic surgery of the peritoneum, a system which I have been advocating for over twenty years, for which persistence my reward is now coming, in seeing that it is being accepted all over the world, and my former opponents of the antiseptic school are finding shelter under its roof from their former extravagances.

THROAT POWDER.—

℞ Morphine sulphate or muriate, 1 grain.
Powdered alum exsicc., 60 grains.
Tannic acid, 30 grains.
Cinchona alkaloid, 120 grains.
Powdered gum arabic, 180 grains.
Sugar of milk, 130 grains.

The foregoing is excellent for dry insufflation in troubles of throat, nose, and larynx.—STOCKWELL.

OBSTETRICS AND GYNAECOLOGY.

IN CHARGE OF

G. P. SYLVESTER, M.D.,
Corner Isabella and Church Streets.

C. A. TEMPLE, M.D., C.M., F.T.C.M.,
Assistant at St. Michael's Hospital. 200 Spadina Avenue.

THE NECESSITY FOR EARLY RECOGNITION AND TREATMENT OF CARCINOMA UTERI.

BY WILLIAM D. HAGGARD, M.D.,

Professor of Gynecology and Diseases of Children, Medical Department University of Tennessee, Nashville, Tenn.

Manifestly this short thesis is not in the nature of a *résumé* of the vast subject of carcinoma uteri, nor a compilation of statistics from medical records, but it is intended to accentuate the necessity and methods for diagnosis of cancer of the uterus in its incipiency and to quicken the active and growing sentiment in favor of early surgical intervention.

It seems as if Nature allows the disease to linger in its incipient stage, even causing the process of ulceration and the peculiar fetid odor to appear as an admonition of danger. This symptom is so characteristic and unvarying in its nature as to be pathognomic of the disease, and should be sufficiently significant to the experienced practitioner to enable him to make an inferential diagnosis of cancer without a vaginal examination. In impressing this point on my classes I have often stated it in the nature of a question. The cervix, which is primarily involved in probably ninety-eight per cent. of cases, is the most accessible part of the uterus, and the alert physician frequently has time, even after this symptom, for diagnostic purposes, as well as the institution of radical measures for its removal, before the surrounding structures become irretrievably involved.

Unfortunately cancer usually appears in the climacteric decade, between 40 and 50, when the welcome and innocent change of life too often becomes the Nepenthe which leads the unsuspecting woman to "Lethe's dark stream," from which struggling Nature, unaided, never escapes.

Women should be taught to understand that the menopause, while it brings the pleasant assurance of a cessation to the trials of maternity and a conclusion to the annoyance and inconveniences of menstrual life, brings likewise many dangers.

The difficulty lies in getting a starting point. The woman who does not know of the danger of malignant disease at this time does not suspect it, and does not consult her family physician until the disease has made such inroads as to preclude operative aid and her fate is sealed. If we can devise some means by which every woman, when she is approaching

the change of life, could be induced to consult her doctor, we would get a starting point. Then let us appeal to every medical man to teach every woman under his care what may happen to her during this important epoch. If it were possible to have every woman under competent medical supervision during the climacteric, the prophylactic value of this expedient would be second only to vaccination and quarantine.

This desideratum being obviously impracticable, it remains for all of us individually to instruct our own clientèle. Every woman should be plainly taught the phenomena of a normal menopause. If there is any abnormality, such as too frequent or too profuse menstruation, or the appearance of a watery discharge, particularly if it be attended with admixture of shreds of tissue resembling the washings from raw beef, and often quickly followed by a fetid discharge of disintegrating tissue, she should consult her attendant at once. The occurrence of frequent, or even occasional, sharp, quick, uterine pains should be regarded with suspicion. Another matter of importance is attention to metrostaxis months or years after the cessation of menstruation. Any of these symptoms in connection with the change of life should suggest a thorough examination. They indicate the possibility of malignancy and require immediate inspection.

Apart from the difficulties of seeing these cases early is the accurate diagnosis when they present themselves. I will not enumerate the symptoms, which, with the exception of fetor, are not conclusive, but serve merely as danger signals and as a mute admonition for investigation. Let us, then, consider the well-known methods of diagnosis which should be employed here.

As an additional reason for making no mistakes in the detection of cancer, it is, as a rule, simple and oftentimes infallible. I have repeatedly said in the lecture hall that cancer, of all uterine diseases, was most unmistakable. With a correct knowledge of its manifestations, the simple employment of the senses of touch, sight, and smell is, as a rule, all-sufficient. Beginning usually with a digital examination, the indurated cervix imparts a cartilaginous sense of resistance in the early stages, or may present the characteristic papillary or "cauliflower excrescence" feel, or the ragged, ulcerated area of varying extent. Instrumental inspection reveals the livid, exfoliating surface, similar to the eversion attending aggravated cases of lacerated cervix. The ulceration has a peculiar yellowish hue, and the vegetations attending the papillary varieties are characteristic. The discharge complained of can then be easily investigated at this time and an estimate made of its quantity and character. If necrotic destruction has commenced, the peculiar fetid odor, once observed, is so distinctive and characteristic as never to be forgotten and to serve as alone sufficient to establish a diagnosis. From this recital of the usual findings in malignant disease it is apparent that one practically does not need a microscope. However, if the disease begins in the cavity it should always be brought into requisition. I am aware that in many cases scrapings simply bring away detritus that is structureless and useless microscopically, but it has often been proven that curettings from a suspicious case dropped into alcohol and submitted to a competent

microscopist have converted a supposedly benign case of endometritis with metrorrhagia and enlargement of the uterus into sarcoma or the malignant form of adenoma. I have even known charitable microscopists to find evidences of malignancy in uteri removed for other reasons.

When diagnosis is indisputable the very responsible question of operability requires answer. I will formulate the rule that has no exceptions: No case should be subjected to operation in which all involved structures cannot be removed. Rules are intended to simplify, but their rigid fulfilment does not simplify generally. This is especially true in this connection. I do not know any problem in surgery whose solution is fraught with so much difficulty as the determination for or against operation in cancer of the uterus; aside from the very great moral responsibility in the technical discrimination is the selection of cases. There are a few general but well-defined principles that may be relied upon. The cervix, where the majority of these maladies originate, is more sparsely supplied with blood-vessels and lymph channels than the endometrium or the corpus uteri, and it is a matter of general observation that carcinoma may exist there for a considerable time without making inroads by involvement of adjacent tissue to such an extent as to militate against the feasibility of complete removal. How long? Would that I could say! The natural history of uterine cancer has been estimated as lasting from one to one and a half years; for exceptional cases, possibly longer.

It is apparent that only in the early months is extirpation safe. The danger of delay after the appearance of the disease increases in alarming ratio to each month of its existence. Reed* reports the most significant comparative table that I have yet seen. In seven cases in which the disease was of more than six months' duration before operation, none were alive two years after operation. In seven cases where the disease was of six months' or less duration before the operation, six were alive two years afterwards. While this is only approximately accurate, it is strikingly conclusive. The extent of the ulceration is another important matter, but must be taken together with the amount of involvement of periuterine tissue. This requires the most careful palpation, directed to the discovery of any glands at the base of the broad ligament or any induration therein. I am in the habit of supplementing bimanual examination with the middle finger in the rectum for a more thorough exploration. There are many shades of involvement and a corresponding latitude in the limits for and against surgical resort. The most important one, and the one which may even be too liberal, but beyond whose limit surgery should never transcend, is immobility of the uterus. It signifies a forbidding amount of secondary deposit in broad ligaments, or a still more formidable complication—peritoneal adhesions. It has given me more disappointment than any other one complication, and has caused death from shock, abandonment of operation, and recurrence.

If physicians would only realize that the difference between early discovery of this desperately fatal disease, with its brilliant possibility of cure, and delayed recognition with contiguous implication that denies the

* Transactions of the American Association of Obstetricians and Gynecologists, vol. v., p. 307.

only hope, is literally a difference between life and death! I cannot say definitely, but I think I have seen a dozen cases that were so far gone as to be hopeless, to one that was within the possibility of surgical relief. I believe mine is not an unusual experience. This ought not so to be. I am aware that some practitioners hesitate to operate or to even have consultation in merely suspected cases of malignancy, for fear of causing a sensation and bringing criticism on themselves. This is a great error. Better to suspect a dozen cases that are not than to err in one case that is malignant. The deplorably large number of cases in which the disease is so far advanced as to preclude all hope of relief by surgical means is astounding, and should be a rebuke to the profession, who should be the guardian angels of their people, and by whose instruction and advice woman should be shielded against this terrible disease and the still more terrible death which awaits her. There never has been a time in the history of medicine when the constantly increasing and unnumbered class who, from whatever unknown cause, are victims of the dread scourge of malignancy, could look forward to temporary, if not permanent, relief with such confidence.

It was my contention years ago, when the surgery of the complete removal of the uterus was clouded with dark records, that it was the only logical treatment for malignant disease, and I predicted the day to be not far distant when the wonderful advancement in surgery would place it in the pale of legitimacy. I am thankful that I have been permitted to live to see a consummation of that belief; and as I decried partial amputation as a mere resection of the disease, when it was in vogue, it is unnecessary for me to recite the arguments against its validity now. I can only explain the excellent reported results from that measure on the ground of the possibility of errors in diagnosis, and, believing carcinoma to be a strictly local disease, to account for the large percentage of cases in the presence of actual disease on the theory of early removal while completely localized and before the occurrence of extension. Far from commending it in these cases of apparent localization, I can only regard the good results following it as extremely fortunate, because I have seen metastatic deposits in the uterine body after hysterectomy that could not have been positively excluded or anticipated.

So that the apparently paradoxical rule of Pozzi, "the more limited the disease the more extensive should be the operation," is seen to be founded on undisputed pathological data and unquestioned surgical demonstration.

Pozzi says: "In thus removing the whole of the uterus the result is certain; there is no opportunity for the disease to recur locally, and we avoid all ganglionic engorgement and invasion of the adjacent tissues, both of which have occurred where the treatment has been palliative and only partial destruction attempted. In other words, we simply apply here the rules which are accepted for external or general cancer."

The contraindications, involvement of contiguous tissues, immobility of the uterus, and particularly extension to adjacent organs, having been ruled out, I believe the most generally applicable surgical procedure is total extirpation by the vagina. Next to the perfection and populariza-

tion of abdominal section, the improved technique of pelvic surgery through the vagina is the most signal advance in the domain of gynecology. Carcinoma was the classical indication for vaginal hysterectomy, and to its ever-present and increasing necessity for alleviation must be ascribed the achievements of this route as applied to other pelvic conditions. The immediate mortality is between two and four per cent. in the hands of the expert. The operation, as performed with forcipressure in lieu of ligatures, is more rapid and attended with less shock, and, in my opinion, is the procedure of election. I have long believed that the sloughing resulting from the forceps operation is conducive to the further destruction of undetected nodules, and thereby a protection against recurrence.

There has even been some effort made to use the toxins of the pus-producing bacilli in inoperable carcinoma. Coley has had a gratifying meed of success with the toxins of erysipelas and bacillus prodigiosus in mixed culture. It seems to have given better results in sarcoma than in carcinoma, but I do not know that it has been applied to the uterus at all. I believe in the future successful application of some form of serum therapy to malignant disease. It will be the crowning triumph that science will bestow on humanity.

It is a well known clinical fact that in carcinoma of the breast there are distinct cancerous groupings of cells in the axilliary glands, so minute as not to be felt. This has led to routine clearing of the axilla of all its glandular contents instead of simple excision of glands appreciably enlarged. The results of amputation of the mamma with this very important addition to the technique have been perceptibly bettered. This principle has been extended to operations for carcinoma of the uterus. Clark, by ligation of the uterine artery beyond the vaginal branch, thus obtaining a bloodless field of operation, has cleared the pelvis of the connective and glandular tissue in the broad ligaments after removal of the uterus. This operation, so correct in its principle, has yet to demonstrate a decided improvement as to remote results before the objection of its greater danger can be overcome.

If the profession at large would only heed the lesson sought to be inculcated herein—viz., (1) education of female patients to the danger of cancer at or about the menopause; (2) early interpretation of suspicious symptoms, followed by immediate local examination; (3) prompt surgical interference in malignant disease—it would be the means of adding uncounted years to the span of life in women thus afflicted. In conclusion, permit me to emphasize one single statement: Medical treatment of uterine cancer is neglect; early surgical procedure, prompt and efficient, is the only rational treatment.

While we are awaiting with anxious expectancy the advent of the magical orrhotherapy that will liberate mankind from the thraldom of malignancy, let us not relax our efforts to detect its insidious approach and thwart its deadly advances by the timely and skilful institution of radical and immunizing surgery.

NERVOUS DISEASES AND ELECTRO-THERAPEUTICS.

IN CHARGE OF
CAMPBELL MEYERS, M.D., C.M., M.R.C.S., Eng., L.R.C.P., Lond.,
Neurologist to St. Michael's Hospital. 192 Simcoe Street.

THE DIAGNOSIS AND TREATMENT OF MULTIPLE NEURITIS.

BY CHAS. LEWIS ALLEN, M.D.,
Lecturer on Nervous Diseases, Georgetown University, Washington, D.C.

(Continued from last month.)

Locomotor ataxia is slow in course; there is for a long time little or no loss of power in the muscles, but inability to co-ordinate their action. This "ataxia" never comes on until months after the onset of the disease. There is no muscular tenderness or pain, but special tendency to involvement of sphincters and eye muscles, and to optic-nerve atrophy. Romberg's symptom and failure of the pupil to contract for light, while it contracts for accommodation (the "Argyll-Robertson pupil"), are almost invariably present, and "girdle sensation" is very common. In the more acute motor form of neuritis, the distinction is seldom difficult. It is the sensory atactic form, the peripheral neuro-tabes, in which the difficulty occurs, and when the onset of the disease is slow, and there is some involvement of the sphincters and of the eye muscles, with pains in the limbs, the diagnosis may remain long in doubt. The most important diagnostic points of peripheral neuro-tabes are rapid evolution of the ataxia, muscular pain and tenderness, and absence of the "Argyll-Robertson pupil." There may be paralysis of the iris in neuritis, but it is always complete, never with dissociation of the reactions for light and for accommodaaion, Muscular atrophy is more characteristic of neuritis, but may come on in locomotor ataxia. Involvement of the sphincters only rarely occurs in neuritis, but is common in locomotor ataxia.

In a large number of cases of neuritis, the cause removed, the disease goes on to recovery; but, unfortunately, this is not always so. The acute cases, with involvement of the nerves to the heart and respiratory muscles, are very dangerous and apt to result fatally. Unless such involvement occurs, however, the immediate danger to life is small. With regard to restoration to function, the prognosis varies, depending upon the removability of the cause and amount of change in the muscles and nerves and in the spinal cord. This latter brings us to a most important point. That in the course of multiple neuritis changes in the spinal cord may occur has long been known. In recent years considerable attention has been paid to the subject; the cords from cases of neuritis and those from animals

whose nerves have been cut experimentally have been examined, and the results of a number of such investigations have been published.

That when a nerve fibre is cut degeneration takes place in the part separated from its ganglion cell was shown long ago by Waller. It has since been found that in the part still connected with its ganglion cell, degeneration also occurs. This has been called "retrograde degeneration," in contradistinction to Wallerian degeneration. It may extend into the spinal cord. The combined results of a number of investigations show that in multiple neuritis secondary changes in the spinal cord may occur. These changes may effect the anterior roots, the posterior roots, the anterior, lateral, or posterior columns, and the cells of the gray matter. The location of these changes varies in different cases, but involvement of the posterior columns and posterior roots is most frequent, though the anterior roots and cells of the gray matter often enough show changes. By no means all the fibres in the affected regions are attacked, but the Marchi method shows the presence of a greater or smaller number of degenerated fibres among the healthy ones.

In cases with involvement of the spinal cord, the prognosis is unfavorable. Three signs of spinal-cord involvement given by Gowers are: impairment of the functions of bladder and rectum, girdle pain, and loss of sensation, or paralysis of all muscles below a certain level, *e.g.*, below the knees.

In all except the mildest cases of neuritis recovery is slow, and is preceded by a stationary period, which lasts one or two months. Some power may be regained after two or three months, but the average duration of the weakness is six or seven months, and it may be a year before all the muscles recover. In all but the mildest cases there is rapid change in electrical reaction. This may be only diminished irritability, or may go on to partial or complete reaction of degeneration. The more the deviation from the normal, the greater the wasting and the longer the duration of the paralysis. Usually power returns before normal reaction, but a recovery of electrical irritability by nerve and muscle, especially to faradism, is a favorable sign. When reaction of degeneration is present and persists, the prognosis is unfavorable, though an exact time limit can hardly be given. In the treatment of neuritis the first and most important indication is to remove the cause.

The alcoholic should be warned that persistence in his habit will prevent a cure, and if resumed is likely to cause another attack. The elimination of lead from the system can be hastened by a course of potassium iodide with an occasional purge of Epsom salts. Malarial infection calls for quinine; rheumatism for salicylates or salicin. The acute cases due to cold may be treated as rheumatic, alkaline bromides being added to the salicylates. The pain may be so severe as to call for morphine, but the newer analgesics, antipyrin, acetanilid, or phenacetin, may be tried, due regard being paid to their tendency to depress the heart. The pains in the limbs may be relieved by warm or cold applications, though the muscles are usually too tender to bear much weight. Absolute rest of the affected part should be secured, the limbs being best supported on soft pillows.

In diphtheritic paralysis of the palate muscles, it may be necessary to feed with a tube. The diet should be nutritious, with plenty of fat, as cream and cod-liver oil, as soon as the process of regeneration is commencing. As tonics, iron, arsenic, phosphorus, and strychnine should be given. The last is specially valuable, but should not be persisted in for more than three weeks at a time. By judicious changes, a therapeutic course can be kept up for a long time. When pain and tenderness are gone, warm and cold douches to the affected limbs, with massage, are useful, and electrical treatment should be begun. The best results are from use of the galvanic current. It should be applied daily for about ten minutes at a time, first stabile, then labile. A strength of ten milliamperes will usually be sufficient. Later the muscles should be exercised, by interrupting the current, with one pole, preferably the negative, on one motor point after another. For this the faradic current may also be used. When anæsthesia is present and persists, this latter current, with the wire-brush electrode rubbed gently over the affected area, is useful. In chronic cases tendency to secondary contractions should be combated by suitable apparatus. When they occur, orthopœdic measures are indicated. I add a sketch of four cases, which illustrate some of the points discussed.

CASE I.—A girl of fourteen years, with obstinate chorea, while being treated with large doses of Fowler's solution, suddenly developed weakness in the legs, with foot drop and slight sensory disturbance. The arsenic being stopped she improved, and, received electrical treatment, at the end of a month or six weeks was able to walk about again.

CASE II.—An imbecile girl of twenty-one, an inmate of an insane asylum, was taken with a number of other patients into the grounds and kept there during the greater part of one day, while something was being done to the ward. She lay upon the grass all the time, In a day or two she was noticed to have a weakness of the muscles of the arms and legs, and wrist drop and foot drop developed. When seen by the writer about a month or six weeks later, she had foot and wrist drop on both sides; there were weakness and wasting of the muscles of the front of the legs and back of the forearm. She could not walk without support. The electrical reactions in the affected muscles were quantitatively reduced, but no reaction of degeneration could be found. No satisfactory information as to sensory symptoms could be gotten, owing to her mental condition. Under general tonic and electrical treatment she improved, and when last seen, two months later, could walk about the ward. Neuritis from cold (probably).

CASE III.—A healthy, athletic young man of nineteen, received on November 29, 1895, a slight wound on the back of the second finger of the left hand, to which he paid no attention. A week later the finger was greatly swollen. Lymphadenitis extended up the arm, and the axillary glands were enlarged. The wound became gangrenous, and the patient presented evidences of a mild septicæmia. His condition improved under treatment, but the wound sloughed and and was a long time healing. He returned to school about the middle of January, but soon noticed that he saw double and could not read. His tongue became affected and his articulation bad. He complained of numbness and ting-

ling in his fingers, and his arms grew weak. There was some weakness of the trunk muscles. Next his legs were attacked, and he became paraplegic. Under treatment he improved somewhat, and was sent out of the city to recruit. He then could walk a little. While away he had a relapse, and by the end of February could not get about at all. When seen on March 1st by the writer, he could not stand or walk without crutches. The eye, face and tongue muscles were normal ; the muscles of the arms acted normally, but were slightly weak. Trunk muscles normal, legs weak and their movements atactic. Slight wasting of leg muscles. Tendon reflexes absent; sensation normal, except on soles of feet. Electrical reactions quantitatively reduced in peroneal group and quadriceps; extensor otherwise normal. Under tonic treatment (mainly strychnine and electricity) the patient improved, and by July was perfectly well. Septicæmic multiple neuritis.

CASE IV.—A man of fifty years, a habitual user of spirits, though never intemperate, had in 1891 an attack which he says was similar to the present one, and from which he recovered entirely, except for slight weakness and a little ataxia of the legs. In February, 1896, he noticed increasing weakness in his legs, but paid little attention to it. In March he consulted a physician, who found some weakness of the muscles of the front of the legs, with tenderness in these muscles and their nerves, and loss of knee jerk. The extensors of the hands were involved, but to a lesser degree. His condition became gradually worse, the affected muscles wasted, the legs became anæsthetic, and paresis of the bladder (affecting the detrusor alone, the sphincter continuing to act) appeared. When examined by the writer, on May 10th, he was bedridden and could not sit up without assistance. The pupils reacted normally ; the eye, facial, and tongue muscles were unaffected ; the arms were weak, but there was no wrist drop. Back muscles weak. There were great wasting and weakness of all the muscles of the legs. The thighs could be flexed on the body and the legs on the thighs, but the latter only when the thigh was supported. There was foot drop—complete on the left, partial on the right. Tendon reflexes were absent. Below the knees, complete anæsthesia ; on the thighs and arms below the elbows, diminished sensibility. The electrical examination was not very satisfactory, but as far as made showed reduced irritability, but no reaction of degeneration. As the legs could not be raised well, inco-ordination could not be made out, but there was some loss of ability to locate the position of the limbs (loss of muscular sense). On October 6th the attending physician reports but little change in his condition, though he had gained some flesh. Alcoholic multiple neuritis, with probable involvement of spinal cord ; prognosis unfavorable.

REFERENCES.

Starr : Multiple Neuritis. Middleton-Goldsmith Lectures for 1887, MEDICAL RECORD, February 5 and 12, 1887.

Gowers : Diseases of the Nervous System.

Déjerin : Nervo-tabes Periphérique. La Semaine Médicale, April 26, 1893.

Sollier : Psychose Polynévritique, Rev. Neurologique, No. 15, 1895.

Oppenheim : Lehrbuch der Nervenkrankheiten.

Onuf : Constitution of the Ganglion Cells, etc. Journal of Nervous and Mental Disease, October, 1895.

Darkschewitsch : Zur Frage von den secundaren Veranderungen der weissen Substanz des Rückenmarks, etc. Neurolog. Centralblatt, No. 1, 1896.
Soukhanoff : Contributions à l'étude des changements du système nerveux central dans la polynévrite. Archives de Neurologie, No. 3, 1896.

1,828 H. STREET, N. W.

KOLLOFRATH, O.—Removal of a Piece of Bone from the right Bronchus per *Vias Naturales*, with direct Laryngoscopy. *Munch. Med. Woch.*, September 21, 1897.

Description of a case. The patient, while eating a pork hash, swallowed a bone. Pain in throat, dyspnœa, cough, etc., at once came on and continued. When first seen in Prof. Killian's clinic the symptoms had subsided considerably. Examination with the laryngoscopic mirror failed to reveal anything indicative of foreign body. Only a short part of trachea could be seen, owing to lateral curvature in it. The bifurcation could not be brought into view.

Prof. Killian then examined with Kirstein's direct laryngoscope (autoscope), and after much twisting about of patient's head, body, shoulders, etc., finally managed to see the bifurcation. Something bright was seen in right bronchus, which might be bone. The patient bore examination with the autoscope extremely well, and it was then found that he could bear having a tube passed right into the larynx. A Mirulicz-Rosenheim œsophagoscope was passed down through the larynx and into upper part of the trachea, and through this the bone was removed by means of a specially made long tube-forceps. One or two small pieces broke off first, but in the end the large piece came away. It measured 17 by 14 by 8 millimetres.

ARTHUR J. HUTCHISON.

The story runs that there was a very miserly but rich man, who to save legal fees by consultation at the lawyer's office, used to invite his solicitor to his house to dinner, and while at dinner would ask him many legal questions, all of which, of course, were for his own benefit in the management of his own affairs. This thing went on so repeatedly that the lawyer became suspicious, and, therefore, on his return from each dinner party he would make note of all the questions that were asked, and every time his opinion was given he made the usual charge for the same. At the end of a year he sent in his account, giving day and date for every opinion, and the subject. He immediately received a check for the amount from his client, and by the next mail received an account from him categorically reciting each dinner that was given him, for which he was duly charged, also for all the wines that he drank, and cigars. The lawyer paid the bill without a word, and then laid information before the proper authorities against his client for selling victuals and liquor without a license, according to law. The informer received half the fine, which was considerable, and thus obtained his fees indirectly by informing against his client.—*Med. World.*

PATHOLOGY AND BACTERIOLOGY.

IN CHARGE OF
H. B. ANDERSON, M.D., C.M.,
Pathologist to Toronto General Hospital; Professor of Pathology Trinity Medical College, and in charge of the Trinity Microscopic Pathological Laboratory, Toronto General Hospital. 241 Wellesley Street
H. C. PARSONS, M.D., 97 Bloor Street West.

INTESTINAL AUTOINTOXICATION.*

BY CHARLES D. AARON, M.D, DETROIT, MICHIGAN,

Instructor in Materia Medica in the Detroit College of Medicine.

The term autointoxication has undergone many changes of meaning in the short time since it has been introduced into medicine. It has as yet not been definitely agreed upon. Autointoxication through the intestinal canal consists of the retention of normal and abnormal material in the intestines. The result of the stagnation of such material is the decomposition, putrefaction and fermentation of the ingesta. The products of carbohydrate fermentation give formic, butyric, lactic, acetic and succinic acids, gases, et cetera, while the products of albuminous decomposition give NH_3, CH_4, H_2S, leucin, cystin, phenol, indol, skatol, tyrosin, aceton, et cetera. In a paper of mine on "Diarrhea and Bacteria," published in *The New York Medical Journal* May 8, 1897, I cited several authorities who have shown that vast numbers of microbes within the intestinal canal generate poisonous ptomains and toxins which are rapidly absorbed. With the superabundant production and the retention of all these substances in the intestinal tract, a series of symptoms presents itself, suggesting a diseased condition of the digestive tract, of the respiratory system, of the circulation, of the kidneys and, above all, of the nervous system. There is no positive proof that these symptoms have some definite relation with the poisons retained in the intestinal tract. Still, since a condition of autointoxication clearly exists, inasmuch as the symptoms disappear when the poisons are removed, we may safely assume that the symptoms presented are due to autointoxication.

It is a well known fact that there is a certain relation between affections of the digestive tract and diseases of the nervous system. The ancients went even so far as to charge certain forms of vertigo to disturbances of digestion. The term hypochrondria, originally the name of that part of the body situated between the xiphoid cartilage and the navel, implies that it was supposed that the abdominal cavity was the seat of the pathological condition.

Intestinal autointoxication can become manifest through the nervous system, through a derangement of metabolism, through the circulatory

*Read before the Detroit Medical and Library Association.

system and through the skin. Vertigo, which appears also in other forms of poisoning as through alcohol, nicotine and various alkaloids, is a constant symptom of intestinal autointoxication. We also find headache, pressure in the head, neuralgia and cerebral vomiting. Psychic disturbances are often particularly marked. Depressed spirits, feeling of disgust, aversion to work, disinclination to social intercourse, and melancholia are observed in these patients. All symptoms which are present in neurasthenia are present also in intestinal autointoxication. While we were formerly inclined to look upon the disturbances of digestion in neurasthenia as secondary symptoms, experience teaches that the symptoms of the digestive tract precede neurasthenia. In certain cases there is a disturbance in the organs of sense, darkening of the field of vision, hallucinations, ringing in the ears and deafness.

Bouchard has demonstrated the toxicity of the urine in neurasthenic cases, and it is absolutely certain that poisonous products get into the blood. Indicanuria nearly always suggests autointoxication. Constipation is not necessarily coincident with autointoxication, for it has been shown that the more fluid-like the contents of the intestine are, the more rapid is the absorption of poisonous material. Accordingly, the urine in diarrhetic conditions has been found to be most poisonous. In cholera the absorption of toxins is continuous despite frequent energetic evacuations of the bowels. It appears that patients in states of autointoxication feel better when constipated than when their intestines are filled with semi-solid materials. Again, we have an autointoxication in an obstruction of the bowels, for the natural outflow of the waste material is arrested, excretion is imperfect and absorption of the poisonous materials which are present takes place quite rapidly, The eclampsia of children with digestive disturbances is more easily explained in terms of autointoxication than on lines of the reflex theory.

Boix, of France, has published a book entitled "Cirrhosis of the Liver Produced by Autointoxication of Intestinal Origin." He proves that in addition to alcohol as a cause for hepatic cirrhosis, there is an autointoxication of gastrointestinal origin which frequently causes cirrhosis. The author demonstrates that there is a peculiar form of hypertrophic cirrhosis which is caused by the passage through the liver of toxic disturbances produced in the alimentary canal, and he calls this a dyspeptic liver, so as to differentiate it from alcoholic liver, which designates also another form of cirrhosis.

To the class of cases in which we have a derangement of metabolism due to autointoxication we may add many cases of chlorosis. In certain cases of chlorosis we resort to antifermentive therapy, and this implies that we believe that there is some pathologic connection between it and autointoxication. While I do not wish to maintain that every case of chlorosis is traceable to autointoxication, I must mention the fact that Bouchard, Rosenbach, Couturier and others have shown that intestinal autointoxication has considerable significance in chlorosis.

Such disturbances of the circulation as excitability of the heart, tachycardia and various other forms of vasamotor disturbances are often due to intestinal autointoxication.

Autointoxication frequently becomes visible in certain kinds of skin affections, such as urticaria, which is produced in many cases by the eating of lobsters, cheese, et cetera. It was formerly regarded as idiosyncracy, but we know that it is an intestinal autointoxication. Pick, of Vienna, has proven that attacks of urticaria can be prevented in susceptible patients by cleansing the intestinal tract. Singer has verified this and adds that there is always an increase of indican in the urine.

Asthma dyspeptica, which consists chiefly of dyspnea, can be attributed to autointoxication, but this has not as yet been proven. The symptoms of collapse produced by obstruction of the bowels, either acute or chronic, are no doubt due to autointoxication. The kidneys being compelled to eliminate the poisons which have been absorbed through the intestinal tract are in this way injured. Albuminuria found in an intestinal stenosis and the disappearance of the albuminuria, when the obstruction is removed, are probably due to autointoxication.

Posner has even gone so far as to maintain that nephritis may be superinduced by bacteria which, having been absorbed by the intestines, have found their way to the kidneys and there cause an inflammatory condition. The bacillus coli communis especially is apt to behave in this way.

From all that I have cited it seems to me clear that autointoxication through the intestinal tract is a frequent phenomenon, leaving it to future investigators to add to the meagre information we have at present.

32 Adams Avenue, West. —*The Physician and Surgeon.*

THE SERUM DIAGNOSIS OF TYPHOID.

WIDAL AND SICARD (*Ann de l'Instit. Pasteur*, 1897, No. 5) in a lengthy article review the progress of our knowledge on this subject, and give their own conclusions based upon the study of 163 cases. From only one of these was the reaction absent throughout; this was a patient aged 40, who was admitted on about the twelfth day of the disease, and whose temperature remained high for twelve days subsequently. Eleven days later a relapse came on, and lasted fourteen days; during both attack and relapse puncture of the spleen yielded pure cultures of the typhoid bacillus, which were readily agglutinated by the serums of other typhoid patients. The serum from this case, however, never gave the agglutinating reaction. This disproves Gruber's assertion that the reaction is one of immunity, since the patient recovered from both attacks without its manifestation. The reaction has been found as early as the second day (by the authors not before the fifth) and as late as twenty-six years after convalescence; the date of its appearance bears no relation to the severity of the attack. The authors find that on dialysing serum or milk the agglutinating property does not appear in the dialysate till the proteid matters begin to come through; these, however, may commence to appear before the property develops, and as the agglutinating substance can be detected in non-albuminous urine its true nature is still uncertain. A large part of the article is devoted to the study of the measurement of the

agglutinating power of typhoid serums. The maximum observed was 1 in 11,000, that is, the serum diluted to this extent still gave the reaction; this occurred on the eighth day in a young man aged 22, the subject of an attack of medium severity, convalescence from which was rapid and complete. This patient had been unwell for about twelve days before he came under observation, so that the maximum was probably reached on somewhere near the twentieth day of the disease. The curve of agglutinative power varied greatly and unaccountably in many cases. Thus in 2 which ended fatally the power of agglutination was observed to fall greatly during the few days before death, in two others it fell less, while in a fifth it was the same on the day of death as on that of entry into the hospital. In patients who recovered the variations were no less remarkable. A sudden and considerable rise either at the beginning of defervescence or in the last days of the disease was by no means uncommon, while in one instance the agglutinating power sank towards the middle of the disease, rose again during its decline, sank anew at the beginning of defervescence, and finally rose in the second week of defervescence. Even daily variations were frequently met with, and the differences in similiar cases could only be explained as idiosyncratic. With regard to the extent to which the serum should be diluted for diagnostic purposes the authors recommend an invariable first trial with a dilution of 1 in 10 followed by as many successively higher dilutions as possible, till the limit of action is reached. If but a small quantity of serum is available the test should always be tried with dilutions of 1 in 10 and 1 in 50; if the agglutinative property is not found with the latter strength many bacteriologists hesitate to declare it to be certainly typhoid. The authors' general conclusions may be thus summarised; The agglutinating reaction is one belonging to the period of infection. It can usually be detected in typhoid patients during the first days of the disease, and though sometimes delayed is but exceptionally absent. It is not a vital reaction on the part of the agglomerated microbes, and is subject to important individual variations. From the practical point of view the authors state that a negative reaction obtained with the serum of a suspected patient furnishes a probability against the diagnosis of typhoid, but this is only a probability, especially if the examination is made during the first days of the disease. In such cases the examination should be repeated on successive days. The probability is the greater the later the examination is made during the disease. A positive reaction obtained according to the rules of measurement laid down by them (the serum being diluted never less than ten minutes) can be considered a pathognomonic sign of typhoid fever.—*British Medical Journal.*

RENAL HÆMATURIA WITHOUT APPARENT CAUSE.

DIEULAFOY has collected (*Journ. de Méd.*, July 10th, 1897) some instances of hæmaturia of which the explanation is extremely obscure. In some cases there is abundant and repeated hæmaturia without evidence of tubercle, renal calculus, or any ordinary cause. The following case,

originally described by Brocha, is quoted. A woman, aged 28, without history of hæmophilia or tubercle, was attacked by pain in the right lumbar and hypochondriac regions, and by hæmaturia lasting about six months without intermission, the blood being always intimately mixed with the urine, and, instead of diminishing in quantity, had actually increased. There was persistent renal pain without at the same time the characters of renal colic, nor was there oliguria nor gravel, there not even being any deposit of uric acid. In the face of these symptoms it was at first supposed to be a case of tubercle or cancer. On physical examination, the right kidney was tender but unaltered in size. Hæmaturia was unaltered by exercise of any kind. In appearance the patient looked well and there was no loss of weight; no tubercle bacilli could be found. It was decided to operate, but examination of the kidney failed to show any lesion, and the operation was not continued further. From this time forward the hæmaturia ceased completely, and at the present time there has been no recurrence, and the pain has disappeared. Dieulafoy gives a case of his own, somewhat similar in nature. A boy, aged 15, was subject to hæmaturia for two years, coming on without any apparent cause on making the least exertion, or even taking a short walk. A printer by trade, he was unable to work two hours in the erect posture without an attack of hæmaturia; it even happened at times that blood appeared when at rest. On examination the patient seemed extremely weak and anæmic, but no physical signs could be obtained or subjective symptom of any particular lesion. He was put on treatment by turpentine in gradually increased doses, and from 6 to 12 capsules daily. The urine gradually lost the sanguineous appearance, and finally the hæmaturia disappeared completely. After two and a half months the cure seemed complete. and now, after five years, there has been no recurrence. The patient can take long walks, work overtime, and take any exercise he likes without the least inconvenience. His general health is excellent, and he continues to take a small amount of turpentine daily. Whatever be the nature of the cases, whether hæmophilic or congestive in character, the fact remains that they are of great importance, and extremely obscure of diagnosis.

HÆMORRHAGE AT MENOPAUSE AND CANCER.

Pichevin (*Bulletins et Mém. de la Société Obstét. et Gynéc. de Paris*) relates the history of a married but childless woman, aged 50, who had been subject for several years to a small fibroma of the body of the uterus without menorrhagia or disease of the appendages. The periods remained quite regular till November, 1896, then no show was seen till a little appeared last January. Five weeks later a very little blood was seen at the vulva. On March 20th severe hæmorrhage set in, and could not be checked by hot injections, ergot, or any other remedy. Much blood escaped, almost without ceasing, till June 13th. There was never any fœtor. Slight lumbar pain was present throughout. The cervix was quite healthy; the fornices free. The uterine cavity measured just 3½ inches

and the body was as big as a fist. On exploration a fungous mass was found springing from the endometrium posteriorly and to the left ovarian area of about 2½ square inches. It was removed, and found to be the produce of glandular endometritis. There had been no bleeding till this year, when the patient was 50, though the fibroid enlargement was clearly not recent. The microscope proved that the growth was not malignant, nor due to true fungous endometritis, such as Trousoeau detected in old women as long ago as 1856. The patient is now free from hæmorrhage. It need hardly be said that the course here pursued was necessary for diagnostic reasons. Doléris, discussing Pichevin's case, said that diagnosis from simple inquiry about the "show" was seldom difficult. Menorrhagia of the menopause appears as a sudden and very free discharge of blood following distinct cessation of the catamenia for two or three months. The discharge occasionally recurred. The bleeding of cancer was insidious, irregular in character, and very frequently appeared in the interval of the period during the last year or two of menstruation. —*Brit. Med. Journal.*

ETIOLOGY OF MALIGNANT TUMORS.

Roncali (*Journal of Pathology and Bacteriology*, Vol. V., Jan., 1898), contributes an article on the etiology of malignant tumors, in which he strongly upholds their parasitic origin. He differs from the earlier authors, however, who described the peculiar cellular inclusions found in malignant neoplasms as protozoa, or low forms of animal life. Roncali holds that they are really vegetable parasites—blastomycetes. He affirms their constant existence in malignant tumors, though often in extremely small numbers. Failure to find them by other observers is accounted for by faulty technique, examination of an insufficient number of sections, and the tendency to early degenerative changes in the parasites, rendering recognition difficult. Large numbers of serial sections should be made from different portions of the peripheral part of the tumor, the parasites being found at the advancing edge. He says that while the supporters of the parasitic theory are in perfect accord as to the different forms, characters, and appearances of the cellular inclusions found in malignant neoplasms—not a single opponent of the theory—those who hold that they are merely nuclear or cellular degenerations—agrees with another as to the kind of degeneration they present

He figures the different appearances presented by the parasites, and concludes that as regards the etiology of malignant tumors, both adeno-carcinomata of the ovarian gland and many sarcomata, as well as epitheliomata of extremely rapid growth, and essentially magligant, are undoubtedly of parasitic origin, and are due exclusively to blastomycetic infection.

H. B. A.

BLASTOMYCETES IN HYPERTROPHIED TONSILS.

De Simoni (*Centralbl. f. Bakteriologie*, August 21st, 1896) has investigated 20 tonsils removed from 12 patients with the view of ascertaining the parasite, if any, which leads to chronic hypertrophy. This is ordinarily assumed to be of tuberculous or scrofulous origin, but very little other evidence of tubercolosis can as a rule be found in its subjects. Thus, in the author's patients a phthisical parentage was invariably absent, though scrofulous scars were present is some cases. He made preparations and inoculations from all the tonsils, but was unable to obtain any evidence of the tubercle bacillus. Specimens prepared, however, by im-

mersion in absolute alcohol, coloring with lithium carmine, cutting in paraffin, and finally staining by Gram's method, showed round homogeneous bodies singly or in groups which are classed by the author with the blastomycetes described by San Felice in malignant growths and chronic inflammations. They lay mostly between the tissue elements, but some were intracellular; they were, as a rule, colored an intense violet by the stain already mentioned, but sometimes showed a deeply-stained centre surrounded by a hyaline or pink cortex. In many instances budding was observed, small daughter forms lying beside the larger elements, and either loosely attached to them or quite free. These blastomycetes were found in greater or less numbers in all the tonsils examined; they were particularly numerous where the enlargement was most marked. In normal tonsils obtained from the *post-mortem* room none could be detected. Dr. Simoni considers that chronic hypertrophy of the tonsils is due to the proliferation of granulations set up by these bodies. He promises details as to their growth and cultivation characters in a future memoir.

THE INFLUENCE OF TEMPERATURE ON INFECTIVE INFLAMMATION.

Penzo (*Archiv. Ital. de Biolog.*, Tom. 28, f. 1, Turin) records a series of experiments dealing with the above question. Into the ears of rabbits he injected staphylococcus aureus and streptococcus. He then placed the animal in a thermostat, and so arranged matters that one ear was exposed to hot air (36° to 39° C.) and the other to cold (8° to 11° C.). In the first series the effect of temperature at the outset of inflammation was noticed, in the second series the effect on the later course of the inflammatory process. The author found that cold hinders and retards the appearance of inflammatory infective processes, weakens their manifestations, retards resolution, and renders the sequelæ more troublesome. Heat hastens the development and course of the inflammation, but favors its limitation, resolution and subsequent effects. Both these modifications are in direct and constant relation with the changes which supervene independently of the nervous system, in the circulation and nutrition of the affected tissues.

THE MICRO-ORGANISM OF ACUTE ARTICULAR RHEUMATISM.

Triboulet, at the meeting of the Société Médicale des Hôpitaux, of November 19, 1897 (*La Semaine Médicale*, November 24, 1897), reported that he was able to find the micro-organism described by Thiroloix in a fatal case of acute articular rheumatism complicated with endopericarditis. At the autopsy, which was made forty hours after death, both aënrobic and anaërobic cultures were prepared. The pericardial fluid yielded in an anaërobic culture numerous colonies of staphylococci. In similar cultures from the blood of the vena cava, a fragment of heart-vale, and a segment of the spinal cord there grew on sterilized milk a large bacillus. An injection of two cubic centimetres of such a culture into a guinea-pig caused its death in twenty-nine hours.—*Univ. Med. Mag.*

PAEDIATRICS.

IN CHARGE OF

ALLEN M. BAINES, M.D., C.M.

Physician, Victoria Hospital for Sick Children; Physician, Out-door Department Toronto General Hospital. 194 Simcoe Street, and

J. T. FOTHERINGHAM, B.A., M.B., M.D., C.M.,

Physician, St. Michael's Hospital; Physician, Outdoor Department Toronto General Hospital; Physician, Hospital for Sick Children. 39 Carlton Street.

UNSUSPECTED NEPHRITIS, AND A PLEA FOR MORE FREQUENT AND CAREFUL ANALYSIS OF URINE.

BY JOHN H. SEILER, M.D., AKRON, O.

It frequently happens in the experience of the life insurance examiner that he finds incipient, or even serious renal disease, when he analyses the urine, in subjects who regard their health beyond question, and consider themselves good risks, there being no symptoms apparent to themselves or observers to lead them to suspect renal derangement.

The largest amount of sugar I ever found in diabetes mellitus was in a German lady, aged about forty, whom I examined for life insurance. She smiled at the idea of calling her health into question. She was a picture of health and the physical examination proved negative. Much to my astonishment the urine was about three-fourths sugar by volume. She died about four months after. Possibly the knowledge of her condition hastened the termination.

So with other diseases, especially Bright's disease, of which I have discovered a number in people who suffered no inconvenience, and suspected nothing wrong.

The same thing I have observed in young subjects, who showed none of the symptoms ordinarily concomitant with renal disorder, such as pain in the back; deficient or excessive urination; pale, or highly colored urine; sediments of various kinds; œdema of face and extremities; ascites; inordinate thirst or precarious appetite.

The following case will serve to illustrate one of these conditions:

A boy, aged fifteen, who, aside from a light attack of measles seven years before, had apparently always enjoyed good health. The father and mother are intelligent and take a great interest in their children.

I wish to emphasize this negative appearance of symptoms, because the pathological condition was extreme. The kidney was found to be so disorganized that I believe I am justified in dating the beginning of the trouble back to his attack of measles, seven years before. If so, if the urine had been examined then, the trouble might possibly have been averted. Therefore, I think we ought to make it a routine practice to examine the urine in cases of exanthematous diseases in children.

Early in June, 1894, the father was in swimming with him, and observed an enlargement of the right side of the scrotum. Suspecting it might be a hernia he attempted reduction in the evening, but with negative results. He had no pain and complained of nothing. Late in June, however, the mother observed that his face was a little full Having a premonition of something serious, she sent for me on June 30th.

Present Condition.—Face pallid and slightly puffed; legs, from knees down, a little œdematous; heart action regular, but a little feeble; appetite good; bowels regular; no pain; no swelling about scrotum; no history of chill or fever; urine scant, about one pint *per diem.*

Analysis.—Light colored; foamy; slight odor; specific gravity 1005; albumin equivalent to about three-fourths the total volume in test tube; no casts or pus.

Progress.—Two weeks later the anasarca became more marked, but never extreme, and at no time interfering with the action of heart or lungs. Ascites at no time extreme. The scrotum was now filled again to its full capacity, and had a bright, shiny look. But by means of astringent evaporating lotions this was soon reduced to normal size and so remained.

There was no nausea, but the stomach was so irritable as to make it almost impossible to retain medicine or nourishment. The bowels moved on an average about once in two to four hours.

At no time did the quantity of urine exceed a pint a day, retaining the same characteristics—specific gravity 1010, the albumin being from one-half to three-fourths by volume in the test tube.

He had uræmic exacerbations about once in six or seven days, which were relieved by thorough diaphoresis, by means of pilocarpine. But the last time, on August 6th, before death came to his relief, diaphoretics, internal and external, had no effect. While before three to four doses of one-twentieth of a grain of nitrate of pilocarpine on the tongue produced all that was desired, at this time one-tenth grain doses every hour failed to act. Uræmic coma came to his relief about midnight.

During the first uræmic exacerbation he had complete paralysis of the right arm, which came on suddenly, remained about twenty-four hours, and disappeared suddenly. During the second exacerbation the left arm was affected in the same way with the right, but only lasted about twelve hours.

A *post-mortem* examination was at first refused, but I was finally permitted to remove the kidney. It being an anomaly, it was only after the most careful and diligent search that I found and extricated the one kidney, which was all he had. This was located on the right side, about opposite the second and third lumbar vertebræ, and was bound down by the peritoneum to the back of the abdominal cavity, as if a cloth were thrown over it.

The kidney was very much enlarged, being about six inches long, three inches wide and two inches thick. The pelvis of the kidney was about three times its normal size. It was light colored, and instead of a smooth, regular outline, it was irregular, and had a nodular feel and appearance. The nodules were not hard, but upon section were found to be full of

urine. The whole cortex was honeycombed, and filled with albuminous urine.

Figure 1 shows the kidney as it appeared when removed. The mottled surface and enlarged pelvis are easily observed. Figure two shows a horizontal section through the body of the kidney, the enlarged pelvis, and the beginning of the ureter. This shows the honeycombed condition of the cortex, and the absence of medullary portions, and the large, irregular shaped pelvis.

The test tubes show the amount of albumin of two of the last analyses, representing nearly one-half by volume.

Another case was that of a lad, who died at the age of sixteen of Bright's disease, in whom were no manifest symptoms till a few months before death. He came from a strong, robust German family, and was the fifth of seven children. He was slender, had a precarious appetite, was constipated and of a bilious temperament.

About ten years ago, my associate, Dr. Geo. G. Baker, now of Denver, treated him for what seemed to be obstruction of the bowels. There was icterus, very obstinate constipation, severe retching and vomiting, small, rapid pulse, tympanites and excruciating pain through the abdomen. Repeated doses of morphine hypodermically was the only thing that afforded him relief till a movement of the bowels was effected, when all pain subsided, and he felt none the worse except very weak. Since then, at intervals of one to two years, I have treated him for similar attacks. lasting generally two or three days. There were no symptoms manifest to lead one to suspect renal derangement of any sort.

Two years ago he began to emaciate, became sleepless and nervous, and suffered from nocturnal emissions. Suspecting masturbation I relieved him of his redundant prepuce by circumcision, and the result was very satisfactory.

Early last spring he had contracted a light gonorrhœa, which was very troublesome. In April he suffered from indigestion, icterus, constipation, which was followed by another of his usual paroxysms of excruciating pain in the stomach and bowels which caused him to draw up his leg against the abdomen. But this time slight convulsive movements were observed once in six or eight hours. Besides he complained of amaurosis and slight occipital headache. While there was no œdema anywhere, and nothing in the appearance of the urine to indicate renal disease, I analysed a specimen of urine, and to my surprise found an abundance of albumin, amounting to about one-half by volume in the test tube.

He was at once put upon a prescribed diet, with very little medicine, and this *regime* was followed carefully with such modifications as were indicated, for about four months. He made remarkable progress, and the prospect for complete recovery was most flattering. The appetite was good; he gained in weight and strength, and the albumin had disappeared entirely for several weeks. But unfortunately he went into the gymnasium and did violent exercise contrary to prescribed rules, which resulted in a relapse, with an abundance of albumin, uræmia, coma, and death, inside of four days.

No *post-mortem* was permitted.

The question arising in my mind with reference to this case is, as to when did this renal derangement begin? Could such a pathological condition, as must have been present here, have been of ten years' duration, and is it possible that these occasional paroxysms, which were described above, could have been associated with a uræmic condition? Since the cause and nature were so obscure till far advanced, might not an analysis of the urine have revealed the secret, and thus possibly have averted this serious consequence?

Maxims.—In all cases of diphtheria and the exanthematous diseases, no matter how mild, analyse the urine.

Always when in doubt as to the diagnosis, analyse the urine.

Whether sick or well, make the simple tests for albumin and sugar at least once in six months.

LENZMANN, R.—On the Operation for Adenoids, with Special Reference to the question of Narcosis. *Therapeut. Monats.*, September, 1897.

The author first discusses the reasons for and against the use of narcosis in this operation. Most of the arguments against narcosis he considers unsound. It is seldom possible to complete the operation with one sweep of a Gottstein's knife, and even when this is the case the operation is far from painless. Simple examination of the naso-pharynx with the finger is extremely unpleasant, even for adults, and terrifies children.

Naturally, the operation is much worse. This alone justifies the use of chloroform. Further, as we now know that a careless removal of only some of the growth will not necessarily lead to atrophy of the remainder, we are bound in every case to remove the growth thoroughly, and this thoroughness can be attained to only by operating under narcosis.

That this operation makes the use of narcosis in some points specially dangerous the author does not deny; still, he maintains that by care and a suitable technique these dangers can be overcome.

The author has operated on four hundred cases, with no deaths—indeed, with scarcely any unpleasant incidents during either the operations or convalescences. He operates with the patient in the erect sitting posture, does not narcotize deeply and uses no gag, but only a tongue depressor. If the tonsils are hypertrophied he operates on them (with Mackenzie's tonsillotome) at the same sitting. His Gottstein's ring-knife has a special apparatus for holding the excised portion of the growth, and its handle is so curved as to facilitate its introduction and use even when the mouth is not wide open.

Lastly, the author advises that after the operation the parts should be left undisturbed. No insufflation of powder; no nasal or post-nasal irrigations or pulverizations.

ARTHUR J. HUTCHISON.

MEDICAL SOCIETY REPORTS.

THE TORONTO MEDICAL SOCIETY.

Regular meeting, February 10th, 1898.

Dr. T. F. MacMahon, President, in the chair.

The minutes of the last meeting were adopted.

Dr. W. J. Wilson reported a case of dislocation of the distal phalanyx of the thumb. It reduced easily.

Dr. Geo. Elliott presented an aneucephalous monster, and described its delivery.

Discussed by Drs. MacMahon, Price-Brown, W. J. Wilson and F. Oakley.

Dr. Macmahon related the history of a fatal case of chorea insaniaus.

Dr. Oakley reported a case of encysted peritonitis, in which operation had been done.

A trunk, showing transposition of organs, sent by Dr. Wishart, and examined by the members.

Dr. Rudolf discussed the case.

Dr. Rudolf reported having used ergot in a case of obstinate constipation with success.

Drs. MacMahon, Wilson, Oakley, Price-Brown, and Graham discussed the case.

TRINITY MEDICAL ALUMNI ASSOCIATION.

This Association, which was organized on the 10th March, 1893, is enjoying a career of uninterrupted progress.

Its objects are to establish and maintain communication and good fellowship between its members, to encourage a high standard of scholarship, to foster the interests of *Alma Mater*, and to give organized assistance in matters involving the dignity and welfare of the medical profession, especially its own members.

An annual meeting and banquet are held each year, on the day of Medical Convocation at Trinity University, when, in addition to the productions of home talent, papers are read by some of the most distinguished members of the profession in the United States.

The high merit of the papers presented at these meetings, together with the animated and well-directed discussion which generally follows, have made them occasions of great interest and value; and in our experience no day's work done by any of the medical societies equals the day's work done by our Medical Alumni Society at its annual meetings.

The Annual Meeting for 1898 will be held in Toronto on the 6th of April, and the programme will consist of routine business, election of officers, reading of the Theses standing first and second in merit, in competition for the Alumni Gold Medal; a paper by Dr. H. Howitt, Guelph; a paper on "Surgical Diseases of the Rectum," by Dr. F. Le M. Grasett, Toronto; a paper in Medicine by Dr. Charles G. Stockton, Buffalo; a paper in Gynæcology, and a paper in Pædiatrics, by Dr. Leroy Milton Yale, New York.

A discussion will follow the reading of each paper, in which all present will be invited to participate.

The Banquet, which will follow in the evening, will be a reunion of old classmates. The Alumni Gold Medal will be presented to the victorious competitor; speech, song and story will enliven the proceedings and render the occasion a most enjoyable one.

It is earnestly desired that as many of the Alumni as possible will be present at the next Annual Meeting. The President and Secretary are assisted by an able and ardent committee, who already have the arrangements well in hand for the coming meeting, which is expected not only to be an occasion of marked interest and profit, but a record breaker in every department.

TORONTO PATHOLOGICAL SOCIETY.

The regular meeting of the Society was held on January 29th, '98, in the Biological Building, Dr. H. B. Anderson in the chair.

Present—Drs. Wishart, Peters, Carveth, Machell, J. J. McKenzie, H. H. Oldright, Wm. Oldright, Primrose, Parsons, Rudolf, Cameron, Pepler, Starr.

Visitor—Dr. Graham.

Minutes of previous meeting approved.

(1) Dr. Peters presented a specimen of carcinoma of the sigmoid flexure of the colon, with notes of the case.

Varicose veins removed from the leg were also shown.

Dr. Peters read a short paper on Hallna Valgus, and showed the head of a metatarsal bone excised for the relief of this condition.

Cases were discussed by Drs. McPhedran, Anderson, and others.

(2) Dr. Wm. Oldright presented microscopic preparations from a mammary growth seen at the previous meeting.

The case was one of adneo carcinoma. It was fully discussed by Drs. Peters, Anderson, Primrose, H. H. Oldright.

(3) Spontaneous Rupture of a Fatty Heart, by Dr. Grieg.

Discussed by Drs. Anderson and Rudolf.

(4) Trepatellar Bursa, with melon-seed bodies, Dr. H. H. Oldright.

(5) Ante-Mortem Thrombus from Chloroform, Dr. Wishart.

Operation for Admoid Vegetations in child. Patient collapsed under chloroform; marked cyanosis and light pulse for 30 hours, terminating in death. Thrombus found in pulmonary artery.

(6) Situs Transversus, Dr. Wishart. All organs transposed; heart to the right; left lung has 3 lobes; liver and cæcum to left; spleen and rectum to right.

Case discussed by Drs. Anderson, Primrose, and others.

(7) Heart in Chloroform Poisoning, Dr. Rudolph.

Discussed by Mr. Cameron.

(8) Umbilical Hernia Containing the Greater Part of the Liver, Cancer of Penis and Lignueal Glands, Tuberculosis of Fallopian Tubes, Dr. Primrose.

Discussed by Mr. Cameron, Drs. Anderson, Peters, and Pepler.

The meeting then adjourned.

The Canada Lancet

A Monthly Journal of Medical and Surgical Science, Criticism and News.

☞ *Advertisements inserted on the most liberal terms. All Cheques, Express and P.O. Orders to be made payable to* The Canada Lancet Publishing Co., 24 Wellington St W., Toronto.

FRED. H. GRAY, Business Manager.

The Largest Circulation of any Medical Journal in the Dominion.

Editorial.

Herpes Zoster, Zona or Shingles, is a disease which, like psoriasis, presents such marked lesions that once seen it is readily recognized when seen again.

It consists of an acute inflammatory eruption, made up of groups of vesicles on an erythematous base, distributed in the course of one or more cutaneous nerves.

The typical form from which the disease takes its descriptive name affects one or more of the intercostal or abdominal nerves on one side only. A neuralgia, varying in intensity, and which in felt in the area in which the eruption will appear, precedes by some hours, or even days, the commencement of the eruption.

In an intercostal herpes one group is situated near the spine, another in the axillary region, and a third close to the meridian line anteriorly; but sometimes a group fails to be developed, or there may be more than one group in each region.

Herpes zoster is by no means confined to the trunk. It may attack any cutaneous nerve, though it has preferences. On the head branches

of the fifth, especially, the supra-orbital are frequently affected. Herpes, when symmetrical, which it very rarely is, is said to be generally of syphilitic origin.

In nearly all cases the disease does not recur; but there are exceptions, one of the most notable being Kaposi's case, in which there were nine distinct outbreaks.

The affection is more common in children than in adults, and in girls than boys. It is rare in infants. Nevertheless, Lomer reports a case occurring in an infant four days old; and, to go to the other extreme, Frich observed in a man æt. 75 a typical case of herpes zoster affecting the entire right side of the neck and face, corresponding with the lower region of the cervical plexus. After ten days of suffering, total paralysis of the right facial nerve suddenly set in. The pain and paralysis gradually diminished and finally disappeared.

In regard to the pathology, it is certain that zoster is produced by an irritative condition in any part of the tract from the cord to the periphery of the nerve supplying the area of skin which is affected.

That zoster is a neurosis it is now anatomically proved. The lesions most often found are: (1) An interstitial neuritis of the posterior ganglion; (2) an interstitial neuritis of the nerve trunk issuing from it; (3) an interstitial neuritis of the posterior spinal root between the cord and ganglion; (4) chronic inflammation of the posterior columns of the cord, the posterior root, ganglion and nerve being unaffected.

The lesion is not necessarily inflammatory hæmorrhage into the Gasserian ganglion, and canda equina have caused herpes frontalis and cruralis respectively.

The occurrence of zoster in persons taking arsenic has now been sufficiently often noted to point to an etiological relationship, and one which is readily explained by the toxic action of arsenic on the peripheral nerve endings. It must, however, be stated that many authorities regard herpes zoster as an acute specific and infectious disease, and in many of its features it certainly presents a family likeness to the exanthemata. It has a definite duration, it is anteceded by pyrexial symptoms, it presents eruptive phenomena which go through stages of maturation and decline; that it generally occurs in small epidemics, recurring regularly in spring and autumn; that it is very unusual for a person to be affected twice, and that the various epidemics exhibit a similarity in the severity or mildness of the majority of cases occurring in any one epidemic. There are, however, so many sporadic cases which can be traced to a definite cause that epidemic influence can only rank as one of the etiological items.

In regard to its causation, it is well to remember that in not a few instances herpes zoster has been found occurring in connection with caries of the spine, and in all cases of zoster it is worth while to examine the spine, since the eruption may be the result of lesions starting in the spinal column.

The diagnosis is usually not difficult. The large size of the vesicles in herpes, which dry up instead of rupturing and discharging, and the nerve distribution are distinguishing features from eczema.

It is doubtful if treatment has any effect on the duration of the disease. If the neuralgia persists, hypodermic injections of morphia are sometimes required. The continuous current applied before the appearance of the eruption will sometimes abort the impending attack

AN ACADEMY OF MEDICINE FOR TORONTO.

At a recent meeting of the Toronto Medical Society, on seconding a resolution looking to the securing of more commodious quarters for the Society, Dr. C. R. Dickson took occasion to remark that his chief object in supporting the motion was the hope that it might prove the initial step in bringing together the various medical societies of the city, and the formation thereby of an Academy of Medicine, where all might meet occasionally on a common ground, while the rights and privileges of each existing society would not be interfered with, the result of which would be a conservation of energy as of interest, of time as of means, and withal, increased attendance and increased usefulness for all concerned.

Dr. Dickson described a visit which he had paid a few days previously to the Buffalo Academy of Medicine, and the harmonious and eminently satisfactory manner in which its work was carried on. Buffalo, until within a few years, had labored under the same disabilities as Toronto in the matter of multiplicity of medical societies, with their demands upon the time and energy of the busy practitioner who wished to be a member of more than one; but in 1892 a change was decided upon at a joint meeting of the societies, and now instead of the Medical and Surgical Association, the Obstetrical Society, the Pathological Society, and the Clinical Society, we find, respectively, the following "Sections" of the Academy of Medicine, viz: a Section on Surgery (including Ophthalmology, Otology, Laryngology, Genito-urinary and Orthopedic Surgery); a Section on Obstetrics and Gynæcology; a Section on Anatomy, Physiology and Pathology; and a Section on General Medicine (including Materia Medica and Therapeutics); with a provision for future Sections if necessary. Each of these Sections has its own Chairman and Secretary, and each prescribes its own requirements for admission and other regulations for its government in harmony with the general regulations of the Academy. The Sections meet in rotation, each, once in four weeks; the stated meetings of the Academy are held quarterly, and at the commencement of the season there is issued a complete programme in a neat and concise form; thus we find items of interest for each Tuesday evening from September 14th, 1897, up to June 28th, 1898.

The officers of the Academy are the President, four Vice-Presidents (the Chairman of the aforesaid Sections) Secretary, Treasurer, three Trustees, and a Board of Councillors consisting of the above-mentioned officers, secretaries of Sections, and the President of the preceding year.

From all of which it must appear that there should be no great difficulty in bringing about a similar happy condition of affairs in our own medical circles, a consummation devoutly to be desired, and it is a matter for congratulation that at the very next meeting of the Toronto

Medical Society following that referred to above, a committee was appointed consisting of the President, Treasurer, and Drs. Machell and Ross, to confer with similar committees of the other medical societies in the city with a view to the establishment of an Academy of Medicine.

We trust that this committee will leave no stone unturned to accomplish this most desirable object, and that ere long we shall witness the establishment of the Toronto Academy of Medicine. We are aware that in the Pathological Society some years ago an attempt was made to set such a scheme going, so that probably all existing organizations will be ready to acquiesce, more particularly as there is no loss of identity or autonomy. The success of the change in Buffalo means equal success here if the scheme is carried through.

SYPHILIS AND CIVILIZATION.

One of the most notable communications presented at the late International Congress at Moscow was that by the distinguished Austrian alienist, Krafft-Ebing, on the etiology of progressive paresis. It created the more sensation from the fact that it coolly reported a pathologic experiment of a character that would of all others be likely to call out comment and reprobation from those who are always ready to criticise such attempts to increase our knowledge at the apparent expense of patients under medical care. A much less obviously equivocal one by a Baltimore professor has led to some severe comments from the other side of the water, and it is rather remarkable that thus far we Americans, against whom Europe seems at present to have a general grudge on political and economic grounds, should have been so forbearing under a still more aggravating occasion.

While Krafft-Ebing's experiment of inoculating paretics with chancre virus to demonstrate their non-inoculability by syphilis and hence their prior syphilisation, was certainly a bold experiment to report, and certainly open to sentimental if not to other more weighty objections, it is a very interesting fact, and, in the main, is strongly confirmatory of the opinion that is now all but general, that paresis is a sequence, if not a direct result of syphilitic infection in a vast majority of cases—indeed, it may probably be said that it is such in all but very exceptional instances. His deduction from this with the other data we have on the subject that its two great etiologic factors are, as he puts it, syphilisation and civilization, the stress of modern life acting on a system prepared by the results of earlier infection, is likely to be accepted as the correct one by alienists generally, though there are yet, and possibly may be for a long time in the future, some few who will reject it against all the weight of evidence in its favor.—*Editorial Journal American Medical Association.*

DRUG ERUPTIONS.—The addition of a small amount, say $\frac{1}{10}$ grain, of arsenious acid, is of material aid in preventing the appearance of drug eruptions, as of the bromides, salicylates, iodides, etc.—HELLER.

PUBLISHERS' DEPARTMENT.

ANGIER'S PETROLEUM EMULSION is comparatively a new preparation in Canada, but has been used in the United States and England for years. It is devoid of the unpleasant fishy odor of cod-liver oil, and proves about as efficacious; and, like creosote, possesses a tonic action on the stomach, and is also a germ destroyer; and wherever it has been used it meets with general favor by the profession.

NEW BUSINESS OFFICE FOR THE "LANCET."

We extend a cordial invitation to the profession to call upon us at our new offices in the Gray Building, 24-26 Wellington Street West.

We want our subscribers to feel that these offices are always at their disposal, and Mr. Gray, our Business Manager, will be glad to do everything he can to make a visit a pleasant and profitable one for all who may call upon us.

NOT A SINGLE MISHAP.

The magnificent reputation acquired by Parke, Davis & Co's. Serum in hospital and private practice remains unmarred by a single fatality or accident, and this complete immunity may be in part attributed to the germ-proof, hermetically sealed glass bulbs in which the Diphtheria Antitoxin is marked.

Thousand of physicians will bear out the statement made by Dr. Burt Russel Shurley, Laryngologist to the Detroit Poor Commission, "Its injection is as harmless as that of so much pure water."

DOMINION DYEWOOD & CHEMICAL CO.—We beg to call attention to the advertisement of the Dominion Dyewood & Chemical Company, Toronto, who are sole agents in Canada for "Friedr, Bayer & Co.'s Products."

The high reputation enjoyed by Messrs. Friedr, Bayer & Co. throughout the world as manufacturers of pure products need not be dilated upon. Their many new preparations may now be had from the Dominion Dyewood & Chemical Company, who will be glad, on application, to furnish the profession with special literature dealing with these special products.

CONSUMPTIVES' DIET.—The many virtues of Kefir Kunung have long been known in cases of Tuberculosis and Wasting Diseases. It is stated by travellers in Armenia, where Kefir is a daily food, that cases of Phthisis are very rare. In New York city it has yielded excellent results for some years past, but in the smaller cities it has never been at the disposal of the profession.

The first genuine Kefir to be made in Canada can now be obtained from a reliable maker. It is a safe food in every sense. The milk is sterilized by live steam. The casein is very minutely sub-divided, and the thorough peptonization of the albuminoids is proved by its thick, creamy consistence.

The Medical Profession having discovered the usefulness of "Liquid Extract of Malt," both as a remedial agent and food product, and Canadian Barley Malt being the recognized standard of quality all over the United States and Canada, another field has been opened for manufacturers in this country.

In this connection we have pleasure in calling the attention of our readers to an advertisement on another page regarding "O'Keefe's Liquid Extract of Malt." Both the well-known facilities of "The O Keefe Brewery Co., Ltd.," for the preparation of such an article and the extensive reputation which Mr. W. Lloyd Wood enjoys for handling only the best goods, should be a sufficient guarantee for the quality of this preparation.

SOMATOSE IN CASES OF DEFICIENT LACTATION.—The following case, reported by Dr. W. I. Thayer (*Americ. Homeop.*, July, 1897), illustrates better than any extensive discussion the beneficial results obtained from its use in this class of cases: "A primipara who secreted only a limited amount of colostrum, and kept that up so that the child was crying from hunger and had to be artificially fed, was put upon Somatose, 4 teaspoonfuls a day, and in 3 days the patient secreted a sufficient quantity and quality of milk to satisfy the child, which increased one-fourth of a pound regularly each week. It seemed difficult to induce the mammary glands to perform their proper function; but when Somatose was given there was a normal supply of milk, and the child was properly nourished without artificial feeding."—*The Trained Nurse*, December, '97.

We have to announce a change in the head office of the Canadian Branch of Messrs. Scott & Bowne, the well-known manufacturers of that standard preparation, Scott's Emulsion. Mr. Charles Fowler, who has had the management during the past year, having returned to the head office in New York, has been succeeded by another New Yorker, Mr. Geo. C. Hawkins, who, although he has been here but a very short time, is already spoken of in the most extravagant way by the members of the profession with whom he has come in contact. This is only what was to be expected, and the LANCET predicts an exceptionally improved year for this standard old remedy under such careful, courteous management. Mr. Hawkins is no novice at this business, he having been brought up, as he laughingly expresses it, on Scott's Emulsion. Beginning his business career with the firm and remaining with them steadfastly until the present time, he rapidly evinced a marked adaptability for this particular line. He was quickly promoted, until having given every evidence of being possessed of executive ability in an exceptionally marked degree, he was entrusted with the present responsible position of General Manager of the entire Canadian trade. Mr. Hawkins has more the appearance of one of our big, rugged specimens of a Canadian than what we usually see in a New Yorker. Mr. Hawkins will be delighted to meet any member of the medical profession at any time at the Toronto office, 55 Front Street West, and will be only too pleased to expound the merits of Scott's Emulsion of Cod Liver Oil.

LIFEBUOY

ROYAL - - - DISINFECTANT

SOAP.

LEVER BROTHERS, Limited, Port Sunlight, England, Proprietors of SUNLIGHT SOAP, have received the following Report on LIFEBUOY ROYAL DISINFECTANT SOAP from Dr. Karl Enoch, Chemisch, Hygienisches Institut, Hamburg:—

The examination of the sample of "Lifebuoy Royal Disinfectant Soap," furnished to me by Messrs. Lever Brothers, Limited, of Port Sunlight, England, gives the following results as to its action as a disinfectant:—

Solutions of 1, 2 and 5 per cent. of Lifebuoy Royal Disinfectant Soap in water were made. These solutions were brought to bear on a variety of clean cultivated microbes (Bacillus), in each case a certain exact time being allowed for the operation; and thus the capacity of this Soap for destroying the various live and growing germs was proved. To carry out this the following species of germs or microbes, amongst others, were used:—

1. Typhoid Microbe.
2. Cholera Microbe, taken from Hamburg and Altona.
3. Diphtheria Microbe.
4. Carbuncle or Boil Microbe.

THE RESULTS were as follows:—

1. The obstinate Typhoid Microbes, with the 5 per cent. solution, were dead within 2 hours.
2. The operation of this Soap on the Cholera Microbes was very remarkable, and showed this soap to be in the highest degree a disinfectant. These were taken from persons who died of Cholera in Hamburg, and showed a result as follows:—

With the 2 per cent. mixture, Cholera Microbes were dead within 15 minutes. With the 5 per cent. same were dead within 5 minutes.

3. The Diphtheria Microbes were killed after 2 hours with the 5 per cent. solution.
4. The 5 per cent. solution was tried on fresh Carbuncle germs, and the result showed that the Microbe life was entirely extinct after 4 hours.

From the foregoing experiments it will be seen that the Lifebuoy Royal Disinfectant Soap is a powerful disinfectant and exterminator of the various germs and microbes of disease.

(Signed) KARL ENOCH,
Chem. Hygen. Inst. Hamburg.

A DOCTOR'S OPINION: "We cannot overrate the value of cleanliness of person, that is, of clothes and body. The bath, whether it be the daily cold tub, the evening warm bath, or the weekly Turkish, does far more than most people would believe. To avert sickness and maintain the body in health, such a soap as LIFEBUOY soap is beyond all praise; its softness and purity must commend it to all."

TWYFORD, BERKS, ENGLAND. DR. GORDON STABLES, R.N.

A NURSE'S OPINION: "I think it right that you should know I used your LIFEBUOY soap for patients' clothes and rooms extensively throughout the late epidemic. I never travel without it, and have found it invaluable. The more I use it the better pleased I am."

L POLLARD,
5 PATSHULL ROAD, KENTISH TOWN, ENG. [Late Nurse of the R.H.S. and other Hospitals.

LIFEBUOY SOAP is guaranteed perfectly pure, and free from any injurious chemicals. As a Cleanser, Purifier and reliable Disinfectant it is simple in use and pleasant in operation.

DIRECTIONS FOR USE: You can use LIFEBUOY SOAP in the same way that you use SUNLIGHT SOAP—in hot water, cold water, hard water, or soft water. Its daily use in every household will conduce in every way to health, long life and happiness.

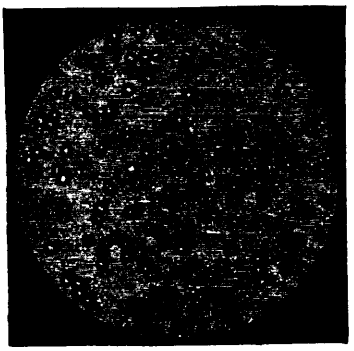
"The greatest therapeutic discovery of the age, and of the ages, is that where we cannot produce good blood we can introduce it."

What is Hæmatherapy?

A New Thing—and a New Name which, though literally translated (Blood Treatment), may not convey to every one a definite idea. It is a treatment which consists in opposing to a condition of disease the very power—good and sufficient Blood—that would naturally prevent it, that would still cure it spontaneously, and that actually does cure it spontaneously, wherever the blood-making work of the system is perfectly efficient; and therefore also *will* cure it, if a deficiency of the vital element be supplied from without, under proper medical treatment.

That Blood is such a power as here described, is an undisputed physiological fact. Its transmission from one animated organism to another, for the purpose of supplying a defect in the latter, is the substance of the Blood Treatment; and How to Do this, in different cases, is the form or description of the same. Blood may be taken from a healthy bullock (arterial blood—elaborated with due scientific skill); or it may be obtained in the well-attested living conserve known as bovinine, from any druggist; and may be introduced into the veins of the patient in either of four ways, that may be most suitable to the case: viz.: by the mouth and stomach; by injection, with one-third salt water, high up in the rectum; by hypodermical injection; or by topical application to any accessible lesion.

A Film of Bovinine: Showing the Blood-corpuscles Intact.



Micro-photographed by Prof. R. R. Andrews, M.D.

THE CURE OF PULMONARY CONSUMPTION

is one of the latest and most wonderful developments of Blood Power—introduced mainly by the mouth, and sometimes also by spraying bovinine into the trachea by an atomizer. Every week of judicious internal blood treatment, with proper medical and hygienic care, has resulted in steady improvement as to all symptoms, with scarcely an instance of check, much less of relapse, until complete apparent cure, and that in the more advanced stages of the disease. As further examples, may be mentioned: Anæmia, Cholera Infantum, Typhoid Fever, Hæmorrhagic Collapse, and many other of the most dangerous and aggravated diseases.

IN SURGERY: A CHRONIC ULCER,

of no matter how long standing or obstinate and aggravated character, can be cured with certainty—at least, the first instance of failure has yet to be heard of—by constant application of bovinine to the wound with proper surgical treatment and sterilization. Such cases are usually cured in from four to six weeks. So of traumatic injuries of all kinds; carbuncles, fistulas, abscesses, and even gangrene.

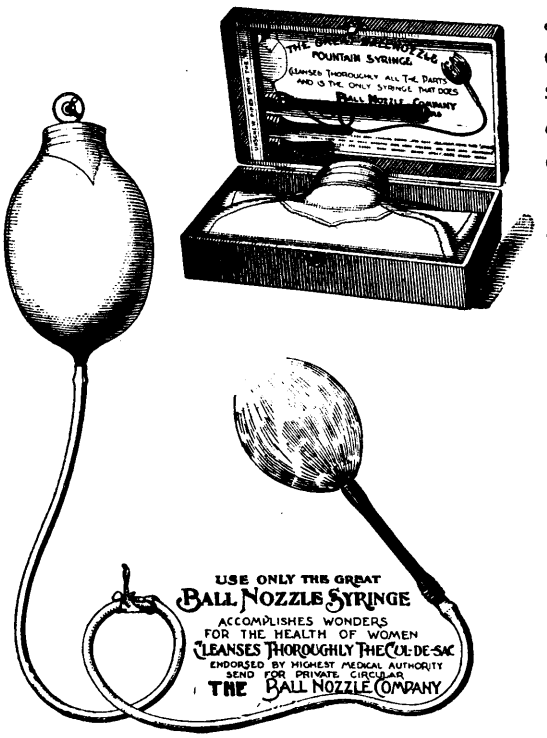
NUMEROUS CLINICAL REPORTS

of well known Physicians and Hospitals, where the Power of Supplied Blood is constantly relied on as a cardinal factor in the cure of disease and support of surgery, are at the service of every practitioner who desires to keep up with the progress of his profession, and may readily be obtained (including, of course, the technique and subsidiary treatments pursued) by applying to

THE BOVININE COMPANY, 75 West Houston Street, New York.

NOTICE

The Management of CANADA LANCET would be obliged if those in arrears would kindly send cheque for amount of subscription. The date on address will indicate the date from which to reckon amount due.



The Ball Nozzle Syringe diffuses a soft, gentle, conical-shaped film of water, *reaching every part of the vaginal cavity*, cleansing thoroughly the mouth and neck of the womb and the *cul-de-sac*, and removing therefrom every particle of foreign matter, the presence of which is the cause of disease, pain and suffering. Its effect is one of gentle bathing, or spraying, rather than one of percussion, such as follows the application of a solid straight stream. This absence of force is absolutely necessary in applications to sensitive organs. The stream is curved in every direction, and is a hollow stream; it is therefore impossible for it to enter a practically straight canal such as the uterine canal.

The Ball Nozzle Syringe

Accomplishes Wonders for the Health of Women.

Endorsed by the Highest Medical Authorities. . .

SEND FOR PRIVATE CIRCULAR.

MANUFACTURED BY . . . . . .

The Ball Nozzle Co. Limited

Confederation Life Building, TORONTO.

Canada Lancet.

SPECIAL CLUB RATES, 1898.

SUBSCRIBERS to the CANADA LANCET who pay in advance will be supplied with any of the following Standard Publications at greatly reduced rates, direct from the office of publication:

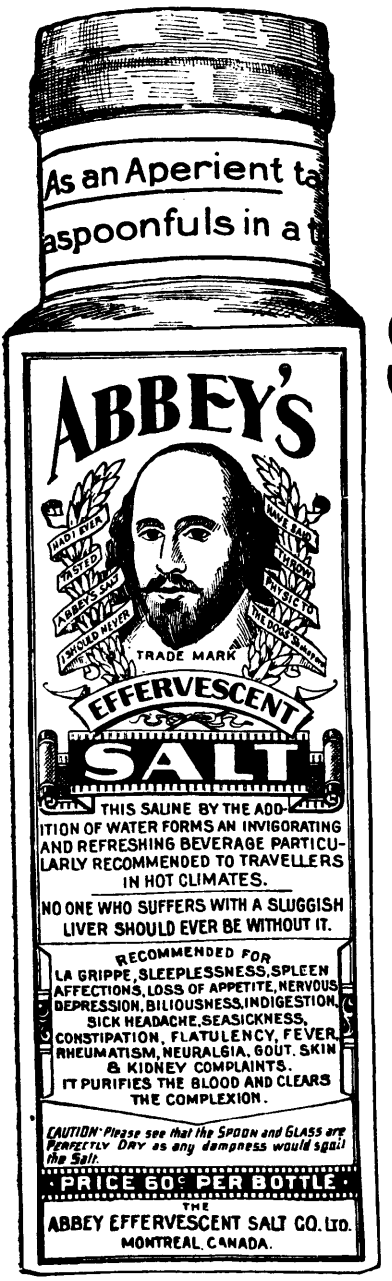
	Publisher's Price	With Lancet
Braithwaite's Retrospect	$2 50	$5 00
London Lancet, Eng. Ed. (weekly)	8 00	9 00
British Medical Journal (weekly)	8 00	9 00
Medical Press and Circular (weekly)	7 00	8 00
Archiv. Gynæcol. Obstet. and Pedriates (mon.)	3 00	5 50
Practitioner, English (monthly)	4 00	6 25
" American "	3 00	5 50
" Canadian "	3 00	5 50
London Medical Record (monthly)	5 00	7 00
Med. and Surg. Reporter, Phila. (weekly)	5 00	7 00
New York Medical Journal (weekly)	5 00	8 00
Philadelphia Medical Times (bi-weekly)	2 00	4 50
Montreal Medical Journal	3 00	5 50
Journal American Medical Association	5 00	7 00
College and Clinical Record	2 00	4 50
Century Magazine	4 00	6 00
St. Nicholas	3 00	5 50
Edinburgh Review	4 00	6 25
Quarterly Review	4 00	6 25
Popular Science Monthly	5 00	7 50
Harper's Monthly, Weekly or Bazar	4 00	6 25
Harper's Round Table	2 00	4 50
Scientific American	3 20	5 75
" " Supplement	5 00	7 00
Frank Leslie's Monthly	2 50	5 00
" " Sunday Magazine	2 50	5 00
" " Weekly	4 00	6 25
Atlantic Monthly	4 00	6 25
Youth's Companion	1 75	5 50
Littell's Living Age	6 00	8 00

☞ The amount of subscription, **in advance**, must, in all cases, accompany the order. This is imperative, as we have to transmit cash with all orders for publications. Subscriptions may begin at any time.

Address all orders to

The Canada Lancet Office,
585 Church Street,
TORONTO.

ABBEY'S . . .



Effervescent Salt

A pleasant effervescing aperient, taking the place of nauseating mineral waters. Recognized and prescribed by eminent members of the profession in Great Britain, Europe and Canada.

PICTON, ONT., Aug. 26th, 1897.

I am, both in person and in my professional work, greatly indebted to the preparations introduced by Messrs. Brand, and in particular their well-known Essence of Beef. From experience in a considerable number of cases of continued fever, pneumonia and other exhausting diseases, among which typhoid fever deserves especial mention, I can speak most highly of the strengthening properties of the Essence. In ulcerated stomach, whether simple or malignant, and in intractable dyspepsia, not only can the Essence be borne without discomfort, but frequently paves the way to the exhibition of other forms of nutriment. After surgical operations, nothing I have found more rapidly relieves the patient from shock and from the nausea following anaesthetisation than the repeated administration of the Essence with or without the accompaniment of alcoholic stimulants. In short, as a tonic, a stimulant and a very perfect food, I am sure the preparation deserves the attention of every medical man, and the profession, no less than the public, are indebted to Messrs. Brand, the inventors, for a boon of the utmost value in the very class of diseases most fraught with trouble and anxiety.

ARTHUR W. HARE,
M.B.C.M., M.R.C.S., F.R.C.S.E., F.R.S.E.

Formerly Prof. of Surg. Owens Coll., and Examiner and Professor in the Victoria University, etc., etc.

BRAND & CO., LONDON, ENG.