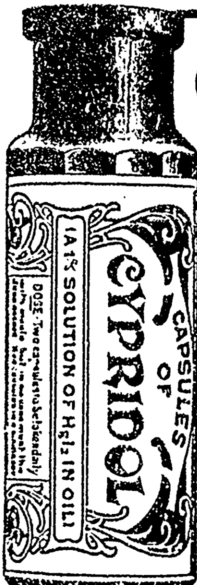
Western Canada Medical Journal

A MONTHLY JOURNAL OF MEDICINE
SURGERY AND ALLIED SCIENCES

TWO DOLLARS A YEAR

WINNIPEG. CANADA

VOL. II. JUNE, 1908. NO. 6



CYPRIDOL
in
SYPHILIS

Cypridol is the *specific bin-iodized oil* (1% strength) of Fournier, Panas and other French specialists; preferable to other mercurial preparations, since it does not cause diarrhoea or salivation.

Administered by deep intramuscular injections in the gluteal region, or in capsules by the mouth, each of which is equivalent to 1-32nd of a grain of red iodide of mercury.

Dispensed in original bottles of 50 capsules, and in ampulas of 2 c. c. each, or in 1 ounce bottles for injection.

Prepared in the laboratories of VIAL of Paris.
Agents, E. FOUGERA & CO., New York

In all disorders of the respiratory tract in which inflammation or cough is a conspicuous factor, incomparably beneficial results can be secured by the administration of

Glyco-Heroin (Smith)

The preparation instantly diminishes cough, augments expulsion of secretions, dispels oppressive sense of suffocation, restores regular, pain-free respiration and subdues inflammation of the air passages.

The marked analgesic, antispasmodic, balsamic, expectorant, mucus-modifying and inflammation-allaying properties of GLYCO-HEROIN (SMITH) explain the curative action of the Preparation in the treatment of

Coughs, Bronchitis, Pneumonia, Laryngitis, Pulmonary Phthisis, Asthma, Whooping Cough

and the various disorders of the breathing passages.

GLYCO-HEROIN (SMITH) is admittedly the ideal heroin product. It is superior to preparations containing codeine or morphine, in that it is vastly more potent and does not beget the bye-effects common to those drugs.

Dose.— *The adult dose is one teaspoonful, repeated every two or three hours. For Children of more than three years of age, the dose is from five to ten drops.*

Samples and exhaustive literature bearing upon the preparation will be sent, post paid, on request

MARTIN H. SMITH COMPANY.
NEW YORK, U.S.A.

Western Canada Medical Journal

GEORGE OSBORNE HUGHES, M.D., *Editor.*

REGINALD PHILLIPS, *Business Manager.*

Commonwealth Block, Winnipeg, Man.

Published on the Fifteenth of Each Month

VOL. 2. JUNE, 1908 No. 6

INDEX TO CONTENTS

INFANT MORTALITY....... ....B. G. Brock, M.B. 249

PUERPERAL SEPTICAEMIA ....J. C. Black, M.D. 259

EDITORIAL ....
A Western Canada Medical Association——Teaching of Clinical Surgery. 268

WINNIPEG CLINICAL SOCIETY.. 273

MEDICAL NEWS 288

BOOK REVIEWS .... 29[illegible]

NOTICES 296

NOTICES

Subscription price Two Dollars per annum in advance, postpaid. Single Copies 25 Cents.

Advertising rates to be had on application.

Remittances at the risk of the sender, unless made by Registered Letter, Cheque, Express Order or Postal Order.

Subscribers not receiving their Journal regularly would confer a favor by reporting such to the "Business Manager."

Original Articles, Letters and Reports should be addressed to "The Editor," P.O. Box 450 Winnipeg.

All Business Correspondence should be addressed to "The Business Manager," P.O. Box 450, Winnipeg.

HORLICK'S MALTED MILK

The Original and
and Only Genuine

A safe and complete food product for infants and invalids which eliminates the dangers of milk infection. Especially indicated during the Summer months in Cholera Infantum, Dysentery, and other infantile diseases peculiar to the heated term. Beneficial in adult cases, also, in which the digestive powers are impaired.

That Your patients may obtain the best as well as the original and only genuine, always specify "Horlick's."

Samples sent, free and prepaid, to the profession upon request.

HORLICK'S MALTED MILK COMPANY
RACINE, WIS., U.S.A.

GILMOUR BROS. & CO., MONTREAL
SOLE AGENTS FOR CANADA

SUMMER TOURIST
RATES

THIRTY DAY and SEASON tickets now on sale to all points in

Eastern Canada and New England States.

Choice of Routes, via St, Paul, Chicago and **Grand Trunk Railway** or Port Arthur, Northern Navigation Company, Sarnia and **Grand Trunk**

Stop-Over privileges allowed. **Free Side Trips to Niagara Falls** and **Ottawa** on certain tickets.

Agency for Ocean Steamship Lines and Cook's Tours

For full particulars apply to

A. E. DUFF

General Agent Passenger Department

260 PORTAGE AVE. **Phone 7098**

Voigtländer MICROSCOPES

are the embodiment of the highest quality and mechanical skill. All the latest improvements are utilized, and the eye-pieces and objectives are unexcelled for optical accuracy and efficiency.

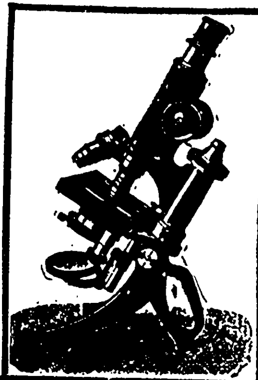
The world-wide reputation of VOIGTLANDER Microscopes among expert microscopists is based on merit and scientific utility.

Careful and prompt attention given to duty-free importations for institutions of teaching or research. Catalog No. 370 free on receipt of request referring to this journal.

VOIGTLANDER and SOHN, A. G. OPTICAL WORKS—NEW YORK—225 Fifth Ave.

Or any other dealer in the United States.

Factory: BRUNSWICK, GERMANY.



Practice for Sale—A well-established Practice and Drug Store in Manitoba Town, surrounded by well-settled country. For particulars apply to

M. D. C. M.

Care Western Canada Medical Journal

To Physicians

We respectfully ask that *YOU* prescribe

COLUMNIAN SPIRITS

for Bathing, Rubbing and all External uses. It is an absolutely pure Methyl Spirit, free from all foreign substances and odors. This spirit is not a deodorized alcohol, but made pure by a fractionating and distilling process.

Write for further data and samples

The Standard Chemical Company of Toronto

Limited

HEAD OFFICE — — TORONTO

The Homewood Sanitarium

Guelph, Ontario

For Mental and Nervous Diseases.

Unequalled in Buildings and Equipment.

Conducted strictly on ethical principles.

Handsome new building, splendidly equipped, opened in 1907.

Most improved Hydrotherapeutic apparatus.

Special attention to mental cases requiring gynecological treatment.

A limited number of habit cases received in separate departments.

Beautiful, secluded, well-wooded grounds—essentially private.

Provision for recreation according to season.

Situated 48 miles west of Toronto on Grand Trunk and Canadian Pacific Railroads.

For particulars and booklet apply to

DR. A. T. HOBBS,

Medical Superintendent

The Pinnacle of Therapeutic Success can only be attained by the Timely use of Proper Remedial Agents

Antiphlogistine

(Inflammation's Antidote)

affords the most scientific method of combating Inflammation and Congestion. It is of especial benefit in the conditions incident to the summer season.

In ENTERO-COLITIS, and other Inflammations of the abdominal and pelvic viscera, Antiphlogistine proves a satisfactory adjuvant to treatment, as it produces a depletion of the enteric and peritoneal vessels, stimulates the reflexes and relieves the pain, tenesmus and muscular rigidity.

In SPRAINS and WRENCHES, the stretching or tearing of the ligaments, contusion of the synovial membrane and damage to vessels and nerves are best controlled by Antiphlogistine, which distinctly aids in the reconstruction of the part. The absorption of the liquid exudate from the swollen tissues and the free circulation of blood in the seat of the injury greatly hastens the process of repair.

THE DENVER CHEMICAL MFG. CO.

New York

LISTERINE

The original antiseptic compound

Awarded Gold Medal (Highest Award) Lewis & Clark Centennial Exposition. Portland, 1905; Awarded Gold Medal (Highest Award) Louisiana Purchase Exposition, St. Louis, 1904; Awarded Bronze Medal (Highest Award) Exposition Universelle de 1900, Paris.

Listerine represents the maximum of antiseptic strength in the relation that it is the least harmful to the human organism in the quantity required to produce the desired result; as such, it is generally accepted as the standard antiseptic preparation for general use, especially for those purposes where a poisonous or corrosive disinfectant can not be used with safety. It has won the confidence of medical men by reason of the standard of excellence (both as regards antiseptic strength and pharmaceutical elegance), which has been so strictly observed in its manufacture during the many years it has been at their command

The success of Listerine is based upon merit
The best advertisement of Listerine is—Listerine

LAMBERT PHARMACAL CO.
ST. LOUIS, U. S. A.

PHENOL-PHTHALIEN

For the Treatment of

CONSTIPATION

Acts without pain or discomfort to the patient.

C. T. PHENOLPHTHALEIN
$1\frac{1}{4}$ Grs.
(Ct. No. 197 Frosst)
Dose—1 to 4 Tablets.

C.C.T. Pheno-Tonic Laxative
(C.C.T. No. 212 Frosst)
Phenolphthalein .... ½ gr.
Ext. Nux Vomica .... ¼ gr.
Ext. Cascara Sagrada .... 1 gr
Dose—1 to 3 tablets, three times daily.

C. C. T. PHENO-ACTIVE
(C.C.T. No. 213 Frosst)
Phenolphthalein .... ¾ gr.
Aloin .. ..1-5 gr.
Ext. Belladonna .... 1-16 gr.
Strychnine .... 1-120 gr.
Ipecac ....1-16 gr.
Dose—1 to 2 tablets night and morning.

Literature and Samples upon Request.

Charles E. Frosst & Co., Montreal

WESTERN CANADA MEDICAL JOURNAL

VOL. II. JUNE, 1908. No. 6

ORIGINAL COMMUNICATIONS.

*INFANT MORTALITY

BY

W. G. BROCK, M.B.; D.P.H.

Medical Officer of Health, Germiston, South Africa.

In dealing with this subject in last year's report, it was pointed out that infant mortality resulted chiefly from two groups of causes.

(a) Wasting Diseases,

(b) Diarrhoeal Diseases,

and attention was chiefly directed to the consideration of the first and more important of these, the probable cause being considered and the means that should be taken to modify, lessen, or protect against their ravages for the present referred to, and it was stated that the only rational way of providing effective protection to the white population against them in the future was by educating the young of both sexes to understand the dangers of the disease mostly responsible for the production of this group of causes, and to appreciate the importance of protecting themselves against it.

It is desired again to emphasise the necessity and importance of this education as the only way of providing any means of protection against the spread of this disease worthy of the name. Without it other protective measures, no matter how

*Refer to August, 1907.

excellent these may be, would be futile, would be a waste of money and energy, and still more important a waste of time.

Year after year this spread of syphilis in the white population is becoming more and more serious,* and with the advance of time the problem of staying its progress and of limiting its evil effects becomes one of constantly increasing magnitude. The sooner the position is clearly realized and met the more easy will the task be. It must of necessity even now be a large undertaking; but however large this might prove to be, the preservation of the health and fine physique of the population is an end that more than justifies the prompt and serious consideration of this subject by the country.

In last report when speaking of natives in regard to this disease as a source of danger, your Medical Officer said: "In regard to natives it is an interesting fact, that, up-country at all events, they show remarkable tolerance of the disease, and under treatment, to all appearance, throw it off in a manner unknown in Europeans". To correct a misapprehension which seems to have been conveyed by the wording of this sentence, he desires to add, that while this is so, it is not to be taken that the disease is cured, indeed it is far otherwise. The disease may be thrown off "to all appearance" and to such an extent that it may be quite impossible by examination to detect any clear signs of it, although it may be, and often is present in a communicable form. All that was meant to be conveyed was that these people "show a remarkable tolerance of the disease."

The notified causes of infant deaths, with the age distribution in months of these deaths and the percentages of the total infant deaths for each cause are given in the following table:—

* The extent to which it is spreading from Native to European in South Africa, may be in some measure realized by reading the experience of the Cape Colony as related by the M. O. H. for Cape Colony, in his report for 1906.

Group	DISEASE	Age Distribution in Months 0-1	1-2	2-3	3-6	6-9	1-22	Total	P.C. of Total Infant Deaths
1st Group	Congenital Defects	1	—	—	—	—	—	1	1·235
	Premature Birth...	7	—	—	—	—	—	7	8·641
	Marasmus............	—	1	1	4	—	—	6	7·407
	Inanition, etc.......	4	—	—	2	—	—	6	7·407
2nd Group	Diarrhœa, Gastro-enteritis......	—	2	6	4	12	8	32	39·506
	Dysentery	—	—	—	—	1	—	1	1·235
3rd Group	Bronchitis	2	1	—	1	I	5	5	6·173
	Pneumonia	3	1	—	1	—	9	9	11·111
	Convulsions.........	1	—	—	—	—	1	1	1·235
	Meningitis...........	—	—	—	—	2	3	3	3·704
	Measles...............	—	—	—	—	1	2	2	2·499
	Other Causes.........	1	—	1	3	2	8	8	9·876
		19	2	8	15	19	15	81	100,000
	Still Births							10	

Comparing this table with the similar table for the year 1905—6 it is seen that there have been 13 more infant deaths this year than last, and that there is a marked change also in the group distribution, the first group having fallen from 29 to 20, this fall being all in the first month of life. The third group has increased from 14 to 28 — the deaths from causes other than respiratory diseases have increased from 12 to 14, while deaths from respiratory diseases have increased from 2 to 14. In last year's table no deaths from pneumonia appeared. The great increase from the cause (respiratory disease) is in great measure due to the changeable weather conditions which

characterised last summer, although from the fact that five died in the first month of life, there is a probability that some of these at least properly belong to group 1. Ten still births were registered during the year. If these be added to the first group, its percentage of the total infant deaths would be raised to 33, the second reduced to 36.2 and the third to 30.7.

The second group, it will be seen, has increased from 25 to 33, the increase being entirely due to diarrhoea or gastro-enteritis. This increase too, may no doubt be largely due to weather conditions.

In this report the second important group of diseases responsible for infant mortality may be considered more fully than last year, and some indication of their causes given and the measures which may be taken to protect the infant population against them. For the purpose of this report it is convenient to consider the diseases included in this group of diarrhoeal diseases as clinically forming two groups of cases, viz.:—

(1) Simple Diarrhoea.

(2) Epidemic, Zymothic, or Summer Diarrhoea.

Although simple diarrhoea often terminates in epidemic diarrhoea, it is convenient to consider them separately, and to exclude from consideration a certain number of cases for which the group of waisting diseases is really responsible — those cases in which, although life has been prolonged sufficiently for them to die from one or other of the two types of diarrhoea mentioned, the child has been "unfit" from birth.

1. Simple diarrhoea is generally the result of giving the child food unsuitable in quality or quantity, chill from insufficient clothing, careless exposure of the child's limbs, &c.; by these the child's digestion is upset, and vomiting and diarrhoea result. If the child be breast-fed, this as a rule passes off if the child be kept warm. It is, however, in the case of infants fed on food other than the mother's milk, and that of an unsuitable nature, that the disorder is prone to occur (about 90 per cent. of infant deaths from diarrhoeal diseases are of infants who have been hand-fed), and unless proper food be supplied the infant may quickly succumb to its evil

effects, or seeing that the food does not agree with the infant, the mother dilutes the milk or other food to such an extent that "the child can digest it", with the result that the child lingers on for a time finally dying of exhaustion (starvation), or the disease may, as a result of contaminated food, develop into the second and much more serious type, epidemic diarrhoea.

2. Epidemic diarrhoea is the chief cause of infant deaths credited to diarrhoeal diseases. It does not usually occur in infants reared entirely on the breast, hand-fed infants being its special victims, the children of the poor on account of their more generally insanitary surroundings suffer more than the well-to-do, and the infants of dirty people in dirty houses more than those of cleanly parents, in fact it is largely a "dirt disease" and is more a disease of the overcrowded unwholesome parts of towns or cities than of rural districts where more healthy conditions prevail.

Twenty years ago Dr. Ballard connected the disease with bacterial infection and a particular temperature — 56° Fh. Translating his conclusions broadly and in view of more recent knowledge, they might be stated as follows: — That the cause of the disease is some, as yet unknown, microbe which lives and grows on organic matter in the superficial layers of the soil, that this unknown organism flourishes at a summer temperature, leaves the soil by means of air currents or other means, and finds its way into the body of the child by means of contaminated food or otherwise. That it, under favorable conditions, grows in food either inside or outside the body, that in the process of its metabolism it produces a virulent toxin, and that this toxin in the body is the cause of the disease known as summer or epidemic diarrhoea.

Much has been written on the subject by many writers since that time, various organisms have been held by different investigators to be the specific cause; but no one organism has been generally accepted as entitled to that position. Indeed, although his terms were too narrow the broad principles underlying Ballard's statement may be said to be generally accepted to-day as correct, and that the disease is caused by the ingestion of the responsible organism or organisms, their

multiplication in the body with the production of a toxin, or the ingestion of the product of their growth outside the body. The seasonal prevalence being determined by the time when meteorological conditions are most favorable to bacterial growth.

The means by which such organism may gain admission are many: dirty hands and food, allowing infants to roll on dirty floors, allow them to suck a dirty "comforter or dummy, &c. Contaminated stale milk being probably the vehicle that is responsible for the supply of ready made toxin.

It is thus clear that both types of diarrheoa are the result of improper feeding, or otherwise put, that improper food is the chief cause of infant mortality resulting from diarrhoeal diseases. It has been pointed out that 90 per cent. of such deaths occur in infants who have been hand-fed, and that death from epidemic diarrhoea in infants fed wholly on the breast is rare. The following are some of Dr Howarth's figures, quoted by Dr. Newman, for infant death-rates in infants fed on various foods, which illustrate the enormous advantages to the child of being fed on the breast.

Kind of food:—	Death rate per 1,000 fed on each food:—
Breast-fed	69.8
Milk and water only	177.0
Condensed milk only	255.0
Various patent foods	220.0
All patent foods	202.0

In dealing with Dr. Newsholme's figures for Brighton, Dr. Newman says: "Further the probability of death from diarrhoea is forty-eight times as great among infants fed on cows' milk, and ninety-four times as great among infants fed on condensed milk as among those which are breast-fed."

When it is further remembered that nature has provided that the ordinary mother produces the type of milk most suitable for her own child, the best method of protecting infants against the dangers of diarrhoeal diseases and of reducing the high rates from this cause, is clearly that all infants should be breast-fed by their own mothers. Taken literally this would be the advice of perfection; but nevertheless it is the direction to be striven towards. There are unfortunately

mothers who from one good reason or another are quite unable to nurse their own children, there are many more who from ignorance of its importance, desire to evade the trouble, and many other insufficient reasons, will not, or do not give their children what is their right to have — their natural food — who, if they understood the danger to the lives and the certain impairment of the mental and physical health of their children which depriving them of this food means, would make an honest attempt to do their duty towards them. In many places this information is supplied to mothers by lady visitors or lady inspectors appointed by the Local Authority with the most encouraging results. Preston* and Huddersfield may be instanced as examples of these. During the year in a special report on this subject, your Medical Officer advised that something be done in this direction by the appointment of a female inspector, part of whose duty it would be to give such information to mothers and encourage them, especially young mothers, to feed their own children, instruct them in the care of the infant generally, in the preparation of such food as the medical attendant may order for the infant when the mother's milk is lacking or insufficient and explain to them the importance of keeping the child and themselves clean, and thus protect the child against coming in contact with anything liable to convey to it the dangerous germ responsible for setting up the most fatal of the diarrhoeal diseases.

It may be objected that the correct way of providing such instruction and protection is the proper education of girls in the responsibilities which must be theirs in due time, and that by training them in the principles which govern the proper discharge of those responsibilities, just as a lad should be trained in the principles which underlie success in the conduct in the branch of industry by which he is destined to earn his living, no such made-shift aid would be required. The ob-

* "The Infantile Mortality rate in Preston during the three quinquennial periods, ending 1906, was 231,239 and 176 per 1,000 births respectively. This satisfactory fall appears to be due in great measure to the employment of three Women Health Visitors"—Dr. Pilkington, M. O. H., of Preston B. M. J., 16-3-'07.

jection would be just. No one can doubt that this is the only way of meeting and dealing with the case thoroughly; but it takes time, and while such training and instruction is being given to the young, the less desirable and efficient method of aid from lady visitors or inspectors would be of help to those who have not had the good fortune to be instructed in such matters before they assumed the responsibilities and duties of a home of their own.

Until all mothers are so educated, the probabilities are that a large number of mothers will always exist who cannot or will not feed their own children. For the infants of such, some suitable substitute for the mother's milk must be found. Many "patent infant foods" have been put on the market to meet this requirement, all claiming to be a perfect substitute for the mother's milk. Without waste of words it may at once be said that not one of these so-called infant foods in any adequate way meet the requirements of young infants, and should never be resorted to, unless by the direct advice of the medical attendant, who for some special reason consider their use expedient. The condensed skimmed, or partially skimmed milks too, are quite unfit for infant food, and the condensed sweetened whole milks, on account of the large quantity of cane sugar, which must be considered a foreign body in infant food are harmful and undesirable. The unsweetened condensed whole milks are a much better form of infant food, and are very useful in an emergency. They, too, however, in common with other preparations, are when once opened liable to become contaminated and thus be the means of introducing dangerous organisms into the child.

It is generally agreed that the best substitute for the mother's milk is a food that will resemble it as nearly as possible and that the one that within limits, most nearly meets the requirement is usually at hand, viz.:—* the milk of some animal such as the cow, ass, or goat, not alone on account of their resemblance in what is usually called their chemical com-

---

* Wet nursing is not referred to on account of the very great difficulties that have to be met and overcome in the selection of a suitable nurse for this purpose.

position, but also on account of peculiar properties possessed by this fluid which is wanting in other types of food. The milk of the cow is quite as good for the purpose, so far as is known, as that of any other animal, and is, as a rule, the one that is most easily procurable at moderate cost.

From what has already been said it will be readily understood that the first requirement of any such milk intended for infant food, is that it be pure, especially in the sense of being free from harmful organisms. Various methods have been adopted in different countries to meet this requirement. America is the country which seems to have taken the most business-like and efficient means to provide such a clean and wholesome milk. Excellent results have been obtained. These seem in no small measure to be due to the work done by "Milk Commissions" and "Milk Laboratories" and the various charities which enable the pure milks provided by them to be supplied to the children of the poor. Some details of the work of those may be of interest and cannot be better put than in the words of those who have so very kindly supplied them. Dr. Crozier Griffith, who had been for a number of years Chairman of the Milk Commission of Philadelphia, writes:—

"There is no question at all that the effect at the production of better milk in this country has resulted in very "great good and this effort has been initiated almost "entirely by the work of the various milk commissions "and milk laboratories. There has been, however, a "wide difference in the methods which have been "followed. The 'Milk Laboratories' so called were the "plan of Dr. T. M. Roch, of Harvard University, and "were put into practice by the Walker-Gordon Company. No other concern has followed their example. "The plan of this laboratory, as you doubtless know, "was the filling of percentage milk prescriptions sent "by physicians......... The object of the milk commissions, as first planned in Newark, N. J., and first "put on an independent basis in Philadelphia, and since "then adopted in many of our cities and towns, is entirely different from that of the laboratory. The "object is to certify to the purity and percentage

"strength of the ingredients of milks of any dairy apply-
"ing to us. We have nothing to do with the writing
"percentage formulae; but our physicians are interested
"in the productions of home modification, generally
"with top milk mixtures, and having this certified milk
"to work with the matter is easy enough."

Dr. R. G. Freeman, Secretary of the Medical Society of the County of New York, writes:— ....
"As to milk laboratories, the Walker-Gordon Labora-
"tory here fills prescriptions written for milk..........
"If we prefer a whey preparation, that is done for us,
"as well as peptonizing when we desire it. In this
"way I feel that we obtain better results than from
"modification at home.

"In addition for the feeding of poor children there are
"public milk depots which supply suitable milk for the
"different ages.

"The infant mortality in New York has declined nearly
"one-half in the last ten years, as you may learn from
"a reprint which will be sent to you. This I believe to
"be largely due to improved feeding, particularly to
"the milk depots for furnishing milk to the poor."

To be continued.

*PUERPERAL SEPTICÆMIA

BY

J. C. BLACK, M.D.

REGINA, SASK.

By puerperal fever we mean fever due to the various morbid conditions of the female genital tract and the systematic affections dependant thereon which result from infection during labour on the puerpérium by the various micro-organisms.

Passages may be found in the works of Hippocrates and Galen and many other old writers referring to this fever. The ancients regarded the fever as the result of the retention of the lochia. It was not till the early part of the 17th century that any other explanation was offered. At that time Plater showed that it was essentially a metritis from the time of Plater till 1847 when Seemelweis demonstrated its identity with wound infection all kinds of theories were offered concerning its origin as the milk metastasis theory etc.

Almost every organism known has been found to have caused puerpural fever but the most common are the streptococci, staplococci and the gonococci with the exception of the gonococci these germs do not thrive in the genital tract on account of the uterine and vaginal secretion. Baum in an address on the "Relations of the Streptococcus to Puerperal Sepsis" said "In almost all women during pregnancy and childbed and even during labour the streptoccus is found in the vaginal secretion." But he stated he thought nearly all severe infections were introduced from without — Auto — intoxication, however, may occur in rare cases from certain anaerobic organisms that are found in the vaginal secretions.

Symptoms: — In septic endometritis everything goes smoothly for the first three or four days of the puerperium. Then the patient, who has thus far done well, suddenly experiences more or less malaise—possibly has a headache and

---

*Read before the Regina Branch of B.M.A.

towards the end of the third or fourth day has a chill. Then the temperature rises to 103 F. or more. Generally, the chill occurs but once, while the temperature remains constantly elevated. At the same time there is considerable tenderness in the lower part of the abdomen,—the uterus is larger and more doughy in consistency than it should be and is more or less sensitive on pressure. The lochial discharge is usually increased in quantity and is a bloody, more or less purulent secretion, which, in the purely septic forms, is practically devoid of odor. If the temperature is very high, it is not infrequently diminished in amount and may occasionlly almost disappear. The absence of odor is of great importance as in cases due to pure streptococus there is little if any odor.

Another point of importance is the faulty involution of the uterus which plays an important part in the farther spread of the disease. The symptoms of putrid endometritis vary considerably from those of septic form. In this case we have the initial chill and high temperature, but the patient's condition does not appear so serious. The main difference is in the discharge which in putrid cases is abundant, very foul smelling and frequently contains large numbers of gas bubbles which give it a frothy appearance. These cases usually recover.

Between these two well marked cases there are all forms of graduation as we frequently have to deal with mixed infection where we have pyogenic as well as putrefactive organisms.

We frequently have the chill and rise of temperature associated with an ulcer about the vulva or somewhere in the vagina. This does not generally occur alone but in association with an endometritis. In these cases the initial rise of temperature may have gradually subsided and we are congratulating ourselves that our patient has escaped so easily, when suddenly there is a chill and the temperature rises again. This may continue for some time with exacerbations and an evening rise of temperature, but sooner or later we get a mass arising on either side of the uterus from abscess formations within the folds of the broad ligament. This abscess may be limited to the broad ligament, or may follow lymphatics of

pelvic connective tissue along the anterior portion of the pelvis to the neighbourhood of poupart's ligament, or it may extend toward the retro-peritoneal region. The temperature will continue until the abscess is opened or opens spontaneously. It often ruptures into the rectum or bladder. In a certain number of cases the infections extends from the uterus to the Fallopian tubes and gives rise to salpingitis and many cases of pyo-salpinx which are operated on later as the result of such a process.

In a considerable number of cases the peritoneum becomes infected. It may be limited to the portion lining the pelvis when we have to deal with a pelvic peritonitis or it may spread to the whole abdomen.

In pyemia, the initial chill does not occur so soon and the temperature does not remain constantly elevated, but instead we have alternating chill, high temperature and remission. In pyemia we have metastasis in other organs from dislodgment of thrombi and the most common is broncho-pneumonia which frequently ends fatally.

Seemelweis first noticed many more women were infected in the hospitals than in their homes. He attributed this to the examination and handling of the parts by the students and attendants, so he forced all students to wash their hands in chlorine water before making an examination and had the satisfaction of seeing the percentage fall from 10% to 1%.

According to the new pathology of the time any decomposing animal organic matter might cause the disease, therefore puerperal fever must be considered a form of pyaemia. "The carrier of the decomposed animal organic matter is the examining finger, the operating hand, the instruments, bed linen, the atmospheric air, sponges, hands of midwives and nurses and bedroom utensils—anything that can be rendered unclean and then brought into contact with the genitals of the parturient."—With this conviction he took the necessary steps to prevent the access of infection to his patient with the above mentioned results.

For the first decade or two after the publication of the great work of Seemelweis we find that considerable efforts were made in the lying-in hospital to prevent puerpural fever.

To this period belongs prophylactic flushings and the use of the spray during labour, the douchings with antiseptic fluids before, during and after labour, were ultimately proved to be injurious and the use of the spray during labour became a little ridiculous and was soon abandoned. So prophylaxis failed, not without producing much good, and attention was turned to treatment. Wenkel, Fritsch, Von Grünewald and Olshausen, from 1884 to 1890, were among those to write on treatment, but their treatment consisted chiefly in flushing out the vagina and uterus with different solutions as carbolic acid or chloride of lime, etc., but no one recognized the necessity of removing putrid masses of material, and so the occurrence of a few mishaps was sufficient to discourage the pioneers and to strengthen the therapeutists. To Fritsch belongs the honour of being the first to call attention to the necessity of intra-uterine irrigation at the onset of the disease. "The disease can then be eradicated because it is still a local disease, when a severe case is seen only after six or seven days we are certainly powerless"—he wrote.

Fehling in Germany published a book in 1890 in which he advocated vaginal irrigation with carbolic solution, repeating the flushing every two hours. In severe cases he resorted to intra-uterine flushing if the temperature did not sink on the second evening, and there was no parametritis. Fehling gave a modified approval to the use of the curette. When there is ground for suspecting the retention of a piece of placenta or shred of chorion, he advised waiting until the first half of the second week before using the curette. Still, the use of the curette in uncomplicated cases is quite astonishing and more satisfactory than the passing of the finger in and out of the uterus, which was formerly practiced. For peritonitis Fehling had no surgical treatment, but said that when vomiting set in and the pulse remained over 140—all treatment was useless. For some years after this there was much discussion as to the use of the curette. In 1890 Braun Fernwald published results of curetage in all cases where the temperature rose from 100⅗ F. to 102 F. and remained for 24 hours. The mortality was a fraction under 5%. Two years after this Weirs published similar results of sapraemia

as well as septic cases. In the last few years Credes' ointment and serum have been used. Credes' ointment is used as an ointment but rarely injected now. Results from the use of serum have not as yet been published, but it is very highly esteemed by many. The most striking feature of the practice seems to be in the waste of time before curetting or even flushing is resorted to and the delay in injecting serum and the smallness of the dose. In France the use of the curette is general. In America we are also in favour of surgical measures. Most curette and then tampon the uterus, and when this fails they remove the uterus, but this is going out of date as the death rate is from 60% up. In England the opinion is much the same as in America, but they are stronger against hysterectomy. Sir Wm. Sinclair reports five mortalities out of six cases operated on.

The prognosis, Sir Wm. Sinclair says, depends largely upon the time in the puerperium that the symptoms begin: the earlier, the worse. Early onset marked by severe symptoms with rigors was ominous in the extreme. Rigor is the one obvious and infallible sign that a case is septic and that the invading bacteria are having the best of the battle. Whether there be rigor or only a sense of chilliness, the diagnosis is complete and the time for vigorous therapeutic action has arrived—yet neglect of this warning is almost universal. Braum says that it is impossible to demonstrate clinically between the nature and appearance of bacterium (streptococcus) and symptoms of the fever for prognosis and treatment we have sufficient clinical material.

Curettage:—There is only one etiology of puerperal fever, the poisoning of the wound and there is only one method of treatment, to make the wound clean. The most effective way to make the wound clean is to use the curette with the addition of supplementary proceedings essential to success. The objections to the curette are, 1st, with the sharp curette you may injure or even perforate the uterus. But with the blunt curette you must do harm. A blunt curette is either a useless instrument or else more harmful than a sharp curette, as it does all the same stirring up and it requires more force and manoeuvring than the sharp curette.

2nd. You break down the "granulation wall." Koenig found, after flushing with lysol and other fluids, that in a few hours the number of bacteria in the uterus were as large as ever and from experience on animals he found that bichloride of mercury sol. did not disinfect a layer deeper than 0.2 m. m.

Is not the occurrence of symptoms a sign that the granulation wall has been scaled or breached already.

Sir Wm. Sinclair's Technique of Curettage:—The patient should be placed on a table and in a good light. Chloroform or ether should not be given except in exceptional cases, as the weakening of the heart action may be sufficient to turn the tables against the patient. About three quarters of an hour before operation the patient gets ¼ gr. of morphia and about twenty minutes before three to four fluid ounces of brandy diluted. If she is accustomed to alcoholic stimulants, she must get a little more. After placing the patient on the table it is well if the perineum has been lacerated to swab the surface with cocain and then rub well with carbolic and sublimat sol.

The parts are then exposed with a weighted speculum. The sharp curette now comes into play. The uterus is seized with a Vulsella on the anterior surface of the cervix and carefully brought down. The curette is now passed through the os and well up to the frendus. The manipulation now consists of drawing the instrument down so as to gently scrape the surface until the whole lining is overhauled. We now know the position, size and condition of the uterus and so proceed to flush out any shreds that may remain. After flushing it is well to take pledgets of gauze soaked in bichloride sol. 1.2000 on long forceps, thoroughly wipe out the uterus until no shred or organic material comes away. After this the uterus is gently packed with strips of gauze wrung out of 1.2000 bichloride solution.

After this treatment Sir Wm. Sinclair claims that the temperature will generally go to normal within 24 hours if the curettage has been done early in the course of the disease. Curettage may be repeated three or four times. It has been repeated as often as seven times.

Report of Case.

Mrs. S. Primapara—Child born on Nov. 29th, about 12 a.m. Two untrained women were in attendance. The placenta was retained and I was called about 2 p.m.

On examination the woman was found in good condition and uterus was fairly contracted. Manipulations of the uterus by Credes method were tried but placenta failed to come away.

External genitals and perineum were scrubbed with water and green soap and wiped off with bichloride sol. 1.1000. The hands were similarly treated and placenta was removed. It was found projecting into the vagina and came away easily with all the membranes. Perineum was exercised but no lacerations were found except of fourchette.

On Dec. 2nd was called again about 11 p.m. and found the patient with temperature of 103⅘ and complaining of chilliness and tenderness over lower abdomen. She had had a rigor in the morning and had been feeling chilly all day.

Patient was given morphia ¼ and whisky about four ounces, and prepared for operation. The uterus was curetted with large sharp curette, douched with bichloride 1.2000 and uterus swabbed out and then packed with gauze wrung out of bichloride sol. 1.2000. One dose of 20 c.c. of antistreptococcic serum was given as this was all I had with me.

Next morning, Dec. 3rd, temperature was 101°. Gauze was removed and uterus was again douched with bichloride 1.2000 and 20 c.c. Antistreptylitic serum was also ordered every four hours until temperature normal, as advocated by Dr. Low. A douche into uterus of 1.2000 bichloride was also ordered every four hours. After three doses of serum the temperature went down to 108° and it was discontinued as no more was on hand and the patient was nine miles out in the country.

Dec 4th temperature was again 101 and serum 20 c.c. was again ordered every four hours and douches to be continued. After three doses of the serum the temperature went to normal and remained 50.

The bichloride douche was changed to lysol and patient was troubled with some diarhōea.

Credes ointment 1 drachm was rubbed into abdomen and thighs every four hours until the temperature became normal.

When there has been undue delay in doing curettage there may yet arise symptoms which endanger the life of the patient.

The most frequent is parametritis; when there is only phlegmon of the broad ligament running on to abscess formation, the case is comparatively favorable. The usual mistake is to let the abscess burrow in search of an outlet instead of watching for the favorable moment to open the abscess and so cut short the disease.

Where peritonitis occurs either general or localized drainage should be done immediately and the opinion of Eingriff should be taken universally in regard to operation. "But certainly it must be undertaken early........Waiting, hesitation, putting further life in antiphlogistic remedies may be fatal; decided early action will be more likely to save the patient." Sir Wm. Sinclair says "that as to when the operation is to be performed when these symptoms come on there is only one answer to be given and that, "without hesitation. As soon as possible."

Operation as Described by Sir. Wm. Sinclair.

1st Stage. I. The abdominal incision should be only a buttonhole, sufficient to let pass the largest calibre of Kerth's drainage tube and through this tube should be passed the glass tube which forms the extremity of the flexible tube conveying the hot saline fluid from the reservoir. The Kerth's tube should first be passed into the pelvis and moved gently about so as to get rid of the coarsest peritonitic exudation. The protecting tube should now be moved about all around the abdominal cavity up and down and around for quite a time until there is no suspicion of a speck of lymph or pus in the returning fluid. While the abdomen is full the tube should be removed and wound quickly closed.

2nd. Patient is placed in the Lithotomy position and parts exposed by speculum. Uterus is curetted, swabbed and lightly tamponed. It is then drawn downwards and forwards by vulsella. Douglass' space is now opened by a few snips with scissors, the opening being just large enough to admit the drainage tube which is introduced during the gush of fluid from abdomen. A final flushing is now done to remove anything noxious from pelvis. The vagina is now

packed with gauze wrung out of corrosive sublimate sol. At end of 24 hours gauze removed and pelvis flushed. End of second 24 hours flushed again and tube removed.

Conclusions of Sir Wm. Sinclair.

The essential causes of increase in the mortality of child-bed fever are insufficient disinfection and mischievous meddlesomeness.

2. The mischievous meddlesomeness must cease and operation must be resorted to only on clear indications for interference.

3. When symptoms do set in, action must be prompt and unhesitating. The distinction between puerperal sapremia and septicemia must be abandoned and as corollary we must abandon the weakness in action and the procrastination depending upon the distinction.

4. When symptoms suggesting puerperal peritonitis appear and when; after exact, watchful observation, a presumptive diagnosis is reached, prompt operation is demanded. Operation in the future will save many unhappy women, such as we in the present permit to perish by inaction.

References—Sir. Wm. Sinclair, Surgery, Gynecology and Obstetrics, No. 1, 07.

Practice of Obstetrics, Jewett.

WESTERN CANADA MEDICAL JOURNAL

GEORGE OSBORNE HUGHES, M.D. *Editor*

With the collaboration of the following Local Editors:

DR. E. C. ARTHUR..........Nelson, B.C.
DR. ANDREW CROLL...Saskatoon, Sask.
DR. C. J. FAGAN...........Victoria, B.C
DR. W. D. BRYDONE JACK
Vancouver, B.C
DR. GILLIES...............Vancouver: B.C.
DR. DAVID LOWE..........Regina, Sask.
DR. E. G. MASON..........Calgary, Alta.
DR. J. S. MATHESON......Brandon, Man.
DR. A. E. NICHOLLS.....Edmonton, Alta.
DR. J. S. POOLE..........Neepawa, Man.
DR. R. S. THORNTON...Deloraine, Man.
DR. J. R. MATHESON.......Prince Albert
DR. D. A. LINEHAM...... .... .Dauphin.
DR. A. G. WELSFORD........Rome, Italy

Editorial and Business Offices
8 Commonwealth Block, Winnipeg, Man.

EDITORIAL

A Western Canada Medical Association

The individual members seem greatly interested in this question of the formation of a Western Canada Medical Association. We would remind our readers that the Secretary of the Committee is anxious to hear from as many men as possible—what is needed now is free and general discussion. Every one can assist. Those who cannot personally, can do so by simply sending a post card with their views. Later on, at the various societies' meetings, the matter will be brought up and then united action can be taken.

Many arguments can be adduced to prove that a united organization of Western men is the way to progress medically. Only thereby can the profession exert its proper influence in the settlement of problems constantly arising. Personal association (as we have before pointed out)—the social intercourse created by bringing together men from all parts of the Great West, is of great importance. One strong association, actively concerning itself with with all Public

Health matters, would certainly raise the standing of the profession in the West—and then we should not have the constant going across the border with patients for advice and operations. We grant the patient is the first consideration, but we can easily prove that many go who can be treated as well at home. This cannot be too much insisted on. That the practitioners themselves go with or send their patients, is no argument. It simply shows he needs more personal knowledge of his medical brethren here, which he could get by attending as many meetings as possible. We have men in the West with the highest possible qualifications in Medicine and Surgery. Of course, some answer, degrees are not everything. That is true, but certain ones are a pretty good criterion of a man's standing. The day luckily is passing in the West when the folks simply count the letters after the name and never ask what they signify.

We merely mention the matter of degrees to show the West can supply them. Then again, many men have spent a long time in the States, Britain and Europe—working and studying. Also we have men who, perhaps, have not obtained these higher qualifications, but owing to their great devotion to their life work are very specially skilled. Such men we all know—men who are most successful Surgeons and Physicians who keep pace with the advance of science in a marvellous way at great disadvantage. As in other work, however, those who have the most difficulties to contend with, often achieve the best results. A virile organization in the West could discuss this matter of patients, going across the border for treatment. Let the matter be threshed out and the reason discovered. When one studies the list of registered men in the various provinces—their qualifications and the time many have been in practice—also when one considers how western men are constantly going abroad for post-graduate work and then contrasts the qualifications on the medical registers on the other side of the Line, etc., there seems no possible reason except in certain cases where specially equipped hospitals are needed, etc.

The effectiveness of local associations would be increased

greatly by such an organization. We are too apt to think of the extent of the country—forgetting that as yet the population of the whole West is only equal to about 2,000,000. Locally the small societies can do good work, but for strong action at any critical time a force is needed. Such an Act as that introduced and passed at the Saskatchewan Legislature re Wilfrid Tessler's admission to practice exposes the weakness of our position at present, and the great need for such an organization.

It seems that medical men are not the only ones who are agitating for a Central Board. The architects are feeling the need for an independent authority for the settlement of vexed questions, and the making of important appointments. As the public are beginning to take more intelligent interest in civic questions, there is a great feeling that something must be done to counteract local pull and influence and so give real merit a fair chance. Time is what is needed to prove that getting the best man for any work means progress for a country and although the West is still young, it seems it is old enough to show the harm that already has been done by appointing inefficient men for important work.

This interchange of teachers between Canada and Great Britain must in the end lead to interchange of educational qualifications. How much better could one argue the points for Medical Reciprocity than Educational. It is simply a question of standard of Medical Education. That guaranteed, no other point can be brought forward that is not provincial and consequently narrow. Would it not be well if the Boards of Trade brought the matter up again. They passed a resolution in favour of Dominion Reciprocity last year. The Premiers might also make a point of this important question. One expects to have to "keep on" to get anything worth getting.

The Alberta Provincial Medical Association will hold its annual meetnig at Banff August 11th and 12th. It is to be hoped members will make an endeavour to be present as there will be many points of vital interest to the profession up for discussion.

Teaching of Clinical Surgery

The "St. Paul's Medical Journal" has a very good editorial on "The Teaching of Clinical Surgery to Undergraduates." The time for teaching Operative Major Surgery is discussed. The writer considers very little should be taught during the 4 years' Course and that little in the dissecting room and to a small section.—"No man can do Major Surgery by simply attending clinics and watching the performance of operations."—A man who intends being a Surgeon should spend at the very least 2 years but preferably three in hospital and post-graduate work after he has received his degree. Any one who has not done that has no right to attempt Major Surgery"........

"The result of the present methods of teaching is....that many of the young graduates consider themselves fully competent to do all kinds of Surgery as soon as they go out to practice and the crimes committed by many of them do much to bring Surgery into disrepute."

The Presbyterian Assembly now in Winnipeg is endeavoring to discover how best to obtain greater purity in life in every way. Perhaps, if the means were not so often provided to hide the scandal one effective way might be found of preventing evil. A subscriber has drawn our attention to the following received by him. We print it for the benefit of our readers. The italics show the part that is supposed to attract patrons from this side of the Line. Such a document gives much food for thought on many points.

Dear Doctor:—For the past seven years I have been conducting a private home for the care of unfortunate girls before and at the time of confinement. They may come as soon as their condition begins to be apparent; and stay until they have fully recovered after delivery. This gives them a chance to return home and resume life there without any scandal. Please save the enclosed card for future reference.

The physician sending such cases will be remembered in the substantial way of a percentage.

I will be glad to answer any question as to terms for board, confinement fee, board of child, etc.

Fraternally yours,

In the "Busy Man's Magazine," reprinted from Appleton's, is an article on "The Righteousness of Doctors' Bills," by George C. Lawrence. He says: "Investigation and knowledge, experience and association, can only make more apparent that commercialism and medical practice are as far apart as the poles. For the manufacturer, the shopkeeper, whom else you will, success may be measured—though happily it may not be—in dollars and cents. For the physician it is measured in the alleviation of pain and suffering, in appreciation and gratitude and friendships, but last of all in the number or size of his fees on which he depends for his ability to carry on his work." In China it is the habit to pay their doctors to keep them well. Here the better the public health, the less the doctor's income. The only work in the world in which good results mean poor rewards. Luckily doctors do not work for dollars and cents, but to reduce suffering, and his real reward is in seeing good come of his efforts. The suggestion in the "Brandon Daily Sun" that it might be better if the people were more systematically instructed by the doctors as to how to live to make the most of their strength and get the best use of their forces is worth consideration. As the writer says there is too much living at hap hazard—acquiring errors of diet and other errors which end inevitably in disaster—and then late in the day the doctor is called in to mend the machine.

Dr. J. M. Taylor, in the "New York Medical Journal," considers we should have yet another form of specialist—"the Prophylactician."

We would greatly appreciate if our subscribers who have not yet sent in their subscriptions would kindly do so. This greatly lessens the work of the manager.

PROCEEDING OF THE WINNIPEG CLINICAL SOCIETY

The Winnipeg Clinical Society met on May 5th, Dr. Milroy in the chair. The secretary, Dr. Munroe, read the minutes of the previous meeting, which were adopted.

Dr. Rorke presented a case of Syndactelism of the right hand in a man of 25 years of age. The thumb and little finger were normal. The remaining two fingers were united below by a membrane of some thickness which became thicker toward the tip. A common nail covered the fingers.

The skiograph showed that a complete fusion had taken place between the metaconfat and phalangial bones of the index and ring finger. To the distal phalanx of this common finger the end phalanx of the ring finger was joined. The bones were normal in size. What appeared to be the index finger was in reality index and ring, thus explaining the presence of apparently only three fingers. The function of the hand was somewhat curtailed although he could to a measure use it for operating a telegrapher's key.

Dr. Hughes asked if an attempt at separating the fingers were indicated.

Dr. Galoway: This seems a very favorable case for operation. There is sufficient separation to allow good covering with soft tissues. The end phalanx will have to be separated and the ajoining edges removed to allow this part to be covered. I think the usefulness of the hand will be greatly increased by operating.

Dr. Lehmann: I do not think that the results of surgical interference will be as favorably as Dr. Galoway has stated. I think there will be considerable difficulty to get sufficient soft tissues. There will be contraction along of the scar and this will interfere materially with the function of the fingers. The hand is useful now, but I am afraid an attempt to separate the fingers will leave the hand more damaged than it is at present.

Dr. Galloway: Soft tissue could be got from other parts of the body.

Dr. Mackay—Is there any certainty that all functions of the fingers will be restored?

Dr. Galloway: The tendons can be distinctly felt on flexion. If the tendons were not developed operation would not be indicated.

Dr. Kenny: It seems to me that the sensation of the fingers are very important. Does he feel in one finger or in both.

Dr. Rorke: I take it since he can operate a telegraph key he must feel with the pulp of both fingers.

Dr. Galloway: I do not think there will be anything like the difficulty to get soft tissue covering or with scar contraction as one would encounter in a burn. I am satisfied that a good result could be obtained.

Dr. Lehmann: I have heard several surgeons express themselves on such cases, among them Lexer, of Berlin. They were by no means enthusiastic. When men like Lexer expresses himself like that we will have to be satisfied.

Dr. Galloway: Does Lexer express himself in that way? I have seen cases where there was very little webb and the bones were fused.

In such a case I would not advise operation, but in this case the bones are well separated, except at the tip with considerable webb intervening. I think it would lend itself well for operation.

Dr. Lehmann: This man has developed from earliest infancy with his fingers joined. His nerve centres have developed and accommodated themselves to this condition. It would require an enormous concentration to educate the centres to a new state of affairs. The muscular development has been such as is most suitable for the condition as it is The tendons are not well developed. In short, his entire being is adjusted for this deformity. To re-adjust it for a new state of affairs even if they could be made normal which they cannot, would require so much concentration and loss of time that the result would be far from satisfactory.

The fused end phalanx would have to be amputated which would seriously handicap him in his occupation. The fingers even if not contracted by dark tissue would be weak and lack nimbleness. In short I am absolutely satisfied that any attempt to separate the finger would leave the man very much more handicapped than he is today.

Dr. Hunter: In connection with the separate action of the fingers I asked him if he could make any attempt to move the fingers separately. He answered that they acted and felt as one finger, the same as one finger on the other hand. There would be a distinct objection to separation on this account.

Dr. Milroy: The fingers have been educated to move together for twenty-five years.

Dr. Bawden: I would like to ask about the method of dealing with the neal in case of operation.

Dr. Nichols: I think at the patient's age I would hesitate to operate. If the patient were in his youth I might be inclined to give aperation a trial. These fingers have worked together for twenty-five years and there would be much trouble to educate them which would not be the case in a younger patient. In a child skin could be easily got from the other arm. In this case I would hesitate to operate.

Dr. Howden: Patient 54 or 55 years. In 1882 had pneumonia. Had effects for two years, with the pain in the right side. The right side broke out in sores. Saw him in February, 1906, the doctor at Ste. Agathe scraped the sores and the sides healed up, and some years later when I saw him there was a small ulcer on the chest constantly discharging a seropus. On probing we found dead bone at the battom of the sinus. No history of typhoid, etc. Dr. Lehmann in consultation, decided it was necrosis of the ribs, but couldn't ascertain the source. Dr. Lehmann operated in March, and after the operation it seemed to progress fairly well for several days. A good deal of the costal cartilage of the ribs has been removed. The wound, after a few weeks, settled down to discharge sinus and a second operation was performed several weeks later. A third operation followed, with much the same effect. The fourth operation was performed in August, 1906, and was very extensive. Four operations occurred in one year, and after that the recovery was slow, but entire. My part of the case was to have been a history of kidney stones, treated with tincture of belladonna. After treating several times for kidney stones with morphine, without results, I finally gave him 30 minims of belladonna every four hours, and he shortly afterwards showed me a little bag of stones, and later I treated him similarly. The sinus had no tendency to heal at all, because the pus came away in great quantities, and the disease spread from one rib to another, much of the costal cartilage and a great of sternum.

Dr. Bawden: How often did you give the bella donna?

Dr. Howden: Every four hours. He passed a great deal of gravel. Along with the belladonna I gave a like quantity of paragoric to ease him temporarily.

Dr. D. S. Mackay: I would like Dr. Howden to give the theory of the use of belladonna in such cases.

Dr. Howden: As an anti-spasmodic.

Dr. Mackay: How, if the kidney stones were larger than the ureter would they pass. Does it mean that you could only give belladonna where you diagnosed that the stones are small enough to pass, or can you know in all cases?

Dr. Howden: I don't imagine that you could do any harm in such a case, that if the stone were large to pass, it will remain where it was.

Dr. Mackay: Then you could never be sure of your treatment.

Dr. Hunter: The treatment was introduced by old Dr. Murray, (see his book) he refers to several cases that he had treated with belladonna, giving 20 to 30 minins every two hours, and the point he insists on is not to cease the belladonna on relief of pain. I have used it in several cases in hepatic colic and in two cases it acted rapidly.

Dr. Mackay: From the point of necrosis of the ribs the cause is not clear, but I have not yet gone fully into the case. There is a history of pneumonia and it is not altogether uncommon to find necrosis of bone following cases of pneumonia, but it sometimes is that the necrosis doesn't appear for several years after the attack of pneumonia and yet the streptacoccus of pneumonia has been found in such cases. I remember seeing a case where nine or ten years after the man was operated there was necrosis of bone and up to that time he was perfectly well, but had been operated on several times after the eighth and ninth year, and then the streptococcus of pneumonia was found. That is the only case I have ever seen. As to the other condition of clearing out the urinal tract with the use of belladonna I think it is a very fine treatment if you can depend on the stones being of a size that will pass through the ureters and that those that are left will not do any damage from their size, through the use of the belladonna. But that is a question.

Dr. Nicholls: The only thing I can say in regard to belladonna, I have seen toxic effects from what I would consider to be moderate doses, one-third or one-quarter grain of the extract, say every four hours for two or three days, the patient became delirious, and I would rather think 20 minins would have a corresponding effect or larger effect in a shorter time.

Dr. Hunter: In regard to the belladonna treatment, there is one thing I would like to remark. I quite confess that if the stone is large we are unable to get it to pass, and the difficulty is that we may have a larger stone. If we don't treat with belladonna we have to treat with morphine. In the absence of belladonna and morphine we are driven to operation, and then you cant turn around and ask the surgeon if he can guarantee an absolute cure or the man's life. Are we up against equal risk, or more risk in point of surgical interference?

Dr. Sharpe: Has anyone present made use of the Bismuth Paste in the treatment of the sinuses. There is an interesting case of a post typhoidal necrosis of one of the vertibra and the question in the minds of the physicians and surgeons attending is whether this was a case of tuberculosis or typhoid necrosis. After consultation the case was put on the Bismuth Paste treatment, injected at various periods and the patient has done well. One interesting feature in the use of

the paste is the ease in getting an idea of the tract that the sinus takes. By taking a radiograph you can trace the line of the sinus. I would like to know particularly if a microscopical examination was made of the discharge from the sinus and if any of the surgeons present have used the Bismuth Paste, and with what results.

Dr. Howden: I believe miscroscopic examination was made of the discharge of the sinus and the necrosed bone by Dr. Lehmann. He never reported any results of such examination to me, and I am unable to give any further information.

Dr. Tees: What made me suggest to Dr. Howden the use of belladonna was a case where taking of 30 minim doses every four hours until the patient had taken one ounce, resulted in no toxic symptoms produced by a dose of half that amount. In cases like this it goes without saying one has to watch closely. In regard to the objection of the surgeons I don't think it is claimed by anyone that belladonna should be given or indicated except where advised by stone in the kidney Dr. Howden: The attack of colic had passed when I prescribed belladonna and still we got good results for all that. At the original attack I gave morphine one-quarter grain with 1-50 gr. atropine, followed with the belladonna, have done that twice with this patient and in neither case have there been any toxic symptoms except dilatation of the pupil.

Dr. Mackay: Children stand the use of belladonna better than adults. I have seen Robert Hutchinson, of London, give a six-year-old child one drachme every eight hours for a week. It astonished me to see it prescribed, and he told me it was quite an ordinary treatment to do so, and that somewhat set my mind at rest.

I would like to know how belladonna acts on the kidney. What is the physiological action of belladonna on the kidney?

Dr. Howden: Comparing the action of morphine, owing to the presence of stone in the pelvis, in the kidney or near the mouth of the ureter, the pain would cause a spasm of the ureter and the morphine would do away with the pain and so relieve the spasm and allow the stone to pass.

Dr. Nicholls: I use Bismuth Paste in cases of empyema. The cavity of the empyema had contracted down to six or eight grammes, and I had a skiograph taken that showed the location very nicely. The relation of the ribs and all that. I am having it injected twice a week, the thicker form, and I cannot tell yet as to the result.

Dr. W. S. Macdonald: I saw Dr. Oschner use the paste. If a remember the form of treatment 5 parts of bismuth, 15 of paraffin and 5 of arsenic. Dr. Oschmer said: "I want to show you what I consider the best thing the medical profession have discovered during the last fifteen years," and he brought in the tubercular sinus and he said he had been treating that case for years without success until he started using Bismuth Paste, and it had improved remarkably. For the skiograph there is another paste, with a greater proportion of bismuth and a lesses proportion of paraffin.

Dr. Cascallen: "This is a case I have brought here to get information as to the best treatment for his arm. The radius is fractured in two places and also styloid process of the ulna, with damage to the ligaments of the wrist.

"About September 19th ult. patient was running an engine in the country, his arm caught in the wheel, breaking it in two places. The arm was kept in splints about three weeks; then taken out and passive movements begun. The radius is in excellent condition, but at the wrist joint we find fracture of the styloid process of the ulna and a

great laceration of the ligaments. I have an X-rays picture here. The cuestion is now what treatment? The wrist joint is weak; he can't lift anything well, it twists over, there is a great deal of movement of the ulna, you can turn it back and forward almost an inch."

Dr. Galloway: "I examined this case carefully and must confess frankly that I feel in considerable doubt as to giving definite advice. The first thing to be done, if possible, is to get a stereoscopic X-ray of this joint, it might afford some additional information. X-ray pictures don't always reveal what they appear to, as anyone who has had much appearance with them knows. The injury of the radius appears to have been very satisfactorily repaired, with the exception that possibly there is little inclination of the radius ulnarward. The Styloid process of the ulna has evidently been torn off and from the way that he describes the injury at the wrist having occurred, there must certainly have been very severe laceration of the ligaments and more or less detachment of the tendons of the flexor carpi ulnaris. He says he is unable to lift with that hand, not even the weight of half a tea-kettle full of water. When I made the movements of resistance against flexion at the wrist, I find he resists very strongly and it does'nt seem to tally with the patient's statement. The length of time that has elapsed is not sufficient for the degree of recovery to occur that is possible. It is pretty certain that with or without time, the mechanical integrity of that joint can never be rendered one hundred per cent. of its efficiency. It would do no harm operating and making an examination and it would be possible to improve the mechanical conditions. The patient is conscious of a kind of creptius in making a certain movement and I certainly felt that distinctly."

Dr. Lehmann: "My view of this case corresponds with Dr. Galloway's. The lower end of the radius is thickened and there is also a separation of the ligaments between the ulnax and radius. The movement on the radius of the ulna is distinctly greater than it should be. The X-rays shows a certain roughness on the radius as if there might have been some tearing off of attachments. He complains of numbness, probably the nerve supply of the hand has been interfered with. Cutting down on the wrist and suturing the ligaments would greatly enhance the usefulness of the wrist."

Dr. Bawden: "He told me there was no numbness."

Dr. Galloway: "When the hand is at rest it appears to be turned out as if the ligaments on the end of the ulna were broken off, and the radius seems to be shortened considerably in relation to the carpi. A skiagram taken at right angles to the present one, might throw more light on it."

Dr. Bond. "I haven't had a case where there has been such a marked tearing of the ligaments, but by proper treatment of the muscles and nerves, where they are knitted together, you can get rid of all of that thickening and clear up the parts and as a result the numbness and pain disappear and the muscles come to act with almost their normal power."

Dr. Nicholls: "I would ask where the preceding speakers considered the crepitation occurred, between what structures?"

Dr. Galloway: Thought it possible that it was the friction of that detached portion of the bone of the ulna. It struck me as not impossible that there is some fracture among the carpi that is not revealed. I have had the misfortune to open down on a number of fractures in which the X-ray seemed to prove certain things which weren't present."

Dr. Bond: "The crepitus is not in the nature of a recent fracture,

sharp even defined character, but of that in a long standing case where there is a desposition of cartilaginous material over the head of the bone. The end of the ulna has been broken and has reformed on the shaft."

Dr. Carscallen: "I think the crepitus is from rubbing the ulna against the radius."

Dr. Nicholls: "I would like to call attention to a thickened body quite well defined between the radius and the ulna. I would like to know what they would consider that is "

Dr. Sharpe: "You can undoubtedly see a superimposed body and that you get this crepitus on rotation and by looking at the plate you can see a pointed area on the ulna and a corresponding area on the radius."

Dr. D. S. Mackay: "The crepitus appeared to me similar to that you get in a tenosynovitis and not obtained over the spot where the radiograph shows the bone is displaced."

Dr. Kenny: "There seems to be a fracture at the lower end of the ulna which is badly united, as regards position, and this might easily bring about the slight crepitus that is felt by rotation of the wrist rubbing against the lower end of the radius.

"The explanation given by Dr. Mackay may be partly true, that there is tenosynovitis, which would add to the sensation felt. I think operation would improve this condition, especially operation which would reveal the lower end of the ulna and if the the part that is so badly placed could be replaced in its proper position, and as suggested by Dr. Lehmann if some of these ligaments that are ruptured could be brought together and so strengthen the joint, marked improvement could be obtained."

Dr. Lehmann: "There has been considerable damage done to the end of the ulna, probably a fracture. At all events, a disturbance of the periosteum and that has resulted in a considerable thickening of the end of the ulna."

Dr. Bond: "I think it is due to a displaced condition of the cartilage."

Dr. Carscallen: "It is a question in my mind whether it would pay to operate or not, that is the reason I brought him here. He hasn't had any treatment at all, massage or electricity; whether that would be worth trying before an operation or not, I don't know."

Dr. Jones: Presented an ovum inside of the decidua, as it was removed, showing the Chorionic villa on the outside, and the interesting point is, the early stage.

The woman from whom it was taken was confined 21st of last November with a full time child. She menstruated again in January for six days, again in February, and again in March which menstuation period was evidently normal.

After the last menstruation she was quite well for twelve or thirteen days, when she began to have a profuse hemorrhage which was allowed to go on for about ten days, when I saw her and ergotin and calcium sulphide were tried to prevent what was supposed to be an extraordinary amount of hemorrhage for a menstrual period, and after ten or twelve days I had her removed to the St. Boniface hospital and she bled so freely that it soaked the mattress through, so I curetted her and got this interesting specimen.

"As to the cause, I don't know. Possibly the fact that becoming pregnant so near confinement was the reason. She is perfectly healthy, never had any venereal diseases. The specimen is simply interesting

because it shows the structures so well and is so recent. Her first child was still-born.

Dr. Kenny: "I think this case brings up an interesting point. I have had a case recently where the woman was pregnant and menstruated twice after conception,—missed one period and then menstruated the next two. She claimed she had had a child that is now some three years of age and she did the same thing the time she was carrying that child, and I would like to have the expression of the men here as to the frequency with which menstruation occurs during pregnacy."

Dr. Tees: "I have had a few cases in which the menstruation has continued for two or three periods. I have one at present where the woman is between seven and eight months pregnant, and has menstruated at every period. Certainly it is not common, but cases are frequent where they menstruate twice during the period of pregnacy. I Think that the indications are where there is no pain,, simply put the patient to bed and use a small dose of ergotin and strychnine where there is no contraction. I think the case is due to a contraction of the uterine muscle, and that small doses of the strychnine will cure that. I have been using in this case two grammes of ergotin and one-thirtieth of strychnine T. I. D."

Dr. Kenny: "I think Dr. Tees made his case perfectly clear, that there were no contractions and that ergotin will accentuate contractions, but it won't originate them.

Dr. D. S. Mackay: As to the contractions during the period in which a woman is carrying a child, my old teacher taught that after the uterus became an abdominal organ, if you had plenty of time to go to the bedside of a patient and place one hand on her abdomen and wait long enough, that you would feel that the uterus would contract and that when it was increasing in size you would note the contraction there."

Dr. Tees: "I agree with Dr. Mackay. We all know one of the earliest symptoms of pregnacy is by contractions of the uterus, but I refer to no painful contraction. In this case there was no pain, but undoubtedly the uterus was contracting, as it does during the whole period of pregnacy. I believe that where a complete rest in bed is enjoyed and ergot used internally that cases of threatened abortion may be prevented.

Dr. Nicholls: "A good many members would like to know if we are safe in the limits of the law to prescribe ergotin to pregnant women in the first two or three months. It might be well to know what our legal position is in that respect."

Dr. Milroy: "I quite agree with Dr. Tees, that in cases similar to those he speaks of, that it is a good thing to give small doses of ergotin and that it has no tendency to bring on abortion and in small doses has the opposite tendency. Of course I have had cases where menstruation occurred once or twice after pregnacy occurred. I recollect one case a number of years ago, the first menstruation after conception was absent, but after that the patient menstruated monthly, until she was delivered at term, without any bad results. It was a peculiar case and I was never able to explain it, and it is the only case I have seen of apparently physiological menstruation until the child was delivered.

In regard to giving ergotin after the first two or three months, knowing the patient to be pregnant, that is a question, and I would like to get the opinion of the other members of the society."

Dr. Kenny: "I would be very guarded in the use of ergotin, but if I thought it were indicated I would use it in small doses. If there

are no labor pains, the ergot will not originate them, but if there are labor pains, the ergotin will increase them."

Dr. White: "How would you account for abortion being caused by ergot in the case of rye bread?"

Dr. Kenny: "You yould account for them in the same way as in smallpox during pregnancy, through it affecting their general system and so the foetus. I don't think that would cause me to disregard the use of ergotin where I thought it was indicated."

Dr. Milroy: "Ergot is very apt to cause the death of the foetus and arrest its growth."

May 19th

In the absence of the President and Vice-President, it was moved and seconded that Dr. Meindl take the chair. The Minutes of the previous meeting were read and adopted.

Dr. LaChance presented a case of Broncholiths. When first seen the patient had a night temperature of 102 slightly lower in the morning, coughing and felt sharp pain at apex of left lung. On examination found dullness at the apex. After five or six days rest in bed and application of iodine he left the hopsital, apparently better. Two weeks later he brought little stones which he had expectorated and experienced great relief. There have been exacerbation of pains with relief on expectoration of stones. This stone was about the siee of a pea.

Dr. MacKay: I struck two dull areas, one in the region of the apex on the left, and probably beneath the clavicle on the right side, but I was told it was a case of bronchiolitis. What I am interested in is, is it possible to diagnose a case of bronchiolitis without seeing the bronchiolitis with an X-ray?

Dr. Hunter: There is no sign of any advanced empyema there. In some of these cases there is a tubercular cavity but in the majority they are glands which have become calcaroneous. One has also to remember that in this case there is a tubercular abcess but in many cases there is no tubercular abcess and in this case it arises from the bronchia. This is practically in the line of gall stones forming in the gall bladder.

Dr. Nichols: I suppose that form of stone would be analogous to the forms of gall stone. It is fairly common, I think, with forms of calcarieous matter.

Dr. LaChance: With Dr. Hunter, I believe that the case here is very likely tuberculosis. As to the origin of the broncholithis consider the lung itself. The broncholitis can arise from these three regions. From the cavities they might be formed around foreign bodies and also from the secretions left inside of the bronchia and from the bronchia from the cartilaginous part of them. The cartilages of the bronchia can be first changed in the bone and thin this calcareous matter added. They can also be formed from substance of the lung itself. In cases like this one where there is likely tuberculosis the portion of the substance of the lung becomes caseous and then cutic, etc., have even become sometimes calcareous.

Dr. Kenny: Present illness dates back three and a half years. chancres. The first symptom noticed was prickling sensations of the Railway man, no leunetic history, although he has had numerous soft skin, later lightning pains in various parts of the body. He has Argylle Robertson's pupil and some dimness of vision and loss of patellar reflex with other reflexes, reacting slowly. At the present time

a slight Ataxia, which only came on about three months ago. Osler on this point tells us that frequently the eye symptoms come first, but in others the ataxia. There seems to be a kind of antagonism between the eye symptoms and the ataxia. This case would tend to bear that out, even at the present time the ataxia is not marked.

Rhomberg's sign is present, but not marked, and as you notice the incoordination is not marked. Some months ago he was not able to control the bladder, took him some time to start the water, the water would dribble away, but that has improved. He complains of lightning pains so severe that he is unable to sleep at nights.

Dr. Raymond Brown: He has a little inequality of the pupils which he says has been present since his birth. The pupils are dilated, but he says his eye trouble dates back eleven years. It began by dimness of vision. There must be some atrophy of the optic nerve. He tells me about eight or ten years ago in the early part of his eye trouble he noted this contracted state of the pupil. At one time his eyes had very small pupils, but now they are quite large. They do not re-act to light, and re-act very sluggishly to accomodation.

Dr. Hughes: I would ask Dr. Kenny what the reason of the girdle pains are and the ataxia.

Dr. Kenny: Briefly, the disease in one involving the posterior columns and posterior nerve roots and the ganglia of the posterior root. The ataxia is due to a breaking or at least a lack in the arc of nerve impulse causing co-ordination. The motor nerves are very litle impaired, while the sensory nerve roots are greatly impaired, making a break in this arc.

Dr. Tees: I don't intend to read a paper on puerperal infection, but to mention certain points that might bring out a discussion. As to etiology of the condition probably two points might be spoken of with most interest; first, in regard to the subject of Auto-infection.

A few years ago the question of auto-infection was abandoned and yet today it seems to be supported by some of, the best authors Garaigue, in particular. Another point is the mode of infection. Some authors hold that the infection can be transmitted by air. The etiology is fairly well settled. Anyone who reads Garrique articles will agree with me that his reasoning is rather crude. For instance, he gives an illustration of how, in some maternity hospital, an epidemic of puerperal infection broke out, and he states that all aseptic precautions were taken by physicians and nurses, etc.; and consequently it was impossible for any outside infection to take place except by other sources, and so deduced that infection must have occurred through the source of the air, a dead rat being discovered later in the cellar, but to me it appears rather crude, as we all know that cases of puerperal infection will arise where we feel that every precaution has been taken as to asepsis, and yet infection will occur in spite of everything. I would like the discussion to be along these two lines, as to auto-infection, and second, as to the infection through the air.

Dr. Rorke: In regard to the autoinfection, where examination has been made of the vaginal secretions, twenty per cent. have been found to have some form of cocci, especially streptococci, and that, I think, is a pretty large source of infection.

As to infection through the air, I should think it would be possible but improbable and extremely hard to prove. I thought more of speaking along the lines of pathology. Theoretically, the infections of the uterus in the puerperal state are divided into septicaemia and sopraemia. Practically, it is hard to separate true septicaemia from sepraemia. To make the distinction it requires some time, and time you can-

not waste in making the distinction, but you must treat it as septicaemia. The different forms of infection have not been thoroughly worked out and separated from one another. One cannot discuss the question of curetting without a knowledge of the avenue of infection. Some think nothing can take the place of curetting, and others think that it is not suitable treatment. Anyone who has had any experience, will see cases where the uterus is large, tender and flabby, and other cases where the uterus goes on to pretty fair state of involution, notwithstanding severe infection. In some cases you may have infection of the walls of the uterus, and others retained placenta and blood clots. In some cases you may have considerable septic infection through the tubes, and in others you will have infection through lymph channels, and in other cases you will have a case of lymphangitis and peritonitis too. In the latter case you have a large flabby uterus. In other cases the infection takes place through the placental side and through the blood channels and in other cases through contiguous structures and leading in some cases into the ileac veins as well.

Some years ago I ran across six cases with which a midwife furnished me. One was a miscarriage, a mild case of septicaemia, the general system suffering more than the uterus. Another I saw, an hour before she died, she had a well marked peritonitis, and that caused her death. Another case, the uterus was fairly large and there developed a good sized mass in the right broad ligament. I was of the opinion at that time that it was the tube involved. She got well, and a strange coincidence of this case was that about sixteen months afterwards, she lent her pads, etc., to a women who was financially embarrassed and needed a little assistance. She also developed a very marked brand of septicaemia. Being confined on Thursday and on Saturday morning she had a chill. There was no disagreeable discharge from the uterus and the uterus was in a fair state of involution, and yet she had a temperature of 105 and pulse of 130. I wondered whether I should curette or not, but put it off for twenty-four hours, and I think I made a mustake in doing that, because twenty-four hours after curetting she had a chill, and later on she developed lung symptoms, due to the lungs being literally sewn with miliary abcesses, through small clots that had been carried through the right heart into the lung. The other cases didn't present and difficulties and they got well.

I had one rather peculiar case. It is a case where a primapara had a fairly long siege of pains before delivery, and she had a slight laceration of the perenium—very slight—and inside of forty-eight hours she developed erysipelas from that point, which went over a good share of her abdomen and over her buttocks and back to her shoulder blades. It then began to ascend the bowel, and she had peritonitis finally from which she died. In that case I used plenty of streptococcus serum, but got absolutely no results. I used as high as 60 cc in one day. I am not in the habit of putting in sutures in such small lesions, but I suppose I should have. I took as much precaution as I usually do, but still she became infected. I would like to have a discussion as to what a medical man should do, what is he going to do with a small septic abscess, a boil or something of that kind, comes to him for treatment when he is expecting a midwifery case? Is it possible for him to disinfect himself so thoroughly that there is no danger? In that way I saw one thing that surprised me beyond bounds. I saw a woman delivered by her mother-in-law. She had facial erysipelas from time to time. The child, for which I received the call, had erysipelas that went all over the body and yet the mother

had no symptoms at all, the child got all right. I don't suppose it was a very malignant form, but it was there.

Dr. Nichols: Some of Dr. Rorke's remarks bring to my mind some cases. cousin of mine by marriage was attended by a doctor in the east, a man who practiced a great many years, and had a good reputation as a surgeon. This was about 25 years ago. He had an epidemic of puerperal fever on hand, and my cousin's wife contracted the disease and died from it. I suppose they cleaned up the premises as is usually done, perhaps without regard to the infectious nature of it, as it wasn't known, probably, by the old practitioners. My cousin married again, and in a couple of years' time, I suppose, the wife occupied the same bedroom, probably, and perhaps the same mattress and bed. She contracted puerperal fever and died also, and I suppose that is illustrative of a case where the infection has been lurking in the room.

A number of years ago I had in a country practice, an epidemic of my own. I don't know how it occurred, but the peculiar thing was I would go to a case from the first one, and disinfect all my clothing by putting it in a boiler and a solution of carbolic acid in the bottom about four inches in the bottom of the boiler and put a sheet in with my clothes in, and steam up for an hour or so, and when I was going to a case I would don one of these suits and disinfect my hands and everything else, and in all those cases where I was able to do that, there was no infection. The next case I might be called without being able to disinfect my clothing. Of course, I would isinfect my hands and in those cases those patients would get the infection apparently not from my hands but from my clothing. I would confine three or four women and they would escape, and the next one where I wouldn't have a chance of getting my clothes changed, I was irrigating considerably at that time, fifteen years ago, and would get the infection, fortunately without any deaths. In irrigating the womb in one particular patient I irrigated and after using, say, half a gallon of water, I noticed a very bad odor, and it was so strong and so disagreeable, I asked if the woman had broken wind, and she said "No," and I noticed something warm where I was holding the irrigator, and I noticed there was pus on it, and that occurred two or three times. Probably it was one of the tubes opening. That has occurred twice in my practice where the tube has opened itself. In the case of that woman I noticed a thickening and a resistance of both sides as felt above the os pubis. I had another case where they had developed infection, scarlet fever and diphtheria, at the same time. I got the dates as to the probable date of confinement and I urged her to go to the hospital, but she would not consent and I intended to rush her there a week before, but on the contrary, she rushed me about midnight, and when I got there everything was in full blast and there was no chance to get her to the hospital. I got her in a separate room and disinfected as well as I could. Everything went well for four or five days and then her temperature shot up to 105 and she became more or less comatose. There was no foul odor from the vagina. I put in a catheter and had boric acid and alcohol injected every four or five hours. She remained in that condition for four or five days, still no discharge, and then one of her legs swelled at the calf, but didn't get red. There was a thickening above the os pubis and then the first symptom was a chill. Things not getting better, I had her chloroformed and opened her calf and got in between the plain muscles and it looked like boiled beef; there was no pus. I put in a couple of drainage tubes and she began to improve and I found that was no doubt a case of pyemia or embolus, and a

large portion of the calf sloughed. She began to improve, and later on another abscess formed. There was no local condition in the uterus which held the pus in there, but it simply passed into the calf and the general system at once.

Dr. Kenny: I might say that Mr. Rorke brought out the point that in about tyenty per cent. of women who are not pregnant, one finds various bacteria in the vaginal secretions. During the last eighteen months there has been considerable examination of secretions Williams at John Hopkins. Published in the American Journal of Obstetrics of Women and Children. He finds the ordinary streptoccus and bacilli, so the theory of autoinfection is fairly well limited. While there may be some cases occur, most through the examining finger in vaginal examination. In regard to the treatment of these cases I was connected with, the largest obstetrical hospital in America, the Lying-in, in New York, and there the cases were divided into two classes as far as possible. Of course, there are intermediate cases. In the first class we got very little odor, a high temperature and a running pulse, no curettement was undertaken, but where you got a vile discharge and comparatively low temperature, then the curetting was done, with very good results. I have seen women with 103 temperature and profuse offensive discharge and the temperature come down to normal and remain so after curettement. I may say here, I have had one case of infection after instrumental delivery and slight tearing which I thought was unnecessary to suture, and promptly her temperature came up on the fourth day to 105 and pulse running, and after consultation, Stearn's streptolytic serum was used and then her temperature came down to normal, remained so for four days, then shot up to 104 and 105 and an area of consolidation in the lung was found; after using the Stearn's serum again, the temperature came down to normal and she had an uninterrupted recovery.

Dr. Nicholls: As to introducing infection on the finger. In one case I came on the scene just as the child was being born and didn't have to introduce the finger, and yet that woman got the infection.

Dr. Kenny: I would suggest that perhaps a good supply of gowns and rubber gloves would prevent infection and would prevent the need of disinfecting the clothes, and if we were more scrupulous in the use of gowns and gloves, we wouldn't have so many cases of infection.

Dr. Lehmann: I may relate a case which I know of, a case in a Galician woman, who had very severe post partum hemorrhage, and had no medical attendant.The method of stopping the hemorrhage was by stuffing the vagina with horse dung, and after this was removed, the patient recovered.

Dr. Bond: I had a case of erysipelas, and attended to, and the same morning made a post mortem examination, and scrubbed my hands very thoroughly with everything I could think of. That afternoon I was called to a confinement which I had to attend. I did so, with great fear and trembling, seeing the previous history of the day, but everything went well at the confinement and mother and child got along all right and are both living today, as far as I know.

Dr. Hunter: I would like to ask a question as to the statistics. Dr. Rorke quoted twenty per cent. I wonder if a similar state of statistics is known as to the male urethra?

Dr. D. S. Mackay: We know that there are bacteria existing in all operations, and we try to eliminate as far as possible the number, in other words, we render the field, as far as possible, aseptic We never get it absolutely clean, and our result will depend upon the

number we introduce and also the amount of resisting power of our patient. If our patient has good resisting power, and there are not too many bacteria, nor of too virulent a type, introduced, the patient should make a good recovery. In obstetrics, there is a good deal of bruising in every case, there is sure to be a certain number of lacerations, whether they be minute or larger. It is not necessary for the obstetrician to introduce this infection by the finger. It may be introduced afterwards. Sometimes before delivery you find that people who have never had a bath, get along well, and I think in all probability, that there is tolerance of the tissue established—that is, if you are doing operations around the anus you cannot render those tissues immune or render them sterile. I think the tissues of those parts are immune to some extent to the liability of infection. I think that taking precautions prior to the delivery is of greater value than trying to treat after you get infection. During delivery you will find with some obstetricians there are too many examinations. That should be discouraged, and no man who has the welfare of his patient at heart will do so. It generally shows a lack of knowledge of the way a case should run, not being able to make his diagnosis as to the way things are shaping themselves. I have had a considerable number of obstetrical cases, and rarely after forcep cases do I use the douche, and only when there is a liability to hemorrhage or when I am afraid of my asepsis, and in very few cases have I had a bad result.

Dr. Sharpe: I would like to have some gentleman give his experience with the use of antistreptococci serum. As the question of erysipelas has come up, Nothnagel, in speaking of the use of the serum, thinks it is useless. But as puerperal septicemia, practicing among the Mennonites, puerperal septicemia was very common occurrence, and it was a very common occurrence to be asked to see a case a week after the midwives had attended the case and find you had a case of puerperal fever on hand, and the same thing occurs in North Winnipeg. I remember one case, a farmer's wife. She had a maid in the house who assisted all she could at the time. The maid was menstruating, and the woman thought she had contracted the fever in that way. There had been no examination of the vagina. What is the difficult problem to me is, whether to curette and when not. For some years after graduating, I curetted the most of my cases of puerperal fever. I remember one case, temperature 105, pulse 130, there was a nasty discharge, I curetted without giving her chloroform or any of the ordinary preparations. The next morning the temperature was 102, and inside of a week the woman was convalescent. In another case there was a case of puererpal fever, and in that case a great deal of detritus came away and I didn't curette. However, I employed treatment which has not been mentioned here tonight, and may be of interest in that way, that was the use of icthyol vaginal suppositories. After cleaning out the vagina thoroughly I gave an intrauterine douche and passed the suppository into the womb and that was repeated later. The woman developed a very large abscess, which was opened, and she made a good recovery. In that case the anti-streptococci serum wasn't given. Another case occurred shortly after attending a case of puerperal fever, and I can say I have never carried infection from one case to another. I hav never had a normal case of pregnancy develop puerperal fever while I was attending puerperal fever. I generally took the precautions of changing the clothing and antiseptic both and use of rubber gloves, and a pretty careful disinfection of my satchel and its contents. I disinfect with for-

malin and leave my satchel closed up for twenty-four hours. I don't know if it is of any particular benefit, but it is satisfactory. I saw, last week, a woman who had what was apparently an ordinary miscarriage, and I was attending a pretty bad case of erysipelas at the time, with abscess formations in the lungs, a case of septicemia, and I didn't examine the woman and only saw her for a very short time. She had, I think, what was undoubtedly puerperal fever, there had been no examination, and the woman had not been douched. I quite agree with Dr. Mackay as to the disuse of the douche following confinement, and the examination. I would like to know if anyone has tried the application locally of antiseptics to the womb, and if they have had similar results.

Dr. Kenny I would like to ask some questions. First, as to the proportion of puerperal fever in private practice and those in hospitals. I don't think it can be shown there are more cases in a good obstetrical hospital than in private practice. I think it is quite the opposite. And as to douching, the modern practice is, I think, after every instrumental case, to douche. Certainly in every hospital I have been connected with, that has been the routine practice, and with good results, and in one of these hospitals they confine over three thousand cases a year. I only saw one woman who was confined by that hospital staff contract septicemia, while there was a great number of women brought in by private practitioners with septicaemia.

Dr. Munroe: In arranging this discussion I had arranged with Dr. Carscallen for a discussion as to the induction of serum in the cases of puerperal septicaemia. He was here last meeting and was fully prepared to deal with the cases. He uses Park Davis' serum. Certain it is that one comes across cases that yield readily to serum. In cases of abortion, where you have retained secundine and such like, and if you give a douche and clear that away the woman resumes the normal state. In cases where you have no odor to account for, the temperature, you may feel assured that the infection, whatever it is, has gone too far for curettement or douche. And in such cases curetting and douching only add to the discomfort of the patient and use up their strength. It is in those cases that we feel we have a very useful commodity in the antistreptococci serum. We have two charts here tonight showing progress of a case by Dr. Tees, and by Dr. Dorman. Every infection isn't due to the streptococcus, but in same cases they are due to the gonococcus.

Dr. Tees: By these charts, about thirty-six hours after the antistreptococci serum was given, the temperature went up, then came down to normal, when I repeated it. I think I made the mistake in not continuing the antistreptococci serum long enough. I would now, until the temperature was normal and remained normal for twenty-four hours. If I had done that the second rise would not have occurred. I think the majority of gentlemen here tonight have favored the use of the curette, but I don't. I think, in the majority of cases, you can get along without the curette, that is, your finger instead of the curette. I have seen cases myself where the fundus have been up to the umbilicus and it is impossible to explore better with the finger and the umbilicus and it is impossible to explore with the finger. I think it is a mistake to use the douche, especially after the third stage has passed. I used to use it in my own practice, but soon as such men as Williams and Doufin Edgar have given it up, and are very emphatic in condemning it, I have not used it in my own cases. I think the only case where one should use the douche is in cases where one is not certain that all aseptic precautions have been taken.

Dr. Hunter: Man, age 49, perfectly healthy until five years ago. Since then, he has suffered from a skin eruption, the characters of which are well marked. The cardinal feature of the eruption is the appearance on the upper extremities, including the fingers, the trunk, and to a lesser extent on the lower extremities of vesicles, blebs and bullae—these appearing generally in unreddened skin-like drops of water, though in some instances there is inflammatory action around. The size of the individual lesion varies from little more than a pin-head to a quarter of a dollar size, or even more. The itching is intense. He scratches, rupturing the bleb with relief of the itching.

A marked feature is the tendency to grouping of the lesions, five or six being frequently found together. For the past five years, patient has been troubled with recurring outbreaks, and the itching has been intense throughout. The eruption as now seen, shows the reddened raw surfaces and scabs where the vesicles have been burst by scratching, with considerable inflammatory reaction around. From the patient's standpoint, the all important desideratum is the relief of the itching which has been intense throughout, worse at night, though by no means absent during the day.

Diagnosis: One naturally thinks of Scabies—but in spite of his close association with his wife and family, no other member has been during pregnancy. One of these articles is written by Little under tions, and does appear on the back to a marked degree. There are besides no typical scabbies' lesions.

Next pemphagus must be considered. Against this, is the intense itching, the tendency to grouping of the lesions and the variation in size from pinhead to more than 25c size of the individual lesions.

Only the special variety of Pemphigus known as Pemphigus Pruriginosus, needs to be considered, and many would class the case before you as coming under this group. But the majority of dermatologists separate off from Pemphigus, a special group of cases, in which, while as in Pemphigus, the individual lesion is a bleb, the individual blebs vary very much in size, the lesions tend to run in groups and the itching is intense.

There can be no doubt, I think, that the case before us belongs to this group and is thus an example of Dermatitis Herpetiformis. There is usually in these cases an increase of Eosinophiles in the blood, but I have not yet examined the blood.

The treatment is unsatisfactory—in many cases, the system is below par and rest with change of air is recommended. No improvement followed in this case after five or six months' holiday with a course at Banff. Dietetic treatment seems to have little effect. Arsenic is lauded by many, giving it in small doses and gradually increasing it—others recommend quinine and strychnine. For local applications, bran baths and ordinary soothing applications. For the itching, Liquor Carbonis Detergens, in the strength of 1 or 2 teaspoonfuls to a small teacupful of water or stronger, resorcin, 1—5% solution, carbolic acid, etc. Ointments with Liquor Carbonis Detergens (one dram or more to the ounce) are also recommended, Sulphur ointment has many supporters, but must be used cautiously at first.

I must add that the case belongs to Dr. Hugh Mackay, with whom I saw it in consultation this afternoon and in whose absence, I have he pleasure of showing it.

GENERAL MEDICAL NEWS

VITAL STATISTICS

For May	Vancouver	Edmonton	Winnipeg
Births....................	111	40	179
Deaths	75	19	155
Marriages................	25	11	85

Infectious Diseases	Edmonton		Winnipeg	
	Cases	Deaths	Cases	Deaths
Typhoid Fever.......	9		21	1
Scarlet Fever........	1		10	1
Diphtheria..........	3		15	1
Measles.............	46		4	
Mumps.............	0		5	
Erysipelas...........	2		1	
Whooping Cough....	0		1	
Chickenpox..........	3		4	
Smallpox	9		3	
	73		64	3

Province of British Columbia for 1907—Births, 3047; Deaths, 2396; Marriages, 2025.

Cause of Death: Zymotic Diseases, 214; Constitutional, 306; Local, 1273; Developmental, 382; Violent Deaths, 359; Ill-definek, 54; Natural causes, 35.

MEDICAL NEWS

Dr. Fagan, Provincial Health Officer of Victoria, in view of the fairly wide-spread outbreak of small pox of a mild type on the other side of the Line, has ordered the publication of notices in the press of the health regulations demanding the instant reporting of cases of contagious diseases to the Medical Health Officer by physicians and householders with special mention of chickenpox, which is prevalent now in the city.

Any person found negligent in reporting is to be prosecuted according to regulations.

It is possible the Dominion Government will be asked to establish a quarantine at the Line.

48% of the Indians of Alaska are said to be suffering from tuberculosis—and all the children suffering from some disease according to Captain Hutton's (Asst. Surgeon, U.S.A) report. The only salvation he says lies n sending medical men north to instruct the Indians in sanitation.

P. H. Officer Seymour reports increase in small pox cases throughout the West due to raising the quarantine on the State of Minnesota.

Dr. Clarke, Superintendent of the Toronto Hospital for Insane, in a lecture stated that of 200 patients admitted during the year 120 were foreigners and the greater part recent arrivals. The cause, Dr. Clarke said, was the extremely bad supervision of immigrants. The cost of maintenance of those who could not be deported would be for Toronto Asylum at least $300,000.

Dr. Robertson, Health Officer of Victoria, B. C., is urging the stringent enforcing of the regulations to prevent plague stricken rats being brought from San Francisco, Seattle, etc., by steamers to Victoria. After the 15th inst. one of the crew is to be appointed to specially supervise the execution of the regulations and to watch the gang plank.

At the recent examinations for license to practice in B.C., 36 candidates presented themselves of which the following were successful: J. W. Andrews, B. Asselstine, J. W. Auld, M. D. Baker, W. Bapty, W. N. Bride, L. E. Borden, A. B. Chandler, R. Crosby, G. E. L. McKinnon, A. C. Nash, M. Raynor, J. B. Thorn, A. Cumming, A. J. Danks, C. Donovan, J. N. Gunn, W. R. Hall, C. T. Hilton, A. H. Huycke, J. B. Leeder, M. Mackay, H. McGregor, T. R. Helles, T. A. Swift, C. C. Wriglis. Dr. Fagan was in charge of the examinations and Drs. Sutherland (Revelstoke), McKechnie, Proctor, Tunstall (Vancouver), Walker (New Westminster), Jones (Victoria) assisted.

Among the Queen's College graduates are the following western men: J. P. E. Clancey, Lumsden, Sask.; H. A. Connoly, Vancouver; M. C. Costello, Calgary; A. McDonald, Regina; F. B. Dekintosh, Edmonton; J. G. R. Ramedholl, New Westminster; T. R. Ross, Abernethy, Sask.

The Health Officer of Vancouver has instituted a system in his office by which he can tell at a glance the cases of contagious diseases in the city and their localities. A large map of the city is placed on the wall and on each lot where a case has been found, a flag is pinned—the color telling the class of diseases. By this plan the outbreak of any disease can be traced from one section of the city to another and safeguard taken throughout the schools.

About 60 students are expected to enrol for the University of Alberta in the fall. Toronto began with 26; McGill with 19. The supply of calendars for distribution has been exhausted and a second edition is being printed.

The Health Department has issued a warning to the public in general against taking any washing from houses which are under quarantine. This has been found necessary owing to the discovery that bundles of clothing from such houses have been taken to public laundries.

Dr. James F. Rymer, an English Surgeon, is the first medical man to go into the far North with the intention of making his permanent residence among the Indians. He has been staying in Edmonton for the last six months, and is now on his way to Fort Good Hope on the Mackenzie River, 1800 miles north of Edmonton. He does not intend to return for at least three years. The only other physician living in the North is Dr. Donald at Lesser Slave Lake. Dr. Rymer intends going far beyond the area where treaty money is paid and will practice among the Indians and Esquimaux in the vicinity of Fort Good Hope and Fort McPherson on the Mackenzie River near the Arctic Ocean.

In Great Britain no medical man can give a Death Certificate unless he has attended the case at least 48 hours before death.

The B. C. Electric Railway Class in First Aid to the Injured was examined by Dr. Underhill lately. He reports that every man did well. The benefit to the public of such classes is great.

At the Annual Convention of the Ontario Medical Association the following resolution was passed, that, "whereas the destruction of a child for any cause than that of the preservation of the life of the mother is deliberate murder, and whereas perpetration of this act by members of the medical profession not only incriminates the physician himself, but also brings disgrace upon the honorable calling, we take this opportunity of stating that this association has always condemned in the strongest possible terms this criminal practice."

The following have been elected Officers of the B. C. College of Physicians and Surgeons: Dr. Proctor (Vancouver), President; Dr. Sutherland (Revelstoke), Vice-President; Dr. Jones (Victoria), Treasurer; Dr. Fagan (Victoria), Registrar.

In the "Technical World Magazine" (June) a practicable bottle made of paper is described by Emmett Campbell Hall. This seems the solution of one part, at least, of a sanitary milk supply. Both Great Britain and the United States now use such vessels for delivering milk. Milk keeps better in a paper package in summer and does not freeze so quickly in winter. The material used for these paper bottles are spruce wood paper and paraffin. The paraffin coating used does not affect the milk in any way according to the Department of Agriculture.

Dr. Darlington, Health Commissioner of New York, states that there has been a great increase in heart disease in most cities, especially New York. Dr. Guilfoy says: "Lack of exercise, overeating, intemperance and, generally speaking, high living is responsible for the remarkable increase." Worry is responsible for much. They find that the foreign immigrants do not suffer from this. It is the out and out American and especially the well-to-do business or social man and woman.

PERSONALS

Dr. J. W. Powell, of Vancouver, has returned from his trip to the Old Country.

Dr. A. J. Watt, who has been in charge of the Quarantine Station, is taking a month's holiday in Winnipeg.

Dr. E. C. Beer, of Brandon, has gone for a few weeks to Rochester, Minnisota.

Dr. and Mrs. A. R. Baker, of Vancouver, have gone for a few months' visit to England and the Continent.

Drs. McGregor and Andrew, of Winnipeg, have been successful in the B. C. examinations. Dr. McGregor will practice in Penticton, B. C., and Dr. Andrew in Kelowna, B.C.

Dr. Crookshanks, of Rapid City, has been visiting Brandon.

Dr. S. A. F. Hone is a patient at St. Paul's Hospital, Vancouver.

Dr. and Mrs. King, of Cranbrook, are visiting Vancouver.

Dr. Large, of the Methodist Hospital at Bella Bella, and Mrs. Large have been spending a fortnight in Vancouver.

Dr. Donald, of Lesser Slave Lake, and formerly of Fort Saskatchewan, has been on a short visit to Edmonton.

Dr. and Mrs. Gillespie, of Victoria, have gone on a visit to New York.

Dr. and Mrs. Elliot, of Wilmer, B. C., have been visiting Victoria and the mainland.

Dr. Bell Irving has gone on a business trip to Japan and China.

Dr. and Mrs. Rose, of Nelson, B. C., have returned from their visit to Victoria. Dr. Rose was attending the Knights of Pythias convention, of which Order he is the Deputy Grand Chancellor.

Dr. and Mrs. Eden Walker, of New Westminster, are visiting Eastern Canada.

Dr. Shurie, of Vancouver, has started practice in Haney.

Dr. Hamish McIntosh, Medical Superintendent of the Vancouver General Hospital, is taking a month's vacation, during which he will attend hospital clinics in Toronto and Montreal.

We regret to hear that Dr. West, of Vermilion, is suffering from an attack of pleurisy.

Dr. Brodie, of Prince Rupert, has been visiting Vancouver.

Dr. Kate Mackenzie has started practice in Vancouver.

On May 16th Premier McBride turned the first sod for the new Vernon Jubilee Hospital, towards which the government has contributed $25,000. Provincial Secretary Young and Attorney General Bowser were present.

About 800 acres have been puchased for the Asylum at Ponoka, which is to cost from $150,000 to $200,000.

The services of an expert are to be procured for the purpose of advising the trustees of the Manitoba Sanatorium as to the best site in the province. The merits and demerits of Ninette and Bird's Hill were thoroughly gone into at the last meeting, but the diversity of opinion was so great that the only wise course seemed to call in an independent authority.

The Provincial Asylum for Saskatchewan is to be built this year at some point in the north of the province. Four places are under consideration.

Rosthern is taking steps to establish a thoroughly up-to-date College Hospital.

The ladies of Victoria collected $1044.60 for the proposed maternity ward at the Royal Jubilee Hospital on "Hospital Saturday."

Dr. Wallace, of Winnipeg, has been appointed assistant to Dr. Hasell, Resident Medical Officer of the Provincial Royal Jubilee Hospital, Victoria, B. C.

The Mayor of Moose Jaw is very strong in his expression that all hospitals receiving aid from a municipality should be owned and governed by the city.

The Battleford General Hospital is to be closed for some months on account of financial difficulties. Arrangements are being made to run it as a private hospital till the board are able to open up again.

The Alberta Sanatorium will probably be moved to Strathcona owing to need for larger quarters. A new building costing about $35,000 is proposed. The institution is under the control of the Seventh Day Adventists, who have many such in Canada.

The Hospital service in connection with the G.T.P. construction on the Pacific coast is to be in charge of Dr. F. J. Ewing, formerly of Fort William. It is probable that a base hospital will be established at Prince Rupert with smaller ones at various points along the Skeena River.

The Government has passed regulations which only permit Hindus to enter Canada when they come direct from India. As there is no direct line steamer from India, the Indians having to go to Hong Kong and there get a vessel to take them to the coast, this practically shuts them out. The same regulations now apply to Japanese unless they come direct from Japan.

The North Vancouver Board of Trade Hospital Committee have concluded a per capita arrangement with the Provincial Government.

Wetaskiwin intends to increase its hospital accommodation.

BORN

CREIGHTON—The wife of Dr. Creighton, of Melita, Man., of a son.

MARRIED

MACMILLAN—NICHOLAS—At Victoria, Miss Hattie Nicholas, youngest daughter of Mr. and Mrs. E. Nicholas, of Victoria, was married to Dr. MacMillan, of Vancouver.

BOOK REVIEWS

TREATMENT OF INTERNAL DISEASES. By DR. NORBERT ORTNER, Univ. of Vienna. Edited by NATHANIEL BOWDITCH PORTER, M.D., Visiting Physician to the New York City Hospital, etc. Translated from the fourth German edition by FREDERIC H. BARTLETT, M D. Pp. 658. Philadelphia and London: J. B. Lippincott Co. Price, not stated.

The fact that Ortner's work on "Treatment of Internal Diseases" has met with such a demand as to justify the production of four German editions in nine years attests its value and popularity among German physicians and students.

Following the practice of Neusser Clinic, in which he was an assistant, the author is inclined to make finely drawn distinctions in pathologial and clinical manifestations. For this he is blamed by the editor, who considers that such numerous sub-divisions are unnecessary in laying down lines of treatment. This, together with the editor's criticism and introduction of lines of thought as well as methods of treatment used by American physicians makes the work somewhat confusing to the beginner, who has no decided personal experience to fall back on. The technique of those therapeutic measures requiring manipulations are clearly and fully given. Every practitioner should profit considerably from a careful study of the work.

The editor and translator are to be congratulated upon producing it in clear and good English. The editor uses his critical powers fully and freely even where differing from the author's opinion.

The publishers have contributed their proper share in the production of the book.—R. R.

NOTICES

The Medical Era's Gastro-Intestinal Editions.

The "Medical Era," St. Louis, Mo., will issue its annual series of Gastro-Intestinal editions during July and August. In these two issues will be published between 40 and 50 original papers of the largest practical worth, covering every phase of diseases of the Gastro-intestinal canal. Sample copies will be supplied readers of this journal.

The meeting of the B. C. Medical Association will be held in Vancouver 20th and 21st August. A cordial invitation is extended to any members of the profession.

LENS : : GRINDING

We are in a position through our lens grinding plant to fill prescriptions for spectacles and eyeglasses accurately and promptly.

In using first quality lenses only we can assure patrons of this department entire satisfaction. : : : : : : : :

D. R. Dingwall, Ltd.

Jewellers and Silversmiths

424 and 588 Main St., Winnipeg

SURGEON'S

RUBBER GLOVES

90c, Per Pair

Any Size 7—7½—8—8½—9. Faultles Rubber Co.'s Manufacture.

Supplied by

Chandler & Fisher, Limited

The Surgical Supply House of the West. : : : : :

Warehouse — WINNIPEG

GLYCO-THYMOLINE

FOR

CATARRHAL CONDITIONS

Nasal, Throat

Intestinal

Stomach, Rectal

and Utero-Vaginal

KRESS & OWEN COMPANY

210 FULTON STREET NEW YORK

Country Doctors,

can trade with us just as conveniently and just as satisfactory as people in the city. When anything is needed in the line of drug store goods

Mail Your Orders

Our well-organized MAIL ORDER service will serve you promptly. Goods are always shipped on day order is received, if articles ordered are in city.

Our stock is large and includes about everything druggists sell. Our rapid selling ensures freshness. Low prices are the rule. We guarantee satisfaction.

The Gordon-Mitchell Drug Co., Winnipeg, Man.

In the treatment of

ASTHMA

by the inhalation of Nitre fumes prescribe

Asthmoids

Prepared by

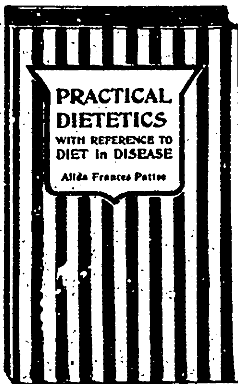
BARTLE & CO., Chemists,

Box 323, Detroit, Mich.

We have now in stock **Portraits** of Lord Lister Darwin, Huxley Koch, Pasteur, Virchow, Haekel, Jenner and others.

RICHARDSON BROS.

336 PORTAGE AVE. - WINNIPEG, MAN.



Appropriate Food for every Disease and what to avoid

Practical Dietetics

With Reference to Diet in Disease

By ALIDA FRANCES PATTEE, special lecturer on Dietetics at Bellevue, Mt. Sinai, Hahnemann, and Flower Hospital Training Schools for Nurses, New York City; St. Vincent De Paul Hospital, Brockville, Ont., Canada.

Containing the special diets recommended by leading physicians in New York, Philadelphia and Boston. Giving the formulae for preparing the food they advocate.

Adopted as a text-book by leading Medical Colleges and Hospital Training Schools.

Adopted by the Schools of Instruction for use in the Canadian Militia, and Medical Department of the United States Army.

Authorized for use in the Training Schools for Nurses, by the Educational Department of the State of New York, and in the New York and Boston Public Schools.

This book fulfills the requirements as to simplicity, brevity and exactness, with reference to Dietetic treatment in Disease.

Fourth Edition Just Out. 12 mo. cloth, 312 pages. Price, $1.00; by mail $1.10; C.O.D. $1.25.

A. F. PATTEE, Publisher and Medical Bookseller 52 West 39th St., NEW YORK CITY, N.Y.

THE FACT is now generally recognized that far better results can be obtained in the treatment of disturbances of the digestive functions, by employing various digestive ferments in combination, than can be secured by the separate administration of these agents.

From the results obtained, first by chemical test and then by clinical results, Dike's Elixir has shown that this precise combination of Digestive enzymes is most efficient.

This undoubted efficiency commends it to your preference.

We shall be glad to furnish you with a sample to prove our claims.

Frederick Stearns & Co.

Windsor, Ont. Detroit, Mich.

Kasagra
THE ORIGINAL
STEARNS' CASCARA AROMATIC

has been the best palatable preparation of Cascara for about twenty years.

This potent fact alone should cause you to hesitate to prescribe or dispense any other preparation of Cascara.

You cannot go wrong if you write "Kasagra" and insist upon your patients getting it.

Kasagra is always right, and always the same.

FREDERICK STEARNS & COMPANY
WINDSOR, ONT. DETROIT, MICH.

THE PHYSICIAN OF MANY YEARS' EXPERIENCE

KNOWS THAT, TO OBTAIN IMMEDIATE RESULTS

THERE IS NO REMEDY LIKE

SYR. HYPOPHOS. CO., FELLOWS.

MANY **Medical Journals** SPECIFICALLY MENTION THIS PREPARATION AS BEING OF STERLING WORTH.

TRY IT, AND PROVE THESE FACTS.

SPECIAL NOTE.—Fellows' Syrup is never sold in bulk.

It can be obtained of chemists and pharmacists everywhere.

DOCTOR'S

BRASS SIGNS

& RUBY GLASS SIGNS

C. BOOTH & SON

21 Adelaide St. W., Toronto

SAL HEPATICA

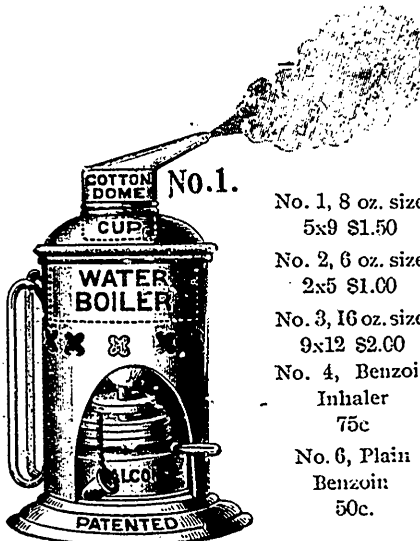
The original effervescing Saline Laxative and Uric Acid Solvent. A combination of the Tonic, Alterative and Laxative Salts similar to the celebrated Bitter Waters of Europe, fortified by addition of Lithia and Sodium Phosphate. It stimulates liver, tones intestinal glands, purifies alimentary tract, improves digestion, assimilation and metabolism. Especially valuable in rheumatism, gout, bilious attacks, constipation. Most efficient in eliminating toxic products from intestinal tract or blood, and correcting vicious or impaired functions.

Write for free samples.

BRISTOL-MYERS CO.
Brooklyn-New York.

Simplex Croup Kettles

The Leaders on the Market



No. 1, 8 oz. size, 5x9 $1.50

No. 2, 6 oz. size, 2x5 $1.00

No. 3, 16 oz. size, 9x12 $2.00

No. 4, Benzoin Inhaler 75c

No. 6, Plain Benzoin 50c.

Employed for Lost Voice, Singers' Throats, Grip, Croup, Larnygitis, Catarrh, Pneumonia, Tuberculosis, after "Adenoid Operations," Scarlet Fever, etc. Full directions.

Delivered Prepaid

LYMAN SONS & CO., MONTREAL

The Western Canada Medical Exchange

WE have an excellent practice in Manitoba for sale. Splendid connection with private hospital. Terms to suit

Write us for *Locum Tenens.*

For QUICK SALE list your Practices with US.

Address Communications to
Room 517 Phone 1759
McIntyre Block,
Winnipeg

Synopsis of Canadian North-West Homestead Regulations

Any even numbered section of Dominion lands in Manitoba, Saskatchewan and Alberta, excepting 8 and 26, not reserved, may be homesteaded by any person who is the sole head of a family, or any male over 18 years of age, to the extent of one-quarter section of 160 acres more or less.

Application for entry must be made in person by the applicant at a Dominion Lands Agency or Sub-Agency for the district in which the land is situate. Entry by proxy, may, however, be made at an Agency on certain conditions by the father, mother, son, daughter, brother or sister of an intending homesteader.

The homesteader is required to perform the homestead duties under one of the following plans:

(1) At least six months' residence upon and cultivation of the land in each year for three years.

(2) A homesteader may, if he so desires, perform the required residence duties by living on farming land owned solely by him, not less than eighty (80) acres in extent, in the vicinity of his homestead. Joint ownership in land will not meet this requirement.

(3) If the father (or mother if the father is deceased) of a homesteader has permanent residence on farming land owned solely by him, not less than eighty (80) acres in extent, in the vicinity of the homestead, or upon a homestead entered for him in the vicinity, such homesteader may perform his own residence duties by living with the father (or mother).

(4) The term "vicinity" in the two preceding paragraphs is defined as meaning not more than nine miles in a direct line, exclusive of the width of road allowances crossed in the measurement.

(5) A homesteader intending to perform his residence duties in accordance with the above while living with parents or on farming land owned by himself must notify the Agent for the district of such intention.

Six months' notice in writing must be given to the Commissioner of Dominion Lands at Ottawa, of intention to apply for patent

W. W. CORY,
Deputy of the Minister of the Interior.

N.B.—Unauthorized publication of this advertisement will not be paid for.

PHARMACEUTICALS OF QUALITY

WARNER & CO.

The name indicates laboratory experience of over 50 years, in the manufacturing of:

PILLS AND GRANULES { SUGAR COATED—ROUND, GELATIN COATED—OVIFORM

COMPRESSED TABLETS { CHOCOLATE COATED, SUGAR COATED, UNCOATED

TABLET TRITURATES, - - PARVULES

FLUIDEXTRACTS, Standardized, therefore, Physiologically Active.

ELIXIRS, SYRUPS, STANDARD TINCTURES, GRANULAR EFFERVESCENT SALTS,

SPECIALTIES

HEP-SO-LAX NEW EFFERVESCENT SALT

Each ounce represents:

SODIUM PHOSPHATE, U. S. P.,	218.75 GRS.
SODIUM SULPHATE, U. S. P.,	218.75 GRS.
LITHIUM CITRATE, U. S. P.,	40. GRS.

A Very Efficient, Palatable, Hepatic Stimulant, Laxative and Diuretic.

SAMPLES AND LITERATURE ON REQUEST

WM. R. WARNER & CO.,

MANUFACTURING PHARMACEUTISTS,

PHILADELPHIA, PA.

Branches:

New York, Chicago, New Orleans.

Pill Cholelith

Indicated in the medical treatment of

Cholelithiasis, Cholangitis, Cholecystitis, Duodenitis, etc.

FORMULA: Acid Sodium Oleate, 1½ grains; Sodium Salicylate (from salicylic acid, natural), 1½ grains; Phenolphthalein, ½ grain; Menthol, 1-10 grain.

PILL CHOLELITH is a cholagogue and biliary antiseptic of exceptional value. It is successfully employed in the treatment of infectious catarrhal inflammations of the bile- and gall-ducts. It is indicated in bile-stasis unattended with calculi, as well as in actual stone-formation.

Bottles of 100, 500 and 1000.

Our New Booklet Explains.

Write for it.

Lactone

Home-Made Buttermilk.

A quart of pure, fresh milk, a Lactone Tablet, a little water and a pinch of salt produce a buttermilk that equals in flavor and excels in nutritive value the product of any dairyman.

LACTONE BUTTERMILK is commended to physicians as a wholesome food, a delicious beverage, a useful preparation in the treatment of gastro-intestinal maladies with digestive disturbance, and in malnutrition.

Lactone Tablets—bottles of 25.

Write for Our Lactone Circular—It Gives Full Particulars.

PARKE, DAVIS & COMPANY

LABORATORIES: DETROIT, MICH., U. S. A.; WALKERVILLE, ONT.; HOUNSLOW, ENG.

BRANCHES: NEW YORK, CHICAGO, ST. LOUIS, BOSTON, BALTIMORE, NEW ORLEANS, KANSAS CITY, INDIANAPOLIS, MINNEAPOLIS; LONDON, ENG.; MONTREAL, QUE.; SYDNEY, N.S.W.; ST. PETERSBURG, RUSSIA; BOMBAY, INDIA; TOKIO, JAPAN; BUENOS AIRES, ARGENTINA.