

Technical and Bibliographic Notes / Notes techniques et bibliographiques

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

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

- Coloured covers /
Couverture de couleur
- Covers damaged /
Couverture endommagée
- Covers restored and/or laminated /
Couverture restaurée et/ou pelliculée
- Cover title missing /
Le titre de couverture manque
- Coloured maps /
Cartes géographiques en couleur
- Coloured ink (i.e. other than blue or black) /
Encre de couleur (i.e. autre que bleue ou noire)
- Coloured plates and/or illustrations /
Planches et/ou illustrations en couleur
- Bound with other material /
Relié avec d'autres documents
- Only edition available /
Seule édition disponible
- Tight binding may cause shadows or distortion
along interior margin / La reliure serrée peut
causer de l'ombre ou de la distorsion le long de la
marge intérieure.

- Coloured pages / Pages de couleur
- Pages damaged / Pages endommagées
- Pages restored and/or laminated /
Pages restaurées et/ou pelliculées
- Pages discoloured, stained or foxed/
Pages décolorées, tachetées ou piquées
- Pages detached / Pages détachées
- Showthrough / Transparence
- Quality of print varies /
Qualité inégale de l'impression
- Includes supplementary materials /
Comprend du matériel supplémentaire
- Blank leaves added during restorations may
appear within the text. Whenever possible, these
have been omitted from scanning / Il se peut que
certaines pages blanches ajoutées lors d'une
restauration apparaissent dans le texte, mais,
lorsque cela était possible, ces pages n'ont pas
été numérisées.

Additional comments /
Commentaires supplémentaires:

Continuous pagination.

The

SUBSCRIPTION . . .

\$1.00 per annum, Canada and United States

\$2.00 " Great Britain and Colonies

Canadian Journal of Medicine and Surgery

Vol. III.

TORONTO, CAN., JUNE, 1898.

No. 6.

Lactopeptine is used in all Hospitals, and has the Endorsement of the Medical Profession throughout the world.

Preparations of Lactopeptine



Lactopeptine Powder

Containing the five active agents of digestion: PEPSIN, PANCREATIN, PTYALIN, LACTIC and HYDROCHLORIC ACIDS, in the proportions in which they exist in the healthful human stomach.

Lactopeptine Elixir

Represents above preparation in liquid form, combining a tonic with the digestive action. An elegant and palatable preparation.

Lactopeptine Elixir

WITH PHOSPHATES IRON, QUINIA AND STRYCHNIA

A powerful General and Nerve Tonic, in combination with ELIXIR LACTOPEPTINE, as described above.

Lactopeptine Tablets

Each Tablet contains 5 grains of LACTOPEPTINE POWDER. Elegant, accurate in dosage, and exceedingly palatable.

OOOO

For Sale
by all Druggists.

THE NEW YORK PHARMACAL ASSOCIATION
88 Wellington Street West
TORONTO.

SAMPLES FORWARDED ON APPLICATION

PHYSICIANS

Specify Mulford's Antitoxin
because of its unrivalled record

**The Highest Percentage
OF
RECOVERIES
AND
Most Extensive Employment
IN THE UNITED STATES AND
CANADA**

H. K. MULFORD COMPANY

Chemists

PHILADELPHIA

CHICAGO

Write for Literature

To Restore

SOMETHING NEW



PLEASANT, RELIABLE

normal alkalinity to the blood, alkalies and alkaline salts have proven generally unsatisfactory.

TABLET LITHOS *Eff. vesc. nt*
(MULFORD'S)

is most effective, because an active solvent and diuretic. It is employed with great success in **Lithemia, Gout, Chronic Rheumatism, Uric Acid Diathesis, Cystitis, etc.**

LITHOS is Lithium Bitartrate and Sodium Salicylate, *recens.*

Send for a trial bottle and recent literature.

H. K. MULFORD COMPANY

Factors Soluble Tablets

PHILADELPHIA

CHICAGO

ARTIFICIAL LEGS AND ARMS



MARKS' PATENTS of 1854, 1863, 1865, 1880, 1886, 1887, 1892, 1893, 1895 cover all the accredited improvements in artificial legs and arms, and make the Marks' Artificial Limbs peerless. Rubber feet remove jar and make the stump-bearings easy. Rubber hands extend the limits of accommodation.

Light, Durable, Practical. Do not get out of order, and inexpensive to wear. Appreciated by over twenty thousand wearers and thousands of surgeons of prominence. Twenty-nine highest awards.

Purchased by the United States and several other governments, railroad companies and other large corporations.

The limits of the utility of Marks' Artificial Limbs are unbounded. Persons wearing them engage in every occupation and profession.

This cut is from a photograph of John J. Winn, Signal Quartermaster on **U. S. S. Oneida**, who lost his leg above the knee and arm above the elbow, by the explosion of a shell while the steamer was engaged in the attack on Forts Jackson and St. Philip, under the command of **Admiral**

Farragut, April 22, 1862. The following letter tells what the old warrior knows about Artificial Legs and Arms :

MR. A. A. MARKS.

DEAR SIR,—I write you this simply to say that my experience with your Artificial Limbs, together with considerable experience with other kinds, induces me to prefer yours by all odds. The special point I desire to mention is the simplicity of construction in your leg, whereby I can take it apart, lubricate and adjust with my one (natural) hand, and put together again without any help. My good solid weight of two hundred and forty pounds gives the leg a good trial, and yet I feel a confidence in it that I had never had in any other kind.

Yours sincerely,

JOHN J. WINN.

Send for **Marks' Treatise on Artificial Limbs**, and become acquainted with particulars. The book contains 544 pages, illustrated by 800 cuts, and a thousand testimonials. Instructions are given how to take measurements and obtain artificial limbs without leaving home.

ESTABLISHED OVER 45 YEARS.

A. A. MARKS, 701 Broadway, New York.

When writing advertisers, please mention THE CANADIAN JOURNAL OF MEDICINE AND SURGERY

KING'S PUREMALT

No similar preparation has ever gained favor so quickly with Physicians and Nurses as has **KING'S PUREMALT**.

As its name indicates, it is a pure extract of malt, entirely free from acid, gum, glucose or any other adulterant or thickening substance.

KING'S PUREMALT possesses both a prophylactic and therapeutic value. It is especially adapted to the needs of the aged, and for nursing mothers it is indispensable. It is a nerve sedative, and as such, brings the blessings of quiet and restful sleep to those troubled with insomnia. It is a tissue builder, and as such, is of the highest value to convalescents. It is an aid to digestion and assimilation of food, and as such, may be used by dyspeptics with the most favorable results.

In all our literature we emphasize the medical value of **PUREMALT** as an aid to the hardest work of the conscientious physician, the **BUILDING UP** after the crisis is past.

Physicians and Nurses, and all others interested, are invited to write for our literature. It will be found not only instructive but also entertaining.

PURE FOOD DEPARTMENT

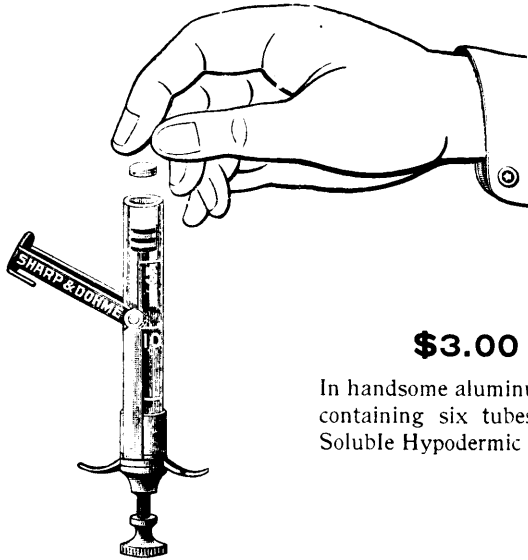
CHARLES A. KING, Boston, Mass.

AGENTS FOR ONTARIO:

S. B. CHANDLER, SON & CO., Limited,
Toronto, Ont.

BOIL OUR SYRINGE

and thus keep it aseptic. It is simple, strong, compact, clean.



\$3.00

In handsome aluminum case, containing six tubes of our Soluble Hypodermic Tablets.

DO NOT BOIL OUR HYPODERMICS

because it is unnecessary. They dissolve almost instantly in **cold** water. Those physicians who have been using tablets that dissolve slowly even in **hot** water will appreciate the superiority of "cold water" tablets, especially in emergency cases.

Free samples.

Canadian Representatives:
Messrs. DART & CHAPMAN
MONTREAL, CAN.

SHARP & DOHME
BALTIMORE
CHICAGO NEW YORK

WYETH'S SOLUTION

Peptonate of Iron and Manganese

(LIQUOR MANGANO-FERRI PEPTONATUS-WYETH.)

Physicians will find very useful in the following diseases : *Scrofula, Anaemia, Chlorosis, Amenorrhœa, Debility* from various causes, *Convalescence* from acute fevers and surgical operations, *Nervous Maladies*, such as *Graves's Disease, Neurasthenia, Epilepsy, Cretinism*, and any other *Nervous Condition* requiring a *Tonic Strengthening Medicine*, in *Rickets, Pyloric Stenosis, Phthisis, Diabetes*, etc., etc.

This remedy is of pleasant, neutral taste. It can readily be taken in a little water, milk or sweet wines, free of tannin, as may be preferred. Is non-astringent, and does not injure the teeth or constipate the bowels.

WYETH'S ELIXIR

ANTI-DYSPEPTIC

Will be found peculiarly efficacious in those derangements attended with flatulence, acid fermentation, eructation superinduced by eating rich food, pastry, starchy vegetables, excess in drinking spirituous liquors, and excessive smoking. It will prove equally valuable in almost every condition of weak and impaired or imperfect digestive powers, either due to catarrh of the mucous coat of the stomach or in those symptoms characterized by sensations of distress and uneasiness during digestion, usually termed Nervous Dyspepsia.

Each dessertspoonful contains : Pepsin 1 gr., Pancreatin 2 grs., Cascara Sagrada 1 gr., Ipecac 1-5 gr., Strychnine 1-60 gr., with the active constituents of 30 minims Antiseptic Solution.

Samples of the above will be forwarded to any practicing physician, free of expense, upon application to

DAVIS & LAWRENCE CO., LIMITED,

General Agents for John Wyeth & Bro.

MONTREAL.

Contents.

Original Contributions—	PAGE	Editorials—	PAGE
Pulmonary and Other Internal Hemorrhage. By Alexander McPhedran, M.B.	297	Some Shortcomings in School-Houses and the Remedy	331
Hip Disease—A Clinical Lecture. By B. E. McKenzie, B.A., M.D.	301	The Ontario Medical Association	335
Instructive Statistics. By J. J. Cassidy, M.D.	307	A Stenographer for Coroners' Inquests	337
The Obstetric Binder. By W. J. Wilson, M.D.	311	Embalming Fluids and Trials for Murder	339
The Bearing of Pathological Processes on the Therapy of Morbid Processes Along the Genito- Urinary Tract in the Male. By Thomas H. Manley, M.D.	313	The Ontario Medical Council and Inter-Provin- cial Registration	340
		The Army Surgeon	341
		The International Association of Railroad Sur- geons	342
		Chloroform and Illuminating Gas	343
		Those Munyon Doctors	343
Selected Articles—		Correspondence—	
How Thinking is Done	317	There is Somewhat of a Resemblance, Isn't There?	344
Some of the Dangers Surrounding the Dairy ...	320	The Physician's Library	345
Pharmacology and Therapeutics—		Personals	351
The Revision of the British Pharmacopoeia	324	Items of Interest—	
Formaldehyde as a Preservative of Milk	327	The Water Drinking Habit	352
Proceedings of Societies—		Aboriginal Gratitude	354
Toronto Clinical Society	328		

CONSTIPATION

in any of its forms, and in the most delicate conditions, is best relieved by the

Franz Josef Natural Aperient Water

The action is gentle, prompt and thorough. The taste is not disagreeable.

The **Franz Josef** is employed and recommended by the leading medical luminaries of Europe and America.

Prof. Ch. Gerhardt, of Berlin, wrote:—"I have employed the **FRANZ JOSEF WATER** frequently, and always with a sufficient and certain success."

Prof. Oser, of Vienna:—"I frequently order the **FRANZ JOSEF PURGATIVE WATER** in the Rothschild Hospital and in my private practice, and I obtain, even with small doses, satisfactory results in all cases."

Prof. von Nussbaum, of Muntch:—"The **FRANZ JOSEF WATER** acts quickly and painlessly and often by the use of surprisingly small quantities."

Prof. von Bamberger, of Vienna:—"I have used the **FRANZ JOSEF WATER** in my clinic many times and do not hesitate to declare that it is one of the most powerful of the bitter waters. Its constant use leaves no injurious effects."

In Liver Torpidity, Portal Congestions, Jaundice, etc., the **Franz Josef** may be ordered with perfect confidence.

DOSE.—For children, $\frac{1}{2}$ to 2 wineglassfuls; for adults, 1 to 3. Taken before breakfast a satisfactory movement usually follows the meal.

Wholesale Depot for Canada and United States,
Elijah J. Molloy, 101 Beekman Street, New York.

WYETH'S LIQUID MALT EXTRACT



WYETH'S MALT EXTRACT

contains all the nutritive virtues of the best malt liquors in a much higher degree than any other product with which it can be compared, and the least amount of alcohol (3 per cent.) of any like preparation which avoids the distressing consequences experienced from the use of spirituous liquors, or malt extracts containing a large amount of alcohol.

WYETH'S MALT EXTRACT

is agreeable to take, and is a valuable nutrient, tonic and digestive agent, containing a large amount of extractive matter. Those of the medical profession who have given the subject of malt extracts careful study are unanimous in endorsing all the claims that are made for it.

WYETH'S MALT EXTRACT

is especially adapted to nursing mothers and children, to those suffering from nervous exhaustion, chilliness, and to those unable to digest starchy food. It also acts as a roborant in all cases of debility, and is a most valuable addition to the treatment required in convalescence.

WYETH'S MALT EXTRACT

is practically a liquid bread that is partly digested. It has for its prime object the production of nutriment, and the entire process of manufacture is devised for the purpose of attaining that end.

WYETH'S MALT EXTRACT

is a purely pharmaceutical preparation, and we would caution physicians when ordering to specify "Wyeth's," as it is well known that there are a great many so-called malt extracts in the drug stores which contain such an amount of alcohol that it is not safe to leave the choice to the discretion of the patient, who might be prevailed upon to purchase an inferior article on account of its being a little cheaper.

Free sample bottles of Wyeth's Liquid Malt Extract will be sent to any practicing physician in Canada upon application.

PRICE, \$3.50 PER DOZEN BOTTLES



Davis & Lawrence Co., Limited

SOLE AGENTS FOR CANADA MONTREAL

PUBLISHERS' DEPARTMENT.

PAGE	PAGE	PAGE
Abbey's Effervescent Salt	Gray, William	Paul Paquin Laboratories
Abbott Alkaloidal Co	Greig & Co., R.	Peacock Chemical Co
Alaska Feather and Down Co	Gundlach Optical Co.	Pickering, Mrs
Alpha Rubber Co.	Halsey Bros.	Polk & Co., R. L.
American Rubber Tire Co.	Halford, Robert.	Pond's Extract Co.
American Tobacco Co., Ltd.	Hamill, Dr. W. E.	Provincial Trust Co.
Antikamnia Chem. Co.	Hamilton & Co., A.	Psychic Publishing Co.
Arlington Hotel	Harvey Co., G. F.	
Armour & Co.	Hendry, F. T.	Radnor Water Co.
	Hoehn Co., The R.	Reichardt & Co., F. A.
Ball Nozzle Co	Hunt Saddle Co.	Renfrew, G. R.
Beaver Line		Renner, Dr.
Belle Ewart Ice Co.	Imperial Granum Co.	Resin-d Chemical Co.
Benger's Food	International Fibre Chamois Co.	Rice Lewis & Son
Bethesda	I. O. F.	Rochester Optical Co.
Betz Co., F. S.		Rossin House
Bolte, Auguste	Jackson Sanitarium	Royer & Rougier
Bovine Co.	Junor, William	
Bovril Limited		Sandreuter & Waters
Brand & Co.	Kennedy, J. H.	Scott & Bowne
Breitenbach Company, M. J.	Kidder Manufacturing Co	Sharp & Dohme
British Antitoxin Mfg. Co.	King, Charles A.	Sharpe, Eakins & Ferris
Bromo Chemical Co		Sharp & Smith
Brown & Co., G.	Labatt, John	Shipway Iron Works
Bryson Bros.	Lambert Pharmaceutical Co.	Smith, T. & H.
Buffalo University	Lander, Norman B.	Smith, Kline & French Co
	Leclanche Battery Co.	Spooner, W.
Calvert & Co., F. C.	Lepage Manufacturing Co.	Southern Pacific Railway Co.
Canadian Typograph Co	Lyman Sons & Co.	Standard Silver Co.
Castle & Co., Wilmot		Stearns & Co., Frederick
Chicago Policlinic	Macdonald, A.	Stevenson, H. M.
Chloride Battery Co.	Magor & Co., F.	Sutherland, J. A.
Christie Brown Co.	Marks, A. A.	Swan Bros.
Church & Byrne	McGill University	
Cowan's Hygienic Cocoa	McIntosh Battery & Opt. Co.	The Canadian Cigar Co.
Cramer Dry Plate Works	McLaughlin, J. J.	Toronto Electric Light Co.
	Merck & Co.	Toronto Salt Works
Davis & Lawrence Co	Michigan College	Toronto Wine Co
Deitz Co., R. E.	Missouri Pacific Railway Co.	Trust Corporation of Ontario
Detroit and Cleveland Nav. Co.	Monsoon Indo-Ceylon Tea	
Detroit College of Medicine	Montague Private Hospital	Underwood & Co., G. B.
Dominion Dyewood & Chem. Co.	Moor, Josh	
Duncan, Floekhart & Co	Mulford Co., H. K.	Vichy
		Victor May & Co.
Eastman Kodak Co.	National Blank Co.	Virtue & Co.
Elder, Robert	New England Vaccine Co.	
Electro-Medical Mfg. Co.	New York Condensed Milk Co.	Wacks Bros., Messrs
Elliott Illustrating Co.	Niagara Falls Line	Walden & Co.
Empire Manufacturing Co.	Nordheimer, A. & S.	Walker, Dr. Holford
Everett House	North American Chemical Co.	Walker & Sons, Hiram
Evans & Sons	North-West Development Co.	Wampole & Co., Henry K.
	N. Y. Pharmaceutical Co.	Weston, Geo
Fairchild Bros. & Foster	N. Y. Polyclinic	Wheeler Chemical Works
Federal Life Assurance Co.	N. Y. School of Clinical Medicine	Wheeler's Tissue Phosphates
Fellows Med. Manuf. Co.	N. Y. Tire Co.	Wilson & Co., L. A.
Fessenden Manufacturing Co.		Windsor Salt Co
Flavell & Bro., G. W.	Od Chemical Co.	Wood, W. Lloyd
Franz Josef Water	Ontario Vaccine Farm	Woolrich & Co.
Frogley, C. J.		
Georgetown University	Pabst Brewing Co.	Yucca Manufacturing Co.
Gerrard Street Livery	Parke, Davis & Co.	
Gibson, R. L.	Paris Medicine Co.	
Gilmour Bros. & Co.	Parisian Steam Laundry Co.	
Goetz, C. P.		

UNIVERSITY OF BUFFALO.

MEDICAL DEPARTMENT.

The Fifty-Second Regular Session Commences September 13th, 1897
AND CONTINUES THIRTY WEEKS.

The lectures will be held in the large, new, three-story building, containing three amphitheatres, and rooms for dispensary patients. Chemical, Pathological, Histological, and Pharmaceutical Laboratories thoroughly equipped with modern conveniences. Instruction by Lectures, Recitations, Laboratory work, and Clinics. Four years' graded course. Clinical advantages unexcelled.

For further particulars and Announcement, address

DR. JOHN PARMENTER, Secretary,

University of Buffalo, BUFFALO, N.Y.



PHYSICIANS who desire that their patients should use some form of Hamamelis, or Witch Hazel, can be sure of obtaining a preparation which is unvarying in its strength and always to be relied upon for its efficacy and purity by specifying **POND'S EXTRACT** in their prescriptions. This precaution is necessary because of inferior preparations of witch hazel, frequently recommended by druggists as just as good as POND'S EXTRACT.

POND'S EXTRACT is indicated for **pains, bruises, sprains** and many troubles of an **inflammatory** character in which a soothing and healing lotion is desirable. It has also very valuable properties as a **styptic** and **astringent**, and is, therefore, especially useful in checking **hæmorrhage**. It is besides **antiseptic**, entirely without danger from poisonous effects, and can be used in any quantity without fear of harmful results. It is scientifically prepared and always uniform.

It is, therefore, recommended to the medical profession as a safe and useful preparation. *A bottle will be sent free to any physician on application.*

Prepared only by **POND'S EXTRACT COMPANY,**
76 Fifth Avenue, New York.

Trade Mark on every Wrapper.



Blaud's Pill Capsules

Equal to 1, 2 or 3 Blaud's Pills,
and Capsules of

Blaud's Pill with Arsenic

These far surpass Blaud's Pills in efficacy,
as they neither oxidize nor harden.

IN BOXES OF TWO DOZEN AND ONE HUNDRED

Prepared by  

Duncan, Flockhart & Co.

 **EDINBURGH**

Agent in Canada . . .

MR. R. L. GIBSON, 88 Wellington Street West

Samples free on application.

TORONTO

RADNOR WATER

The Purest and Most Delicious of Natural Table Waters. Fresh and Sparkling from the Canadian Laurentian Hills, especially adapted for use in the sick room, and unequalled as an exquisite dilutant with wines and liquors.

ANALYSIS OF RADNOR SPRING WATER

By J. T. DONALD, M.A., *Professor of Chemistry, Medical Faculty, Bishop's College, Analytical and Consulting Chemist and Assayer.*

MONTREAL, June 14, 1894.

"I hereby certify that I have analyzed the sample of Radnor Water received from the Canada Iron Furnace Co., Limited, and find the following results in 10,000 parts of water:

Chloride of Sodium.....	14.354	Bicarbonate of Sodium..	1.697
Chloride of Potassium.....	.211	Carbonate of Lime.....	2.940
Sulphate of Sodium.....	.210	Carbonate of Iron.....	Traces
Sulphate of Magnesia.....	1.262	Silica.....	.145
Bromide of Sodium.....	.080		

In 10,000 parts of water.. 20.899

"A purely natural water, brilliant, pleasantly sparkling, and delicate to the taste."—*The Lancet*, London, Eng.

"Radnor is a most refreshing and palatable mineral water for table use, and mixes well with any wines or spirits. It deserves to take its place in the front rank of table waters."—*The Nursing News and Hospital Review*, London, Eng.

RADNOR WATER CO., MONTREAL AND RADNOR, QUE.

"Radnor" can be obtained from all leading Druggists, Grocers, and all principal Clubs, Hotels, Restaurants, etc.

DR. RENNER'S

ESTABLISHMENT FOR
VACCINATION WITH CALF LYMPH

186 MARYLEBONE ROAD, LONDON, N.W.

"The Oldest Original CALF VACCINE INSTITUTION in England."

Prices of Calf Lymph— "GLYCERINATED."	Tubes	Large	- - - -	2s. each, or three for 5s. 6d.
		Small	- - - -	1s. each, or three for 2s. 9d.
	Sufficient for one Vaccination only		-	2 for 1s., or 6 for 2s. 9d.
	Squares		- - - -	2s. 6d. each.

Sent on receipt of remittance addressed to the MANAGER of the Establishment. Agents Wanted.

Registered Telegraphic Address: "VACCINE, LONDON."

Gard to the Medical Profession

Telephone 5240

THE attention of the Medical Profession in Toronto is respectfully called to the fact that

I make a Specialty of Dispensing Physicians' Prescriptions

And I solicit their patronage.
Only the best goods used.
Graduates only employed.
Prescriptions promptly delivered night or day.



NORMAN B. LANDER,

708 Queen St. West

Cor. Manning Ave.

Toronto.



The "**CHAMPION**" and "**MONITOR**" Hydraulic Automatic-Working Air Compressors Receivers, Pressure Regulators, and complete atomization outfits. If you want an absolutely reliable, noiseless and up-to-date outfit, write for catalogue, prices and information to **AUGUSTE BOLTÉ, 47 Colborne Street, Toronto, Ont.** Sole dealer in the Dominion for The Cleveland Faucet Co.'s famous Air Compressors.

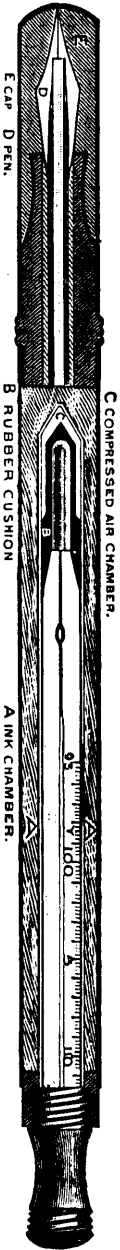


Put up in Quarts, 50 Bottles to the Case. Pints, 100 Bottles to the Case.
Half-Pints, 100 Bottles to the Case.

SOLE DEALER....

AUGUSTE BOLTÉ, 47 Colborne St., TORONTO

When writing advertisers, please mention THE CANADIAN JOURNAL OF MEDICINE AND SURGERY.



THE THERMO PEN

materials and is furnished with a 16-karat gold nib, which can be procured either broad or fine in the point, so as to suit the writer. At the other end of the pen is attached a Clinical Thermometer, which screws into an enclosed cavity in what is usually the ink chamber, the fluid for the pen being kept entirely separate from the thermometer, and not interfering with it in any way. The thermometer is one of the best instruments, and in each case is sold with a certificate as to its accuracy. The Thermo Pen can be carried round in the upper waistcoat pocket and occupies no more space than the ordinary fountain pen does. This Fountain Pen alone sells at \$3.00. We offer **\$3.50** the combination of Pen and Thermometer for



THE "FOUNTAIN PEN" SYRINGE.

Another of our novelties is our Pocket Gonorrhoeal Syringe, which to all appearances is a fountain pen. The syringe is the same size, length and shape as a pen, and at one end has in it a cavity in which can be carried round a dozen or more tablets, each one of which on being dropped into two drachms of water makes a solution all ready for use. This instrument is one which will command a very ready sale, and we ask the medical profession to look into its merits, and order it for their patients. The price to the profession is

The tablets can be procured according to any private formula from any manufacturing druggist. We will be glad to send either of these articles direct to any physician on receipt of order.

THE NATIONAL BLANK CO.,

THE S. B. CHANDLER, SON & CO., Limited, 14 East 17th Street, New York.

Selling Agents for Canada.

JOSH C. MOOR

Direct
Importer

• • Wine and Spirit Merchant

Very old **Malaga** and **Marsala Wines**. Highly recommended for
invalids.

Specially old and fully matured **Port** and **Sherry Wines**. (Vintage
1860.) Sir R. Burnett's world-renowned **Orange Bitters**.

PURE OLD BRANDIES AND WHISKIES FOR MEDICINAL USE

N. Johnston & Sons' Celebrated **Clarets** and **Sauternes**, the most
reliable and popular, bottled by themselves in the best condition,
in **Bordeaux**, and imported direct at first cost. A full assortment
in quarts and pints.

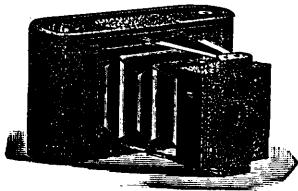
Chablis', **Beaune** and **Macon Burgundies**. • • • **Bott's Malt Stout**.

All orders from the country promptly attended to.

TELEPHONE 625

433 YONGE STREET, TORONTO, ONT.

A FACT TO BE REMEMBERED



Cameras and Photographic Supplies

OF EVERY DESCRIPTION

Suitable for use by the Medical Profession, can be
secured at lowest prices at

SHARPE, EAKINS & FERRIS

94 Bay Street

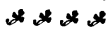
• • TORONTO

TELEPHONE 2079

I respectfully request the DOCTORS in
Toronto to bear in mind that my

Genuine Home-Made

as well as all other **BREADS**, are manu-
factured out of only the purest of in-
gredients and by experienced bakers.

My waggons deliver all
over the city 

The endorsement of medical men requested



C. J. FROGLEY

850 YONGE ST.

TELEPHONE 3701

INSTITUT PASTEUR DE PARIS

Dr. Roux's Anti-Diphtheric Serum, 10 cubic centimeters, vial, \$0.85 each.
 " " " 20 " " " 1.50 "

The Pasteur Institute of Paris does not prepare any concentrated serum.

Experience has shown that Dr. Roux's serum containing 150 units to the c.c. can be injected by large doses without any inconvenience whatever, and has proved to be effective in every case when treatment was commenced in due time.

ANTI-STREPTOCOCCUS SERUM

Against Erysipelas, Puerperal and Scarlet Fever

10 Cubic Centimeters, Vial - - - - \$1.00 each.

STERILISABLE FRENCH SYRINGES FOR INJECTING SERUM

Extra Quality and Finish

10 Cubic Centimeters, - - - - \$2.50 each.

20 " " " - - - - 3.00 "

Sent Free of Postage upon Receipt of a Money Order.

ROYER & ROUGIER FRERES, 55 St. Sulpice Street, MONTREAL.

ZIMMER'S
VALIDOL
 PATENTED

VEREINIGTE CHININFABRIKEN
ZIMMER & CO.
Ges mit beschränkter Haftung, FRANKFORT °M

SANDREUTER & WATERS
 Sole Agents
MONTREAL



EUQUININE.

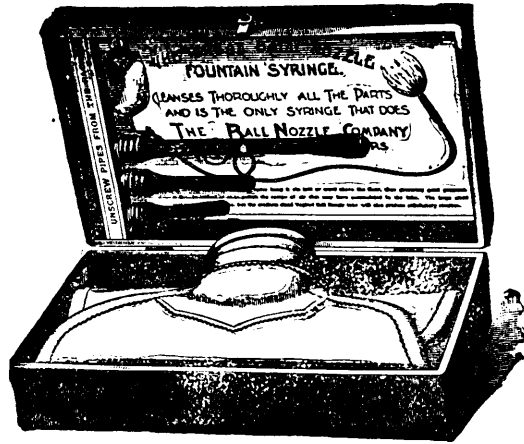
IS

TASTELESS QUININE

ACTING
 IN EVERY WAY
 LIKE

QUININE

VALIDOL an **ANALEPTIC**
VALIDOL an **ANTIHYSTERIC**
VALIDOL for **NAUSEA**
VALIDOL for **SEASICKNESS**



USE ONLY THE GREAT

Ball Nozzle Syringe ❁ ❁



Accomplishes wonders for the health of women.

Cleanses thoroughly the cul-de-sac.

Endorsed by the highest medical authority.

Send for Private Circular.



MANUFACTURED BY

The Ball Nozzle Company of Toronto, Limited

ROOM 1, CONFEDERATION LIFE BUILDING

TORONTO, ONT.

When writing advertisers please mention THE CANADIAN JOURNAL OF MEDICINE AND SURGERY.



If you will prescribe
PABST MALT
EXTRACT for some
 weak and exhausted nurs-
 ing mother, you will be sur-
 prised at her quick up-building.

**SUPREME
 AWARD
 WORLD'S
 FAIR**

The Best Tonic **PABST MALT EXTRACT**

**The Trusts
 Corporation
 of Ontario**

**Capital Subscribed:
 \$1,000,000**

President:
 Hon. J. C. AIKINS, P.C.,
 Toronto.

Vice-Presidents:
 Hon. S. C. WOOD, Toronto.
 W. D. MATTHEWS, Esq., Toronto.

This Company acts as **Administra-
 tor** in the case of intestacy, or with
 will annexed, **Executor, Trustee,
 Receiver, Committee of Lunatic,
 Guardian, Liquidator, Assignee,**
 etc., etc., also as **Agent** for the above
 offices.

All manner of Trusts accepted;
 Moneys invested; Estates managed;
 Rents, Incomes, etc., collected.
 Bonds, Debentures, etc., issued and
 countersigned.
 Deposit Safes to rent, all sizes.
 Parcels received for safe custody.
 Solicitors placing business with the
 Corporation are retained in the pro-
 fessional care of same.

A. E. PLUMMER, Manager.

OFFICES AND SAFE DEPOSIT VAULTS:
**BANK OF COMMERCE BUILDING
 KING STREET WEST
 TORONTO, ONT.**

The Montague Private Hospital

159 BLOOR ST. EAST, TORONTO

TELEPHONE 3865

J. H. LOWE, M.D., - - Medical Superintendent

Formerly THE TORONTO NURSING HOME AND COTTAGE HOSPITAL, ON MONTAGUE PLACE.



The Management of this Institution beg to announce that they have now moved into new quarters at the above address.

The business hitherto carried on will be continued as follows :

Patients will be admitted for Surgical Operations, Confinements, Massage and all non-infectious diseases.

Patients may be attended by their own doctor, and his directions will be carefully carried out by trained nurses, the nurses being entirely responsible to the doctor in charge of the patient for the proper performance of his instructions.

Massage, etc., given without residence, if so wished.

Rheumatism treated by the new and successful superheated dry air method.

Both male and female patients will be received.

The charges for board and nursing will be from \$1.00 to \$2.00 per diem according to location of room, and payable weekly in advance. These prices have been placed at the lowest possible figure compatible with carrying on the Institution, and are not subject to modification.

All medical attendance, massage, treatment of every kind, extra.

The Montague Private Hospital is pleasantly situated, is on the Belt Line, and may also be reached by the Church Street Line of the Street Railway. It is made as comfortable and home-like as possible.

All further information may be obtained on application to DR. LOWE, or to the Lady Superintendent, MISS DOVER (Graduate Toronto Training School) at the above address, or to the Secretary of the Company,

ROOMS 81 AND 82 CANADA LIFE BUILDING, TORONTO. Telephone 2024

The Montague Private Hospital Company, of Toronto
(LIMITED).

When writing advertisers, please mention THE CANADIAN JOURNAL OF MEDICINE AND SURGERY.

A Simple and Convincing Test.

Take two test tubes. Pour into one a small quantity of Parke, Davis & Co.'s ERGOT ASEPTIC; into the other, an equal quantity of any one of the ordinary preparations of Ergot on the market. Add to each from three to five volumes of alcohol. Parke, Davis & Co.'s ERGOT ASEPTIC remains clear; the other is precipitated. This precipitate consists of extractive matter and ergotinic acid, both of which are very objectionable in ergot preparations intended for hypodermatic administration.

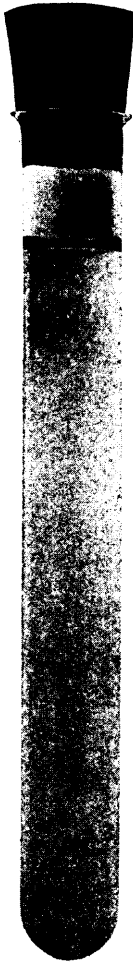
Extractive matter is inert, and causes abscesses. Ergotinic acid is a nerve depressant and irritant.

Aside from being entirely free from both extractive matter and ergotinic acid, Parke, Davis & Co.'s ERGOT ASEPTIC is physiologically tested and standardized. Hermetically sealed glass bulbs exclude all germs or other contaminating substances. It is entirely free from both acid and alkali. No alcohol, glycerin, salicylic acid, or other preservative is added which might prove irritating. Each bulb contains one cubic centimeter, representing two grammes of standard Ergot. Every bulb is sterilized, and the total absence of bacteria is evidenced by the fluid remaining limpid. "It is very rapid and powerful in its effects, producing strong uterine contractions within a surprisingly short time."

LITERATURE UPON REQUEST.

Parke, Davis & Company,

Walkerville, Ont.



A Very Serious Handicap!



In the sixth edition of
Prof. Hare's "Practical
Therapeutics" the au-
thor remarks *a propos*
of Cannabis Indica :: ::

"The employment of this most valuable remedy is handicapped by its frequent lack of power—a fault which is largely dependent upon its preparation. The drug as prepared by Parke, Davis & Co. has proved efficacious in the author's hands for a number of years. The physician should always employ some preparation known by him to be active by personal trial before condemning the drug in a given case."

Every parcel of our Fluid Extract Cannabis Indica is subjected to searching physiological test, and is adjusted to our established standard of activity.

Parke, Davis & Company,

Walkerville, Ontario.

Astonishing Results

The Waugh-Abbott Intestinal Antiseptic meets all the indications for an antiseptic for the alimentary canal safely, surely and pleasantly; and their name is legion.

The "W-A" Intestinal Antiseptic is a mixture of the chemically pure sulphocarbonates of lime, soda and zinc, especially made by a process that eliminates all the hitherto objectionable properties of the sulphocarbonates and has been found much more satisfactory than either salt alone. It is indicated in all fermentive and septic conditions.

It has no equal as an antiseptic in dyspepsia, diarrhea, dysentery, cholera morbus, cholera infantum, the green stool of nursing babies, flatulence, sour stomach from fermentation and all conditions allied to the above. It is practically a specific in typhoid fever when backed up by proper supporting measures.

The Waugh-Abbott Intestinal Antiseptic should, as a general rule, be used in connection with strychnine arseniate, or other indicated tonics, and eliminative doses of Abbott's Saline Laxative.

Price, per 100, 40c; 500, \$1.90; 1000, \$3.75; direct or through the regular channels of trade. Sample and literature on request, mentioning this journal.

THE ABBOTT ALKALOIDAL CO., CHICAGO



*A highly magnified view of a drop of
Unfiltered Water*

If you drink ❀ ❀

Unfiltered Water

You absorb into your system animalculæ, microbes, dirt, and impurities of every description. Avoid this by using

"Success" Filter

Which absolutely removes these foreign substances and makes the water

Germ Proof and Clear as Crystal.

RICE LEWIS & SON

(LIMITED)

Cor. King and Victoria Streets - TORONTO

The Provincial Trust Company of Ontario LIMITED

AUTHORIZED CAPITAL
\$1,000,000



Offices:
McKINNON BUILDING, TORONTO

BOARD OF DIRECTORS.

President :

SIR RICHARD CARTWRIGHT, G.C.M.G., P.C., Minister of Trade and Commerce.

1st Vice-President :

S. F. McKINNON, Esquire,

Of S. F. McKinnon & Co., Vice-President Manufacturers' Life Insurance Company, and Director of the British America Assurance Company.

JOHN R. BARBER, Esq., M.P.P.,
President of the Toronto Paper Co., Georgetown.

G. STERLING RYERSON, M.D., F.R.C.S., Toronto.

REV. D. C. HOSSACK, Toronto.

HENRY SUTHERLAND, Esq.,
Managing Director the Temperance and General Life Assurance Company, Toronto.

R. MILLICHAMP, Esq.,
Of Millichamp, Coyle & Co., Wholesale Merchants, Toronto.

J. ORLANDO ORR, M.D., Toronto.

ALEXANDER FRASER, Esq.,
Of Magann & Fraser, Contractors, Toronto.

A. T. WOOD, Esq., M.P., Hamilton.

2nd Vice-President :

JAMES SCOTT, Esquire,

Vice-President of the Georgian Bay Lumber Company and Director of the Standard Bank, Toronto.

JOHN MACLAREN, Esq.,
Manufacturer and Lumberman, Brockville, Ont.

ROBERT BEITH, Esq., M.P., Bowmanville, Ont.

D. B. McLENNAN, Esq., Q.C., Cornwall, Ont.

HENRY K. EGAN, Esq.,
Vice-President Hawkesbury Lumber Company, Ottawa.
DR. J. H. WIDDIFIELD, Sheriff County of York, Toronto.

ALEXANDER BRUCE, Esq., Q.C.,
Of Bruce, Burton & Bruce, Barristers, Hamilton.

JOHN KNOX, Esq.,
Of Knox, Morgan & Co., Wholesale Merchants, Hamilton.

JOS. N. SHENSTONE, Esq.,
Secretary-Treasurer Massey-Harris Company, Toronto.

Manager: WILLIAM BEITH.

This Company is authorized by law to receive and execute Trusts of every character from Courts, Corporations and individuals. Acts as Executor, Administrator, Trustee, Guardian, Committee, Receiver, etc.

The Company also acts as agent for any person holding any of the above offices, and for all kinds of financial business, including the issue and countersigning of bonds and debentures, collection of rents, income, etc.; the management and winding up of estates, partnerships, etc.; investment of money, etc.

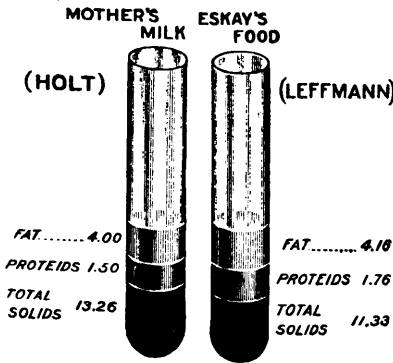
Solicitors placing business in the hands of the Company will be retained in the professional care thereof.

Correspondence and Personal Interviews Invited.

What is

ESKAY'S Albumenized FOOD

FOR
INFANTS AND INVALIDS?



It is a combination of cereals (barley, oats, maize and wheat) with egg-albumen and butter fat. The ingredients are so combined that the food is not only retained by the most delicate stomach, but also easily digested, absorbed and assimilated. It is aseptically manufactured, and when prepared with water and milk as directed, a perfectly sterilized mixture is obtained, thus preventing gastro-intestinal disturbances so often resulting from the use of raw milk.

CLINICAL REPORTS MAILED FREE WITH SAMPLES UPON APPLICATION.
SMITH, KLINE & FRENCH CO., MANUFACTURERS, PHILADELPHIA.

A LIFE BUOY

Pabst Malt Extract, The "Best Tonic," is a combination of stimulating and nourishing substances produced by a pure fermentation of the natural ingredients of malt and hops. The fermentation is conducted absolutely free from any foreign organisms, disease germs, etc., under scientific supervision, and according to the modern principles of bacteriology.

The Tonic Department of the Pabst Brewing Co. is always open to the inspection of physicians.

Pabst Malt Extract The Best Tonic


STODDART'S

Patented Veneered SURGICAL SPLINTS

These splints mark a great advance in the use of scientific appliances in surgery and fill a want long felt by every surgeon.

They consist of sixty-six pieces, each moulded to fit perfectly some part of the body and provide a splint for every kind of fracture or dislocation, thus covering the entire range of surgical fractures.

Every objection to the splints heretofore in use has been overcome by the "**Stoddart's Patented Veneered Surgical Splints**," which are stronger, lighter and cheaper than any splints now upon the market. The "**Stoddart's Patented Veneered Surgical Splints**" weigh but one-half that of any others, and are equally as strong. This renders them applicable in many cases of severe sprain or dislocation, where a heavier splint could not be used or would be exceedingly uncomfortable. Their very low price allows of their being used indiscriminately by the surgeon, who formerly was obliged to make his own splints.

In the production of the "**Patented Veneered Surgical Splints**," we have demonstrated that it is not necessary to weigh a patient down with heavy or cumbersome metallic, wood or felt splints, but that a light splint, equally as strong as any of these, may be used. 

In placing these splints before the profession we would call particular attention to the following points of excellence: they may be cut and shaped with a pocket knife; they are pliable and therefore require very little padding; they will not warp, are aseptic, waterproof, and, notwithstanding their lightness, meet fully all requirements as to strength.

We are satisfied that the "**Stoddart's Patented Veneered Surgical Splints**" will fill a great want in surgery, and that progressive physicians and surgeons will give them a most hearty welcome.

Sole Agents for Canada—

A. HAMILTON & CO., Druggists

HAMILTON, ONT.

It has long ago been admitted

By the Medical Profession that the remedy par excellence for reducing the heart's action without diminishing its fulness and strength, at the same time causing a dry, harsh skin to become moist and cool, is **VERATRUM VIRIDE**. Of this valuable therapeutical agent there are many (so-called) on the market, some so manufactured as to be almost noxious in action, causing severe nausea and vomiting, with well-nigh symptoms of collapse, and in nervous or hysterical persons a sensation of strangling and difficult breathing, which greatly alarms the friends and frequently even the physician in attendance.

The Original Veratrum Viride

Was manufactured for years by Dr. W. C. Norwood, of Mount Lebanon, Columbia County, N.Y., and is still to be procured. The medical profession may depend upon Norwood's Veratrum Viride being constant in action, and will be found to be invaluable in all febrile conditions, controlling and regulating the action of the heart and arteries.

To an adult male the proper dose is five drops, the dose to be increased by one drop administered at the end of every third hour, till the pulse is reduced to 65 beats per minute. When that stage has been reached, it is a simple matter to keep the heart's action down to that number without causing any nausea or vomiting.

Norwood's Original Veratrum Viride is the only agent that will render the pulse rate slower in health than natural and not diminish its fulness and strength. It never renders a pulse weak in health or disease, except when given in doses sufficiently large to nauseate. After use by Dr. Norwood for 36 years, he confidently says that his Veratrum Viride is destitute of all poisonous effects in any dose, however large or small.

Dr. Norwood was awarded a gold medal by the United States Medical Society.

The Canadian profession are invited to try this preparation. It can be procured through the trade or direct from

ROBERT HALFORD,

Mount Lebanon, Columbia Co.,

NEW YORK.

"Norwood" is blown into every bottle containing the preparation

BETHESDA

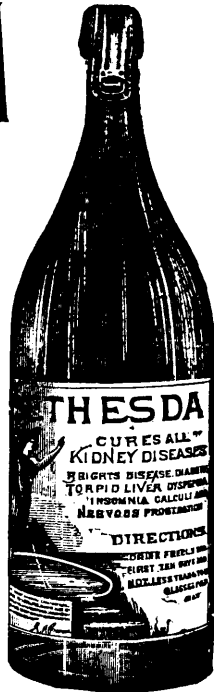
When taken with the proper diet has never failed to benefit a case of either

DIABETES
or
ALBUMINURIA,

and it will usually effect a cure, the exceptions being where the diseases are in the last stages.

MICHIE & CO.
Selling Agents
TORONTO

Send for Pamphlet.



HAYDEN'S VIBURNUM COMPOUND

The STANDARD REMEDY in the ailments of women in the United States. Perfectly safe in any and all cases. Prescribed and endorsed by more medical men than any one other special remedy in the world.

**THE NEW YORK
PHARMACEUTICAL COMPANY**

BEDFORD SPRINGS, MASS.

Send for hand-book, free.

Physicians Know

that in cases of convalescence from illness, it is ALL IMPORTANT that the patient be given a

**PERFECTLY PURE
WELL-MATURED WINE**

which at the same time is easily assimilated and digested.

We wish to notify the Canadian Medical Profession that our Wine is specially adapted for use by such patients, and we ask the doctors to use it and recommend it to their clients.

Our wines sell at very low prices consistent with quality. We manufacture

**PORT, RODGER, DELAWARE
and CATAWBA WINES**

and will be pleased to send a sample to any physician requesting the same.

The Toronto Wine Co.

27 FRONT ST. WEST, TORONTO

WM. McBEAN, Manager.



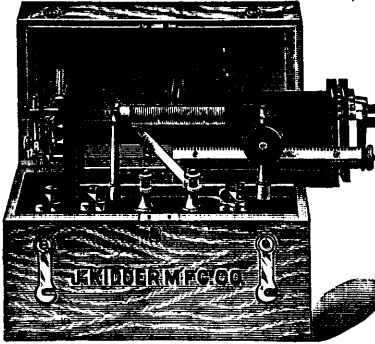
TORONTO **Canada**

Headquarters for . . .

**THE INTERNATIONAL
ASSOCIATION OF
RAILWAY SURGEONS**

And all other Medical Conventions.





Progress in the Development of Science

ELECTRICITY THE ADVANCING THERAPEUTIC AGENT

Our Improved High Tension Apparatus producing phenomenal sedative effects when applied to living tissue.

GALVANIC BATTERIES, used for the production of the direct current, Galvanism, Cataphoresis, Diagnostic Lamps, to supply energy for large induction coils where necessary.

FARADIC APPARATUS of great length of wire, producing superior electrical effects.

CABINETS, CONTROLLERS, ELECTRO-CAUTERY APPARATUS, Instruments in great variety, **MILLIAMPEREMETERS** of guaranteed accuracy, **SWITCH-BOARDS, BATH WORK, KEY BOARDS, WALL BRACKETS**, etc. Everything for the equipment of the electro-therapist. A certificate guaranteeing the length of wire in our faradic apparatus.

Promoters and Purveyors to the Medical Profession. Established upwards of a half a century. Reprints free if this Journal is mentioned.

JEROME KIDDER MFG. CO., 820 Broadway, New York, N.Y.

<p>HEALTH</p> <p>'RICE'S' is the Best Salt made for Domestic Purposes. Every Package Guaranteed PURE.</p> <p>HEALTH</p>	<p>"The Salt of the Earth"</p> <p>'RICE'S' PURE SALT</p> <p>For Sale at all First-Class Grocers.</p> <p>SOLE MANUFACTURERS: THE NORTH AMERICAN CHEMICAL CO., Ltd. Goderich, Ont.</p>	<p>HEALTH</p> <p>Physicians can safely recom- mend 'RICE'S' —it will not cake or harden in damp weather like other salt, and costs no more Money.</p> <p>HEALTH</p>
---	--	---

Now the Heated Term is near, **DOCTORS RECOMMEND**

Robinson's Patent Barley

for all **INFANTS**. It is a sure preventive of Summer Complaint.

FREE SAMPLE MAILED TO DOCTORS AND THEIR PATIENTS.

Apply— **FRANK MAGOR & CO., 16 St. John Street, MONTREAL.**



The only Battery which Generates the Proper Current for Medical Treatment.

**CLEAN! DURABLE!
HIGHLY EFFICIENT!**

Whatever make of Instruments you use, insist upon the Axo Cells being furnished with them.

The current given off by this Cell is of remarkable value in electro-medical treatment. As a therapeutic agent, it possesses an efficiency altogether unique and peculiar to itself, and which is not attainable from any other known electrical source. As a Stationary Battery for office practice it has no equal in the world. Always ready for work without trouble or preparation.

THE LECLANCHE BATTERY CO.
111 to 117 E. 131st Street, NEW YORK

Advisable always to have a supply in the house.

VIN MARIANI

THE IDEAL TONIC

Fortifies
Nourishes
Stimulates
Refreshes

**BODY
AND
BRAIN**



"I have much pleasure in stating that I have used the VIN MARIANI for many years. I consider it a valuable stimulant."
MORELL MACKENZIE, M.D., London.

Endorsed by eminent physicians everywhere. Used in Hospitals, Public and Religious Institutions. Sold by Druggists and Fancy Grocers. MAILED FREE, album of autographs of celebrities, by

LAWRENCE A. WILSON & CO.
Sole Agents for Canada. MONTREAL

*A Perfect
Infant Food*

**Gail Borden
Eagle Brand
Condensed Milk**

A PERFECT SUBSTITUTE FOR
MOTHERS MILK. FOR 40
YEARS THE LEADING BRAND.

"INFANT HEALTH" SENT FREE.
N.Y. CONDENSED MILK CO. NEW YORK

MODERN THERAPY

Butylamine, C₄, H₁₁, N.

Dihydrotoluidine, C₇, H₁₁, N.

Amylamine, C₅, H₁₃, N.

Aselline, C₂₅, H₃₂, N₂.

Hexylamine, C₆, H₁₅, N.

Morrhaine, C₁₉, H₂₇, N₃.

Are the alkaloids derived from Cod Liver Oil, and which, separated from the oil, act directly and powerfully upon the nerve centres which preside over nutrition and provoke a denutrition and a rapid assimilation correlative to the waste. They are excitants of general nutrition, and favor organic resistance.

WAMPOLE'S PERFECTED AND TASTELESS PREPARATION OF THE EXTRACT OF COD LIVER OIL

The first preparation bringing these precious medicaments to therapeutics, and the only original preparation of the alkaloids of Cod Liver Oil containing these alkaloids and other medicinal principles (Lethitines—Phospho Glycerites) obtainable from one-fourth its volume of pure Cod Liver Oil. These principles are extracted from the oil while it is yet contained in the fresh cod livers,

AND COMBINED WITH

Extr. Malt.

Physiological Action: Valuable food.

Therapy: Easily assimilated food in convalescence or wasting diseases, increases muscular tissue, and augments fat.

Fld. Extr. Prun. Virg.

Physiological Action: Astringent, tonic, sedative.

Therapy: Tonic, lessening cough and expectoration, strengthens digestive organs, and reduces fever.

Syr. Hypophos. Comp.

Physiological Action: Accelerates cell and tissue growths, tonic and stimulant.

Therapy: Tonic restorative, reduces sweating in nervous debility, promotes nutrition, arrests fatty degeneration.

Copy of analysis, circular matter, giving clinical results obtained by the use of Wampole's Preparation, samples for trial, etc., cheerfully furnished free of charge upon application.

Prepared solely by

HENRY K. WAMPOLE & CO.

Manufacturing Pharmacists

441 Green St., Philadelphia, Pa.

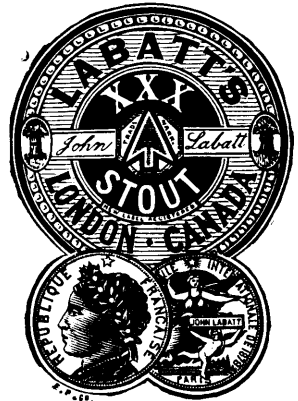
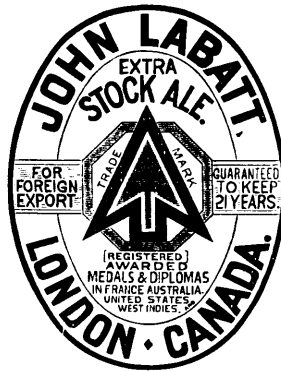
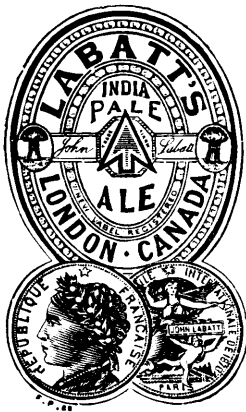
TORONTO CANADA.
MEXICO CITY, MEXICO.

When writing advertisers, please mention THE CANADIAN JOURNAL OF MEDICINE AND SURGERY.

LABATT'S London Ale and Porter

ARE UNDOUBTEDLY THE BEST ON THIS
CONTINENT

WELL brewed from the best materials—Pure Spring Water, Selected **HOPS** of the best growths, and **CHOICE BARLEY MALT**—No **Substitutes, Extracts or Compounds** of any kind whatever being used. Neither Pasteurised nor carbonated, but **Perfectly Fermented** and matured in the natural way. They are **Wholesome** and remain **Sound** when other kinds become bad and sour.



THE ALE is agreeable in itself to the tenderest palate. There is nothing heavy or nauseous about it; thoroughly enjoyable and wholesome as a beverage.

As a Nutrient Tonic or Stomachic Stimulant it is more highly spoken of by the medical profession than any similar article.

TESTIMONIALS FROM FOUR EMINENT CHEMISTS FURNISHED ON APPLICATION

Ten Gold, Silver and Bronze Medals, and Twelve Diplomas

Awarded at the World's Great Exhibitions in France; Jamaica, West Indies; Australia, and the United States.



JOHN LABATT, BREWER, LONDON, CAN.

F. Alfred Reichardt & Co.

OLDEST WHOLESALE SURGICAL INSTRUMENT
HOUSE IN THE UNITED STATES

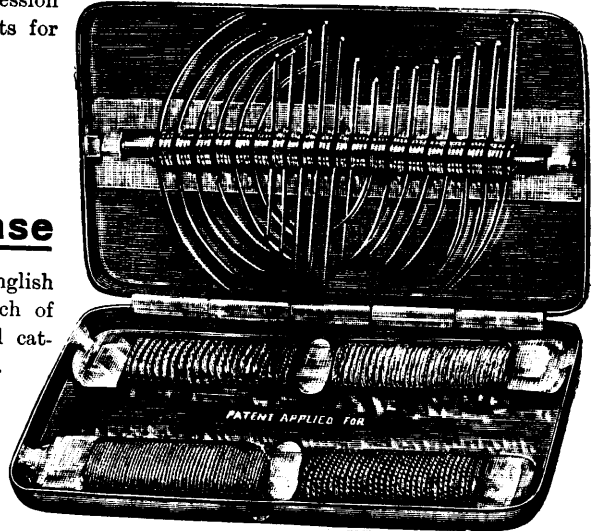
Offer for sale to the Medical Profession
a line of Superior Instruments for
cash.

Aluminum Vest-Pocket Needle Case

Containing 2 Dozen Finest English
Surgeons' Needles, 2 Spools each of
finest quality sterilized silk and cat-
gut. Case and Springs, all metal.
Can be sterilized dry.

Price, \$1.50

SENT BY MAIL ON RECEIPT OF PRICE



WE ARE THE ORIGINAL MANUFACTURERS OF

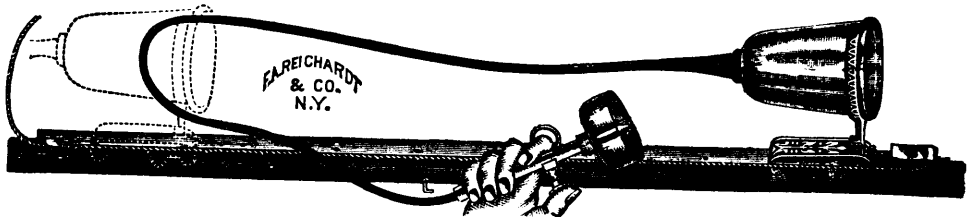
Dr. Ferd. C. Valentine's Apparatus

DEvised BY HIM FOR INTRAVESICAL IRRIGATION FOR
THE SPEEDY AND PERFECT CURE OF GONORRHOEA

GOLDBERG shows irrigation to be positively curative within one to two weeks for
90% of all cases.

The Apparatus is supplied with the latest improvements: Sliding Clamp, Clamp
Stop-cock, Glass or Metal Shield, with Stationary Bracket.

Price, \$5.00. With Sliding Bronze Bracket, \$6.50.



Beware of imitations. Apparatus packed for shipment weighs about eleven to twelve
pounds, and cannot be sent by mail.

Write for reprint of Dr. Valentine's article on Irrigation, and circular.

F. ALFRED REICHARDT & CO.

Quotations on all Surgical Instruments cheerfully given.

NEW YORK CITY, N.Y.



HOLFORD WALKER, M.D

AT HOME 10 TILL 1

ROTHERHAM HOUSE

54, 56 and 58 Isabella Street
TORONTO

A Private Hospital for Diseases of the Nervous System (both sexes), Surgical and other Diseases of Women, Rheumatism and Heart Disease.



TERMS—\$12.00 and upwards per week, according to room—Semi-Private (two in a room) at Reduced Rates. These terms include Medical Attendance, Nursing and Board.

TERMS FOR SURGICAL AND ELECTROLYTIC CASES—Depend on extent of operation, or form and frequency of Electrolytic Applications.

EXTRAS—Baths, Massage, Statical Electricity, Washing and Prescriptions. Patients occupying a room at \$17.50 and upwards per week are entitled to the use of the Private Drawing Room.

THE VARIOUS BATHS TO BE OBTAINED IN THE INSTITUTION CONSIST OF :

The Nauheim or Schott Bath, in conjunction with the exercises for the treatment of the various forms of Heart Disease.

The Dry Superheated Air Cylinder Treatment for Rheumatism (acute or chronic), Rheumatoid Arthritis, Sciatica, Lumbago and Gout.

The Salt Rub Bath so effectual in cases of nervous prostration.

These Baths may also be obtained by non-resident patients.

Trained Nurses for General Nursing, Masseuses for Massage can be obtained on application. Also, a Masseur for the administration of Massage to Men.

A
Pure
Grape
Brandy



is acknowledged to be the best alcoholic stimulant and tonic, but most physicians are in doubt as to how to obtain pure Brandy in these days of adulterations and therefore are reluctant to prescribe it.

AS to the merits of alcoholic stimulants, you are aware that while in whiskey the character and flavor is given by the **AMYL ALCOHOL** (fusel oil) and its compounds, the product of distillation of grain, in brandy the distinguishing characteristics are numerous **ETHERS**, simple and compound, so subtle that we can isolate and define but few of them, nature's synthetical powers defying the analytical methods of the laboratory. These **ETHERS** possess not only the simple stimulating properties of alcohol, but are also **NERVE FOOD**, gentle and far-reaching in character, and capable of sustaining life in feeble persons, supplying them with all the **NUTRIMENT** of wine (a concentrated essence of which it is), without overloading the stomach.

Such a Brandy is **WALDEN COGNAC**, distilled from the choicest pure grape wines at Geyser Peak Vineyards, Sonoma County, Cal., aged and bottled by us, the distillers. It is used not only throughout the United States but in Germany, Professor Sell, of the German Imperial Sanitary Commission, pronouncing it one of the purest brandies he ever analyzed. Physicians, on written application to us, will be sent copy of certificate of analysis.

WALDEN & CO., 41 Beaver Street, New York City. EASTERN OFFICE:

BENGER'S FOOD

(REGISTERED)

FOR INFANTS, INVALIDS AND THE AGED

Gold Medal Awarded, Health Exhibition, London, 1884; Highest Award International Exhibition, Adelaide, 1887.

The following letter is published by special permission of the Russian Court:

SIRS.—Please forward to BALMORAL CASTLE one dozen 2s. 6d. Tins of Benger's Food for H.I.M. the EMPRESS OF RUSSIA, addressed to Miss Coster. We have received the box ordered from Peterhof. Yours truly, F. COSTER.
To Messrs. F. B. Benger and Co., Limited.

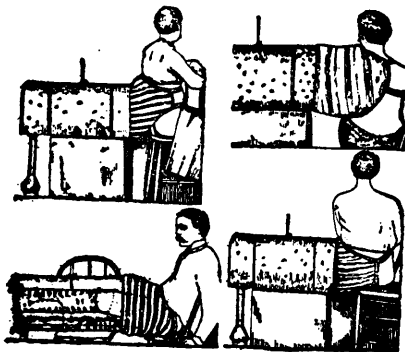
OPINIONS OF THE MEDICAL PRESS:

"Mr. Benger's admirable preparations."—*The Lancet*.
"Benger's preparations have deservedly a very high reputation, and are all largely used."—*The Medical Times and Gazette*.
"Deserving of the highest praise."—*The Practitioner*.

"Benger's Food has by its excellence established a reputation of its own."
"We have given it in very many cases with the most marked benefit, patients frequently retaining it after every other food has been rejected."—*The London Medical Record*.

BENGER'S FOOD may be obtained in tins of Chemists, &c., everywhere.

Wholesale of **EVANS & SONS, LIMITED, MONTREAL,** and Leading Importers.



The BETZ Hot Air Arm and Leg Bath

Directs hot air up to 400° F. to arm leg, hips, shoulder or kidneys. It will penetrate the deepest tissues.

Specialists claim it the greatest invention of the age. In the treatment of ankylosis, varicose veins, articular rheumatism, infantile paralysis, muscular atrophy, arthritis periostitis, gout, nephritis, effusion about the hip joint, dropsy, swollen joints.

Price \$12 and \$20, with all attachments. Money refunded at end of 30 days if not the only cure for above ailments. We make 8 styles; 27,000 sold to physicians. \$5 Vapor Baths to physicians for \$2. Catalogue of 150 things you use daily, Free.

BETZ & CO., 78 State St., Chicago, Ill.

PHYSICIANS

WILL
FIND
IN . .

**CHRISTIE'S
INFANT
FOOD**

a very nourishing and easily assimilated form of diet for those children whose stomach seems to have resisted everything else. It is perfectly pure, as shown by the following analysis of Dr.

W. H. Ellis:

Albuminoids, soluble	1.56
insoluble	7.17
Starch	54.23
Sugar	20.00
Dextrin	11.44
Fat	2.50
Moisture	1.76
Ash	1.34
	100.00

CHRISTIE'S INFANT FOOD is so moderate in price that those unable to purchase the foods ordinarily advertised will find this **just as good and half the price.** Medical men will be pleased with the results. To be procured at all Drug Stores at 25c. per tin.

**Replating
Surgical
Instruments**



We make a specialty of this work, and can guarantee the highest class of workmanship on any articles sent to us.



Standard Silver Co.,

LIMITED,

31-43 Hayter Street,

TORONTO

DOCTORS,

Here are a few reasons why you should Prescribe

**"Alpha"
Rubber
Goods**

1. Because they are made in Canada.
2. Because you do not have to pay duty.
3. Because we make the best.
4. Because we guarantee them.
5. Because they are cheapest, especially in the end.

Our Goods are Styled Alpha, Omega, Diamond, etc.

CANADIAN RUBBER CO. Alpha Branch
MONTREAL, TORONTO, WINNIPEG.

Chloroform

Duncan's S.G. 1497,

From Pure Alcohol
From Methylated Alcohol
ABSOLUTELY PURE.

Duncan's S.G. 1490,

Containing about
one per cent. of
Alcohol. : : :

We now supply Chloroform containing about 1 per cent. of Alcohol, and having a specific gravity of 1490. While this minute addition of Alcohol has, of course, no effect in diminishing the anæsthetic power, it renders the chloroform

Practically Non-Decomposable under any Circumstances.

In Ordering this Variety, please say :—Chloroform Pure (Duncan's S.G. 1490),
Chloroform Meth. (Duncan's S.G. 1490).

N.B.—We can only guarantee Chloroform to be of our manufacture when it is supplied in bottles bearing our label, and having the stoppers sealed with one of our trade mark Straps. Our Chloroform is put up in

1 oz., 2 oz., $\frac{1}{4}$, $\frac{1}{2}$, 1, 2, 4 and 7 lb. Bottles,
and may be ordered through any Wholesale Drug House in Canada.

Duncan, Flockhart & Co.,
Manufacturing Chemists,
Edinburgh

Physicians should avoid substitution by prescribing original packages.

HIGHEST AWARD AT CHICAGO EXHIBITION

Absolute Purity Guaranteed by Using

T. & H. SMITH'S
Chloroform Pure

(Answering all recognized purity tests.)

Morphine and Salts
AND OTHER FINE CHEMICALS.

FROM ALL WHOLESALE HOUSES THROUGHOUT CANADA.

T. & H. SMITH & CO., Manufacturing Chemists,
Edinburgh, Scotland, and 12 Worship St., London, Eng.

When writing advertisers, please mention THE CANADIAN JOURNAL OF MEDICINE AND SURGERY.

The "Universal"
**Pulmonary
 Inspirator**

IMPROVED

A Scientific and Rational
 Method of Inhalation
 for Treating

**Phthisis,
 Bronchitis,
 Asthma,
 Pneumonia, etc.**

**Exclusively a
 Physician's
 Instrument.**

Sold only to the Profession



Endorsed by Hospitals,
 Specialists, and General
 Practitioners.

IN SUCCESSFUL USE
 AT THE
**Loomis Sanitarium
 for Consumptives**
 AT LIBERTY, N.Y.

**G. B. Underwood
 & Co.**

15 East 14th Street
 New York City.

New illustrated
 pamphlet sent on
 application, men-
 tioning this paper.

MICHIGAN COLLEGE
 OF
MEDICINE AND SURGERY

Regular Winter Session Opens
 September 21st, 1898.

FACULTY.—Hal C. Wyman, M.D., Surgery; L. E. Maire, M.D., Ophthalmology and Otology; Dayton Parker, M.D., Gynecology; Wm. I. Hamlen, M.D., Chemistry; Willard Chaney, M.D., Laryngology, Rhinology and Hygiene; W. R. Scurr, M.D., Neurology and Diseases of the Mind; M. V. Meddaugh, M.D., Physiology; Arthur D. Holmes, M.D., Diseases of Children; Frank T. Lodge, A.M., Medical Jurisprudence; Wm. C. Stevens, M.D., Obstetrics; J. A. Weitz, M.D., General Pathology; J. A. Patton, M.D., Materia Medica and Therapeutics; Wm. A. Hackett, M.B., M.C.P.S., Dermatology and Venereal Diseases; R. J. Hamlen, M.D., Anatomy; R. S. Linn, M.D., Bacteriology and Microscopy; A. K. Northrop, M.D., Bacteriology; Walter J. Cree, M.D., Practice of Medicine; W. E. Scribner, M.D., Anatomy.

The course of study required extends over four years. The work is graded.

All clinics are held at the Detroit Emergency Hospital and Free Dispensary. Practical clinical and laboratory work is required of all.

FEES.—Matriculation, annually, \$5; Lectures, each term, \$50; Anatomy, dissecting, second and third courses, \$10 each; Chemistry, first course, \$10, second course, \$5; Graduation fee, \$25; Practitioners' course, all departments, \$50; single department, \$25. Optional course: Experimental Therapeutics, \$10; Physiological Laboratory, \$10; Surgical Laboratory, \$10. For further particulars address

Michigan College of Medicine & Surgery

7 AND 9 PORTER ST., DETROIT, MICHIGAN.

THE JOHN BULL
MALT
DIGESTIVE BREAD

Is declared by all leading authorities to be the most easily assimilated and digested bread manufactured.

The **Medical Profession** will find it invaluable in many cases, and **are requested to give it a trial.** The following authorities will prove what I say:

The Lancet, London, Eng.—"The flavor is of special excellence, although somewhat sweet, resembling in this respect malt."

Sir Charles O. Cameron, M.D., etc.—"It is well flavored, nutritious and easily digested. I have determined to have it on my own breakfast table."

My **Home Made and Whole Wheat Bread** are the best on the market, all my goods being made of the finest and purest ingredients only.

WILLIAM GRAY

320 College Street, - - TORONTO

CHLORIDE OF SILVER DRY CELL BATTERIES

GALVANIC,
FARADIC,



COMBINED
(GALVANIC
and FARADIC)

These batteries are recommended for their compactness and portability, cleanliness, convenience and rapidity of action, constant and uniform current, and cheapness in use.

CANADIAN AGENTS:

LYMAN SONS & CO., 380-386 St. Paul Street, MONTREAL, P.Q.

MACKAY'S KOLA CAFÉ

THE essence of the finest
Coffee and Chicory,
together with all the in-
vigorating properties of the
African kola nut.

*A Pleasant and Stimulating Beverage.
No Trouble to Prepare.*

Bottles, 25c. and 45c.
Sold by best Grocers.

ROBERT GREIG & CO.
MONTREAL
Canadian Agents.

HUBBARD'S RUSKS.



A little Frenchman, 22 months old.

The *Lancet* says.

On examination these Rusks proved to contain both carbohydrates and nitrogenous constituents in an easily assimilable form. This is due partly to the selection of superior materials, and partly to care devoted to the cooking process.

The Rusks are almost entirely dissolved during the process of mastication, a fact which affords distinct evidence of their easily digestible property.

PACKED IN
TINS
1 lb, 2 lb, 4 lb

Wholesale Agents for Canada:

ROBERT GREIG & CO.
456 St. Paul St., - - - MONTREAL

Chicago Polyclinic and Hospital.

A CLINICAL SCHOOL FOR PRACTITIONERS OF MEDICINE.

Instruction continues throughout the year. The Institution is thoroughly equipped for Post-Graduate instruction in all branches of Medicine and Surgery; unequalled Hospital facilities, abundance of clinical material. Excellent advantages for Laboratory work, Practical Anatomy and Operative Surgery.

For further information or special announcements apply to the Corresponding Secretary,

DR. F. HENROTIN, 174-176 Chicago Ave., Chicago, Ill.

... TO PHYSICIANS ...

The Toronto Electric Light Co., Limited

having reduced their rates for Electric Lighting, as applied to dwelling-houses, are prepared to make this **special discount apply to physicians** having their office and residence combined, in case they desire to install the light throughout. It is unnecessary to call the attention of medical men to the superior safety and hygienic qualities of the Electric Light, as this point is sufficiently well known to members of the profession, as well as its advantages as applied to therapeutics. The Company will also make a special reduction to physicians in putting in wiring.

OFFICE: Cor. ESPLANADE and SCOTT STS., TORONTO, ONT.

J. J. WRIGHT, General Manager.

... **I**t generally is a little salt and a good deal of lime and other impurities, but **WINDSOR SALT**, made by the most scientific process known, is pure, soluble, white, uniform in grain, and will not cake.

Purest and Best

WINDSOR SALT

THE WINDSOR SALT CO., Limited,
WINDSOR, ONTARIO.

“CANADIAN
Distilled and Bottled by
HIRAM WALKER & SONS,
* LIMITED *
WALKERVILLE, CANADA. CLUB”
TRADE MARK
W
MARK
WHISKY



LONDON: NEW YORK: CHICAGO:

YUCCA The Wood Designed by Nature

For Surgeons' **SPLINTS**

The Best Material yet
Discovered for the Purpose.

LIGHTER than any other wood of sufficient strength.
VERY POROUS and open-grained, allowing free circulation of air to the fractured part.
ANTISEPTICS can be used without removal.
IN SHEET FORM it can be cut with scissors and used same as felt; but, unlike felt, it does not lose its supporting qualities when wet.
IT HAS AMPLY PROVED ITS MERITS BY USE.

..... Price List and Testimonials free

YUCCA MANUFACTURING CO., - Jackson, Mich.
 or **LOS ANGELES, CAL.**

Canadian Agents: **THE S. B. CHANDLER, SON & CO., Limited,**
TORONTO, ONT.



McLaughlin's Matzal

The first **TRUE KEFIR** to be made in Canada. Made from sterilized milk and the lactic, i.e., the **natural** milk ferment. Contains **no yeast** (an extraneous ferment). The casein is coagulated, and the albuminoids peptonized.

MATZAL is ready for instant assimilation, and
**No known Food will make
 Blood more rapidly!**

It is being used with excellent results by **leading Toronto Physicians!** It is unequalled as a nutrient or as sole diet in all wasting diseases, as Tuberculosis and Bronchitis; in convalescence after Typhoid and other Fevers; in Dyspepsia, Insomnia, etc.; and in Bright's Disease, Diabetes, etc., where a nitrogenous diet is required. Supplied to patients at the very low price of

✻\$1.50 PER DOZEN PINTS✻

CIRCULAR ON APPLICATION.

J. J. McLAUGHLIN, MANUFACTURING CHEMIST,
 153-155 SHERBOURNE ST., TORONTO

Quinalgen - Dr. Vis.

This new Nerve Tonic has been thoroughly tried in Hospitals and by doctors in private practice. It has proved most successful in cases of

 Pneumonia, Neuralgia, Gout, Rheumatic Pains, La Grippe, Migraine, Sciatica and Hay Fever 

Unlike most other similar remedies QUINALGEN produces NO UNPLEASANT AFTER-EFFECTS.



THE G. F. HARVEY CO.

Manufacturing Chemists.



Saratoga Springs, N.Y.

Sole agents and importers for the United States and Canada.

Agents in Canada, **KEZAR & BENNETT**, Mille Roches, Ont.

Pamphlets with Clinical Reports may be had on application.

"HAPPY RELIEF" 

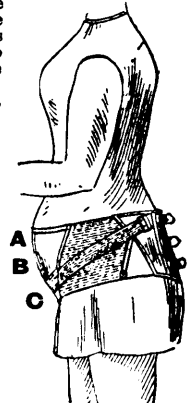
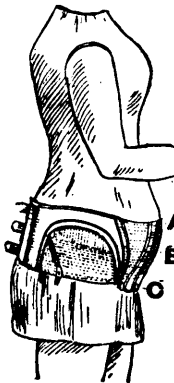
Abdominal Supporter

 IT HAS NO EQUAL

IS PRONOUNCED BY ALL PHYSICIANS who have examined it, and patients who have used it, to be the best and most perfect fitting supporter made. It is self-adjusting and affords instant relief. Those who have tried the same report that they would not be without it for many times the cost.

To physicians or patients sending measurements, a perfect fit is guaranteed.

Measure directly around the body at points A, B and C, and always next to skin; also distance from C to navel, and from A to C, and from C to waist.



Prompt attention given to all orders. Liberal discount to Physicians and Druggists. Price List and Circulars sent on application.

MRS. F. L. PICKERING

BOX 149

Brantford

Ontario

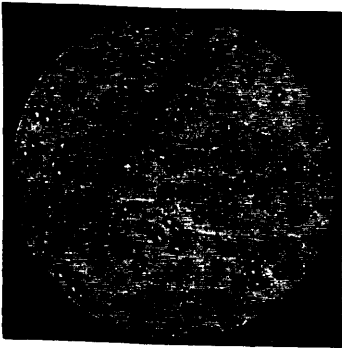
"The greatest therapeutic discovery of the age, and of the ages, is that where we cannot produce good blood we can introduce it."

What is Hæmatherapy?

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

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

A FILM OF BOVININE:
Showing the Blood-corpuscles Intact.



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

THE CURE OF PULMONARY CONSUMPTION

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

IN SURGERY: A CHRONIC ULCER,

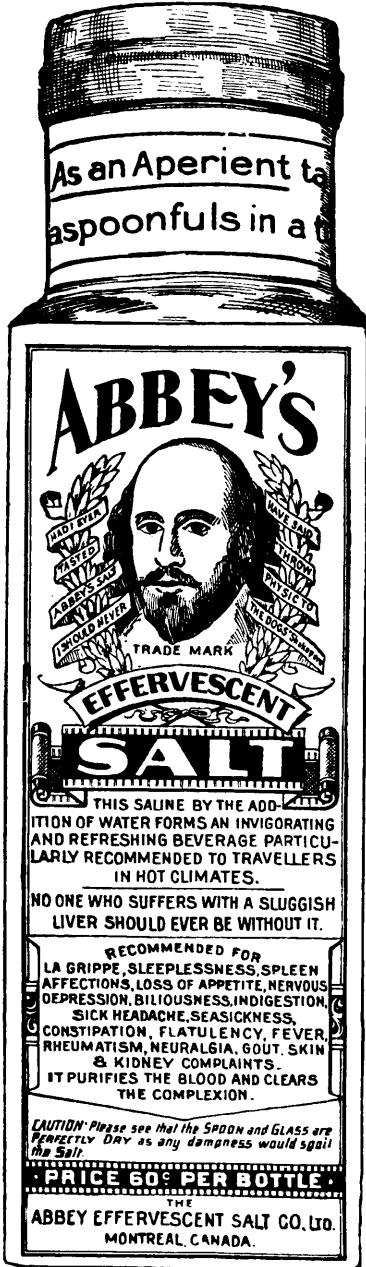
of no matter how long standing or obstinate and aggravated character, can be cured with certainty—at least, the first instance of failure has yet to be heard of—by constant application of bovine to the wound with proper surgical treatment and sterilization. Such cases are usually cured in from four to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

NUMEROUS CLINICAL REPORTS

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

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

ABBEY'S



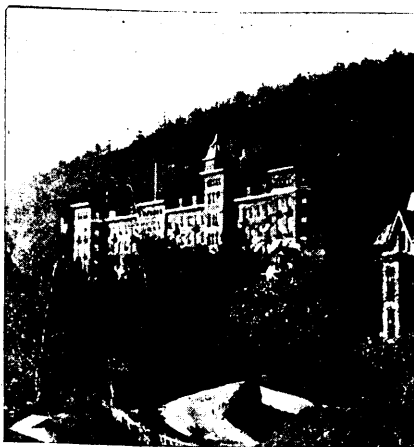
Effervescent

Salt

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

The Jackson Sanatorium

DANVILLE, NEW YORK



ESTABLISHED IN 1858

The attention of physicians is called to this Institution as one that offers exceptional advantages and attractions. Under personal care of regularly educated and experienced physicians.

Location in a hillside park overlooking the beautiful Genesee Valley country. Pure spring water nearly identical with the noted springs of Contrexéville, in France. Clear, dry atmosphere, free from fogs and malaria. Thorough drainage and sewerage systems.

Elegant fire-proof main building, and twelve cottages steam-heated and designed to meet every requirement of invalids, or seekers of rest and quiet.

All forms of fresh and salt water baths, electricity, massage, Swedish movements, inunction, etc., scientifically administered.

Superior cuisine under supervision of Mrs. Emma P. Ewing, of Chautauqua Cooking School.

Especial provision for quiet and rest, also for amusement and regular out-door life.

Freedom from taxations of fashionable life, and from excitements and temptations of popular resorts. Electric bells, electric lights, safety elevator, library, daily papers, open fires, and every appliance for comfort, health, and good cheer.

On line Delaware, Lackawanna & Western R.R. from New York or Buffalo without change.

For illustrated pamphlet and other information,

Address—

J. Arthur Jackson, M.D.

BOX 2012

SECRETARY

“Stainless Iodine Ointment”

The Up-to-Date IODINE Preparation

Physicians will prescribe and use it in place of all others. It is better and stronger than the B. P. Formula, and does not discolor nor crack the skin. By permission we are allowed to refer to the following prominent physicians in Toronto who are using and prescribing it:

*Arthur Jukes Johnson, M.B., M.R.C.S., Eng., Coroner. A. H. Garratt, M.D., C.M.
J. S. Hart, M.D., M.B., R. B. Orr, L.S.A., Lon. Adam Lynd, M.B. And others.*

It is also being used in the TORONTO GENERAL HOSPITAL.

Physicians (only) who do their own dispensing can procure it direct in ½-lb. and 1-lb. jars at a cost of \$1.00 and \$1.50 respectively (money to accompany order), express charges prepaid; or from wholesale druggists in 1-oz. bottles at \$1.80 per dozen. For 12 cents we will be pleased to mail any physician a sample bottle.

G. BROWN & CO., Proprietors,

PARKDALE, ONTARIO, CANADA

Bromo Chloralum



Non-Poisonous,
Safe, Odorless

**A Powerful Deodorizer,
Disinfectant, Saline
Antiseptic and Styptic.**

Arrests and Prevents
Putrefaction and Contagion.

It is an ideal prophylactic in threatened epidemics of contagious or infectious diseases. In its neutralizing effects on all germs of disease it surpasses every other preparation of its kind.

*One bottle, diluted with water, will make
12 pints of proper strength for use.*

Send for Sample and Pamphlet.

BROMO CHEMICAL COMPANY
32 West Broadway, New York

THE ANTIKAMNIA
CHEMICAL CO.
ST. LOUIS, MO.



Church's Auto-Voce Institute

ESTABLISHED
1890

STAMMERING

And Other Speech Defects.

What *The Canadian Journal of Medicine and Surgery* says about Church's Auto-Voce Institute:

"The Medical Profession can have every confidence in the firm of CHURCH & BYRNE."

9 PEMBROKE ST., TORONTO

PURE FOOD

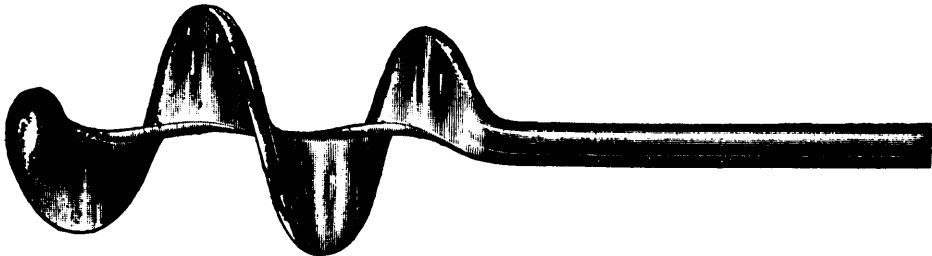
• • IS THE DEMAND OF THE HOUR

For the "Staff of Life," AS IT SHOULD BE, send or telephone to

THE MODEL BAKERY

Cor. SOHO and PHOEBE STREETS, TORONTO

The Curette worms its way past all contents and expels same by pushing them from above downward as we often would like the fingers to do, accomplishing this by external rotation of the handle alone.



St. Cyr. Curette and Evacuator

In offering the St. Cyr. Curette and Evacuator to the medical profession we are proud to say that we are offering an instrument equal in usefulness to the Obstetrical Forceps, and much more often a necessity to the busy practitioner, as more mothers die from retained after-births than from retained fetus. This instrument takes the same place in regard to the "soft" secundines which the Obstetrical Forceps holds to the "hard" head of the child; the mechanical adaptation is just as perfect, e.g., "one pulls on a hard resisting mass," the other "pushes" out a "soft, unresisting, friable substance."

In cases of emergency, such as Sepsis, to insure its quick delivery to you by next mail, remit by Postal or Express Money Order, or by Draft on a Chicago Bank. We also Express C.O.D.

To meet all cases, from the normal cavity to that of the ninth month, the set of two sizes is absolutely necessary.

Small, Blunt - - - \$3.50 | Large, Blunt - - - \$3.50

The Complete Set of Two Sizes - \$6.50

By special request we have obtained the permission to reprint the author's monograph, which will be sent on application.

VICTOR V. MAY & CO.

Wholesale Dealers and Manufacturers of
SURGICAL INSTRUMENTS.

389-391-393 West Twelfth St.
CHICAGO, ILL.

N.B.—Letters Patent for the St. Cyr. Curette and Evacuator granted by the U. S. Government, June 15, 1897; by the Dominion of Canada, Sept. 9th, 1897.

ESTABLISHED 1855.

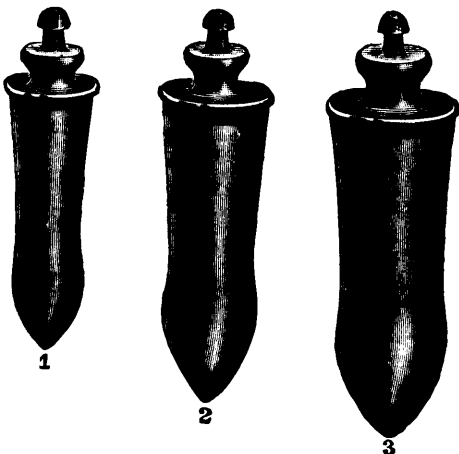
HALSEY BROS. CO.

Homeopathic Supplies

OF THE HIGHEST STANDARD.

Publishers of "ORIFICIAL SURGERY," by E. H. Pratt, M. D., illustrated with Photo Engravings, price \$3.00 net, by mail \$3.15.

Dr. Weirick's IMPROVED SELF-RETAINING Rectal Dilators.



For the cure of Piles, Constipation, Rheumatism, Insomnia, Dyspepsia and all chronic diseases caused by a faulty condition of the circulation.

Their use relaxes the sphincters, stimulates the sympathetic nervous system, equalizes the circulation, relieving congestion and in this way effects a cure.

They are made of hard rubber, have a hollow tube running through the center which admits of flushing the bowel by attaching an ordinary syringe.

PRICE, \$2.50 PER SET OF THREE.

Sent by mail on receipt of price.

HALSEY BROS. CO., 65 Washington St., Chicago, U. S. A.

SEND FOR FREE PAMPHLET ON ORIFICIAL PHILOSOPHY.

COLCHI-SAL:

(Registered)

COLCHICINE SALICYLATE

NEVER FAILS IN

Gout,
Rheumatic
Gout
Rheumatoid
Affections

Safe,
Prompt and
Effective.



OF
COLCHI-SAL
COLCHICINE
SALICYLATE
CAPSULES

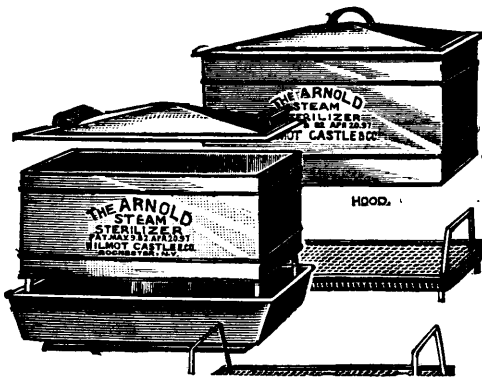
"QUI VEUT LA FIN, VEUT LES MOYENS"

COLCHI-SAL is dispensed in small Capsules each of which contains $\frac{1}{4}$ of a milligramme of Colchicine dissolved in 20 centigrammes of natural Methyl Salicylate, which is equivalent to 5 grains of Salicylate of Soda.

INDICATIONS.—In Gout in all its forms, Neuralgia, Rheumatoid Arthritis, Sciatica, Dysmenorrhœa of Rheumatic Diathesis and all allied Rheumatoid or Gouty Affections.
Dispensed only on physicians' prescriptions.

Agents for Canada **LEEMING, MILES & CO., 53 St. Sulpice Street, Montreal, P.O.**

Sold by all Retail Druggists and Jobbers



Arnold Sterilizers.

All shapes and sizes for all purposes. They are used and recommended throughout the world

By Physicians, to sterilize instruments, surgical dressings, etc.

By Hospitals, for general sterilizing purposes.

By Laboratories, for bacteriological investigations.

By Families, to sterilize and pasteurize milk for babies and invalids.

Catalogue mailed on application.

WILMOT CASTLE & CO.

20 Elm Street, Rochester, N.Y.

You are served better by a Specialist than by a Jack-of-all-trades

MONSOON

Indo-Ceylon Tea

Is put up by specialists, who watch every stage of its preparation with scrupulous care. You will notice the absence of the dust, stalks and dirt which play such a prominent part in making many teas cheap. **WE GUARANTEE MONSOON** to give satisfaction. Try it. In lead packets only. All grocers.



CALVERT'S

CARBOLIC DISINFECTANTS,



SOAPS, OINTMENT, TOOTH POWDER, ETC.,

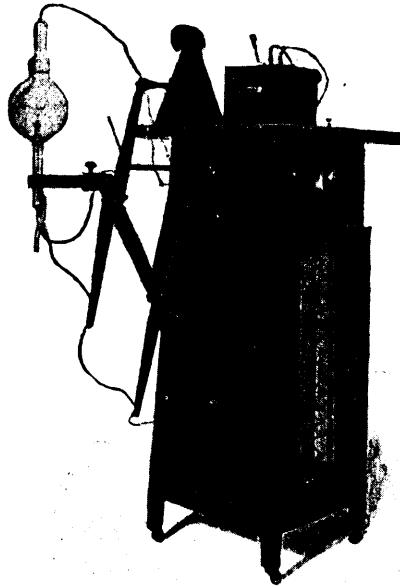
Have been **AWARDED 83 MEDALS** and **DIPLOMAS** for **SUPERIOR EXCELLENCE.**

Calvert's Pure Carbolic (Fluid and Crystals), Carbolised Tow, Carbolic Medical Soap, Sulpho Carbolates of Zinc, etc., are specially prepared for the Profession, and a Price List may be obtained through any of the Wholesale Druggists, or direct from the manufacturers.

F. C. CALVERT & CO., Manchester, England.

Fessenden X-Ray Apparatus.

SIMPLE
PORTABLE
DURABLE



ANY SIZE
FINE FINISH
LOW PRICE



Radiographs of the hand can be taken in two seconds, and of the pelvis in four minutes, thus avoiding by a short exposure all possible danger.

Send for Catalogue.

**Fessenden
Mfg Co.**

Battery or any other kind of current.

EAST END . . .

PITTSBURG, PA.

For Sale by S. B. Chandler, Son & Co., Limited, Toronto, and Patterson & Foster, Montreal.

SAVED AT ELEVENTH HOUR.

Paris Medicine Co., St. Louis, Mo.

WHEATLAND, TEXAS, Sept. 29, 1891.

GENTS:—In the ten years that I have been actively engaged in the practice of medicine, I have never, until now, written a testimonial to the value of any medicine; but such is the debt of gratitude I owe to FEBRILINE, and the genius that formulated its composition, that I deem it a plain duty to say that the life of our only child—a girl two and one-half years of age—was doubtless saved by using, at the eleventh hour, LYON'S TASTELESS QUININE in breaking up an attack of Malarial Fever of so obstinate a type that it set at defiance every other preparation of Cinchona and its Alkaloids available to such cases.

Every dose of Cinchona Alkaloid, given or injected, in any and every combination, was immediately ejected, and the fever had obtained such a hold that a fatal condition seemed imminent. At last I thought of FEBRILINE, a dose which I had never prescribed. Not one dose was ejected by the stomach, and after the third dose of five-grain preparation, a profuse diaphoresis occurred coincident with a rapid decline of temperature to subnormal, the comatose condition vanished and convalescence was rapid. I have since used it in my practice constantly, and with unvarying good results. As a febrifuge, *per se*, as well as an anti-periodic, I consider it, for children, *par excellence*.

Yours truly,

G. V. HALE, M.D., (Jeff.) LL.B.

SAMPLES SENT FREE BY MAIL.

Panopepton

contains all the nutritive constituents of beef and wheat, in a peptonised, soluble and highly diffusible form.

Panopepton

contains no cane sugar.


Panopepton

is the best—the most nutritious, the most agreeable and reliable of all foods for the sick.

FAIRCHILD BROS. & FOSTER, NEW YORK.

Have You Tried Them 

CRAMER X-RAY PLATES

Just out.  Specially made for X-Ray Work.

Full Descriptive Catalogue sent to any address upon application.

G. CRAMER DRY PLATE WORKS
ST. LOUIS, MO.



BLOOD Rich Blood, Red Blood,
INTEGRITY Blood with plenty of hæmoglobin
and a full modicum
of Red Corpuscles.

This is what the pallid anæmic individual needs from whatever cause such blood poverty may arise. The best way to "build blood" is to administer

Pepto-Mangan ("Gude")

This palatable combination of **Organic Iron** and **Manganese** contributes to the vital fluid the necessary **oxygen-carrying** and **hæmoglobin-producing elements** and thus brings about a pronounced betterment in cases of

**SIMPLE OR CHLOROTIC ANÆMIA, AMENORRHŒA, CHOREA,
 BRIGHT'S DISEASE, DYSMENORRHŒA, Etc.**

In order to be sure of obtaining the genuine Pepto-Mangan "Gude" prescribe an original bottle, holding $\frac{3}{4}$ xi. IT'S NEVER SOLD IN BULK.

M. J. BREITENBACH COMPANY, Sole Agents for U. S. and Canada,
 LABORATORY, LEIPZIG, GERMANY. 56-58 WARREN ST., NEW YORK.

Gude's Pepto-Mangan can be procured from all Druggists in Canada.



ADVERTISED ONLY TO THE PROFESSION.

STANDARD (TRADE MARK— REGISTERED.) RELIABLE

IMPERIAL GRANUM FOOD

THE GREAT

FOR INVALIDS FOR CHILDREN.

HAS won the approval of physicians because its merits have been proved by years of clinical success—often in cases when life seemed depending on its retention. Therefore, while a very large majority of the medical profession are acquainted with its great value, and know from experience that no other food fills so satisfactorily such a wide range of usefulness, still no article of exceptional merit can be favorably received and recommended by physicians without being closely followed by imitations and competition, and the **IMPERIAL GRANUM** is not an exception.

It has justly acquired the enviable reputation of being

• • • AN • UNRIVALLED • NUTRIMENT • FOR • • •

INVALIDS • AND • CONVALESCENTS • AND • FOR
Nursing Mothers, Infants and Children.

It contains no malt, no cane-sugar, no glucose, but is an absolutely pure food, most carefully and conscientiously prepared from the finest growths of wheat, and contains the largest possible quantity of nourishment, requiring the least possible labor for its digestion, and although in extreme cases it is prepared with water only, it is generally used in combination with milk, and no matter what physician's preference may be as to the form in which milk is to be used—as varying conditions may indicate—the perfect coadjuvancy of **IMPERIAL GRANUM** can always be depended on.

Literature and **SAMPLES** for clinical test, supplied **ONLY** to **PHYSICIANS** and trained nurses.
Sent **FREE**, charges prepaid, on request. **CORRESPONDENCE SOLICITED.**

JOHN CARLE & SONS, 153 Water Street, NEW YORK CITY.
SOLD BY DRUGGISTS generally.

THYROIDS

in

Prostatic Enlargement.

"A youth aged nineteen years, of neurotic temperament, complained of pains in the perineum. On examination the Prostate was felt as large as a bantam's egg. After being treated for some time without benefit, he was given Thyroid Tablets thrice daily, with the result that the enlargement entirely subsided and the neurotic symptoms were considerably reduced."

—Stretton—(Birmingham Med. Review. March '98.)

Armour's Desiccated Thyroids and Thyroid Tablets.

In our Desiccated Thyroids we have a stable and uniform preparation of agreeable odor and taste, each grain representing eight grains of the fresh gland.

Each Tablet contains two grains of Powdered Thyroids and is equivalent to sixteen grains of fresh gland.

Armour & Company
Chicago.

The Canadian Journal of Medicine and Surgery

A JOURNAL PUBLISHED MONTHLY IN THE INTEREST OF
MEDICINE AND SURGERY

VOL. III.

TORONTO, JUNE, 1898.

NO. 6.

Original Contributions.

PULMONARY AND OTHER INTERNAL HÆMORRHAGE.

BY ALEXANDER M'PHEDRAN, M.B.,

Professor of Medicine and Clinical Medicine in the University of Toronto.

It is rather to draw attention to the fallacies of much that is popular in the treatment of this usually alarming condition, than of offering anything new, that this short article is written. As is the case with all conditions not easily controlled by treatment, there have been a great number of remedies recommended for the arrest of internal hæmorrhage, and, as is usually the case under such circumstances, few, if any of them, have any influence in attaining the end in view. In a recent work, for example, among the many remedies, lead acetate, tannin, gallic acid, alum, hamamelis, iron, sulphuric acid, vinegar, etc., are recommended in pulmonary hæmorrhage as being efficient remedies. No reason is assigned for the efficacy of these drugs; they are never suggested for the arrest of external hæmorrhage, in which they should be as effective as in pulmonary or other internal hæmorrhage. That arrest of hæmorrhage has followed the administration of each and all the remedies recommended may be quite true, but it does not follow that such arrest was due to the remedy used. The natural history of the hæmorrhage appears to be usually overlooked; hence its arrest following the use of the means adopted is attributed to these means. With few exceptions, if the patient is left alone the bleeding ceases in a short time, varying in different cases. In most cases the hæmorrhage occurs without provocation, often at night during sleep. There has been an erosion of a vessel, or, what perhaps is more usual, an aneurysmal dilatation of a vessel became so

weakened that it ruptures under the stress of ordinary blood-pressure, which, in the pulmonary vessels, is probably increased during sleep on account of the shallower and slower respiration, and consequent lessened aeration of the blood. Soon after the bleeding occurs, the extravasated blood begins to coagulate at its periphery, and, as the coagulation advances, it offers increasing resistance to the escape of the blood, until the resistance equals the pressure of the escaping blood, when the flow ceases, and the arrested blood soon clots, permanently stopping the hæmorrhage.

Too often the sudden arrest of the hæmorrhage by the natural process is attributed to the remedies that have been given. Some years ago this was well illustrated in the case of an intelligent druggist. He had been subject, at long intervals, to attacks of profuse hæmoptysis. He had for some years on each occasion taken ergot freely to arrest the attacks. He was assured that they would stop as soon without as with the ergot, and, as the ergot disturbed his digestion very much, he agreed, although with much trepidation, to omit it altogether. He was much gratified to find that the hæmorrhage ceased quite as promptly as it had ever done when ergot was taken.

One advantage from the use of these drugs is due to the fact that something is being done; by this means the patient's confidence, and therefore his comfort, is increased. This end can, however, be attained by reassuring him, and by giving some simple sedative that will not disturb the stomach. Should these means prove insufficient to induce both mental and physical quiet, morphine should be given hypodermically in such quantity as will be needed to attain that object.

Of all the remedies for hæmoptysis, as well as for other internal hæmorrhage, ergot is doubtless much the most widely used. By many, if not by most physicians, it appears to be given without any well-defined conception of its mode of action. There is an indefinite idea that it acts in these hæmorrhages much in the same way as it does in arresting uterine hæmorrhage after parturition.

Pharmacologists are well agreed as to the chief physiologic effects of ergot: (1) That it stimulates the vasomotor centre in the medulla and the various subsidiary centres, thus increasing the general blood-pressure; (2) That it acts on the unstriated muscular fibres of the walls of the blood-vessels, causing contraction of their calibre, chiefly of the arterioles, as their walls contain the most muscular tissue; (3) That it has no influence on the coagulation of the blood; (4) That it depresses the motor ganglia of the heart, causing a slower and less powerful contraction.

From these effects it is quite evident that ergot will tend to increase the amount of blood escaping from a rent in an artery, in so far as it raises the blood-pressure at the bleeding point, as well as throughout the arterial system. Its depressing effect on the heart is apparently more than counterbalanced by its action on the peripheral vessels.

In the lungs, as in the brain, there is no necessity for alterations in the blood-supply. Hence in the brain there are no vasomotor nerves, while in the lungs, though the vessels are supplied with vasomotor nerves, their influence on the vessels is at a minimum.

It follows, therefore, that ergot can have no influence, through the vasomotor nerves, on the vessels of the brain, and practically none on those of the lungs. Any influence it may have on these vessels must be through its direct action on the muscular coat of the arteries. This effect is probably very slight, but, such as it is, it tends to raise the blood-pressure in them, and to this extent increases the force with which the blood escapes from a ruptured vessel. The degree to which it can increase the general arterial tension can have no effect on that part of the pulmonary vessels, as at the same time it depresses the heart, bringing about a less powerful action.

In view of these facts, it is clearly injudicious to give ergot in cerebral and pulmonary hæmorrhage. In capillary and venous pulmonary hæmorrhage it may do good to the extent to which it raises pulmonary blood-pressure by increasing the force and therefore the rapidity of the blood-stream, thus relieving local congestion by establishing better circulation, not by lessening the amount of blood entering the congested area through the contracted arteries, as held by some writers. But for such a purpose we have better remedies that stimulate both the heart and the arteries, such as digitalis, strophanthus, strychnin, alcohol, etc.

In view of its physiologic effect, ergot must be injurious in intestinal hæmorrhage. By its action on unstriated muscular fibre it causes increased intestinal peristalsis. The effect of this must be to disturb the bleeding point, and dislodge any clot that may be forming, thus interfering with the natural process of sealing the rent in the vessel. Yet no remedy is perhaps more generally used to control the hæmorrhage of typhoid ulceration than ergot.

So far as the use of purely astringent remedies is concerned, there does not seem to be a good ground for the belief that they have any influence on internal hæmorrhage. They are all changed in the intestinal tract into inert substances that can have no effect on the blood or the blood-vessels. Even in intestinal hæmorrhage their power is questionable. In hæmorrhage from capillary congestion or from small veins they may doubtless have some restraining influence, as they have on the secretions of the intestines, causing constipation, but that they have power to control arterial bleeding seems more than doubtful. We know how disappointing their use is in epistaxis, in which the surface is fairly within reach of direct application; in the intestinal canal their power must be infinitely more uncertain, and in pulmonary and other internal hæmorrhage they can have no effect.

The influence of a remedy in controlling internal hæmorrhage must depend: (1) On its power to lower blood-pressure, which is equivalent to increasing the resistance to the escape of blood; (2)

On its power of increasing the coagulability of the blood; or, (3) On both of these combined. By the use of remedies of the first class we seek to equalize the pressure of the escaping blood and the resistance to its escape, and thus bring the blood to a state of rest that it may coagulate and permanently seal the opening in the vessel. By the use of the second class of remedies we aim, of course, at hastening the coagulation of the extravasated blood.

For the accomplishment of the first object we have, as types of such remedies, opium, which quiets the heart and circulation, and the nitrites, which lower the blood-pressure by relaxing the peripheral vessels. These are probably our most potent remedies for the control of internal hæmorrhage.

Of remedies that increase the coagulability of the blood, calcium chloride and potassium iodid are perhaps the best examples. It is worthy of note that the agents of the first class act promptly, and to this their efficiency is not a little due. On the other hand, the second class require some time to produce their effect on the blood, so long in fact that the majority of internal hæmorrhages will have ceased from natural causes before their influence can be perceptible; they will have much more effect, therefore, on the slow bleeding from veins and capillaries than on rapid arterial flow.

Medicines that lower vascular tension are especially indicated in the class of arthritic hæmoptysis first described by the late Sir Andrew Clark. They are met with among the gouty or lithemic. The vessels are sclerosed and the pulse tension is very high. The hæmorrhage may be slight, as shown by a small amount of sputum of a pink or deeper red color; or it may be very profuse. The following case serves as a good illustration:

A. B., aged 63, an active business man, had lived plainly as to food, but had long secretly taken laudanum and spirit freely. Early in the morning he had a copious hæmoptysis, losing over 20 ounces of blood; shortly afterward the pulse was very tense and slightly excited. His general condition was favorable, the breathing normal. The bleeding recurred twice during the day. He was kept in bed and his pulse-tension made low and so maintained by the administration of nitroglycerin. The bowels were freely moved by salines. His habits were corrected as far as possible and he had no recurrences of the pulmonary hæmorrhages, but he showed the signs of atheromatous changes in the cerebral vessels in the mental deterioration that followed. The pulmonary hæmorrhage was probably the safety-valve action that saved him from a cerebral hæmorrhage; it would have been better for him had the hæmorrhage occurred much earlier, so that he might have been warned to make those changes in his habits necessary to delay the rapid arterial degeneration.

Such hæmorrhages are identical with those occurring in mitral stenosis. The bleeding may be only sufficient to give a pinkish hue to the sputum or so free as to prove suddenly fatal. In the latter there is always marked hypertrophy of the right ventricle.*

To treat these cases of high vascular tension of the pulmonary circulation, whether associated or not with high tension of the general circulation, with ergot or other agent tending to contract the arterioles, is most unwise.

* See *Transactions of Association of American Physicians* for 1895.

HIP DISEASE.—A CLINICAL LECTURE.

BY B. E. M'KENZIE, B.A., M.D.

As, fortunately, I shall be able to show you several cases which will greatly aid us in distinguishing between various affections which may be mistaken for hip disease, I shall at this time lay but little emphasis upon etiology or pathology. There are a few points however, that may wisely be considered that have reference to the anatomy of the hip joint. It will be remembered that there are three osseous centres at the upper end of the femur, one for the great trochanter, one for the lesser and one forming the cap that completes the head which rests in the acetabulum. This latter is entirely enclosed within a capsule which, attached at its outer rim to the border of the acetabulum, joins the intertrochanteric line in front and the neck of the femur behind. The significance of the fact just named will be appreciated when we remember that in children the disease generally has its beginning in or adjoining the epiphyseal cartilage. At this point there is increased physiological activity during the period of growth so that the conditions are favorable for the development of the bacillus of tuberculosis once it has chosen this nidus for its development. The extension of the disease from its starting point brings it toward the surface and it generally opens within the capsule. Should the focus of disease be located, however, farther down in the femur, when it reaches the surface of the bone its opening may occur outside of the capsule and there may be no intra-articular involvement. At other joints in the body, for example the knee, there is no epiphysis entirely enclosed within the capsule as is the upper epiphysis of the femur just referred to. As a consequence, here disease beginning in the bone reaches the surface frequently outside of the joint. This I believe explains the greater number of hip cases that we see.

Other joints are more exposed than this one, *e. g.*, either the knee or elbow. Both the ankle and knee are quite as liable to traumatic influences and even more so than the hip. The elbow, however, although more exposed, is not subject to the concussions and bruises which result so frequently from a mis-step. These facts throw much light upon the etiology of this affection. The Germans teach that the disease arises much more frequently in children in the epiphyseal cartilage. The English, however, seem disposed to lay more stress upon the disease beginning in the synovial membrane.

The boy whom we have before us to-day affords an excellent opportunity for us to observe the early symptoms of hip disease. His case illustrates the history of the disease as we most commonly observe it. Inquiry into the family history is always of great importance. When there is a marked history of tuberculosis in

the patient's progenitors it has an important influence, I believe, in determining our prognosis. In the case of the little fellow whom we have here to-day, however, there is little or no account of family taint from this affection. Several months ago the following facts were noticed, not all at once but gradually in this boy's case.

Lameness. This is the symptom which is most commonly first observed. The lameness in the beginning is often very indefinite. It will more frequently be noticed after a long walk or in the morning when the patient first rises, the joint being somewhat stiff. After moving about for a little time it is less felt and less observed, but again after considerable exercise the patient complains of feeling tired and will be noticed to limp. If the patient have a somewhat prolonged rest the lameness seems to disappear almost entirely and often an error is made by the physician at this time. Slight complaint having been made by the child, and the doctor having been consulted, puts the child in bed and perhaps applies a blister or employs a liniment for a few days or weeks, and as no complaint is made the child is allowed to get up and seems to have made a good recovery. Very careful inquiry will nearly always elicit the fact that the child had never recovered *entirely* from the lameness and that a slight affection of the gait was noticeable.

Later in the course of the disease the lameness is not so indefinite and is much better marked than that which I have described and more marked than is observed in the little fellow before us. Under such circumstances, of course, there are likely to be many other symptoms present which also enable one easily to make a diagnosis. As you watch carefully this little fellow walking across the operating room you will see that he seems to favor slightly the right limb.

Deformity. Observe carefully the little fellow as he stands upon the floor. You will notice that his weight is allowed to rest more upon the left leg than upon the right, also that the right femur is very slightly flexed upon the pelvis; and by carefully noting the iliac crests you will see also that his pelvis is lower on the right side and that the femur is slightly abducted. I may call your attention also, as his back is turned toward you, to some other points which are typical. The buttock on the right side appears flatter, less rounded and wider than that on the left. This symptom is less marked than we often see it and less marked than we find it in cases a little advanced but is distinctly noticeable. It is a very valuable symptom, very constantly present. Always put your patient in a good light and standing at a little distance compare carefully the two sides when the facts above referred to will be observed. The crease at the lower border of the gluteus on the right side is less marked than that on the left. Observing the boy as he stands or walks before us I do not know that there are any other points noticeable in this case which will throw light upon his trouble.

Now, placing him on his back on the examining table where the surface is firm and does not yield to the inequalities of the body, we are able to notice a few important facts which will greatly aid us. The flexion of the femur is now more clearly shown while the spine is brought fairly well into contact with the table. The left leg easily comes into line with the body and lies upon the surface of the table, while the right is noticed to be flexed, making an angle of about thirty degrees with the table.

Limitation of Motion. The term which I have used to designate the condition which I am now about to demonstrate is, I believe, the best to choose. Fixation is not applicable because in early stages there is no fixation of the joint. Stiffness is not applicable because in the ordinary sense of stiffness there may be none. The motion, though limited in extent, is apt to be free up to a certain point. Please follow me carefully as I take hold of the limbs and move them in a carefully prearranged manner. First, it is well always to take the limb on the sound side in order that you may gain the confidence of the patient by moving that part which will give rise to no discomfort. Seizing, then, the femur just above its condyles and placing the other hand upon the body so as to assist in keeping the spine in contact with the table the limb is first flexed and the extent of its motion carefully observed. The motion at the hip permits the femur to be flexed until it comes into contact with the abdomen and extended until it lies upon the surface of the table. When the femur is flexed to ninety degrees and abducted it falls outward to about ninety degrees and causes but very slight turning of the pelvis even when it is brought into contact with the table. Then when the limb is extended fully rotation should be made. The amount is shown to be nearly 180 degrees as observed by the fact that both the inner border and the outer can readily be brought into contact with the table.

Now, having gained the confidence of the patient by handling the sound limb we take hold of the right femur in the same manner and execute the same movements as before. It is noticeable that considerably less flexion is permitted; and we have already pointed out the fact that the extension is not so complete. At this point I am in the habit of recording in my notes by a very concise plan the facts observed. When the femur is flexed to the greatest degree that can be done without causing movement of the pelvis the angle formed by the femur and the axis of the body is about eighty degrees, whereas the left femur forms an angle of about forty-five or fifty degrees with the body. We also noted previously that when the left leg is fully extended the angle which the femur makes with the line of the body is about 150 degrees. This fact I record as follows: A. G. F (angle of greatest flexion) 80 degrees, and A. G. E. (angle of greatest extension) 150 degrees. Making abduction with the right as we did with the left femur when flexed to ninety degrees we find that before the leg is brought nearly into contact with the table the pelvis follows the femur, that

is, it turns over toward the right side, showing that there is not nearly as much abduction permitted by the right femur as by the left. This may also be noted by saying that abduction is about half of normal in this case. In rotation there is but very little limitation observed. Sometimes, however, it is well marked. Another method of determining the abduction I find of even greater importance than that just named. As the patient lies upon his back, with the legs separated as much as they may be without discomfort, standing at the end of the table the limbs are grasped by the hands and abduction of both is made at the same time. Observe carefully the pelvis. It will be seen that while the left allows of very free abduction and that while for the first sixty degrees of separation between the limbs they move symmetrically, yet at that point the pelvis follows the motion of the right femur, showing that there is still movement freely permitted at the left joint and not at the right. In cases where the symptoms are not distinct I have frequently found this one clearly though but slightly observable and therefore a symptom of great importance in determining the limitation of motion in very early cases.

Now turning the patient upon his face and making hyper-extension it is noticed that while extension beyond 180 degrees is easily permitted with the left thigh we cannot make extension even to 180 degrees as was before observed, with the right.

These symptoms are somewhat more marked in this patient than in some whom we have had occasion to examine. You must not expect that in all cases where the disease is present you will find the symptoms quite so clearly attendant as they are in this boy. Sometimes some of these just noticed may be entirely absent and others present in a degree which is observed only through the exercise of the greatest caution. I think you will agree that the symptom which we have just demonstrated in the flexion, abduction, rotation and hip extension is well described by the term, Limitation of Motion.

Were I confined to any three symptoms upon which to make a diagnosis I would depend upon those just given as being by all means of the greatest importance. There are others, however, which may greatly aid us and throw further light upon this subject.

Pain. Careful inquiry of the parents of this child reveals to us the fact that pain has not been a prominent symptom. They say that he has complained little or none, that when quite tired he has said in a general way that his leg hurt him. Pain, however, is more commonly experienced than would be noted in this boy's history. It is a very misleading symptom in many diseases and yet in hip disease it tells a fairly consistent story. If you recall the fact that the hip joint is supplied by nerves from three sources, the anterior crural, obturator, and the sacral nerves and that also nerves from the two former reach the vicinity of the knee joint and there find a limit, you will have an anatomical explanation of the fact that pain is more commonly found about the knee than else-

where in disease of the hip. The explanation of this fact is found in this, that the knee being so much exposed frequently conveys messages to the sensorium which arise from stimulation of the peripheral nerves above referred to, whereas the twigs which reach the hip joint do not thus convey messages to our consciousness so commonly. As from both of these sources the nerves pass to the central nervous system, pain which really arises in the hip joint is interpreted in our consciousness as having come from nerves in the neighborhood of the knee joint. Certain it is that the pain which is most characteristic of hip disease is pain at the knee. Not unfrequently has the knee been treated for months because of the constant complaint of pain there while the hip joint was the real offender. If you bear in mind your anatomy this misleading symptom of pain may give you much information instead of leading you astray.

Atrophy. As a very early sign of the disease it will be noticed that the muscles which control the joint have less tone and volume than their fellows. This probably does not depend entirely upon the non-use of these muscles but, apparently, at least, upon trophic influence. Before this sign can be observed by the use of the tapeline it can be observed by the fingers as the muscles are handled. It will be found that there is less firmness in those of the affected limb. The same fact we observed a few moments ago when looking at the gluteal region, which was seen to be broader and flatter upon the right side than upon the left. Examination, however, with the tapeline reveals the fact that both the calf and thigh of the right side have less volume than those of the left. These facts may be recorded in the following manner: Measuring from the anterior superior spine of both sides we mark the following points with a colored pencil on the thighs—six inches, nine inches. This is done in order that we may not measure the limb higher upon one side than we do on the other. The record then is as follows:

- R. T. (Right thigh) 9½ in., 11¼ in.
- L. T. (Left thigh) 10 in., 12 in.
- R. C. (Right calf) 8 in.
- L. C. (Left calf) 8½ in.

Local Changes. Under this head I propose to examine the upper part of the femur and as much of the joint as I may be able to do with the fingers. I have preferred this term to the term "swelling," because in the earlier cases it can scarcely be said that there is swelling present. Then when the tips of the fingers are carefully pressed close to the bone at the back of the trochanter, and also directly in front of the head of the femur, some thickening on the affected side may be detected when careful comparison is made with the sound side. As the fingers, especially at these points, are pressed home, it will be noticed that there is a feeling of infiltration in front of the bone on the right side which is not

present on the left. Now, careful observation at this point will also show that the crease in the groin has slightly disappeared owing to the increased fulness here, also at the back of the joint the fingers can readily detect the fact that the bony outlines are more hidden. There appears to be a thickness which is due to infiltration. This is not noticed behind the left hip. Standing the patient upon his feet again, and looking carefully, we observe a slight dimple, or depression, which is seen fairly well marked behind the left trochanter which has largely disappeared behind the right.

Heat. To another symptom I must call your attention, which, however, I do not recognize in this case. When the hands are placed upon the vicinity of the joints, it is sometimes observed that there is more heat on the affected side. This manner of determining the condition is, however, a somewhat inaccurate one, but when a distinct difference is present it is of value.

Temperature. You should always take the temperature of the patient. It is well if you are able to observe it for several days. Very commonly it is found to rise two or three degrees higher in the evening than in the morning.

Before leaving this part of our subject, I wish to make some further measurements, in order to show you how they may be recorded, and also because the results may considerably affect the prognosis. Placing the little fellow again on his back, I first measure from the right anterior superior spine of the ilium to the right internal malleolus and find the distance to be $23\frac{1}{2}$ inches, which is recorded R. A. $23\frac{1}{2}$. Measuring the left side we have L. A. $25\frac{1}{2}$. Measuring from the umbilicus we have R. U. $24\frac{3}{4}$ inches, L. U. 24 inches. Thus we observe that the length of the limb as such is not increased nor shortened, while the length as measured from the umbilicus gives an apparent increase of $\frac{1}{4}$ inch. This latter is seen also when you compare the feet as he lies upon his back, the right coming further down than the left. The distinction to be observed here is of importance. We spoke of the one as an apparent lengthening when the measurement is made from the umbilicus, whereas when the measurement is made from a fixed bony point, as near to the upper end of the femur as possible, the difference in measurement, if any, would show a real lengthening or shortening. Real lengthening seldom or never occurs in disease of this joint, while in the knee joint real lengthening is quite commonly observed from the increased growth of the epiphyseal cartilages of the femur and tibia. A mistake is frequently made in this matter and the affected limb is spoken of as if it really were longer in hip disease than the sound one. The apparent lengthening is due to abduction.

This patient does not afford us an opportunity for observing the symptoms which are present in the more advanced forms of the disease, but a little later we will look into the symptoms which arise from these conditions.

(To be continued.)

INSTRUCTIVE STATISTICS.*

BY J. J. CASSIDY, M.D.

It is interesting to make comparison between the vital statistics for 1897 of Toronto and Montreal, in Canada, and Philadelphia and Chicago, in the United States, in order to estimate the facts which underlie the natural increase of population in these cities. In Montreal, with a population of 262,100, the total births for 1897 were 8,850, or 32.43 per 1,000 of population. In Toronto, with a population of 183,172, the births were 4,076, or 22.25 per 1,000. In Philadelphia, with a population of 1,214,256, the births were 29,591, or 24.37 per 1,000. In Chicago, with a population of 1,619,226, the births were 28,158, or 17.39 per 1,000.

In reference to the high birth rate of Montreal, Dr. Roy, Recorder of Statistics, writes that "he only gives the number of those who have been registered, and that, owing to a defect in the law, registration among those who do not have their children baptized is not regularly done." In reference to the birth rate of Chicago, Dr. Reynolds, Commissioner of Health, of that city, writes that he does not get all the births that occur, probably not over 90 per cent., possibly not over 80 per cent. Occupying middle ground, Philadelphia maintains a fairly high birth rate, 24.37 per 1,000. The surprising part of the record is the relative showing of Toronto, with a birth rate of 22.25 per 1,000, higher than that of Chicago, but lower than that of Philadelphia.

The marriage rate of Montreal, 6.9 per 1,000, not only does not explain the high birth rate of that city, but makes it the more surprising. It seemed possible that a considerable percentage of illegitimate births might account for the high birth rate and low marriage rate. This, however, is not the reason. Through Dr. Roy, Recorder of Statistics, we learn that the illegitimate births in Montreal were 644, which sum being deducted from the grand total of births, 8,850, leaves 8,206, or a legitimate birth rate of 31.3 per 1,000.

In Toronto, the marriage rate, 8.19 per 1,000, is higher than in the other Canadian city. In Chicago, the marriage rate is 8.43 per 1,000.

In Philadelphia, the marriage rate, 12.67 per 1,000, is the highest in these four cities, being nearly double that of Montreal.

In Chicago and Philadelphia, premature and still births are excluded from the death rates. In order to compare, on even terms, with these cities, we shall eliminate the premature and still births from the death returns of Montreal and Toronto. The

* Read at the Second Quarterly Meeting of the Ontario Provincial Board of Health.

deaths in these cities are as follows: Montreal, 6,939, a ratio of 26.47 per 1,000; Philadelphia, 22,375, a ratio of 18.72 per 1,000; Toronto, 2,873, a ratio of 15.68 per 1,000; Chicago, 21,809, a ratio of 13.46 per 1,000.

The increase of births over deaths depends on two chief factors: either an increase of the birth rate or a decrease of the death rate. The following table makes a comparison between births and deaths in these cities during 1897, with the natural increase:

CITY.	POPULATION.	INCREASE OF BIRTHS OVER DEATHS.	PERCENTAGE OF INCREASE.
Montreal	262,100	1,911	.072
Toronto	183,172	1,203	.0065
Philadelphia	1,214,256	7,216	.0059
Chicago	1,619,226	6,349	.0039

The best of these percentages, that of Montreal, is a trifle under three-quarters of 1 per cent. Now, according to the estimated rate given in the annual report of the Registrar-General for England and Wales, the natural increase for that country for 1890 is $1\frac{1}{2}$ per cent, and the report for 1891 states, that the same rate was maintained for that year. The natural increase in these cities is, therefore, small. Yet the effect of an immense birth rate is apparent, when we see that Montreal, in spite of a large mortality, is able to show a greater increase than Toronto. Similarly Philadelphia, in spite of a relatively large death rate, shows a larger increase than Chicago.

During the year 1897, notable epidemics of preventable disease did not prevail in these cities. Philadelphia had a mortality of 401 from typhoid fever; in Chicago, typhoid fever caused a mortality of 437, against 751 in 1896, an immense decrease. In contagious diseases, scarlatina caused a mortality of 66 in Toronto, and small-pox a mortality of 12 in Montreal. Moreover, the annual death rate of Philadelphia, 18.72 was, for a large city, quite normal; that of Toronto, 15.68, was also satisfactory.

Under these circumstances, the low death rate of Chicago and the high death rate of Montreal demand some explanation. An authority (Rohé) states, that in a large city, such as Chicago, a death rate of 13.46 "would indicate that all the deaths had not been recorded, or that the population had been over-estimated; rates above would be evidence, that there were special causes at work demanding sanitary investigation and improvement." Without undertaking to dispute these assertions, it may be well to

point out, that the Chicago Department of Health, which, in 1897, was carried on at an expense of \$213,560, maintains a special bureau of vital statistics, and certainly ought to be informed of every death, which occurs in that city. The statistical population figure used is the official school census, declared July 1st, 1896. In Chicago, moreover, the proportion of adults to children is, probably, greater than the normal, and the death rate is naturally lower. Besides, great efforts are being made in that city to put down disease and promote good health, so that, owing to the social condition of many of the people, and civic sanitary improvements as well, a low mortality is quite conceivable.

A survey of the diseases, which produce the large mortality of Montreal, does not reveal many causes demanding special sanitary investigation. In 1897 there was an outbreak of small-pox, which caused twelve deaths, and the death rate from other zymotic diseases, is not high. The following table shows the typhoid fever mortality of the four cities, with the ratio per 100,000 of population :

	Deaths from typhoid fever.	Ratio per 100,000.
1897. Toronto.....	30	16.37
Chicago.....	437	26.98
Montreal.....	80	30.52
Philadelphia.....	401	33.02

Here, we may admit, that the Montreal ratio assimilates too closely to that of Philadelphia to be reassuring. It may be, therefore, that the Montreal water works demand sanitary investigation and improvement, or the large typhoid mortality may be explained in a different way. In order to show the mortality from zymotic diseases, whose incidence falls most on children, in a city with a high mortality, compared with a city having a low mortality, the following table is submitted :

1897. Montreal—Deaths from variola	12
“ “ mumps	00
“ “ measles	63
“ “ scarlatina	17
“ “ whooping-cough	95
“ “ diphtheria and croup ..	251
	438

Or 6.3 per cent. of the total mortality.

1897. Chicago—Deaths from variola	00
“ “ mumps	4
“ “ measles	139
“ “ scarlatina	81
“ “ whooping-cough	160
“ “ diphtheria and croup ..	772

1,156

Or 5.3 per cent. of the total mortality.

Here, an advantage of 1 per cent. on the side of Chicago, shows that measures for the suppression of contagious diseases were more successfully carried out in Chicago, than in Montreal. It is only fair to say, however, that in Montreal, on account of a high birth rate, there are more candidates for contagious diseases, and, consequently, greater difficulty is experienced in checking outbreaks of these diseases than in Chicago. Some other factor than insanitary conditions seems, therefore, necessary to explain the high death rate of Montreal. It seems to be due to a large mortality among infants and young children, particularly the former. For instance, the deaths of children under five years of age in Philadelphia were 7,605, or 33 per cent. of the total mortality. In Toronto, the deaths of children under five years of age were 998, or 34.73 per cent. of the total mortality. In Chicago, the deaths of children under five years of age were 8,546, or 39 per cent. of the total mortality. In Montreal, the deaths of children under five years of age were 3,273, or 47.16 per cent. of the annual mortality. In Montreal the loss of infantile life appears to be excessive. The actual figures are :

1897. Montreal—Total mortality	6,939
Deaths under one year.....	2,306—33.23%
Deaths from one to five years	967—13.93%
	————— 3,273—47.16%
1897. Chicago —Total mortality	21,809
Deaths under one year.....	5,735—26.29%
Deaths from one to five years	2,811—12.88%
	————— 8,546—39%

The mortality rate for children from one to five years of age is better, by over 1 per cent., in Chicago than in Montreal; but the great divergence appears, when we compare the respective mortality rates of children, under one year of age. Under this head, Montreal has a mortality of 6.94 per cent. larger than that of Chicago. This does not mean that infantile life is more carefully preserved in Chicago, than in Montreal. The death rate among infants bears a relation to the birth rate; in cities where the birth rate is high, the infantile death rate is high, and where it is low, the infantile death rate is low.

Among the causes, that make the mortality among infants and children high are: Parents too young or sickly, hereditary taints, unhealthy environments, improper and insufficient food and clothing. It is, simply, the manifestation of the workings of the law of the "survival of the fittest." As evidence of the soundness of this view, we may say, that in Montreal 658 deaths were due to congenital debility, 129 to infantile convulsions; 310, a large number of which were in children, to simple meningitis, and 1,396, the greatest number of which were probably in infants and children, to diarrhœa and gastro-enteritis, which was the highest single

factor in the death rate of Montreal. If to these we add the number of infants and young children, who perished from zymotic diseases, we can see how the large mortality is produced. When contagious disease appears in Montreal, it is all the more necessary for the health authorities to exert themselves and enforce good hygiene in the domicile and the school, so that, though the congenitally weak may perish, the largest number of those, who are fit and strong, may be spared to reach adult age.

THE OBSTETRIC BINDER.*

BY W. J. WILSON, M.D.

THERE is a great difference of opinion among medical men as to the value of the binder in obstetric practice. Some think it almost an essential, and pay a great deal of attention to its shape and fit and method of application, while others from observations on primitive races argue that it is entirely unnecessary, useless, or even injurious, and for these reasons have discarded it. It was a common practice among the older practitioners to place a pad over the uterus and pin the binder tightly over this. Sometimes a book or other hard substance was used for a pad. The effect of this was to make the woman very uncomfortable, and cause the binder to slip and the pad to become displaced. The object of this pad was to force the uterus down into the pelvis and take the place of the grasping hand of the obstetrician, and by its irritation and pressure keep up continuous contraction. Some, on the other hand, claimed that this pressure caused uterine displacements and consequently was injurious.

There is no doubt that the irritation of the hard pad might have some effect in keeping up contraction if it remained constantly on the fundus, but the uterus will relax and slip to one side of or above the pad, and thus render the pad useless.

Again, it is the duty of the obstetrician to secure firm contraction of the uterus before the binder is applied, and if he is not able to accomplish this by other means it is not safe to trust to the binder.

To compare the civilized woman with her savage sister is not fair. The savage woman has never worn tight clothes or corsets. She has had her abdominal muscles developed by her mode of life, while the reverse obtains with the civilized woman. After delivery the civilized woman finds her muscular powers exhausted; she is tired out, frequently for days, and something to supplement the action of the abdominal muscles and support the abdomen proves

* Read at the Toronto Medical Society.

very grateful to her, and causes her very frequently to express her feeling of relief. The savage woman has generally an easier labor, of shorter duration, and instead of not being able to assume the erect position with safety she will get up and continue in her march with her tribe or follow her usual occupation.

A binder, to fit nicely, should be thin, preferably one-ply factory. This will stretch so as to adapt itself to the contour of the body. It should be drawn down below the great trochanters, and the lower pins drawn tightly so as to prevent slipping upwards. The writer prefers straight pins, placed closely together so there will be no bulging between the pins. It should be just tight enough to give the needed support, and be comfortable at all points. It should not be tight above so as to compress the lower ribs. It should be changed as often as soiled. A well applied binder gives a needed support to the abdominal organs and adds much to the comfort of the patient. This comfort in itself should be sufficient reason for our using a binder, but there are other reasons. The emptying of the uterus lessens the interabdominal pressure and allows of a filling of the large venous trunks in the abdomen and pelvis and consequent lowering of arterial tension. The binder drives this venous blood out, lessens venous stasis, and thereby increases arterial tension. In this way also the brain becomes better supplied with blood and a general feeling of well-being is induced. On the other hand, where there is eclampsia, where it is often necessary to lower arterial tension, better leave the binder off and take advantage of the abdominal relaxation with its engorged veins and lowered vascular tension.

The abdominal relaxation following labor lessens the support to the abdominal organs and favors the occurrence of entroposis. Of course the rest in bed and careful getting up after labor give the woman a chance to recuperate and avoid this condition, and a properly adjusted binder, by bringing the intra-abdominal tension up to or near the normal, not only gives the woman a feeling of support and security, but is a valuable aid towards her complete recovery. It requires about six or eight weeks for the uterus to regain its non-pregnant dimensions. During this time it is heavy, its support from below often weakened, the uterine ligaments are at the same time recovering from their elongation, and this, with the upright position, favors descent of the uterus. If the binder can be used so as to support the intestines from below, and thus remove some weight from the uterus, the woman is given a material aid towards her final recovery.

DRS. JOHN AMYOT and Wm. Goldie, of Toronto, left for Europe May 13. They expect to go first to London, and after remaining there for a time will cross to the Continent and spend some months in Paris and Vienna.

THE BEARING OF PATHOLOGICAL PROCESSES ON THE THERAPY OF MORBID PROCESSES ALONG THE GENITO-URINARY TRACT IN THE MALE.

BY THOMAS H. MANLEY, M.D.,

Professor of Surgery in the New York School of Clinical Medicine.

IN no large class of maladies common to the human subject has the rate of progress been greater in the diagnosis and treatment of them during the past twenty-five years than those involving the genito-urinary organs. Marvellous evolution in this direction has been chiefly through the inventive genius, mechanical aids, and through our ever-widening knowledge of the morphological products and pathological processes. In some respects, however, our pace has been too rapid and our conclusions are based on fallacious premises.

The tendency to mutilation and severe mechanical interference, has, no doubt, very often been too great. In the management of calculus of the renal pelvis, the ureter, the bladder or urethra, the employment of the crusher or blade is yet imperative, but in tuberculosis, prostatic disease or cystic inflammation, the tendency now is in the direction of reaction and less severe surgical measures. This is the attitude of the French school, as expressed by Guyon.

Tuberculosis of the urinary tract, or the kidney, was a condition but imperfectly understood until of late years. But now we know that, exclusive of blennorrhagic infection, there is probably no pyogenic microbe so prolific as a factor in renal suppuration as the bacillus of tuberculosis. When a knowledge of this fact came into our possession, it was assumed that in its treatment the same principles must apply as with the management of a tubercular lesion elsewhere, viz., by an early ablation of the focus, or the entire kidney when this organ was involved. But events have transpired which have turned us around, so to speak. The mortality has been very large after operations, and further, we had no assurance that the other kidney was not involved. One might say, however, that any one was a bungler and behind the times who did not determine beyond peradventure by ureteral catheterization, whether one or both kidneys were involved, by pyogenic processes.

It may be well to remember, in this connection, in spite of Albanan's, Kelly's or Neisser's cystoscopic devices, ureteral catheterization in the male is impracticable in any other than exceptional cases, hence a procedure impossible of performance. This was so declared, at a late meeting of the Genito-Urinary Section of the Academy of Medicine in New York. We have further learned the

salutary lesson that certain types of renal tuberculosis are frequently amenable and curable by simple and safe expedients.

This Dr. Bolton Bangs, of New York, has recently demonstrated. He shows that in twenty nephrectomies for renal tuberculosis there were twelve deaths.

My own experience has been that when renal tuberculosis developed, consecutive to pulmonary invasion, the progress of the disease towards death is rapid. On the contrary, when the disease is unilateral or ascending, appropriate treatment is rewarded by gratifying results.

In order that we succeed, let us first consider what pathological processes lie before us. In the beginning it may be well to bear in mind that when tubercular destruction seizes on any epithelial structure its behaviour is quite the same. The stages of vascular stasis and inflammation past, suppuration and ulceration set in. Now, in the lung, while the vomica is forming and the residual putrid elements of inflammation and decomposition are accumulating, the constitutional disturbances and local distress are very great; but, let them burst into a bronchus, or out through the chest walls, immediate relief follows. The sore again filling without a free escape of its contents, we have *re-infection* and great misery, not from local affection so much as from misery incurred through an ascending infection of the bronchi, the tracheal and laryngeal mucous membrane. In the lung affections an insurmountable difficulty comes through the carrying away infected products, as we *cannot drain up hill*, gravity being against us. In renal tuberculosis, on the contrary, the advantage of gravity is with us, and more, once the abscess opens into a uriniferous tubule, an incessant stream of fluid is carrying downward and out of the body its contents.

The attitude of the body, then, is a most helpful aid in renal drainage. Trouble comes here nevertheless, as with the pulmonary organs, from stasis and stenosis.

When the purulent discharge from the kidney consists of a mixed infection with a predominance of the streptococcus, the mucous membrane of the prostate, the ureter or the bladder becomes involved, but for some unknown reason the urethral mucous membrane escapes. The vesical mucous membrane becomes infiltrated and thickened, ulcerated or destroyed in severe cases. When the cystic mucous membrane is involved, inflammatory hyperplasia extends into and through the muscular walls, with the result that the bladder discharges the urine incompletely. A residual quantity remains, decomposition and ammoniacal reaction begin, the purulent drip from the ureter now undergoing a mucoidropy transformation, a condition always resulting from the action of an alkali or pus.

When this stage is reached, the miseries and woes of the afflicted are great; the racking, harassing cough of tubercular bronchitis is trying enough, but the torturing tenesmus and strangury of cystic tuberculosis is a most agonizing state.

Happily, in the great majority of cases local and constitutional treatment will yield surprising results, and, in most cases, dispense with the need of radical surgery.

PROSTATIS AND PROSTATIC HYPERTROPHY.

The prostate is an organ of whose existence we are quite unconscious until it makes its way into the bladder, gives off an outgrowth from its isthmus, and blocks up the urethra.

This organ is the rudiment of the uterus. What its precise functions are we do not know; though, like the appendix, is probably another useless organ. About mid-age, or what is by some termed "the change of life" in the male, it is prone to begin hypertrophic changes, alter its position, and undergo neoplastic mutations. These pathological changes in themselves are entirely innocuous, and only become a source of trouble when they invade the bladder; and this they often do to such a degree as to make advanced age miserable. Besides, they are not infrequently the cause of death, through retrograde changes, extending up the ureters into the kidneys.

Our hopes of successfully dealing with the prostate by radical measures have been most disappointing. Prostatectomy perineal, or supra pubic, is full of peril, but few surviving the operation. Castration is a procedure of questionable propriety, if catheter-life is possible. Fortunately, as with renal tuberculosis, very much can be accomplished in these cases by simple measures.

In some individuals the symptoms of prostatic obstruction come on suddenly. The afflicted seeks professional aid, when he is told, perchance, that he has "prostatic hypertrophy," radical measures are imperative, and that he will always be afflicted.

This is a stupendous error. Now, if without further ado, we castrate and all the symptoms abate, we claim that almost a miracle has been performed; but let us not overlook the fact that in a large number the enlargement is not neoplastic at all, but simply a vascular turgescence, with probably an admixture of inflammatory deposits; or, in other words, that the condition is transient, and not that it is a cause of vesical implication, but that it is a sequence of morbid conditions within the bladder itself. The urinary stasis of prostatic enlargement, under many circumstances, is dependent on a more complex pathology than is generally supposed, and we have good reason to believe that the initial factors are *vesical*.

At the stage of life when this begins, inertia of both smooth and striped muscles commences. The muscles begin to relax and ataxia is present in varying degrees. All the smooth muscular organs show signs of weakening. Constipation comes on, when care in diet must be observed; laxatives or enemata must be employed.

The general atheroma or interstitial vascular changes which

impair the nutrition, of the alimentary canal, also begin to tell on the walls of the bladder. The organ fails to completely contract or expel its contents, and hence residual urine remains. Pavy found that transient glycosuria is not uncommon in those past middle life. Here we have a change in the composition in the urine, with the necessary ferment to stir into activity changes of decomposition and bacterial action; microbes harmless and inert in the normal state.

Cystitis begins and infection is promptly propagated into the collar of glandular tissue, which is essentially an integral part of the bladder.

From the foregoing it is, therefore, apparent that if we would relieve the prostate we must begin with the urethra and the bladder; for in all these cases there is invariably, a coincident *deep urethritis*. This may be accomplished by three things, viz., *washing, draining and deodorizing*.

First, washing, irrigating. Easier said than done, because it requires skill, experience and discretion to safely tunnel an inflamed prostatic urethra; and alas! for the poor, it is expensive, *i.e.*, it consumes time and must be repeated often for several times before permanent relief comes.

The passage opened, we irrigate, first with an abundance of medicated solutions; the carbolized, standing out in the foreground as the most valuable.

The morphological elements of the urine from day to day will tell us how the case is progressing. Finally, when the urine has cleared up and inflammation has ceased, a cure is effected; with some, permanent in character: in others, in order to be maintained, the artificial drain must be employed and catheter-life is entered on.

The Unpopularity of the British Army Medical Service.

As an instance of the dearth of officers in the British Army Medical Service at the present time, it may be mentioned that at one important military station the assistance of five civilian practitioners has been requisitioned to attend upon the sick soldiery. As a "respectable"—or, perhaps, a better adjective would be "substantial"—fraction of the total British army is permanently under medical treatment for venereal diseases, and as typhoid fever appears to dog its marches, we may take it for granted that the present shorthandedness of the medical service is of serious import to the military authorities. But this being so, why do not these same authorities make terms with their medical officers? They must give them fair treatment in the end—or, an alternative not worth considering, do without medical assistance altogether. Why not have the grace to begin promptly?—*Philadelphia Medical Journal*.

Selected Articles.

HOW THINKING IS DONE.

THE THEORY OF THE BRAIN'S METHOD OF WORKING.

At last scientists seem to be on the point of finding out what happens in the brain when a person thinks, says the *New York Sun*. It has long been known that the brain is the thinking organ, but just how the making of thought comes about has been a puzzle. The celebrated Cabanis solved the matter offhand by saying that the brain secretes thought as the liver secretes bile. This terse saying passed into common use, but soon came to be recognized as a clever speech rather than an explanation of the mystery. Now, however, the most recent researches of the microscopists are making it appear that after all the saying is not so far wrong, but that, correctly interpreted, it in some measure expresses the facts. Of course, thought, being intangible, is not properly to be compared with bile or any other physical substance, but it appears that the processes in the brain which produce thought, and without which thinking is impossible, are comparable to those changes in the liver and other organs which produce the tangible secretions.

A committee of British physicians, acting jointly, have been giving particular attention to this topic for some years, and their researches, though not yet altogether complete, already show some very interesting results, which, taken together with those of investigators on the continent, let us see a long way into the intricacies of the brain. It is shown unequivocally, for example, that a brain cell, which is the really important part of the brain, actually loses part of its substance during action. The brain cells of persons and of animals that have died during a period of great exhaustion from over-exertion are found to be greatly changed from the condition of the normal cell during times of health and vigor. The cell of the exhausted brain, instead of being plump and full of nervous matter, is found to be hollowed out or "vacuolated," a cavity within its substance having formed and being filled with water. This means that a part of the cell substance has been actually consumed during the time of brain activity, precisely as coal is consumed when one gets heat from a furnace.

It is found, further, that if an animal whose brain cells are thus exhausted is permitted to rest and to sleep its cells rapidly recuperate, new material being supplied from the blood until the vacuolation has disappeared and the cell is practically as good as

new again. This explains why sleep is necessary to our existence. During waking hours our brains are literally worn away, and sleep is the state during which the repair shops of the brain make good the damage of the waking hours. Thus the brain of a person who suffers from insomnia is in the condition of a locomotive which is run night and day without going to the repair shops; disaster must ultimately result.

It is not sleep alone, however, that rests the brain cell, though sleep is absolutely essential to recuperation of the brain as a whole. But not all parts of the brain are involved in any one kind of mental effort. The blood supply of the brain is so arranged that by expansion or contraction of different arteries parts of the brain may be flushed with blood and other parts dammed off, so to speak, somewhat as the various currents of an irrigated field are regulated by the gardener. And as rapid flow of blood is essential to great mental activity, this means that one part of the brain may be very actively at work while another part is resting and recuperating. Thus it is that a person suffering from brain fatigue may leave his desk and go out into the fields with a golf stick, or on to the highways with a bicycle, and, by diverting his mind, give the over-worked cells a chance to recuperate. But it must not be overlooked that such exercise involves other brain cells, which, in turn, become exhausted, and that, in the end, for the recuperation of the brain as a whole, sleep is absolutely essential. No recreation, no medicine, no stimulant will take its place. The man who does not give himself sufficient hours of sleep, or who is unable to sleep when he makes the effort, is literally burning away his brain substance and can no more keep on indefinitely without getting fresh supplies of fuel.

In this new view it appears that each brain cell is a sort of storage battery, which can perform a certain amount of work and then must be recharged. This likeness to a battery is further emphasized by the fact that the nature of the brain cell's work consists, like that of any other battery, of the sending out of charges of energy along connecting wires, or, at least, along fibres that may be likened to wires. Brain cells, when examined under the microscope, are found not to be simple globular bodies, like many other kinds of cells. On the contrary, they are irregular in shape, and when properly stained, little wire-like fibres can be seen jutting out from them in various directions. It is along these fibres that the messages come to the cell, and other messages are sent out, much as messages go and come from a telephone central office.

This likening of the brain to a telephone central office is a comparison that may be carried to a remarkable length. Indeed, no other comparison serves so well to give one a correct notion of the method of brain action. But until recently there was one phase of the matter that could not be explained. How is it that the various messages that are surging through the brain are

directed to proper channels, among these multitudinous wires? When you call up the central office you give a certain number, and the operator connects your particular wire with that number. When you are through talking the operator breaks the circuit, and you can no longer communicate along that line. But is there anything similar to this making and breaking of currents possible in the brain? Astonishing as it may seem, the answer is yes. There is precisely such a series of changes in the circuits of the brain cells as is effected by the operator with the telephone wires.

The matter of it is this. Recent studies of the brain cell, particularly those made by the Spanish physiologist, Ramon Cajal, have shown that many of the fibres which lead out from a cell do not go on uninterruptedly to a termination in some other distant cell, as they were formerly supposed to do, but instead terminate in "blind ends." That is to say, they point out toward other cells, but do not reach them. Such a fibre clearly cannot convey any message, because, like a telephone wire that has been cut, it does not lead anywhere. But under certain conditions of stimulation a very extraordinary thing happens. The "blind" fibre, under stimulus from its central cell, lengthens out until it touches a fibre of a neighboring cell, and presto, with such contact, a circuit is completed and a message flashes between the cells. Manifestly such coming together of the "blind" fibres is precisely comparable to the operator's connecting your telephone with another. And as in the case of the telephones, so in the case of the cells, when the communication is completed the connection is broken, the fibres retract and cease to touch one another, and no further message can be sent.

Sometimes the telephone girl does not understand your order, or reports that the number you wish is "engaged," and you cannot send your message. Similarly, in the brain, it seems sometimes as if certain circuits one wishes to use are engaged in other channels; for how often does one "puzzle his brains" to recall a fact or a name, which he feels that he knows perfectly, but which will not come at command. And then how, perhaps hours afterward, the elusive name will flash before him, as if the telephone girl of his brain cell had at last succeeded in getting the right connection. When one reflects that each of these wonderful brain cells is microscopic in size, requiring, indeed, a high power of the microscope to make it visible, and that there are billions of them in a cubic inch of brain substance, one is led to wonder that such mistakes of connection or failures to connect do not occur oftener. As it is, the telephone office of the brain is easily the most wonderful structure of which we have any knowledge. The most delicate piece of mechanism ever devised by human hands is a crude thing compared with the marvellous brain cell.

In time of war it often happens that an invading army will cut the telegraph wires and destroy instruments and batteries at the central offices, so that telegraphic and telephonic communication

becomes impossible. A precisely similar destruction of brain fibres and brain cells occurs under certain conditions of disease. The familiar disease, paresis, for example, consists essentially of just such a destruction of the brain structures as this. Day by day, in the parietic's brain, disease is making inroads upon the delicate mechanism of the cells, and, correspondingly, the ideas that could alone result from the activities of those cells are annulled forever. When such destruction has gone far, involving many sets of cells, it is as impossible that the parietic's mind should act normally as that a telephone system should operate with lines cut and batteries destroyed.—*The Dietetic and Hygienic Gazette.*

SOME OF THE DANGERS SURROUNDING THE DAIRY.*

BY E. F. BRUSH, M.D., MT. VERNON, N.Y.

IF the dairy is suggested to the everyday urban citizen, his imagination immediately conjures up the fair and buxom milk-maid, the foaming pail, the breath of the sweet-smelling kine, luscious cream for his oatmeal and strawberries, golden pats of butter, and bountiful, innocent sweetness, milk and honey. It may be owing to this sentimental idea of the dairy that so many take kindly to raw milk, while having at the same time an abhorrence at even the thought of eating raw meat from the same animal: when, actually, the danger of contagion, disease, and the ingestion of impurities are far greater from the milk than the meat. Few people, I believe, realize the menace which lies in the milk-supply of cities. Milk which is dangerous and perhaps deadly poisonous, appears just as innocent, innocuous, and deliciously nourishing as the fluid that is so in truth.

In many of the dairies supplying milk for food nearly everything is either totally wrong or not quite right enough to produce a wholesome product. It is well known that the dairy cow is subject to numerous grave diseases, and many of her maladies are, we know, the same as those which afflict the human race, and it is also an established fact that any disease in the cow affects her milk perniciously. Everyone who observes current literature on the subject knows that there are several articles of absolutely refuse material which are used as food for the dairy cow, while she is expected to give in return one of the highest types of food for human use. The cow is necessarily a delicate creature. What condition may be imagined, except actual disease, that is more opposed to robustness, vigor, and hardihood to withstand the shock of cruelty, bad food and dirty surroundings than maternity and

* Read at the Ninety-second Annual Meeting of the Medical Society of the State of New York and printed in the *Medical News*.

lactation? It is only reasonable to affirm that the dairy cow must receive solicitous attention, gentle treatment, and absolute cleanliness in her surroundings and feeding if it is expected that she will supply milk fit for human food. It was long ago discovered that what affects the mother affects the nursing, sometimes even so far as to cause the death of the latter.

Unfortunately, it is the exception to find a dairy in which the cows are treated kindly and fed or housed in a cleanly manner. At the present time health authorities appear to recognize nothing but tuberculosis as the sum total of all the disease and danger contained in the improperly managed dairy. The source of possible contamination, which surround the milk after it is drawn from the cow, are many and serious on the majority of dairy-farms as they are conducted at the present time, and it is this part of the hygiene of the dairy to which I particularly wish to call attention now, because this branch of the subject receives everywhere less attention than it deserves, and I believe that when we are able to exclude the diseases which arise from milk-contamination in the dairy, outside the cow, we will be better able to trace some of the epidemics which find origin in the animal herself. Until all the dangers of the dairy are recognized many of the more grave and menacing ills cannot be remedied.

It must be remembered, in considering milk, that there is no other article of food just like it. There is no food, fluid or solid, which presents so many favorable conditions for the absorption of the tangible material of disease and for its preservation and multiplication, and in no other instance is a medium found for the conveyance of infection by which so much harm can be accomplished in such a very short time. Of course, a certain degree of heat will disinfect milk, but even a high temperature will not eliminate the toxins already contained therein.

We are constantly searching for a specific remedy for scarlet fever and other often fatal diseases of childhood, while frequently permitting the bacterial cause of these diseases to be fed to our children in their milk. Many of the diseases of infancy may be rendered much less frequent or even altogether eradicated by proper attention to the hygiene of the dairy, and I believe that the achievement of success in this line is being delayed by the futile efforts of well-meaning physicians, who imagine that they are correcting the evils of a bad milk-supply by modifying, Pasteurizing, sterilizing, adding animal and chemical compounds, and by otherwise changing the character of the milk.

Around every dairy is a multitude of dangers—dangers, unfortunately, which are not always appreciated or avoided, and hence culminate in disaster. There are many other animals about the dairy besides the cow which menace the dairy product, often as seriously as a diseased cow herself. Horses, dogs, cats, rats, mice, and fowls undoubtedly are often the direct means of infecting milk, and of thus passing contagion along to the human race.

Cats loll and purr around many dairies all day, and it is a very common thing to see a weedy old cat lapping warm milk from a pail or other milk container. These animals are known to succumb to a throat trouble which appears identical with human diphtheria, and it is also known that they die from tuberculous forms of disease. So it is not unreasonable to ascribe contagion to these animals, when they are allowed the freedom of the dairy. Dogs prowl about the farm day and night, and very often depend upon the carcasses of dead animals for their living. Cows, horses and pigs often die of septic and contagious diseases; the carcasses are hauled into the woods or fields, away from the house, and there left exposed as meat for the farmer's dogs. These dogs come back and lap the milk-pail, lick the empty milk vessels which are never properly cleaned; and can there be doubt that the milk is thus infected? Where this danger exists in a dairy it is practically unlimited. Rats and mice infest the ordinary dairy; they get into the milk and the milk vessels. These animals also have their diseases, and, therefore, the element of danger and disease from these pests must be acknowledged. The poultry around the farm are sometimes very numerous, and not always healthy. The diseases to which they are subject are many, and, owing to their high normal body temperature (108° F.) there is no other animal which so readily becomes tuberculous or which dies so quickly from this disease. On some dairy farms the hens are everywhere, in the cow stable, in the milk-house, in the dwelling-house, and even in the milk-pails. The dairyman, as a rule, has a family of children who are often attacked with the grave diseases of childhood. The milking vessels are frequently washed in the house, and not unusually there is a close connection between the house and the dairy, and sometimes the living-house is, itself, used as a dairy-house. It requires no argument to point out the dangers here; in fact, numerous epidemics have been traced to such a source.

Those who milk the cows are not always free from disease; often we see the milker with hands that are cracked or sore. One of the dirtiest habits which exist in many dairies is that of wetting a cow's teats to lubricate them, to make the milking process easier to the milker. This custom, not rare, unfortunately, is the most common nasty habit permitted in many dairies. If it were not for the good that is sure to follow the agitation of these matters I should hesitate to record that I have myself seen milkers spit upon their hands to wet the teats before they began milking, and then, when there was a certain quantity of milk in the pail, dip their hands into it, and keep the teats dripping wet during the whole process of milking. Cow's teats should not be wetted in any manner, especially in winter, even to wash off dirt if it is already there. This should be removed with a brush or a dry towel. Wetting of the teats very often leads to chapping, and chapping to cracks, and these cracks often become running sores from the constant irritation of the milking process.

In these days of bottled milk the danger of spreading contagion is vastly increased. Bottles which go into rooms where children are suffering from any of the contagious diseases must be a source of danger if they are not subsequently sterilized. Quite recently I had occasion to visit a man who did a large bottled-milk business in New York City. The milk came in wagons from the upper part of Westchester County, and he had a horse-stable half way between his source of supply and New York. Here his horses were changed. All the milk came to this stable in cans, and the empty bottles came back here from New York to be washed. He had two wooden troughs in this stable, and a stove with a large kettle to heat water, and the bottles were washed here in lukewarm water with sal soda, rinsed with cold water, and then filled from the cans.

I think, if some of us followed these bottles around and had seen where some had been, we would want them pretty well steamed and sterilized before we drank milk from them. It is often a source of wonderment to me why we do not have more direct and palpable evidence of trouble arising from just this state of affairs. Of course, there are unfortunate results from this sort of carelessness; but how much or how little we are not always able to say. We ought to be able to prevent it by insisting that all milk containers be sterilized with steam under pressure after each usage.

When the dangerous elements are recognized and eliminated from the dairy, then it only requires that the cows be healthy, properly bed and cared for, in order that we may have milk fit to drink and to feed to the baby, without the intervention of the chemist or any of the prevailing laboratory methods, which at the best are only questionable make-shifts.—*Dietetic and Hygienic Gazette.*

Skin-Grafting Extraordinary.

A curious case was tried last week at Sydney, where a woman brought an action for damages against a doctor who had removed fifty-two square inches of skin to graft on a patient who had been severely burned. It must be admitted that this was a rather large draft on any one's abnegation, and the good lady seems to have regretted her generosity when it was too late. Unfortunately for her, the fact that she was a consenting party was held by the jury to exonerate the doctor, so she is minus both skin and damages. Possibly a claim would lie against the beneficiary, though even a committee of experts would find it difficult to appraise the value of skin per square inch. On any future occasion we would suggest that she should stipulate beforehand how much skin she was prepared to "shed." Seriously, however, the plaintiff appeared to have had just cause for complaint, and we are quite unable to approve the conduct of a surgeon who, even by consent, partially flays one person in the interest of another.—*Medical Press and Circular.*

Pharmacology and Therapeutics.

THE REVISION OF THE BRITISH PHARMACOPŒIA.

THE following is a list of additions to the present *Pharmacopœia*, and we append a list of articles and preparations included in the *Pharmacopœia* of 1885 or in the Additions of 1890, but omitted from the present volume :

LIST OF ADDITIONS.

Acid quinine hydrochloride	Krameria lozenge
Araroba	Krameria and cocaine lozenge
Aromatic syrup	Phenol lozenge
Aromatic syrup of cascara	Mercuric oleate
Belladonna suppositories	Morphine tartrate
Benzol	Naphthol
Bismuth salicylate	Oil of pine
Carbon bisulphide	Oil of rose
Cocaine	Ointments :
Codeine phosphate	Capsicum ointment
Concentrated compound solution of sarsaparilla	Cocaine ointment
Concentrated solution of calumba	Mercuric oleate ointment
Concentrated solution of chiretta	Paraffin ointment
Concentrated solution of cusparia	Rosewater ointment
Concentrated solution of krameria	Yellow mercuric oxide ointment
Concentrated solution of quassia	Pancreatic solution
Concentrated solution of rhubarb	Phenol suppositories
Concentrated solution of senega	Physostigmine sulphate
Concentrated solution of senna	Pill of quinine sulphate
Concentrated solution of serpentary	Prepared coal tar
Discs of homatropine	Quillain bark
Dry thyroid	Salol
Effervescent caffeine citrate	Solution of coal tar
Effervescent lithium citrate	Solution of ethyl nitrite
Eucalyptus gum lozenge	Solution of hamamelis
Extract of strophanthus	Solution of hydrogen peroxide
Fresh bitter orange peel	Solution of india-rubber
Glycerin of boric acid	Solution of morphine tartrate
Glycerin of pepsin	Spirit of anise
Hyoscine hydrobromide	Strychnine hydrochloride
Hyoscyamine sulphate	Syrup of calcium lactophosphate
India-rubber	Syrup codeine
Infusion of broom	Syrup of glucose
Kaolin	Syrup of phosphate of iron with quinine and strychnine
Liquid extract of belladonna	Syrup of Virginian prune
Liquid extract of ipecacuanha	Terebene
Liquid extract of jaborandi	Thyroid solution
Liquid extract of nux vomica	Tincture of quillain
Liquid paraffin	Tincture of Virginian prune
Lozenges :	Tincture (ammoniated) of ergot
Guaiacum resin lozenge	Virginian prune bark

LIST OF OMISSIONS.

Acetic extract of colchicum	Extract of conium
Aconite leaves.	Extract of hop
Alcoholic extract of gelsemium	Extract of jaborandi
Amyleic alcohol	Extract of lettuce
Animal charcoal	Extract of logwood
Aromatic mixture of iron	Ethereal extract of mezereon
Bael fruit	Extract of pareira
Bebeeru bark	Extract of poppy
Beer yeast	Extract of quassia
Bismuth	Extract of rhamnus frangula
Bitter orange	Extract of socotrine aloes
Blistering paper	Ferrocyanide of potassium
Bone ash	Fir wool oil
Bromine	Fruit of the dog rose
Brown soap plaster	Galbanum plaster
Cabbage rose petals	Glycerine of gallic acid
Canella bark	Granulated sulphate of iron
Carbolic acid suppositories (with soap)	Green hellebore rhizome
Chalk	Gutta percha
Chalybeate plaster	Hemlock poultice
Charcoal poultice	Honey
Chlorine poultice	Iceland moss
Cinchona bark	Infusion of catechu
Citrate of bismuth	Infusion of chamomile
Citrate of bismuth and ammonium	Infusion of jaborandi
Compound decoction of sarsaparilla	Infusion of kouso
Compound pill of hemlock	Infusion of linseed
Compound tincture of chloroform	Infusion of matich
Confection of hips	Infusion of valerian
Confection of opium	Inhalation of chlorine
Confection of scammony	Inhalation of conine
Confection of turpentine	Inhalation of creasote
Crumb of bread	Inhalation of fir wool oil
Cyanide of potassium	Inhalation of hydrocyanic acid
Decoction of barley	Inhalation of iodine
Decoction of broom	Kamala
Decoction of cinchona	Lactic acid
Decoction of dandelion	Larch bark
Decoction of Iceland moss	Leaf tobacco
Decoction of oak bark	Lettuce
Decoction of pareira	Linseed poultice
Decoction of poppy	Liquid extract of bael
Decoction of sarsaparilla	Liquid extract of rhamnus frangula
Diluted lactic acid	Manna
Effervescing solution of lithia	Mastiche
Effervescing solution of potash	Matico leaves
Effervescing solution of soda	Meconic acid
Elemi	Mercurial suppositories
Enema of aloes	Milk
Enema of asafoetida	Morphine suppositories (with soap)
Enema of opium	Mucilage of starch
Enema of sulphate of magnesium	Mulberry juice
Enema of turpentine	Mustard poultice
Essence of anise	Nitrate of ammonium
Essence of peppermint	Nitrate of copper
Expressed oil of nutmeg	Nitrate of lead
Extract of aconite	Nitrate of sodium
Extract of calumba	Oak bark

Oil of rue	Solution of sulphate of morphine
Oil of savin	Solution of soda
Ointment of calumba	Squirting cucumber fruit
Ointment of elemi	Star-anise fruit
Ointment of savin	Strong solution of acetate of ammonium
Ointment of sulphurated potash	Strong solution of acetate of iron
Ointment of tartarated antimony	Strong solution of citrate of ammonium
Ointment of turpentine	Strong tincture of ginger
Oleate of mercury	Sulphate of heberine
Oleate of zinc	Sulphate of cinchonidine
Oleo-resin of cubebes	Sulphate of cinchonine
Opium lozenges	Sulphate of morphine
Pearl barley	Syrup of mulberries
Peroxide of iron	Syrup of poppies
Persulphate of mercury	Syrup of subchloride of iron
Physostigmine	Tannic acid suppositories (with soap)
Pill of carbonate of iron	Tincture of acetate of iron
Pill of iodide of iron	Tincture of ergot
Prepared calamine	Tincture of galls
Proof spirit	Tincture of green hellebore
Purified animal charcoal	Tincture of larch
Purified bismuth	Tincture of lobelia
Raisins	Tincture of orange peel (dried)
Refined silver	Tincture of savin
Rhamnus frangula bark	Tincture of valerian
Sabadilla	Treacle
Savin tops	Valerianate of sodium
Santonica	Vinegar
Scammony mixture	Wheaten flour
Simple ointment	White marble
Solution of bimeconate of morphine	Wine of aloes
Solution of chloride of antimony	Wine of rhubarb
Solution of chloride of calcium	Wine of opium
Solution of citrate of magnesium	Yeast poultice
Solution of dialysed iron	
Solution of gutta percha	
Solution of iodine	

While the above lists nominally represent the additions and the omissions, it is perhaps necessary to point out that the names of many of the preparations and articles in the *Pharmacopœia* of 1885, or in the additions of 1890, have been altered in the present edition, and accordingly the equivalents of certain articles given as omitted may appear under other titles. The alterations generally are not likely to give rise to any confusion. In some cases the alteration is merely a slight change of spelling, and frequently only affects a single letter; for example, *asafœtida* is now written *asafetida*, and *creasotum* is now changed to *creosotum*. Such changes, although they are probably the outcome of considerable research, may not attract much attention. Many of the other names, however, have been altered on chemical grounds, as, for example, with the hydrochloric compounds of alkaloids, which were formerly termed hydrochlorates, and now become hydrochlorides. In some cases the change indicates the mode of employment; thus the *liquor cocainæ hydrochloratis* is now termed *injecto cocaine hypodermica*. Two changes only are likely to attract

much attention: the one is the alteration of the name *tabellæ nitroglycerini* to *tabellæ trinitrini*; the other is the reversion to an old term, the compound *asafetida* pill being now termed officially *Pilula Galbani Composita*.

In the last *Pharmacopœia* some preparations which contained two or more active ingredients did not show their compound nature by their name; such misleading titles have now been amended.—*B. M. J.*, April 9th, 1898.

FORMALDEHYDE AS A PRESERVATIVE OF MILK.

PROF. J. N. HURTY does not share the misgivings which have been expressed lest the use of this antiseptic provoke dyspepsia. He states (*American Druggist*): For a child affected with marked indigestion, obviously due to fermentation, I recently recommended that cow's milk be treated immediately after being taken from the animal with five drops of 40-per-cent. solution of formaldehyde to each quart, and that the child be fed with the milk thus treated. Two weeks' trial of pasteurized milk had not brought relief. Within ten days after commencing the use of the formol-milk a decided improvement was apparent. Its continuation resulted in complete cessation of the symptoms. Now, after ten weeks' trial, with two intermissions, which admonished a return to formol milk, the child is in excellent condition. Upon the principle that it is best to do without all substances of this character when not actually needed, the formol has been discontinued, and the strength gained while using it has so far (six days) sufficed to contend against the influences which were before prominent. The most careful examination fails to discover that any stomach or bowel lesion exists. If a "lifelong dyspepsia" should very soon begin, it would not be entirely unfair to conclude that the formaldehyde was caustic to a considerable degree, although acute indigestion undoubtedly existed prior to its exhibition.

FORMALDEHYDE IN ACID INDIGESTION.

Being cursed myself occasionally with indigestion, I have used formaldehyde as a preventive of the fermentation which causes the acidity, with most excellent results. Whenever the acid condition develops, I immediately abandon all foods except milk, and this I take, drinking it slowly, after adding to each eight ounces ten drops of 40-per-cent. solution of formaldehyde. The results have been excellent, and although I have taken the agent in this way many times during the last year and a half, only the most desirable effects have been observed. For one week, as experiment, I took three times a day, after meals, four ounces of milk containing five drops of 40-per-cent. formaldehyde solution. Not the least untoward result at the time or since has been noted.

Proceedings of Societies.

TORONTO CLINICAL SOCIETY.

THE forty-sixth regular meeting of the Toronto Clinical Society was held in St. George's Hall, Toronto, May 11th, 1898.

President Dr. Albert A. MacDonald in the chair.

The following Fellows were present: A. A. MacDonald, J. A. Temple, G. S. Ryerson, W. H. B. Aikins, A. Primrose, G. A. Peters, G. Boyd, F. Fenton, H. A. Parsons, A. Baines, W. Oldright, R. Dwyer, J. N. E. Brown.

Dr. Brown gave notice of motion, "That in view of the fact that the Clinical Society had its full quota of Fellows, and as there was a number of eligible applications for fellowship, any Fellow absenting himself from all of the meetings of the Society for one year should have his name struck from the roll."

Dr. William Oldright presented a boy, whom he had operated upon for talipes equinus, doing a tenotomy of the tendo achilles. The patient was aged six, and the trouble had been in existence since he was eighteen months old. The affection had supervened after a long walk. Photographs before and after the operation were shown. He had applied a plaster paris splint to keep the foot in the corrected position. The boy was wearing a thick-soled shoe on the affected side.

Dr. Primrose stated it to be his experience that most cases of talipes equinus were the result of injuries. He reported a case following a gun-shot wound, in which the bullet had entered the palm of the hand and had passed completely through the carpus, and lay situated on the dorsal aspect of the wrist below the head of the una. The "X" rays revealed the situation of the bullet, and only a small incision was necessary to extract it.

The doctor reported a second case, that of a boy who was accidentally shot by a 44-calibre revolver last Christmas. The bullet entered the body at about the level of the tenth rib, three or four inches from the median line. It was probed for at the time unsuccessfully. The wound healed up. About eight months after the boy complained of pain in the hypochondriac region. This was followed by the vomiting of blood and purulent material. The patient became very weak; the "X" rays were used and showed a tumor of the left hypochondriac region. A tumor in this region could be felt, and it was a question whether it was in the abdominal wall or not. An exploratory incision revealed an enlarged spleen. It appeared from inquiry that the patient had

suffered from malaria, although the blood count showed only 220,000 white corpuscles.

Dr. Primrose reported a third case, in which the patient was injured from the bursting of a gun. The man had been experimenting with smokeless powder and had used too heavy a charge. The left arm was severely lacerated by a piece of the barrel. It was probed for but could not be felt. The "X" rays showed it distinctly, lying between the bones of the forearm. In the upper arm there was a piece of the barrel, quarter of an inch square, to be seen in front of the humerus. A good deal of cellulitis had set in. Operation was done, the piece in the lower arm being found, the upper one not. The patient was improving. An interesting nerve involvement had taken place involving the median and ulnar nerve.

Dr. Boyd, who had charge of the case Dr. Primrose reported first, said he was able to reach the bullet with a probe, but thought it wise not to attempt to extract it through the palm for fear of dangerous hæmorrhage.

Dr. Parsons discussed the question of leucocytosis in malaria, pointing out that as long as the malarial organisms exist in the body the leucocytes will not increase, but so soon as quinine is administered there is a regular inflammatory leucocytosis.

Dr. Primrose closed the discussion.

Dr. W. Oldright presented a patient upon whom he had resected a portion of two ribs for necrosis.

Dr. Oldright presented another patient from whom he had removed a wedge-shaped portion of the first meta-tarsal bone to correct the malposition of the great toe caused by a bunion.

Dr. J. A. Temple presented a specimen of an ectopic gestation, which he had removed from a woman aged twenty-four, mother of one child. Two weeks before she consulted him she suffered from pain in the left side. She had missed two periods. The rupture had induced a state of collapse. After a good deal of persuasion, an operation was consented to, and done at eleven p.m., when the patient was almost *in extremis*. The abdomen was found full of blood and the break close to the corner of the uterus, so close, indeed, that the corner of the uterus had to be transfixed to secure the pedicle. Hypodermics and rectal administration of stimulants was resorted to, and the woman made a good recovery. One point that had rendered the diagnosis more difficult was that the woman positively asserted that she was not pregnant. She stated that she had missed her periods frequently. The text-books would lead us to believe, Dr. Temple asserts, that the accident occurs only in women near the menopause, or in those who have borne no children for some years. The above case, with several others he had seen, led him to disagree with this statement of the authors.

Dr. MacDonald discussed the question of pain in ectopic gestation and the causation of the trouble.

Dr. A. Primrose presented a hernial mass containing a piece of the omentum adherent to the sac. This procedure, as stated, shortened the operation very much.

Dr. King presented two similar specimens, in the removal of which he had followed a similar plan.

Dr. W. Oldright discussed the question.

The election of officers for the coming year was then proceeded with, and resulted as follows:

President, F. LeM. Grasett; vice-president, G. A. Bingham; corresponding secretary, H. A. Bruce; recording secretary, John N. E. Brown, re-elected; treasurer, W. H. Pepler; council, W. B. Thistle, G. Boyd, F. Fenton, H. J. Hamilton and G. Chambers.

The retiring president, Dr. MacDonald, was then tendered a vote of thanks for the acceptable manner in which he had presided over the meetings for the past year. He, in a few words, expressed his thanks to the Society for their appreciation of his efforts, and for the assistance they had given him during the year.

The Society then adjourned for refreshments.

The next meeting will be held on the second Wednesday in October.

The Sleep Problem.

As town life extends, and intellect is aroused, the problem will be more and more that of too little, not of too much sleep. Perfect or nearly perfect health is of course the first condition of sound sleep. But scarcely anyone is quite healthy, and so we must aid the sleepless to acquire that which is lacking. The one great thing to do is to fatigue the attention; not only to tire the body but also the active mind; to quiet the vasomotor centre and so drive the congested blood from the brain. Quiet and regular habits, a certain monotony of light evening occupation, will tend in this direction, while a great variety of evening engagements is generally fatal to the victim of insomnia. It is unwise to go to bed on either an empty or a very full stomach; a slight meal before rest is the wise course. A hot bath the last thing, taken under the following conditions, is perhaps the very best aid to sleep: As recommended by Eccles and others, the bath should be taken in a room with a temperature of 65° to 70° F. The patient should stand with his head over the edge of the tub, douching head and face with water at 100° F. The cooling of the body by the air and the hot sponging of the head first send blood to the brain, dilating its vessels. Then the entire body, except the head, is immersed in a bath at 98° F., rapidly raised to 105° or 110° F.; in a few minutes the bath is left, and the body wrapped in blankets, which absorb the moisture, and with the least possible exertion the patient gets into his night clothes and to bed with a warm bottle to his feet and perhaps a little warm liquid food.—*Dietetic and Hygienic Gazette.*

The Canadian Journal of Medicine and Surgery

J. J. CASSIDY, M.D.,

EDITOR,

69 BLOOR STREET EAST, TORONTO.

W. A. YOUNG, M.D., L.R.C.P. LOND.,

BUSINESS MANAGER,

145 COLLEGE STREET, TORONTO.

Surgery—BRUCE I. RICHARDS, M.D., C.M., McGill University; M.D. University of Toronto; Surgeon Toronto General Hospital; Surgeon Grand Trunk R.R.; Consulting Surgeon Toronto Home for Incurables; Pension Examiner United States Government; and F. N. G. STARR, M.B., Toronto, Lecturer and Demonstrator in Anatomy, Toronto University. Surgeon to the Out-Door Department Toronto General Hospital and Hospital for Sick Children.

Orthopedic Surgery—B. I. MCKENZIE, B.A., M.B., Toronto, Surgeon Victoria Hospital for Sick Children; Clinical Lecturer, Orthopedic Surgery, Toronto University; Assistant Surgeon, Ontario Medical College for Women; Member American Orthopedic Society; and H. P. H. GALLOWAY, M.D., Toronto, Orthopedic Surgeon, Toronto Western Hospital.

Oral Surgery—E. H. ADAMS, M.D., D.D.S., Toronto.

Surgical Pathology—T. H. MANLEY, M.D., New York, Professor of Surgery, New York School of Clinical Medicine, New York, etc., etc.

Medicine—J. J. CASSIDY, M.D., Toronto, Member Ontario Provincial Board of Health; Consulting Surgeon, Toronto General Hospital; and W. J. WILSON, M.D., Toronto, Physician Toronto Western Hospital.

Gynaecology and Obstetrics—GEO. T. McKEET JR., M.D., M.R.C.S. Eng., Chatham, Ont., and J. H. LOWE, M.D., Toronto.

Medical Jurisprudence—W. A. YOUNG, M.D., L.R.C.P. Lond., Eng., Toronto.

Mental Diseases—EZRA H. STAFFORD, M.D., Toronto, Resident Physician, Toronto Asylum for the Insane.

Public Health and Hygiene—J. J. CASSIDY, M.D., Toronto, Member Ontario Provincial Board of Health; Consulting Surgeon, Toronto General Hospital; and E. H. ADAMS, M.D., Toronto.

Pharmacology and Therapeutics—A. J. HARRINGTON, M.D., M.R.C.S. Eng., Toronto.

Physiology—A. B. EADIE, M.D., Toronto, Professor of Physiology, Woman's Medical College, Toronto

Pediatrics—ARGUSTA STOWE GILLES, M.D., Toronto, Professor of Diseases of Children, Woman's Medical College, Toronto.

Pathology—W. H. PEPLER, M.D., L.R.C.P. Lond., Toronto, Demonstrator of Pathology, Trinity Medical College; Medical Registrar, Toronto General Hospital.

Laryngology and Rhinology—J. D. THORBERN, M.D., Toronto, Laryngologist and Rhinologist, Toronto General Hospital.

Ophthalmology and Otiology—J. M. MACCALLUM, M.D., Toronto, Assistant Physician, Toronto General Hospital; Oculist and Aurist, Victoria Hospital for Sick Children, Toronto.

Address all Communications, Correspondence, Books, Matter Regarding Advertising, and make all Cheques, Drafts and Post-office Orders payable to "The Canadian Journal of Medicine and Surgery," 145 College St., Toronto, Canada.

Doctors will confer a favor by sending news, reports and papers of interest from any section of the country. Individual experience and theories are also solicited.

Advertisements, to insure insertion in the issue of any month, should be sent not later than the fifteenth of the preceding month.

VOL. III.

TORONTO, JUNE, 1898.

NO. 6.

Editorials.

SOME SHORTCOMINGS IN SCHOOL-HOUSES AND THE REMEDY.

In the May number of the *Sanitarian* appears an abstract of the report of the Visiting Committee of the Buffalo School Association. This is a voluntary association of persons, whose aim is to improve existing conditions in the grammar school-buildings. Their recommendations, which are very comprehensive, refer to matters of vital importance, and would seem to indicate that a large number of the public schools of Buffalo are a menace to the health of their pupils.

Though the occasion for the exercise of the good offices of this committee is scarcely a matter over which the citizens of Buffalo need congratulate themselves, still, the fact that the work of renostrance has been done, and well done, by a voluntary association, is a good instance of the capacity of Americans for self-government. There is no doubt that the conclusions of this committee should have great weight in the community, and, as Buffalo is a wealthy city, the reproach of unsanitary and unsightly school-buildings ought soon be taken away from it.

This subject has a considerable interest for the people of Toronto at the present time for we are subject to a like infirmity. In a recent report presented to the Hon. G. W. Ross, Minister of Education of Ontario, the secretary of the Provincial Board of Health shows that one-twentieth of the public-school population of Toronto is unprovided with permanent school accommodation. Stores, dwellings, and rooms in churches are utilized as substitutes for school-houses, and, as one would expect, are objectionable for various reasons: deficient floor space and cubic air space, bad ventilation and heating, poor lighting, unsatisfactory conveniences, absence of play-grounds and unsuitable locations.

The buildings referred to are 'makeshifts, used during hard times to lighten the load of civic taxation, while, at the same time, the school trustees are enabled to house, however imperfectly, children who demand a public-school education, not as a favor but as a right. When better times return, the City Council will respond to a demand for proper accommodation in a suitable manner.

In this case, the sanitary reformer has the taxpayer on the hip. There is, however, another side to this question, in which the sanitary reformer appears to have led the taxpayer into expense, and has failed to give him value for his money. A school may be erected on an appropriate site, light, heat and cleanliness may be provided for in every room, and yet, although a costly system of artificial ventilation has been installed, the resulting ventilation may be imperfect, or even positively bad. Here, the responsibility would seem to rest on the shoulders of the sanitary reformer or the contractor. It is easy to condemn the primitive ventilation, resulting from open windows in a stove-heated room; but it is difficult to provide an artificial system of ventilation, which will stand the test of a scientific investigation.

The following quotations from a report presented by the writer

of this article to the Provincial Board of Health are given as proofs of the soundness of this contention: "Report on the ventilation of a room in D— School, Toronto, Jan. 7th, 1897. Weather, cloudy; wind, south; temperature, 27°F.; humidity, 67%; barometer, 29.891. Room 8, third floor, east side: seating capacity, 58; persons present, 49; net air space, 12,163.83 cubic feet; air space per head, 284.24 cubic feet; temperature at the teacher's desk, 69°F.; difference in temperature at the breathing line over the greater portion of the room, 1°F.; temperature of the air at the warm-air inlet, 128°F. Two window sashes were lowered at the top—one eight inches, the other five inches. There was a large foul-air duct in one corner of the room, the shaft of which was heated by steam coils. The available area of its opening in the room was 4.27 square feet. When the doors and windows were closed, 320.25 cubic feet per minute, or 19,215 cubic feet per hour, of air were removed through the foul-air duct. Fresh-air supply at the inlet, 600 cubic feet per minute, or 36,000 cubic feet per hour. Amount of pure warm air supplied per minute per head, 12.24 cubic feet. Amount of foul air removed per head per minute through the foul-air duct, 6.53 cubic feet. When the windows were open, there was no current in the foul-air outlet. The open windows acted both as inlets and outlets; but the amount of air introduced and extracted by them was not estimated, as the supply was irregular and capricious. Carbonic acid, in parts of 1,000 of air, .806; time of test, 3.15 p.m. The warm air supplied was insufficient in quantity and of too high a temperature, so that cold air had to be introduced in an irregular fashion to supply the defects under both these heads. Even, with the open windows, the supply of fresh air was small, as was proved by the amount of carbonic acid in the air. The high temperature of the warm air at the inlet, ranging from 120° to 150°F., made it difficult for pupils to occupy the corner where the hot-air register was situated. As soon as the air of the room became superheated, the windows had to be opened, allowing at the same time a considerable waste of heat. The room is heated by steam pipes, direct and indirect. The indirect heating consists of pure air warmed by passing over steam coils in a shaft, which begins in the basement and ascends vertically through the building, allowing the warm air to enter the room through a register. In very cold weather direct steam-coil heating is superadded. The conditions observed in Room 8 are similar in fifteen other rooms in this school-house. The system in use in D— School may be

pronounced a complete failure as a method of artificial ventilation."

This may profitably be compared with the following: "Report on the ventilation of two rooms in the C— street school, Toronto. Date of inspection, December 17th, 1896. Weather, overcast and mild; wind, southeast; temperature, 33.8° F.; humidity, 61%; barometer, 29.85. Room 4, ground floor, northeast side: seating capacity, 64; persons present, 50; net air space, 11,738.17 cubic feet; air space per head, 235.66 cubic feet; temperature at the teacher's desk, 67° F.; humidity, 55%; difference in temperature in different parts of the room at the breathing line, 3° F.; temperature of the air at the inlet, 71° F.; fresh air supply per minute, 1,650 cubic feet; air removed at outlet (estimate) per minute, 1,650 cubic feet; amount of air supplied each pupil per minute, 30.8 cubic feet; air of room changed in 7.14 minutes; carbonic acid in parts of 1,000 of air, .537; time of test, 3.20 p.m. The building, a twelve-room school, is heated and ventilated by the Smead-Dowd system. At the time the test was made, the fires were getting low, and the results obtained would show the average of all kinds of weather."

To make the points brought out in these inspections clear to our readers, we will quote the requirements called for in the heating and ventilation of school buildings in Massachusetts.

"1. That the apparatus will, with proper management, heat all the rooms, including the corridors, to 70° F., in any weather.

"2. That with the rooms at 70° F., and a difference of not less than 40° F., between the temperature of the outside air and that of the air entering the room at the warm-air inlet, the apparatus will supply at least 30 feet of air per minute for each scholar accommodated in the room.

"3. That such supply of air will so circulate in the rooms that no uncomfortable draughts will be felt and that the difference in temperature between any two points, on the same breathing plane, in the occupied portion of a room, will not exceed 3°.

"4. That vitiated air, in amount equal to the supply from the inlets, will be removed through the ventiducts.

"5. That the sanitary appliances will be so ventilated, that no odors therefrom will be perceived in any portion of the building."

"To secure approval by the Department of plans showing methods or systems of heating and ventilation, the above requirements must be guaranteed in the specifications accompanying the plans."

It will, therefore, be seen that, in the opinion of the officers of the Department of the Inspection of Factories, Workshops and Public Buildings in Massachusetts, good results in heating and ventilation are obtainable, if the contractors are held down to the regulations imposed by the statutes and, in practice, the inspectors of this Department will not pass a building unless the tests can be complied with. These clear-cut rules and this definite plan of action present the vital questions of heating and ventilation in a manner totally different to what we are accustomed to in this country. Certainly, however, if we wish to have ventilated schools and to get value for our money we would do well to imitate Massachusetts and to demand legislation, making regulations similar to those we have quoted above.

In our opinion real progress in the ventilation of schools will not take place unless:

(1). A Provincial Sanitary Inspector is appointed who shall have power to see that all plans for new schools shall have sufficient flue space to furnish at least 1,500 cubic feet of air per hour per pupil. This should be the minimum amount.

(2). After new school buildings are erected, there should be a practical inspection by scientific tests to see whether the ventilating apparatus fills the requirements, and in default of its doing so, the contractor should be obliged to make the necessary changes.

(3). The same authority should have power to order changes in the worst of the old schools now in use, so that a larger amount of air and better air may be supplied.

The sanitary arrangements of the school should also be under the control of the same power.

J. J. C.

THE ONTARIO MEDICAL ASSOCIATION.

THE Eighteenth Annual Meeting of this vigorous Association will be held in our Queen City of Toronto on Wednesday and Thursday next, June 1st and 2nd.

Dr. Ross, Minister of Education, has again kindly allowed the Education Hall of the Normal School to be used as the meeting place.

This meeting promises to be exceptionally well attended, judging from the large number of intimations of their intention to

be present from medical men throughout the province, from Ottawa and Montreal on the east, to Windsor and Sarnia on the west.

Dr. Britton, the President, has shown unusual ardor in the work of the Association, and the members of the Committees on Papers and Arrangements, chosen by him, and upon which the major part of the Association work falls, have worked in hearty accord with him to present a programme of good material and complete arrangements for a warm, welcome reception for our brethren throughout the Province. A luncheon at the Royal Canadian Yacht Club, a cruise on the Bay, a smoking concert genially tendered by Dr. Ryerson, who presides over the Committee of Arrangements, and numerous private receptions, will be on the entertainment programme.

We take this opportunity, just on the eve of the meeting, of urging every doctor throughout the Province, who can, to be present at the meeting. Every man of good standing in Ontario is eligible for membership on payment of the fee of two dollars, which is not exacted each year, except on attendance. The very cheap railway fares, too, will be a strong factor in making the attendance large.

We append the list of papers:

PROVISIONAL PROGRAMME.

- The President's Address.—Wm. Britton, Toronto.
 Papers by Guests: Syphilitic Cirrhosis.—J. G. Adami, Montreal.
 Pancreatitis, from a Surgical Standpoint.—James Bell, Montreal.
 Discussion in Medicine: Excretion in Cure and Immunity.—H. A. McCallum, London; followed by H. B. Anderson and R. J. Dwyer, Toronto.
 Discussion in Surgery: Treatment of Fractures of the Skull.—George A. Peters, Toronto; followed by George S. Rennie, Hamilton; V. H. Moore, Brockville; and A. B. Welford, Woodstock.
 Discussion in Gynecology: Carcinoma of the Uterus.—T. K. Holmes, Chatham; followed by H. S. Griffin, Hamilton, and J. W. S. McCullough, Alliston.
 Operative Methods in the Conservative Treatment of Tuberculous Joints.—Alex. Primrose, Toronto.
 Oöphorectomy for Fibroids of the Uterus.—Albert A. Macdonald, Toronto.
 The Injurious Effects of Our Over-Wrought School System on the Health of Public and High School Pupils.—R. Ferguson, London.
 Immunity.—J. J. MacKenzie, Toronto.
 The Effect of the Climate of Our Canadian North-West on Tubercular Patients.—P. H. Bryce, Toronto.
 Supra-Pubic Prostatectomy: With Cases.—Angus MacKinnon, Guelph.
 The Traumatism of Labor.—C. B. Oliver, Merlin.
 Endometritis with Erosions of the Os.—J. F. W. Ross, Toronto.
 The Early Removal of Tubercular or Necrotic Areas.—H. H. Oldright, Toronto.

- Rhumatoid Arthritis in Children.—W. B. Thistle, Toronto.
- When Should We Operate? Illustrated by cases and specimens.—Wm. Oldright, Toronto.
- My Experience with Diphtheria During the Fall of 1897.—Wm. Doan, Harrietsville.
- Hyper-Resonance of the Chest, a Premonitory Symptom of Tuberculosis of the Lungs.—W. C. Heggie, Toronto.
- The Medical and Surgical Treatment of the Insane.—A. T. Hobbs, London. Discussed by R. M. Bucke, London, and R. W. Bruce Smith, Hamilton.
- Cretinism in Ontario.—A. McPhedran, Toronto.
- Recent Improvements in the Preparation of Cat-Gut and Gauze.—N. A. Powell, Toronto.
- Puerperal Complications.—H. D. Livingstone, Rockwood.
- Experiences with New Remedies.—G. S. Ryerson, Toronto.
- Vicarious Urination.—A. T. Rice, Woodstock.
- A Brief Sketch of the Nervous System, of Its Liability to Injury and Some of Its Diseases.—I. Bryon Newman, Detroit.
- The Various Operative Methods of Dealing with Eyes Lost Through Injury or Disease.—G. H. Burnham, Toronto.
- Epithelioma of the External Ear.—F. N. G. Starr, Toronto.
- A Comparison of Lumbar and Inguinal Methods in Colostomy.—Herbert A. Bruce.
- The Pharmacology of the Cresols.—W. Beattie Nesbitt, Toronto.
- Toxæmia of Pregnancy.—C. J. O. Hastings, Toronto.
- Hypo and Hyper-Respiration in Pulmonary Tuberculosis.—E. Playter, Ottawa.
- Infant Diet.—W. J. Greig, Toronto.
- Remarks on the Treatment of Club-Foot, Based on the Personal Observation of 243 Cases.—B. E. McKenzie, Toronto.
- Exhibition of Machine for Manufacturing Plaster Paris Bandages.—H. P. H. Galloway, Toronto.
- Management of Difficult Breech Presentations.—A. H. Wright, Toronto.
- Rosacea.—Graham Chambers, Toronto.

Fifteen minutes shall be allowed for the reading of papers. It is strongly urged that those who read papers will make them short and practical.

There will also be a pathological exhibit. Members having specimens are invited to bring them.

A Clinic will be given on the afternoon of the second day, at the Victoria Hospital for Sick Children.

The Committee of Arrangements are making preparations for the entertainment of members, the announcement of the features of which will appear in the permanent programme.

A STENOGRAPHER FOR CORONERS' INQUESTS.

THE recent case of Mrs. Sternaman, with its trial for murder and its swinging balance weighing first, "Guilty," and adjusting itself slowly to "Not guilty," has turned the eyes of the people upon the many persons of necessity who took part in this *cause celebre*, from

legal dignitary down to the most humble witness. Upon the coroner has been turned the full public gaze, and more clearly than ever has been seen how important is his written evidence and the necessity that he should take down what the witnesses say fully and with absolute correctness. Even the minor details often prove important factors upon which hinge grave results. Memory, no matter how retentive, or how perfect seems the photograph of words and sentences upon its plate, is a poor medium to conjure with when a human life hangs in the balance. Coroners are not provided with stenographers, consequently how arduous the task of both listening to and writing down the evidence fully.

The coroner's inquest is, of course, a court of record, and not one of judgment. Its object is a searching for facts, on the basis of which the Crown works up its case. Since Sir John Thompson's Act, known now as the Criminal Code, came into force some years ago, immediately previous to the Lucky murder trial an accused person has had the privilege, if so desired, of going into the witness box and giving under oath his own evidence. A more recent judgment, however, has enacted that the evidence of an accused person, taken by a coroner, cannot be admitted as evidence against him in a higher court, for the reason that the said person in the coroner's court has not accorded to him the same protection as he would have elsewhere. It will be remembered that it was owing to this judgment that Hammond, the Bracebridge wife poisoner, was granted a third trial. It cannot but be admitted, therefore, that with the services of a stenographer an investigation before a coroner would be much more perfect and would give the accused the benefit of all he or she might say in the box, be that evidence ever so halting. Such evidence would become a definite statement. If true, it could not be gainsaid, and if not true, would be the means of assisting the Crown and bringing conviction home. Supposing a witness who had given evidence before a coroner, for instance, and such evidence had been taken down by a stenographer, were to die before the trial in the High Court, how vastly important the services of the stenographer would be in such a case. It would be similar to an examination before a Commissioner. In the same way regarding any quibble which might be raised afterwards as to irrelevant evidence taken by a coroner; with a stenographer taking down the very letter of the evidence given, and the coroner making notes as to the spirit of the same, there is no question that the succeeding trial would be greatly facilitated in every way.

We realize, therefore, how important is the need of a better equipment for recording evidence than at present exists at inquests, and we join in a plea to the Attorney-General asking that the Department speedily cause an official stenographer to be granted to assist the coroner by being present at all inquests, as is the custom in the Court of Assize. The verbatim report of the stenographer would silence all after-contention as to the correctness or incorrectness of statements made, and in many cases also render further legal argument unnecessary, and consequently forward the interests and hasten the ends of justice. W. A. Y.

EMBALMING FLUIDS AND TRIALS FOR MURDER.

THAT an embalming fluid and a solution containing arsenic are convertible terms, will, probably, obtain credence among some of the laity, who read the report of the second trial of Mrs. Sternaman, at Cayuga, for causing the death of her late husband by the administration of arsenic.

The undertaker, who had charge of the funeral of the deceased, Sternaman, swore, that he did not remember whether he had or had not used embalming fluid in preparing the corpse for burial.

Assuming, for the sake of argument, that he could have sworn positively to the use of an embalming fluid, it should have been necessary for the defence to prove, by competent evidence, that this fluid, or a fluid made up according to the same formula, did really contain arsenic. Otherwise, the contention that the arsenic, which was found in the body of the deceased had been put there, post mortem, by the undertaker, could not reasonably be maintained. No effort was made to prove that the undertaker's embalming fluid was an arsenical solution. That was taken for granted, and it simply remained to argue, that such a hypothetical fluid might have been employed by the undertaker.

The jury, on such evidence, concluded, that the arsenic found in the body of the deceased had been introduced by the undertaker, during the process of embalming, and was not proof of criminal poisoning by the accused.

It does not appear, in the recital of the evidence, that the undertaker was asked to state if he knew the composition of the fluid which he ordinarily used for embalming purposes, and it is quite likely that he did not know, for certain, what it contained.

Embalming fluids, the formulæ of which are secret, are sold to undertakers by jobbers, the chief recommendations in favor of any given preparation being reliability and cheapness. While it is true that many fluids in common use for embalming are arsenical, there are many efficacious embalming preparations in regular use, which do not contain arsenic.

A distinct advance in embalming has been made by the introduction of the forty per cent. solution of formaldehyde. It is inexpensive, and is most efficacious as a deodorizer and preservative of dead bodies. Owing to its disagreeable odor and burning taste, it is free from the objection, that it may be used during life as a poison for criminal purposes. So that, while it answers the purposes of the embalmer, its subsequent discovery in a corpse would be of little or no importance from a medico-legal aspect.

In view of these facts, we would suggest, that the Provincial Government be requested to introduce legislation, declaring the use of arsenical solutions in the embalming of dead bodies to be illegal. As an evidence of good faith, the formula of every embalming fluid, used or sold in Ontario, should be sent to the secretary of the Provincial Board of Health.

J. J. C.

THE ONTARIO MEDICAL COUNCIL AND INTER-PROVINCIAL REGISTRATION.

At the last meeting of the Canadian Medical Association, the Inter-Provincial Registration Committee reported thus: "Your committee beg leave to report that the Medical Councils of Quebec, Prince Edward Island, Nova Scotia, New Brunswick and Manitoba have signified by resolution their approval of the resolutions of the Committee of 1896, and have accepted them as a basis of agreement for inter-provincial registration. We therefore recommend that the matter be referred to the councils mentioned to formulate an agreement and carry it into effect."

It will be pleasing to our readers to learn that since then the Council of the North-West Territory has acquiesced, leaving only Ontario and British Columbia to come in, and thus bring about a condition of affairs that will easily lead to reciprocal registration.

Some members of the Ontario Medical Council, who were present at the Canadian medical meeting last year, brought neither credit upon the Council nor upon themselves by their actions, for

it was felt that for some time past they had been "blowing hot," at the Canadian medical and then "blowing cold" when the matter was brought up in the Ontario Council, thus blocking the matter behind the screen of sec. 26 of our Medical Act, saying, "We are all prepared, just as soon as you can come up to our standard."

They seem to forget that this reciprocity will be a great benefit to Ontario, in that it will open up to Ontario's graduates four provinces in which there is no medical school and two in which the schools are small. Of course we are well aware of the fact that our Ontario barriers have kept many *incompetents* out of this Province, but it is probably also true that they have kept many a similar class in; for, having "passed the Council" here, they fear to take chances elsewhere. The councils of the willing provinces are cognisant of the fact that inter-provincial registration may for a time overcrowd their ranks; but they feel certain that time will remedy that, and during the intervening period they are willing to take the risk for the sake of a betterment of the general condition of the profession in "our own, our native land." If the members of our Council would just sit down and *think* this thing out, instead of constantly endeavoring to gratify their insatiable desire to *talk*, they might arrive at a reasonable solution of the difficulty.

We shall watch carefully the attitude of the new members of the West Toronto Territorial Division, that we may learn what election promises are worth.

THE ARMY SURGEON.

SHALL this century, which has done so much for the enlightenment of humanity, end in "a baptism of blood and tears," is a question that will soon be answered. Already the dread of a long nation-stirring conflict is in the air, and many are leaving home and friends to answer the bugle call. But perhaps to the surgeon, who goes with his corps, will fall the strangest and most heart-wearying tasks, without even the stimulus of martial music or the *camaraderie* of the regiment, a little apart from the excitement of the "thick of the fight," will he wage the solemn warfare with death. He alone is permitted to see the soldiers' courage ebb, as wounded and dying they lie;

for pain is often the only enemy before whom men quail. On the weary surgeon struggles, armed only with the weapons that *bind* together bone and tissue instead of *shatter* and *tear* them, his conflict never ending through the days of intense heat, and the nights, whose stillness echoes with the groans of the wounded; sometimes he records a victory, often, alas, a defeat.

In the eyes of the busy world the army surgeon is less thought about and receives fewer plaudits than his comrades who shoulder the musket. He has stepped up out of the ranks of the medical profession, and we delight to honor him with the small tribute of a word, for a thought in the heart of one's fellows is acceptable even to the sternest clay. So three cheers for the army surgeon, and when peace reigns may he return to his *ain* fireside realizing that life during the troublous times has been to him, perhaps, "not a having and a getting, but a being and a becoming."

W. A. Y.

THE INTERNATIONAL ASSOCIATION OF RAILROAD SURGEONS.

THE date of the 1898 annual convention of this important association comes on apace. As our readers are aware, it meets in this city on the 6th, 7th and 8th of next month. From present appearances, there is every reason to expect that there will be in this city at least 600 surgeons from the other side of the line, not to speak of the large attendance of medical men from all parts of Canada. The arrangements so far for the meeting are well under way. The sessions will be held in the Normal School buildings, and a large exhibit of surgical instruments and appliances will be made in a well-lighted adjoining room by the principal houses from the United States as well as our own country. The committee who have charge of the entertaining of the guests are making every effort to see to it that the social side of the meeting is not neglected, but, on the other hand, made a principal feature. The Niagara Navigation Company, the Niagara Falls Electric Road, and the Muskoka Navigation Company have all kindly granted free transportation over their roads to visiting surgeons. The city and Government have given liberal money grants to the association. There will be quite a number of most interesting papers read, one at least of which will be by Dr. P. H. Bryce. His subject will be "The Relation of Public Health Authorities and Railways in the Transportation of Corpses."

W. A. Y.

CHLOROFORM AND ILLUMINATING GAS.

It has been frequently observed, that chloroform, when administered by gas light, causes fits of coughing in persons present in the room. This has been occasionally referred to in the medical journals, and has been passed over as of slight importance, being due to the inhalation of the products of combustion of chloroform. Recently, at the hospital of Berne, Switzerland, death occurred as the result of this inhalation of toxic products. Dr. Mey, one evening, with the assistance of another physician and two sisters, performed an operation for an abdominal wound. During the operation, which lasted several hours, the physicians had severe fits of coughing, which they attributed to the chloroform. Some hours after the operation, Dr. Mey felt a good deal of distress, and had a severe attack of dyspnoea. The two sisters were similarly attacked during the night, and one of them died.

This untoward behaviour of chloroform, when administered by gas light, would seem to be another argument in favor of the electric light.

J. J. C.

THOSE MUNYON DOCTORS.

THE Discipline Committee of the Ontario Medical Council are to be congratulated upon the manner in which they "carpeted" some unworthy members of our calling last month. As far as this branch of the service rendered the profession by the College of Physicians and Surgeons is concerned, even the grumblers cannot complain. That it is most important that the Medical Act be enforced in such cases as the ones to which we refer herein, no one will deny. Black sheep of the ordinary type must be excluded from our flock, but when such flagrant disobedience to the mandates of ordinary professional decency come to light, we cannot but think that the Discipline Committee in sending their report to Council, which meets so soon now, will do their duty and speedily have the names of the offenders erased from the College Roll, thus teaching them a well deserved lesson. To Detective Wasson is due great credit for the manner in which he worked up his "Munyon" evidence. We hope his attention will be drawn now to, and summary treatment afforded to, say, *catarrh specialists*.

W. A. Y.

Correspondence.

The Editor cannot hold himself responsible for any views expressed in this Department.

THERE IS SOMEWHAT OF A RESEMBLANCE, ISN'T THERE ?

To the Editor of THE CANADIAN JOURNAL OF MEDICINE AND SURGERY :

DEAR SIR,—The enclosed clipping from the *Philadelphia Medical Journal* may prove interesting to some of your readers :

“A FEUD IN THE NEW YORK UNIVERSITY.

“It is now openly charged that the council of the University has broken faith with the other party; that the faculty was appointed by the Executive Committee without consultation with either the Medical Committee or the medical faculty; that instead of fixing the salaries, the Executive Committee has voted that compensation should be limited to what they could earn by their own labors, without giving any credit for the property transferred to the University; and that numerous items of expense have been imposed upon the medical faculty which are not properly chargeable to them. . . . An influential minority of the trustees were convinced that they could not honorably retain possession of the property of the Medical College Laboratory if they continued to use it contrary to agreement and the wishes of the donors, and a special committee appointed by the board to investigate these differences, so reported, but the majority, under the leadership of Chancellor MacCracken, refused to accept the report of this committee. The Chancellor has refused to issue a statement of his side of the controversy.”

It would seem as if the Chancellor and Executive referred to above resemble some people of lower rank we have heard about in Toronto. Possibly if there was “something in it for the defence,” the Chancellor would make an effort to defend himself.

NEMO.

A NUMBER of our fraternity have joined the St. Alban's Cricket Club, and can be seen on Tuesdays and Thursdays, about four o'clock, with their flannels on practising on the club's grounds on Howland Avenue.

The Physician's Library.

An American Text-Book of Genito-Urinary Diseases, Syphilis and Diseases of the Skin. Edited by L. BOLTON BANGS, M.D., Consulting Surgeon to St. Luke's Hospital and the City Hospital, New York, and to the Methodist Episcopal Hospital, Brooklyn; Visiting Genito-Urinary Surgeon to St. Mark's Hospital, New York; late Professor of Genito-Urinary and Venereal Diseases, New York Post-Graduate Medical School and Hospital; and W. A. HARDAWAY, A.M., M.D., Professor of Diseases of the Skin and Syphilis in the Missouri Medical School, St. Louis; Physician for Diseases of the Skin to the Martha Parsons Hospital for Children, and to St. John's Hospital, St. Louis. Illustrated with 300 engravings and 20 full-page colored plates. Philadelphia: W. B. Saunders, 925 Walnut Street, 1898. Canadian agents, Carveth & Co., Toronto.

The trouble in the past in purchasing a work on skin diseases has been that it was necessary to go to the expense of one consisting of several volumes, and meant a great deal of time wasted in making references which, in a work of one volume, became quite unnecessary. It is not required for us to allude to the warm reception which this publishing house has been accorded in the past from the profession, not only in America, but practically all over the world, owing to the scale of magnificence with which they produced the other American Text-books on Surgery, Obstetrics, etc. Sufficient be it to add that if this volume on Genito urinary diseases and Syphilis meets with the same amount of approval, and we feel certain that it will, the publishers will realize that they will be repouped in a liberal manner for their enormous outlay. The list of contributors include such men as Drs. Chas W. Allen, of New York; C. W. Cutler, of Vermont University; W. T. Corlett, of Cleveland; J. A. Cantrell, of Philadelphia; Lewis C. Boshier, of Virginia Medical College; I. E. Atkinson, of Baltimore; Eugene Fuller, of New York; Geo. T. Jackson, of the Woman's Medical College, New York Infirmary; Abraham Jacobs, New York; G. M. Hammond, of New York; Hermann G. Klotz, of the German Hospital, New York, and others. It will be of special interest also to note that our old friend, Douglas Montgomery, now of San Francisco, Cal, is "on the list," and that Dr. F. J. Shepherd, of Montreal General Hospital, is also a contributor. That it is a boon to practitioners to be able to secure in such a form as this one volume, containing in such detail a presentation of the diseases of the genito-urinary organs, venereal diseases and affections of the skin, goes without saying. It is not necessary nowadays for a physician, who is at all up in his work, to have to purchase a work which goes into any particular department of

medicine, commencing with the preliminaries of etiology and symptomatology, and wading through all the different chapters with which he ought to be more or less familiar, but on the other hand to be able to secure one large volume which presents all that is latest and best on three such closely related subjects as this work deals with, is an opportunity not to be lost. In the American Text-Book of Skin Diseases the contributors have in a most happy manner so condensed what points they have succeeded in making as to present in comparatively small space an extremely wide range of subjects, making the matter both practical and authoritative. The colored plates are most perfect, especially the ones showing syphilitic affections of the eyelids and papulo squamous syphilide.

The Diseases of the Stomach. By WILLIAM W. VAN VALZAH, A.M. M.D., Professor of General Medicine and Diseases of the Digestive System in the New York Polyclinic Medical School and Hospital, and J. DOUGLAS NISBET, A.B., M.D., Adjunct Professor of General Medicine and Diseases of the Digestive System in the New York Polyclinic Medical School and Hospital. Illustrated. Philadelphia: W. B. Saunders, 925 Walnut Street, 1898. Canadian Agents: Carveth & Co., Toronto.

We are pleased to notice that the authors of this book have departed from a usual hard and fast rule and that leaving out preliminaries, most attention is drawn to the recent methods of both diagnosis and treatment. Chapter I. (of section 2) is devoted to clinical history; chapter II. to physical signs; chapter III. to functional signs, including secretion, the motor function, absorption and digestive work; chapter IV. to bacteriological signs and V. to anatomical signs. Section 3 is devoted to general medication, such as digestive hygiene, diet, physical remedies, symptomatic, physiological, bacteriological and chemical treatment. It will thus be seen that the space in this work has not been filled in with prolonged dissertations on pathology, or anatomy; but the authors, recognizing the value of it, have given the readers the advantage of the very latest knowledge of not only diagnostic methods, but also of treatment. What is more, the subject of treatment is given the reader in such a manner as to leave not the least doubt as to what method should be pursued in any one particular case showing definite symptoms and pursuing a certain path. This is also somewhat of a divergence, and a happy one at that, from the usual stereotyped course pursued by authors generally. The subject of dietetics is given more than ordinary scope. The several foods are taken up and discussed from their nutritive standpoint, showing in what conditions of the stomach they are most applicable. Diet lists for the various diseases are also given fully. Section 4 is devoted to the dynamic affections of the stomach, and Section 5 to the anatomical diseases of the stomach. The second chapter of the latter section, on ulcer of the stomach, is exceedingly clearly written, but,

in our opinion, the most thoroughly concise part of the entire book is that in section 6, on secondary diseases of the stomach. We only regret that there are not a larger number of illustrations, which in a work on this subject are of such assistance to the student.

Brief Essays on Orthopedic Surgery. By NEWTON M. SHAFFER, M.D. D. Appleton & Co, New York. Canadian Agent: Geo. Morang, Toronto.

This little collection of essays is written by a well-known representative of conservative orthopedic surgery in New York, who himself is a successful representative of the teaching here inculcated. There is much for careful consideration, not only by those who are orthopedic surgeons, but also by the general surgeon and physician. Dr. Shaffer is a perspicuous writer who sticks well to his theme. The central thought of the book is found in his definition of orthopedic surgery, page 45: "Orthopedic surgery is that department of surgery which includes the prevention, the mechanical treatment and the operative treatment of chronic or progressive deformities, for the proper treatment of which special forms of apparatus or special mechanical dressings are necessary."

These essays can be read in a couple of hours, and it will repay every practitioner to give the subject this much time, as they will assist in clarifying opinions which at the present time are rather vague and indistinct in the minds of many. B. E. M'K.

A Manual of Instruction in the Principles of Prompt Aid to the Injured, including a chapter on Hygiene and the Drill Regulations of Hospital Corps, U.S.A., designed for Military and Civil Use. By ALVAN H. DORTY. Second edition, revised and enlarged. New York: D. Appleton & Company. London: 33 Bedford Street, 1898.

The second edition of *Prompt Aid to the Injured* aims at conveying to the average, intelligent layman sufficient surgical knowledge (including physiological and anatomical) to enable him to know what to do until skilled help arrives. The subject of antiseptics and disinfectants is treated with the prominent consideration which it deserves. Such knowledge should become universally known, the agents and methods of disinfection. The treatment of hæmorrhage, poisoning, wounds, convulsions, etc., is modern and described in untechnical language, so as to be readily grasped. This little book will be of especial use to members of ambulance corps and of those organizations, guilds, etc., where this special line of work is being so heartily taken up. J. N. E. B.

The Sanitarian. Published monthly. The American News, New York, General Agents. Price, \$4.00 a year; 35 cents a copy.

The May number of this monthly contains several very readable articles. The abstract of report of Visiting Committee of the

Buffalo School Association is interesting to Toronto readers at present, owing to the fact that conditions and defects similar to those noted in the report, are declared to exist in the temporary schools of this city.

Dr. Goler's report on the inefficiency of formaldehyde disinfection in the presence of moisture should be read by Sanitarians who have seen the article in the *Canadian Journal of Medicine and Surgery*, May, 1898, p. 279, where an opposite view is expressed.

J. J. C.

Operative Gynecology. By HOWARD KELLY, M.D.

It was with a great deal of satisfaction that we were favored by the publisher, Mr. George Morang, the other day, with a copy of Vol. I. of Dr. Howard A. Kelly's work on *Operative Gynecology*. The profession have been looking forward for quite a time now to the completion of this splendid work, as, from the most cursory glance, we can safely say that for elegance in typography and magnificence of illustrations alone, Dr. Kelly's book has seldom been equalled. We have not had time to go into the details of the work, but hope to do so in our next issue.

MAGAZINES RECEIVED.

The June *Scribner*, though made up on the eve of war, contains evidences of the impending calamity in several clear and serviceable war maps, which were inserted after the rest of the magazine had gone to press. The new feature in the June number is C. D. Gibson's pictorial record of "A New York Day—Morning." In a series of full-page drawings Mr. Gibson shows morning scenes, on the ferry, at breakfast, on an elevated station, and at home. Vassar is the women's college described in this issue. Margaret Sherwood, a graduate familiar with the undergraduate life and tradition, tells about those phases of Vassar that are little known or understood by outsiders. What big cities can do with their water-front and what Boston has already accomplished by transforming unused shore-land into "Seaside Pleasure Grounds," is picturesquely described by Sylvester Baxter. Anton Seidl is the subject of a brief and pertinent appreciation by H. E. Krehbiel, the musical critic. Mr. Wyckoff's narrative of "The Workers" takes on a brighter tone in this issue. Senator Lodge's "Story of the Revolution" has reached the period that was the test of Washington's greatness—the terrible winter at Valley Forge, the sneers of Congress, the defeat at Brandywine and Germantown, and finally the victory at Monmouth. A Northern soldier and his charming daughter step into the troublous times of the Old Virginia County that is the scene of Mr. Page's serial, "Red Rock." Mr. Page distributes his villains and heroes to the North and South alike. Mr. Davis's dramatic tale, "The King's Jackal," reveals a pretty

piece of work by the young American newspaper correspondent in checkmating the King and his conspiritors. A new writer of short stories, Miss Anne Douglas Sedgwick, contributes a tale of artist life—"Miss Jones and the Masterpiece." "The Field of Art" discusses "Landscape Painters and the Summer."

The *American X-Ray Journal* has reached its tenth issue with increased pages, greater vigor and improved text. The appearance of this publication is most attractive, its illustrations are most carefully prepared and the composition of the most practical nature. It was launched into the world of journalism as "A Monthly devoted to the practical application of the new science and the physical improvement of man" just sixteen months after Professor Roentgen had made public his discovery. Following so closely the announcement of the X-rays, it did not seem that there was room for this special journalism. Day after day, however, interest and importance in this phenomena has grown, until now scarcely is there a division of our science which occupies greater attention than X radiance and its practical application to man. The wisdom of the editor has been fully realized, and the publication is an assured success. In looking over the pages, it is evident that the *American X-Ray Journal* gleans its matter from all sources of the earth, from physicians and surgeons using X-rays in practice and from the scientist whose labors are directed to the improvement of the generating apparatus. The overwhelming evidence in favor of the use of the X-rays in practice has become so generally accepted, that physicians who will not become informed in this art must naturally be relegated to that class who take a step backwards. The journal is published in St. Louis, Mo., and we are proud to be able to thus mention this contribution to the literature of the medical profession.

As an instance of the high esteem in which the *Journal of the American Medical Association*, Chicago, our most valued exchange, is held by the medical profession, the following from the *Journal* of May 4, is of interest: A physician of Claremont, South Africa, after perusal of his *Journal* of March 20, 1897, sent it to a number of his correspondents in rotation, whom he thought would be especially interested. The circuit taken by this copy of the *Journal* has required a little more than a year, going first from Chicago to South Africa, thence to the Island of St. Helena, thence to a medical officer stationed in Uganda (somewhere near Lake Victoria Nyanza), thence to Transvaal, Basutoland, Johannesburg, Port Elizabeth, Namaqualand, and two places in Cape Town, when it was returned to the office of the *Journal*. When the journey thus made is traced on the map, and we remember that it was only a book packet, we have not only an instance of the high esteem in which the medical profession hold the *Journal*, but a proof of the professional bond existing between practitioners totally unknown to one another.

New Hampshire Sanitary Journal, Vol. 1, No. 1. A quarterly magazine in the interest of healthful homes and communities. The official organ of the New Hampshire State Board of Health and the New Hampshire Association of Boards of Health. One dollar a year, twenty-five cents a copy. Irving A. Watson, A.M., M.D., editor, Concord, N.H. The first number of this quarterly, containing sixty-four pages of reading matter is to hand. It is well printed and well edited. As stated in the announcement, it is intended to be a means of communication between the New Hampshire State Health Board, of which Dr. Watson is the secretary, and the local boards. It will also contain original papers on sanitary subjects. We cordially wish Dr. Watson every success in his undertaking.—J.J.C.

The Outlook for May 21st contained the following articles: The Naval Situation, Cardenas, Cienfuegos and San Juan, The Philippines, The Volunteers, In Cuba, The Red Cross, War Legislation, Taxes and Prices, The Spanish Ministry, Sagasta's View, English Criticism, Mr. Chamberlain's Speech, The Church in the War, Constitutional Amendments, Hawaii, Mr. Gladstone, Charities and Correction; and as editorials, Is This a Righteous War? The National Guard, The Italian Crisis, The Spectator, A Refreshing Correspondence.

PAMPHLETS, REPRINTS, ETC., RECEIVED.

"Some Cases of Brain Surgery." By Hal C. Wyman, M.S., M.D., Detroit Mich.

"A Clinical Study of Kryofine" By Sidney V. Haas, M.D., and J. Bennett Morrison, M.D., New York.

"Successful Treatment of Chronic (Subacute) Rheumatism." By Gustavus M. Bleek, M.D., A.B., Detroit, Mich.

"A Preliminary Report on a Method of Overcoming High Resistance in Crookes' Tubes; A Possible Step towards Maximum Radiance." By Wm. W. Graves, M.D., St. Louis, Mo.

"Some Remarks and Reports upon Specimens in Abdominal Surgery." By H. O. Walker, M.D., Detroit, Mich. Reprinted from *The Physician and Surgeon*. Detroit and Ann Arbor.

Sixteenth Annual Report of the Provincial Board of Health of Ontario, being for the year 1897. Printed by order of the Legislative Assembly of Ontario. Toronto: Warwick Bros. & Rutter, printers, etc., 68 and 70, Front Street West, 1898.

"Renal Suppuration, Catarrhal, Specific and Traumatic, and the value of Micro-Urinalysis of the Urinary Sediment, as an aid to Definite Diagnosis of it." By Thomas H. Manley, M.D., Professor of Surgery, New York School of Clinical Medicine, New York. Reprinted from the *Journal of the American Medical Association*, November 13 and 20, 1897. Chicago: American Medical Association Press, 1897.

Personals, Etc.

DR. SKINNER has commenced practice at 492 Yonge Street.

DR. W. J. MCCOLLUM, of Jarvis Street, was married last month.

DR. H. H. OLDRIGHT, of Spadina Ave., has opened a down-town office at 34 Victoria Street.

DR. KERR, of Dovercourt Road, has left to attend the American Medical Association at Denver.

TORONTO GENERAL HOSPITAL'S BRANCH, on Bay Street, is rapidly approaching completion.

MRS. D. J. GIBB WISHART, wife of Dr. Wishart, is, it is pleasing to note, convalescing from an illness.

WE are glad to know that Dr. Norman Allen has recovered from his recent attack of septicæmia.

AT 525 Sherbourne Street, on Friday, May 13th, 1898, the wife of Dr. Frederick Winnett, of a daughter.

DR. J. S. KING has removed from the Oddfellows' Building, Yonge and College Streets, to 288 Jarvis Street.

DR. C. F. MOORE has removed into his handsome new home, 91 Bellevue Ave., and is comfortably ensconced there.

DR. PRICE BROWN attended the meeting of the American Laryngological Association at Pittsburg, Pa., last month.

DR. A. H. GARRATT has associated with him in practice Dr. McKenzie, nephew of the Toronto Railway Co.'s President.

DR. GEORGE S. RENNIE, of Hamilton, who was seriously injured April 7th, through a runaway accident, has quite recovered.

WE extend our sympathy to Dr. John Hunter, of Toronto, in the death of his brother, with whom he returned from California last month.

DR. GILBERT GORDON, of this city, will be married next week to a Winnipeg lady, and intends afterwards to take an extended trip through Europe.

AFTER considerably embellishing the house and grounds, Dr. Geo. Carveth is now comfortably settled in his new home, corner College and Huron Streets.

DR. A. S. TILLEY, of Bowmanville, Dr. T. H. Balfe, of Hamilton, and Dr. R. J. Gibson, of Sault Ste. Marie, have been appointed associate coroners in their respective districts.

DR. F. R. BROWN, of Madeira, California, brother of Dr. Price Brown, of Toronto, died at home April 4th, 1898, aged 61, after an illness of four days, from septicæmia due to inoculation while operating on a gangrenous patient at the county hospital.

Items of Interest.

THE WATER DRINKING HABIT.

MOST European physicians, or at least very many European physicians, believe that the most active cause of gastro-intestinal disturbance in America is the habitual use of ice-water, and there can be no doubt that flooding the stomach with large quantities of ice-water during eating has a tendency, by lowering temporarily the temperature of the viscus, as well as by diluting the gastric juice, to cause disturbances of digestion, which on repetition may result in the production of gastric catarrh. On the other hand, the habitual taking of large amounts of water is very advantageous for all gouty individuals, and indeed for all persons who eat more than the needs of the system require, as is very clearly pointed out by the editor of the *American Medico-Surgical Bulletin*, whose remarks are here quoted.

It would seem, *a priori*, probable that in its relations with water the human system obeys to a greater or less extent the ordinary physical and chemical laws. What is taken into the body must get out of the body, sooner or later; and the discharge of large quantities of water necessarily increases the flow of excretion. The old researches of Roux and of Boecker indicated that the increase of the amount of urine which follows the water-drinking is sometimes, but not always, accompanied by an increase in the output of solids from the kidneys. The cause of the differences of effects has been shown by Meyer to depend upon the condition of the body; the excess of water in the system appears to have very little influence on tissue-disintegration, but to be powerful in dissolving or carrying off—in other words, in washing out—all excrementitious materials, whether such materials be due to disintegration of the tissues themselves or be educts from an excessive food-supply.

The American habit of drinking water has not, however, arisen from the promptings of any blind instinct leading the race to attempt to wash out of the body the products of excessive self-indulgence, or the last taint of a gouty British ancestry; but has simply sprung from the climatic condition. The dry air (as compared with Europe) and the high temperature of the summer months make the American throw off water and make the system demand water. The vacuum in the body must be supplied. That the American people do not drink more water than they need is shown by the fact that the American man is a drier individual, not only in his speech but also in his tissues, than is the European. True humor consists of a kernel of truth surrounded by a hull grotesquely unfit for it; and so the humorist habitually expresses

a physiological fact when he makes John Bull in the cartoon plump and succulent, and Brother Jonathan hard and dry. Many years ago the writer of this editorial, at a meeting of the physiological sections of an International Congress, said that a certain physiological operation or procedure reported by European physiologists did not produce the results upon dogs which were alleged, unless indeed the European canine were very different from his American brother; a suggestion that led to a general titter until Brown-Séguard got upon his feet and said that he had studied and practised medicine and studied and practised vivisection on the two continents, and that it was a fact that the American people and the American dogs and lower animals were distinctly different in vascularity from their respective kindreds in Europe; that operations in vivisection which in Europe he could scarcely perform on account of the amount of bleeding produced he had often done on the American dog with almost dry tissues.

The American drinks water because he is thirsty; he is thirsty because he sweats; and he wants his water cold because he is hot; the cooling of the system being demanded, but the cool temperature being especially grateful to a heated throat. What is the poor American to do? He is threatened with mummification if he does not drink water; he is appalled by the horrors of gastric catarrh if he does drink water. The answer is obvious: drink water *between* meals rather than at meals. The drier the meals the less dilute the gastric juice, the better theoretically at least is the digestion. Fortunately, the ordinary human being is made with a reserve force, and so if he be in the ordinary condition he need not study the number of drops of water he takes with his meal; but if he have any disease of the stomach or feebleness of digestion it is well worth while to count the drops.

Cold water has so good a taste when a man is very heated that most people will continue to take cold water, and a general chilling of the body would seem sometimes to be of service. Nevertheless, there probably are cases in which the sudden pouring of large masses of cold water upon a stomach in a person who has little reserve power has produced an immediate violent disturbance. These cases are, however, in our opinion, few; indeed, our belief in their existence may be due to the nursery teaching of our early childhood, since if the truth must be spoken, in a medical experience extending over thirty-five years, we have never seen colic, collapse or any other acute symptom or condition produced by a cold drink. But for fear that the nursery bogie is the shadow of truth, we would advise our readers when hot to drink cold water slowly. We remember once, when two-thirds dead of thirst in the Texan desert, with what joy we raised to our lips a quart mug of water and drank it to the bottom without a breath, but in an ordinary emergency a half-tumblerful of cold water, followed in a moment or two (if it must be) by the other half-tumblerful of water, should satisfy the ordinary individual. At the present time, at least in the city of

Philadelphia, and we opine in various other cities of less ill repute, it is wiser for the drinker by boiling the water to substitute soup for an infusion of raw products.—*Dietetic and Hygienic Gazette*.

ABORIGINAL GRATITUDE.

IN his efforts to cure his patients and maintain the honor of his profession nothing is more helpful to a medical man than the knowledge that his labors are appreciated, and spontaneous recognitions of his work atone for much disappointment, brighten the dull routine of duty, and stimulate to fresh endeavors. Though we are able to record frequent examples of the recognition of services rendered by medical men among civilized races it is but seldom that we can refer to an event like that reported by the *Fiji Colonist and Levuka Gazette* of December 4th, 1897. Our antipodean contemporary reports a farewell entertainment or "meke" given by the natives of Levuka and district to their retiring medical officer, Mr. George Fox. Mr. and Mrs. Fox and a few friends were invited to the house of Ratu Vilemoni, the chief native, when "some score or more of the maiden beauties of the district, gaily dressed in their most imposing *sulus* and wreaths of flowers and *Wa-Kalou*, presented themselves, when a series of *mekes* was performed, ranging from the soft slow cadences which would make such a delightful lullaby to the quick joyous tones which give one the impression that these children of nature are without a care in the world." Ratu Vilemoni then presented Mr. Fox with some mats, some valuable curios of old Fiji, and a dainty *Itoti*. The *Fiji Colonist*, in concluding its report, observes: "The invitation was issued spontaneously and it is doubtful if such an honor has ever before been tendered any retiring medical man for the express purpose of signifying the natives' appreciation of his services among them. Commissioners, magistrates, and acting Rokos—yes, by the score, as to one in authority, but to one who has waited upon them and as a recognition of benefits received the occurrence is almost unique and reflects great credit on all who were concerned in providing it." Whatever the exact character of a "meke" the circumstances under which it was given are as creditable to the Fijian natives on the one hand as they are to Mr. Fox on the other. If untutored aborigines can recognize in such a tangible manner the services of the medical man whom Government provides for them, notwithstanding what our poet says of "benefits forgot," the time has not come to despair of the rest of mankind. And in spite of medical aid sweaters and the grudging parsimony which discharges all its obligations with the tardy payment of an oft-rendered account there will never be lacking some who will recognize unselfish performance of duty and lift from the jaded medical man the gloom which, but for them, would settle upon him and stifle some of the most generous impulses of the heart.—*Lancet*.

LISTERINE

 **The Standard Antiseptic.**

- LISTERINE** is a non-toxic, non-irritating and non-escharotic antiseptic, composed of ozoniferous essences, vegetable antiseptics and benzo-boracic acid.
- LISTERINE** is sufficiently powerful to make and maintain surgical cleanliness in the antiseptic and prophylactic treatment and care of all parts of the human body.
- LISTERINE** has ever proven a trustworthy antiseptic dressing for operative or accidental wounds.
- LISTERINE** is invaluable in obstetrics and gynecology as a general cleansing, prophylactic, or antiseptic agent, and is an effective remedy in the treatment of catarrhal conditions of every locality.
- LISTERINE** is useful in the treatment of the infectious maladies which are attended by inflammation of accessible surfaces—as diphtheria, scarlet fever and pertussis.
- LISTERINE** is especially applicable to the treatment of scarlet fever, used freely as a mouth wash or by means of the spray apparatus.
- LISTERINE** is extensively prescribed in typhoid fever both for its antiseptic effect and to improve the condition of the stomach for the reception of nourishment.
- LISTERINE** agreeably diluted, is prescribed with very good results, in the treatment of diphtheria, both as a prophylactic and curative—internal antiseptic—agent.
- LISTERINE** is used extensively with good results in the treatment of whooping-cough.
- LISTERINE** diluted with water or glycerine speedily relieves certain fermentative forms of indigestion.
- LISTERINE** is indispensable for the preservation of the teeth, and for maintaining the mucous membrane of the mouth in a healthy condition.
- LISTERINE** employed in a sick-room by means of a spray, or saturated cloths hung about, is actively ozonifying, and imparts an agreeable refreshing odor to the atmosphere.
- LISTERINE** is of accurately determined and uniform antiseptic power and of positive originality.
- LISTERINE** is kept in stock by the leading dealers in drugs everywhere.

Lambert's Lithiated Hydrangea.

Close clinical observation has caused Lambert's Lithiated Hydrangea to be regarded by Physicians generally as a very valuable Renal Alterative and Anti-Lithic Agent.

**ALBUMINURIA,
BRIGHT'S DISEASE,
CYSTITIS,
DIABETES,
GOUT,
LITHÆMIA, HÆMATURIA,
NEPHRITIS,
RHEUMATISM,
URINARY CALCULUS,
and all forms of
VESICAL IRRITATION.**

FOR DESCRIPTIVE LITERATURE, ADDRESS

Lambert Pharmacal Co., ST. LOUIS.

A WORLD-WIDE BUSINESS.

HOW PARKE, DAVIS & CO. ACHIEVED THEIR GREAT AND ENVIABLE FAME.
THEIR CANADIAN BRANCHES, WALKERVILLE AND MONTREAL.

It is no exaggeration, it is merely stating a well-known fact to say that the house of Parke, Davis & Co. is the "foremost pharmaceutical house in all the world." Its prominent position has been attained by steady adherence to scientific methods and to the policy that *quality* and *reliability* should be synonymous with their label.

Parke, Davis & Co. have always led in the advance guard of scientific pharmacy. The improvements which they have effected in pharmaceutical preparations have done much to place the science and art of medicine on a surer and more definite basis and humanity has been correspondingly benefited. Parke, Davis & Co., for instance, was the first house to advocate the principle of standardization as applied to the preparations of drugs containing alkaloids, etc., that were capable of being chemically assayed. They were the first to place standardized preparations of such drugs upon the market, and the medical profession so warmly endorsed their action in this respect that the last revisers of the United States Pharmacopœia felt constrained to fall into line and give official recognition and approval to the principle.

Chemical standardization alone, however, does not represent the *ultima thule* of this matter. There are some drugs such as Indian cannabis, digitalis, strophanthus, squill, cantharides, ergot, etc., that cannot be satisfactorily standardized by chemie test. Parke, Davis & Co. now stand as the first advocates for the further application of the principle of standardization to these, which can only be done satisfactorily by test upon living organisms, *by physiologic test*.

It is not our intention to here picture the magnificent biological laboratory which Parke, Davis & Co. has erected to efficiently prosecute the standardization by physiologic test of the drugs above referred to. It is rather, as an illustration of the progressive methods characteristic of the firm's policy, explanatory of the unqualified praise which is accorded to their products wherever they go. The medical men who use Parke, Davis & Co.'s preparations know that in them they possess the most reliable, up-to-date scientific instruments of materia medica. The keynote of the ever-increasing favor therefore which compels Parke, Davis & Co. to keep enlarging their manufacturing facilities, to multiply their branch houses and their agencies is typified in their trade mark, "*Medicamenta Vera*."

WALKERVILLE BRANCH.

The establishment of the Walkerville (Ont.) branch laboratory of Parke, Davis & Co. is only one of the many instances which go to show the wonderful growth and expansion that is steadily marking the career of this great firm. Appreciating the favor which had already been manifested towards their products, Parke, Davis & Co. decided to meet the demands for them by a purely Canadian enterprise which would be able on Canadian soil to operate under much more favorable commercial conditions. Accordingly in 1887 they erected a modest building, which was estimated to be sufficient in 1887 Canadian trade at that time, and also for some time to come. The very encouraging success which immediately attended this effort made it at once apparent that a larger building was necessary, and in 1890 they moved to

An ideal
ointment

• • **Resinol** • •

A perfect
dressing

(R: *Unguentum Resinol* ℞ i)

Antipruritic

Antiphlogistic

Antiseptic

Emollient

Nutrient, Etc.

MEETS ALL INDICATIONS

FULFILS ALL EXPECTATIONS

INSTANTLY STOPS THE ITCHING

QUICKLY SUBDUES THE INFLAMMATION

MAINTAINS A CONSTANT ASEPSIS

SOOTHES IRRITATION AND PAIN

AND SUPPLIES THE NEEDED NUTRITION

Unguentum Resinol should be readily obtained at any drug store, as it is carried in stock by wholesale druggists and jobbers in medicines everywhere.

RESINOL CHEMICAL COMPANY

SAMPLE SENT ON REQUEST

BALTIMORE, M.D., U.S.A.

BRAND'S

Specialties for Invalids

Essence of Beef the juice of finest selected beef, extracted by a gentle heat, without the addition of water or any other substance. It has been introduced into Medical Practice as a stimulant after loss of blood from any cause, and in severe cases of prostration and debility. Being in a jelly form, it is easily administered, and its stimulating properties are at once apparent, without any ill after-effects. Similar preparations are made from MUTTON, VEAL and CHICKEN.

Meat Juice extracted from the prime raw meat by pressure, and contains in an unaltered state the albuminous and other nutritive properties ready for immediate assimilation.

Invalid Soups, Potted Meats of finest quality.

THE A1 SAUCE.

To be obtained wholesale of LYMAN BROS., TORONTO.

BRAND & CO., Limited, Mayfair, London, England.

When writing advertisers, please mention THE CANADIAN JOURNAL OF MEDICINE AND SURGERY.

a large, handsome new laboratory. Now a third enlargement of premises has been found necessary to meet the rapid development of their Canadian trade, and an additional two and a quarter acres of land have been added. On this is now in course of construction a four storey building, 60 by 100 feet, that will give with other minor improvements, 25,000 additional feet of needed floor space. This will then yield employment to about 125 people, exclusive of their ten travelling representatives who are scattered all over the Dominion.

In the Walkerville laboratory of Parke, Davis & Co. every preparation receives the same care, is brought up to the same standard, must respond to the same tests as those emanating from the huge parent laboratory in Detroit. Their preparations may be relied upon in precisely similar conditions to yield precisely similar results since all chemie and physiologic tests are identical in the control of their manufacture. In only one series of preparations has it been considered unadvisable to duplicate manufacturing facilities, and that is in the preparation of anti-diphtheritic serum; this is still manufactured exclusively in Detroit. All crude drugs purchased after a physiological test of submitted sample are procured through the Detroit laboratory in order to insure the animal tests being uniformly applied. With access to the same staff of chemical and botanical experts, which has helped so materially to build and maintain the reputation of the parent firm, it can readily be assumed that the products of the Walkerville manufacturing branch may be relied on as fully as those issuing from the Detroit laboratory on the opposite side of the magnificent river upon which they both stand.

MONTREAL BRANCH.

So much delay has been complained of in shipments to Eastern Canada that Parke, Davis & Co. has often been strongly urged to establish a depot or branch which would serve as a distributing centre on or near the Atlantic coast. Since the transit delay was ascertained to be located chiefly between Walkerville and Montreal, they decided that a branch house in the latter city was almost a necessity, and that its establishment would afford tangible relief to a large number of patrons in the eastern part of Ontario, the Province of Quebec and the Maritime Provinces. The branch is located in the centre of Quebec and the wholesale district of Montreal, 278 St. Paul Street, and will carry a *complete* stock of Parke, Davis & Co.'s preparations, although for the present it will not be a manufacturing laboratory. It is recommended as a base of supplies to all those living sufficiently near Montreal to expect a lessened time of transit in their shipments than would be the case if ordered from Walkerville.

Speaking of Canadian trade brings to notice the other evidence of the high appreciation which Parke, Davis & Co.'s products receive from the medical men who are subjects of Queen Victoria. As a profession they are second to none in the world, and there are none who more carefully scrutinize, more carefully examine and test their preparations, nor who afterwards more thoroughly endorse them. A large manufacturing laboratory is maintained in London, England, at 21 North Audley Street (451 Oxford Street), Grosvenor Square, W., which has been steadily increasing its plant and its products meeting with increasing favor ever since its installation. Not only has Parke, Davis & Co. a large demand for their preparations in Great Britain alone, but from the remotest corners of the globe have come most unexpected demands for them, in fact, from wherever an educated physician is to be found. They experience

The Old Objections

to cod-liver oil—the taste, odor, eructations and oily diarrhoea—no longer hold good. The offensive and undesirable products of decomposition are eliminated.

Scott's Emulsion

“The Standard of the World”

contains the purest Norwegian oil, emulsified, and entirely free from putrefactive alkaloids.

It is active; but not because of ptomaines dissolved in alcohol and aromatics.

Its therapeutic power rests in the pure oil, the hypophosphites, and glycerine, perfectly blended.

Two sizes, 50c. and \$1.00. In prescribing, please specify unbroken package. Small size put up especially for convenience in cases of children.

SCOTT & BOWNE, TORONTO

Frederick Stearns & Co.

MANUFACTURING
PHARMACISTS

LONDON, ENG.
NEW YORK CITY.

WINDSOR, ONT.

MAIN OFFICE AND LABORATORY: DETROIT, MICH., U.S.A.

IN ADDITION to offering complete lines of the standard pharmaceutical preparations (catalogues on application), we desire to call to the attention of the medical profession the following special products of our own devising and manufacture:

KASAGRA, A Laxative and Intestinal Tonic.

The original and genuine Cascara Aromatic, and the only full strength fluid extract of Cascara Sagrada which is not bitter and which does not gripe.

WINE OF COD LIVER OIL

A Nutrient Reconstructive Tonic, containing the valuable active medicinal principles of the oil without its fatty matter.

TRITIPALM

A Demulcent Diuretic and Genito-Urinary Tonic; being a concentrated, compound fluid extract of fresh Saw Palmetto and Triticum.

DIASTASE-STEARNS

A Starch Digestant. The isolated amylolytic ferment of the pancreatic juice, in powder, pilloid and essence form.

KOLA-STEARNS

A Brain, Nerve and Muscle Stimulant. An aromatized, palatable fluid extract of fresh (undried) true African Kola.

HÆMOFERRUM

A True Hematinic; A Natural Proteid Compound of Iron, being non-constipating and non-irritating. In pilloid and liquid form.

Complete sets of literature on any or all of the above preparations will gladly be mailed on request.

constantly opening new and unlooked-for channels of export for their goods; and even a partial list of their branch establishments and agencies is a formidable one. Parke, Davis & Co. maintains a special corps of travelling representatives in Australasia, and they have no less than fourteen depots for the supply of their products in that remote continental island. In New Zealand they have seven. In British India they have five (one of these being in Ceylon). In the Hawaiian Islands they have three, and in China two. On the Continent of Europe they have six. Other countries, where but one agency or depot is maintained, are Egypt, Japan and Java. This is not inclusive of a large number of wholesale houses in Mexico, Central and South America, and the West Indies, who carry their products in stock.

In New York City Parke, Davis & Co. does an immense distributing business; here also they conduct a special and distinct enterprise, their Crude Drug Department, which does a vast importing and jobbing business in medicinal herbs, barks, leaves, resins, insect powder, etc. Wherever they have established branches in the United States their business has advanced with the same rapid strides which have characterized their Canadian trade. They have also large and completely equipped stocks located in Kansas City, New Orleans and Baltimore. Last, but certainly not least, is their immense

DETROIT LABORATORY.

Here is located the large staff of scientific experts, analytical chemists, physicians, microscopists, botanists, etc., whose controlling influence ramifies to the remotest circumference of the vast business.

When the Ontario Medical Association visited the establishment of Parke, Davis & Co., a year or two ago, its members were particularly impressed with the completeness and magnitude of the bacteriological and pharmacological laboratories. These have since been increased five-fold in capacity and outfit. Here was made the first American diphtheria antitoxin that was offered on this side of the Atlantic. Their superior product of this article—the finest in the world—is well worthy of the immense department which was equipped for this special purpose. Provided with all modern paraphernalia, powder microscopes, huge incubators, sterilizing apparatus, extensive stables and animal laboratories, this branch of enterprise is prepared to keep abreast of the latest discoveries in bacteriological science. They are now engaged in the production of several antitoxins—of diphtheria, tetanus, streptococcus, etc. Their diphtheria antitoxin enjoys the enviable distinction of never having caused a fatality or serious casualty of any kind, and its record in reducing the mortality of this dread disease is unparalleled by any other similar preparation on the market. About one hundred and fifty horses are at the present time undergoing the immunizing treatment for its production. In addition there are several thousand guinea pigs, etc., which are used as control indicators of the potency of the toxins and the antitoxins.

A new department is being added in the shape of a vaccine farm. Shortly Parke, Davis & Co. expects to be able to furnish an unexceptional virus, and the plant and facilities now being installed for this purpose are unsurpassed.

Here is also located the pharmacological laboratory where physiologic assay of the powerful drugs, such as ergot, strophanthus, Indian cannabis, digitalis, etc., is made. Not an ounce of any preparation of these leaves the laboratories of either Walkerville or Detroit without undergoing crucial trial and receiving a positive guarantee of its medicinal activity.

All these departments, bacteriological, physiological and vaccine farm, are under the care of Prof. E. A. Grange, late State Veterinarian of Michigan,

PLEASE SHOW THIS ADV. TO THE LADIES OF YOUR HOUSEHOLD

PLEASE SHOW THIS ADV. TO THE LADIES OF YOUR HOUSEHOLD

FREE! FREE! FREE!

Wishing to introduce the **Patent Felt Mattress** to men and women whose endorsement of it will carry weight with their friends, we make to all householders of the medical and pharmaceutical professions the following offer:

During the month of May we will place on absolutely free trial for thirty nights one of our **Patent Felt Mattresses**, made of interlaced sheets of pure, white, elastic, sanitary Felt; we will make the mattress to order any size desired, in one or two pieces, and prepay the transportation charges. And we undertake that if at the end of thirty days the mattress has not given satisfaction *in every respect*, we shall receive it back and refund the total amount paid on same.

**Better than the Best Hair Mattress at Half its Price
Over One Million Felt Mattresses now in Use in U.S.**

INFORMATION REGARDING THE STANDING AND CHARACTER OF OUR COMPANY CAN BE OBTAINED FROM THE COMMERCIAL AGENCIES OR FROM ANY WHOLESALE DRY GOODS MERCHANT IN CANADA.

FOR A DESCRIPTION OF THE FELT MATTRESS, PRICE LISTS, ETC., KINDLY REFER TO OUR CATALOGUE, FREE FOR THE ASKING.

THE ALASKA FEATHER AND DOWN CO. Limited

290 Guy Street, MONTREAL

When writing please mention this Journal.



REDUCED PRICES ON 

Operating Cushions

14 inch, square,	- - - -	\$2.50 each.
20 " round,	- - - -	3.00 "
24 " "	- - - -	3.50 "

SUPERIOR SURGICAL INSTRUMENTS
and
HOSPITAL SUPPLIES

Send 33 cents for 1000 page Catalogue.

SHARP & SMITH, 73 Randolph St., CHICAGO, ILL.

whose undoubted ability and experience gives assurance that no expense or care will be spared for the proper observance of hygienic conditions in the stables and laboratories.

The enterprise which this firm has shown in the introduction of the new remedies is evidenced by a partial list of its earlier efforts in this line. Such drugs as the following are now recognized as valuable members of the *materia medica*: Cascara Sagrada, Jamaica Dogwood, Jaborandi, Grindelia, Coca, Kola, Berberis Aquifolium, Corn-Silk, Quebracho, yet they were not known to the medical profession until introduced by the preparations of Parke, Davis & Co.

The price list of this house, of which new edition will be mailed in July or August, comprises thirty distinct *lines* of pharmaceutical preparations and five thousand items. There are one hundred and thirty representatives of the firm travelling over every continent and every clime, in addition to those we have mentioned above as distinctly Canadian. Despite the hard times which have so generally prevailed the last few years, Parke, Davis & Co. has been steadily adding to the huge travelling staff, opening new branch houses, building new laboratories by the acre, and essaying every promising line of scientific enterprise. They have committed themselves to an aggressive policy of advancement all along the line, and it remains but to say that their desire to raise pharmacy and therapeutics to higher levels is almost daily receiving the endorsement of the best and most thoughtful men engaged in its practice.

AMERICAN MEDICAL ASSOCIATION MEETING.

THE next annual meeting of the American Medical Association will be held in Denver, Colo., June 7 to 12, 1898.

This announcement will interest two classes of persons—physicians who wish to study at first hand the effects of “climate cure” upon various diseases, and tourists who are in search of an agreeable summer outing. It is expected, though, that the doctors will find considerable time for sight-seeing; also that many of the tourists will incidentally pick up information of a medical nature. Benefits will thus be mutual.

Another timely item is that by going to the Rocky Mountains this summer one may get away from the threatened invasion of the Spanish flotilla along our eastern coasts.

Rate and Selling Dates.—The railroad rate for this occasion will be one lowest first-class regular fare (plus \$2.00) for the round trip. At points between Chicago and Missouri River tickets will be sold June 2, 4 and 5; west thereof dates of sale will be June 5 and 6, except in Colorado and New Mexico, where different dates will be arranged for. It is believed that corresponding rates, limits, etc., will be effective from territory east of Chicago and St. Louis, but no definite announcement can as yet be made.

Stop-Overs.—Holders of tickets reading via the Santa Fe route will be permitted to stop off at any point in Colorado (Pueblo and north thereof) up to June 7. This line runs its Denver trains through Pueblo and Colorado Springs. Passengers ticketed to Denver are thereby afforded an opportunity to visit *en route* Colorado's greatest scenic and health resort as well as the industrial city of Pueblo without additional cost. Stop-overs will also be allowed at Kanas City and Omaha in either direction.

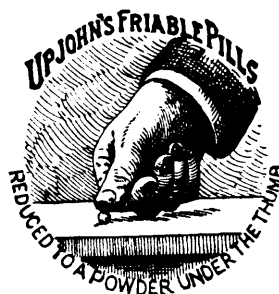
Return Limits.—The destination of tickets may be either Pueblo, Colorado Springs or Denver, the same rate being applicable to each city. For the

Why Under the Hammer?

The significance of the test which consists of driving old mass pills into a board with hammer and block of wood has been questioned by some makers of the "solid kind" of pills.

This test is simply intended to supply the pharmacist and physician with a ready and quick means for estimating the age of factory-made pills and their therapeutic value.

It is effective in showing that there is a difference between **Fresh Mass Pills** and **Old Mass Pills**. The test shows the difference in hardness. Hardness must have some relation to therapeutic value. This is the teaching of pharmacy. The soft pill mass is insisted upon for the pills dispensed extemporaneously by the pharmacist. There can be no exception made in favor of manufacturers whose pills become progressively harder with age. The retail pharmacist cannot be asked with consistency to dispense soft pills extemporaneously and hard pills from the general stock. The stock of ready-made pills should be of the kind that does not deteriorate with age, and that preserves their quality of ready disintegration indefinitely. Upjohn's Friable Pills have these qualities and preserve them indefinitely.



THE UPJOHN PILL & GRANULE CO.

Samples and Price List free on application to

GILMOUR BROS. & CO., Montreal,

Sole Agents for Canada

accommodation of delegates and others who may take advantage of this exceptionally low rate to spend their vacation in Colorado, the Santa Fe route has arranged for the execution of tickets for return passage by joint agents at either Pueblo, Colorado Springs or Denver, provided such return journey is not commenced before June 12 nor after July 6. Return trip must be continuous and from point of such execution.

Diverse Routes.—Passengers who prefer to do so can purchase tickets to Denver, Colorado Springs or Pueblo westbound via one line and returning another. In such a case, be sure that your ticket reads over the A. T. & S. Railway either going or returning.

The Most Comfortable Line.—The selection of a suitable route for one's vacation outing is a matter of no small importance especially if the proposed journey is a long one. Below are given a few reasons why the Santa Fe route meets every reasonable requirement in that respect.

1. *Historic and Scenic Interest.*—It runs through the richest industrial and agricultural sections of Illinois, Missouri and Kansas; crosses the Illinois, Mississippi, Des Moines and Missouri Rivers; and west of Kansas City as far as La Junta, Colo., closely parallels the old Santa Fe trail, a thoroughfare celebrated in the early history of the Southwest and which during its active use was the scene of many sanguinary conflicts with tribes of wild Indians. The daylight ride across the plains of Kansas is chiefly notable for the outlook it gives of a wide-stretching and fertile plains country. The Spanish Peaks come into full view east of Pueblo, while all the way from Pueblo to Denver the traveller may see from the western windows of his car the magnificent uplift of the Rampart Range, crowned by Pike's Peak and Gray's Peak.

2. *Safe and Comfortable.*—To travellers of the present time the Santa Fe Route provides both luxury and safety *en route*. Pullman palace sleepers, free reclining chair cars and modern day coaches comprise the equipment of its through vestibuled Colorado trains. Safety is assured by the heaviest of steel rails and a stone-ballasted roadbed. Automatic block signal system and abolition of grade crossings form additional safeguards. As an aid to comfort, regular and satisfying meals are served, the dining room and dining car service being managed by Mr. Fred Harvey, whose reputation as a caterer is national. On dining cars the service is *a la carte*, while at dining rooms meals are on the American plan, costing only 75 cents each. A distinctive feature of the Santa Fe's equipment is the method of lighting its chair cars and day coaches. This is done with electricity generated by the revolution of the car axles and stored in batteries for future use. The illumination is thereby rendered very bright and steady. A convenient switchboard arrangement permits the light to be varied at will from full power to a pleasant dimness.

Side Excursions.—In connection with the meeting of the American Medical Association, low excursion rates will be made from Denver, Colorado Springs and Pueblo to principal resorts in Colorado as well as to Salt Lake City and Ogden, Utah and Las Vegas Hot Springs, New Mexico. These tickets will be on sale at the close of the meeting, good to return within ten to twenty days. Ample time will thus be afforded to obtain more than a passing glimpse of the Rocky Mountain region.

The "Loop Trip," from Denver to Silver Plume and back, via Idaho Springs and Georgetown, can be made in one day. About two days will suffice for a hurried glimpse of the South Park line, the start being from Denver. The celebrated trip "Around the Circle" requires from eight to ten days, taking in principal scenic points in central, southern and western Colorado. Starting from Colorado Springs one may stop at Manitou, ascend

SURGICAL APPLIANCES

are used to support the body when illness or accident has thrown the human machinery out of gear, and when the digestive organs are enfeebled,

BOVRIL

will act as a sustainer, and replace the solid meat at which the stomach revolts, by the vital principle of Prime Ox Beef in the most appetizing and easily digestible form.

BOVRIL, LIMITED,

CHAIRMAN:

THE RIGHT HON. LORD PLAYFAIR,
G.C.B., LL.D.

CONSULTING CHEMISTS:

PROFESSOR SIR EDWARD FRANKLAND,
K.C.B., M.D.,

Corresponding Member French Institute.

WILLIAM HARKNESS, F.I.C., F.C.S.,
F.R.M.S.,

40 Years Food Analyst to H.M. Government.

Food 

Specialists

 LONDON

Canadian Branch 

25 and 27 ST. PETER STREET, MONTREAL

Pike's Peak and make the round of the Ute Pass resorts. Two to three days is the minimum period for this jaunt; a full week can be pleasantly spent here. The noted health resort of Glenwood Springs, just over the continental range, will fully repay a visit, and while there one can conveniently continue on to Salt Lake City, the capital of Mormondom. A very interesting experience may be had by going down into northern New Mexico to Las Vegas Hot Springs, where the Montezuma Hotel is situated.

For time tables, descriptive literature and other information apply to any representative of the Santa Fe route, or address W. J. Black, G.P.A., Topeka, Kas.; or C. A. Higgins, A.G.P.A., Chicago, Ill.

THE MEDICO-CHIRURGICAL COLLEGE MAY CONFER D.D.S., Ph.G., AND Ph.D. DEGREES.

JUDGE GORDON has dismissed the exceptions of the Philadelphia Dental College, which sought to restrain the Medico-Chirurgical College from conferring graduate degrees in dental surgery and pharmacy. The Medico-Chirurgical College's petition to so amend its charter as to comprehend this broadening of the institution's field of usefulness has accordingly been granted.

Judge Gordon's opinion, in full, is as follows:

In the matter of the petition of the Medico-Chirurgical College of Philadelphia for an amendment to its charter.

"*Sur* exceptions of Philadelphia Dental College.

"We are of opinion that under the original act of incorporation of this college, on February 12, 1850, and its supplement of the 10th of April, 1867, the institution possesses the power to confer degrees in Dental Surgery and Pharmacy.

"The original act of incorporation empowers the college among other things to establish a Department of Instruction in 'Surgery (including Dental Surgery) and Pharmacy.' The supplemental act of 1867 confers upon the college 'all the rights, immunities and privileges as to lecturing, granting diplomas and conferring degrees in Medicine as is possessed by the officers and professors of the University of Pennsylvania at this time.'

"As was said by the Attorney-General of the State, in an opinion touching the right of colleges to confer degrees: 'The conferring of a degree simply marks a step in the educational career of the student. It is the expressed judgment of the Faculty that he has attained a certain degree of proficiency, and a diploma is granted as the evidence of such degree. The value of a degree depends entirely upon the character and standard of the institution conferring it. It may mean much or it may mean little.'

"We believe that the general grant of powers to this corporation comprehends the right to grant diplomas and confer degrees evincing the proficiency of its students in the various branches expressly authorized to be taught. Moreover the original act of incorporation specially excluded the right to confer the degree of Bachelor of Medicine or Doctor of Medicine, which would seem to have been a legislative interpretation that but for this exclusion the right to confer these two degrees would have been included in the general grant of powers. While it is true that a proviso or exception to an act cannot enlarge the language of the act or amplify a grant of power, still it may have effect and value as indicating the general legislative intent.

"The third section of the act of incorporation recites: 'That no enumeration of powers, privileges, and duties herein contained shall be so construed

FOR MAKING LITHIA WATER OF A KNOWN STRENGTH
WHAT CAN BE MORE SATISFACTORY THAN

Wyeth's Compressed Effervescing Lithia Tablets.

WYETH'S LITHIA TABLETS

are most convenient for the preparation of artificial Lithia Water, and the great advantage these tablets have over the natural Lithia Water is that the dose can be regulated very readily to suit the case by dissolving one or more in any desired quantity of water.

WYETH'S LITHIA TABLETS

when taken in doses of from one to two tablets, dissolved in water, and repeated two or three times daily, exerts a marked influence in cases where patients are voiding uric acid gravel, causing the formation of deposits to become less or cease altogether.

WYETH'S LITHIA TABLETS

have been so perfected that they dissolve almost instantly in water, and a tumblerful of Lithia Water *of a known strength* can be quickly, easily and economically made by dropping one or more of these tablets into a glass of moderately cold water, producing a pleasant and palatable draught.

Price, per dozen bottles, 5 grains, 50 tablets in each, **\$5.00**
" " " 3 " 40 " " **4.00**

Wyeth's Effervescing Anti-Rheumatic Tablets

OF SALICYLATES, POTASSIUM AND LITHIUM

(Each Tablet represents 3½ grains of Combined Salts.)

These Tablets of Salicylates of Potassium and Lithium, in the above proportions, are readily soluble, effervesce quickly and freely, producing a pleasant, sparkling draught, and we believe, where salicylate salts are specially indicated, will have the cordial endorsement of physicians.

This combination is recognized as almost a specific in the treatment of **Acute and Chronic Rheumatism, Rheumatic Gout** and kindred ailments, and is an invaluable remedy in all **febrile affections** inducing headache, **pain in the limbs**, muscles and tissues; it is also prescribed in **Lumbago, Pleurisy, Pericarditis**, and all muscular inflammatory conditions.

Price per dozen bottles, - - - **\$4.00**
(Each bottle contains 50 Tablets.)

DAVIS & LAWRENCE CO., LIMITED, SOLE AGENTS FOR **MONTREAL**
CANADA

to exclude others not enumerated which are necessary to the fulfilment of the designs and purposes of this act, and not inconsistent with its express provisions and limitations.' It can hardly be claimed that the granting of degrees in Dental Surgery and Pharmacy is inconsistent with any express provision or limitation in an act specially conferring the power to establish a Department for the teaching of Dental Surgery and Pharmacy, or that the granting of such degrees is not necessary to the fulfilment of the designs and purposes of the act of incorporation. Conclusive force, we think, must be given to this argument in view of the special exclusion in the act of the two particular degrees in medicine referred to above.

"Again the supplementary act of 1867 amplifying the original act of incorporation, brushed away even this limitation upon the power of the college to confer degrees and granted plenary authority to confer all the degrees in medicine possessed by the University of Pennsylvania at that time.

"Why would not this grant of power include degrees in Dental Surgery and Pharmacy? Are not Dental Surgery and Pharmacy branches of 'medicine'? The students in Dental Surgery are instructed, we are informed, in anatomy, physiology, chemistry, therapeutics, materia medica, pathology, and other branches of medical science, while in Pharmacy chemistry, physiology, materia medica, and therapeutics are branches of instruction. Indeed, the later and better tendency is to closely ally both Pharmacy and Dental Surgery to the parent science medicine, and to have the students in all three of these sciences matriculate with the same institution.

"The growth in the dignity and efficiency of Dental Surgery is largely due to the fact that the practitioners in this art to-day, unlike their representatives in the past, are educated carefully in allied medical studies. For this reason most of the great colleges of medicine have now regularly established schools or departments in Dental Surgery and Pharmacy, and the students in these branches seek institutions where they may have the advantage of medical clinics.

"The powers asked for in the amendment now before the court, we, therefore, think are already included in the chartered rights of this college, but for the improvement and clarification of the charter, the amendment asked for is proper and should be allowed.

"Even if we had doubt as to this view we still regard the amendment asked for as a proper one, and within the scope of judicial power and it would be granted.

"The petition is therefore allowed, and a decree will be made accordingly.

"JAMES GAY GORDON."

THE "CHUTMUCK SPECIAL."

If you go to Denver to attend the meeting of the American Medical Association, of course you want to take the best train, over the best route. And as to what is the best train and the best route, there is no room for difference of opinion. The finest special train for Denver on this occasion will be the Chutmuck Special.

The Equipment. The equipment of this train will be unsurpassed. Vestibuled throughout, all dirt and dust is absolutely avoided. Pullman compartment and buffet sleeping cars afford the best accommodations that can be procured.

Special Car Connections. For the doctors of the East and South, a special inducement to take this train is the through car service that has been arranged

The E. & D. Bicycle

THE FOUR-POINT BEARINGS

Are Guaranteed Three Years.

Will Last a Lifetime.

Manufactured by

AXIS
AXIS OF HUB
AXIS

POINT OF SUPPORT
POINT OF LOAD
POINT OF SUPPORT

Canadian Typograph Company,
LIMITED
WINDSOR, ONT.
Agents Everywhere

Oiled Once a Season Only.

Cleaned Once a Season Only.

Gives the Best Results.

for. Pullman cars from the South and East are to be attached to the Chutmuck Special at St. Louis, thus completely avoiding change of cars *en route*. This is a point worthy of careful consideration by all who esteem comfort in travelling.

Stop-Overs. An advantageous feature of this train is the liberal provision made for stop-overs. On all tickets going and returning by diverse routes, stop-over is allowed at Omaha on deposit with Joint Agent of Bureau at that point. This enables all who so wish to see the Great Trans-Mississippi and International Exposition. On all tickets going and returning via same route and one-way tickets, a charge of \$1.00 for deposit and extension will be made. The same arrangements as to stop-overs will be made at Kansas City.

Rates of Fare. One lowest first class fare, plus \$2.00 for the round trip to Denver, Colorado Springs or Pueblo. The fare from St. Louis required on this basis will be \$26.50. Similarly reduced rates from eastern points will prevail.

The Route of the Chutmuck Special lies west from St. Louis through one of the most interesting sections of the United States. As we leave St. Louis all the beautiful suburbs of that city are found on the line of the Missouri Pacific. Beyond here the picturesque Meramec River comes into view, affording enchanting vistas of water and forest. Further on the train hugs the banks of the Missouri, its rugged bluffs giving an ever-changing picture rivaling the beauties of the mountains. The farms of fertile Kansas then are passed; historic towns, whose air is reminiscent of the war (Osawatomie, with its John Brown monument, among them); towns whose material progress has been the wonder of the West, are passed through before entering Colorado, the introduction to which may be said to take place at Pueblo, the "Pittsburg of the West." From here to Denver the train passes through the most widely known portion of the Continent for scenic beauties. Colorado Springs, Manitou, Pike's Peak, a host of resorts whose names awaken the remembrance of the Arabian Nights, so greatly do they exceed all expectations, are all grouped here under the shadow of that magnificent Pike's Peak. Taken all in all, the Chutmuck Special will be unquestionably the most popular train to the Association meeting in June.

It is a well-known fact that England is the home of well-dressed men and that what is known as an English fit is synonymous with perfect tailoring. The attention of the journal readers is drawn to the announcement in this and subsequent issues of the firm of Wacks Bros., of Leicester, England. This is one of the largest tailoring firms in the whole of England, employing a very large number of hands all the year through. They are in closest connection and touch with several woollen factories all over the Old Country, and can therefore give their customers the benefit of a choice of goods unequalled by any other house in Great Britain. Wacks Bros. have for years made a specialty of their colonial trade and do an immense business with gentlemen in Canada as also with others as far distant as Australia. They have a capital system of self-measurement so that all that has to be done is to write the firm for their system asking them at the same time to submit samples, and the purchaser can depend upon a good fit. What is more, and as will be seen more fully by referring to the illustrations in their advertisement, the prices of this firm for the finest goods, made up in first class style, are such that after all duties and freight charges have been paid a large amount will be saved in the end. We feel that we can recommend the members of the profession to give Wacks Bros. a trial.

The Best Cannot be too Good



Is made from the best Canadian Barley Malt.
 Is richer in Diastase and Maltose than any other made.
 Is guaranteed free from foreign matter, such as Glucose,
 Licorice, Salicylic Acid, etc.

Write for samples and literature to

W. LLOYD WOOD

GENERAL AGENT TORONTO, ONT.

Reduced in Price to \$1.00 per ounce.
EMINENT BRITISH OPINION

AS TO MERITS OF

ANTITOXINE

(Strengthens the Heart's Action.)

THE Late President of the Glasgow Obstetrical and Gynaecological Society of Glasgow has informed us that in his opinion the four Antipyretics which are best known to British Medical men should be placed thus in order of merit.

1. ANTITOXINE
2. Phenacetine.
3. Antipyrin.
4. Antikamnia.

The Manager, The British Antitoxine Manufacturing Co.

Glasgow, W., 5th September, 1896.
 DEAR SIR: I have found Antitoxine give immediate relief in severe Facial Neuralgia after Phenacetine had failed. After having given Antitoxine a thorough trial—I have used 16 ounces during the last 9 months—I rarely prescribe Antipyrin now and almost as rarely Phenacetine. I believe that the 4 Antipyretics which are at present best known to English Medical men should be placed thus in order of merit so far as they relieve pain, headache, Facial Neuralgia, Dysmenorrhœa, and reduce fever—

1.—ANTITOXINE. 8.—Antipyrin.
 2.—Phenacetine. 4.—Antikamnia.
 I have frequently given Antitoxine in cases where I would not dare give Antipyrin; weak hearts, etc. I have never seen the slightest bad result from its administration. I have used it recently with great success in cases of flushing at the Menopause, one tablet 2 or 3 times a day. I am, dear Sir, Yours faithfully,

M. D.,
 Some time President Glasgow Obstetrical and Gynaecological Society.

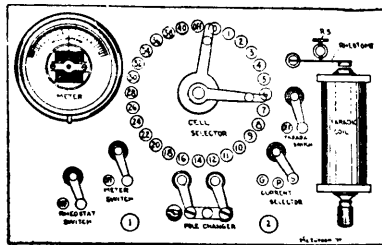
*The original signed letter, of which the above is a copy, will be sent for perusal to any physician who desires to see the signature, provided he promises to immediately return it.

IMPORTANT TO PHYSICIANS.

Since the production of Antitoxine, the only heart-strengthening antipyretic and antineuralgic, unscrupulous imitators have copied our literature, often verbatim, as well as the sphygmographic tracings which we published to illustrate the unique heart-strengthening effects of Antitoxine.

The B. A. M. Co.

Electricity



IN THE TREATMENT OF

DYSMENORRHOEA, STRICTURES, STENOSIS,

Removal of WARTS, MOLES, NEVI,

CATAPHORESIS, ELECTRO-DIAGNOSIS,

METALLIC ELECTROLYSIS

and many other electrical operations, are explained in detail in our 18th edition catalogue.

This work of 300 pages also gives prices and descriptions of the **BEST BATTERIES IN THE WORLD.**

It will be mailed to your address *postpaid*, without charge, if you write and ask for it.

McIntosh Battery and Optical Co.

521-531 WABASH AVE., CHICAGO.

THE firm of The Electro Medical Manufacturing Co., of 59th and Wallace Streets, Chicago, Ill., are advertising a few bargains for May, June and July on page lxxx. It will pay practitioners, who are in need of anything in this line, to peruse carefully the advertisement, as by so doing they will find that they can save a big shave in the regular prices of those goods.

It is a matter of satisfaction to know that the Montague Private Hospital is making such rapid progress. Since removing from Montague Place, their original home, to 159 Bloor Street East, accommodation has been almost at a premium. Practitioners are taking more and more advantage of the hospital every year, finding, as they do, that in attending their own cases there, they have the greatest satisfaction, the staff of trained nurses in each case bending every effort to see that the physicians' orders are carried out to the letter.

It is generally understood, and correctly so, that medical men as a class have sufficiently fine taste to be musical. It will, therefore, be of interest to them to recollect that the firm of A. & S. Nordheimer, of Toronto, keep everything in the musical line, from pianos of the very best make and at all prices down to sheet music. Their building on King Street East is one of the most completely equipped in Canada, each department occupying an entirely separate flat. Medical men are requested to call and see them when requiring anything in their line, no matter what it may be.

VICTOR MAY & Co., of Chicago, are manufacturers of a most unique instrument in Dr. St Cyr's uterine evacuator. It can best be explained by turning to page viii., where its action in thoroughly emptying the uterus of everything in the way of shreds of membrane, pieces of retained placenta, organised blood clot, will be better understood. It is a spiral, and by the most gentle action and without any pressure whatever, worms its way into the womb and presses out anything of the above character, thus diminishing materially any danger of septicæmia. It is made in two sizes, small blunt size selling at \$3.50 and large blunt size at same price, or the two for \$6.50.

By referring to page xlii. of this issue, our readers will see an advertisement which will interest them. It is that of The Bromo Chemical Co. of New York. There are a large number of so-called disinfectants on the market, for all of which great things are claimed, but there are only a few which will carry out such claims satisfactorily. A disinfectant, to be generally used, must first of all have a powerfully deodorizing effect, and at the same time not be disagreeable for household use. Such a preparation is Bromo Chloralum, being a powerful disinfectant, saline antiseptic and styptic, and yet not unpleasant in odor. It is an ideal prophylactic in threatened epidemics of contagious disease, and is most economical: one bottle diluted with water will make twelve pints of proper strength for use.

IMPERIAL GRANUM is a prepared food that makes friends wherever its merits become known. The writer has been familiar with it for years, and takes pleasure in relating the following clinical test of its merits: "The patient, reduced by disease and from the effect of the anodynes necessarily given to alleviate her sufferings, developed malignant cholera-morbus, and for days lay in an almost unconscious condition. As a last resort she was taken to a Boston hospital, where the physicians began administering Imperial Granum, prepared as directed for acute cases, in very small quantities. After several trials it was retained, and the strength and quantity was slowly increased. After four weeks' treatment, taking Imperial Granum only for nourishment, she was discharged from the hospital, and a few weeks later endured a severe surgical operation from which she completely recovered, and to-day seems in perfect health.

E. MERCK

16 JEWRY STREET
LONDON, E.C.



MERCK & CO.

UNIVERSITY PLACE
NEW YORK

Merck's

Chemicals for medicinal use are recognized as the standard for Purity, Reliability and General Excellence.

When ordering, please specify—**MERCK'S**

COCAINE HYDROCHLORATE.

LACTIC ACID.

SALICYLIC ACID AND SALTS.

STRYCHNIN.

IODIFORM.

SANTONIN.

Please direct attention to **MERCK'S**

Peronin

WHICH ACCEPTABLY REPLACES MORPHINE AND CODEINE.

Peronin is a light, white powder, having the formula $C_{24}, H_{25}, NO_3, HCL$. It is readily soluble in water, and is less bitter than morphine. It exhibits the unpleasant by-effects of morphine in a far less degree. Its use is particularly recommended in the troublesome coughs of phthisis and bronchitis, in asthmatic affections, and against rheumatic and neuralgic pains.

Peronin may be given in the form of pills, compressed tablets, or dissolved in syrup or sweetened water. For convenience of dosage, tablets, each containing $\frac{1}{3}$ grain, at 75c. per 100 tablets, are on the market.

TO BE HAD OF ALL DRUGGISTS AND CHEMISTS, OR DIRECT OF

E. MERCK, Chemical Works, Darmstadt

MERCK'S ANNUAL REPORT ON APPLICATION

"PROTONUCLEIN I have found useful in many conditions of ulcers which show a tendency to run into chronicity. It seems to possess positive properties as a stimulator of cell regeneration, and in my own hands it has been my custom to employ it where other routine remedies do not yield satisfactory results."

T. H. MANLEY, M.D.

OLD REMEDY—NEW USES.—There are very many important uses for antikamnia, of which physicians as a rule may be uninformed. A five grain Antikamnia Tablet prescribed for patients before starting on an outing, and this includes tourists, picknickers, bicyclers, and, in fact, anybody who is out in the sun and air all day, will entirely prevent that demoralizing headache which frequently mars the pleasure of such an occasion. This applies equally to women on shopping tours, and especially to those who invariably come home cross and out of sorts, with a wretched "sightseer's headache." The nervous headache and irritable condition of the busy business man is prevented by the timely use of a ten-grain dose. Every bicycle rider, after a hard run, should be advised a bath and a good rub down, and two five-grain Antikamnia Tablets on going to bed.

FOR HEALTH OR WEALTH.—A winter spent in Arizona may save your life. It's not the desert you imagine. It has a climate unsurpassed for healthfulness, with soils that are richer than those in the Valley of the Nile. Peopled by a class of law-abiding, progressive citizens, offers inducements in the culture of fruit that equal, if not outweigh, in value the productions of her older sister States. Phoenix, in the Salt River valley, has 12,000 people, with all the conveniences of modern civilization, massive business blocks, handsome suburban homes, seven schools, nine churches, electric street railway cars, electric lights, city water and modern sewerage system, and penetrated by one of the largest railway systems in the United States, the Southern Pacific. Its productions are unexcelled by any other portion in the cultivation of staple grains and many of the tropical fruits. The price of land is low, including a perpetual water right. There are but few of the Eastern farmers who are aware of the fact that in this very valley there are 150,000 acres of land now under cultivation, and the richest soil on the face of the earth.

PERSISTENT GASTRIC IRRITABILITY—COMPLICATING LOBAR PNEUMONIA.—Dr. A. B. Cannon, of New York, submits the following clinical report: "Miss S., aged twenty-one years, highly neurotic temperament, and suffering with lobar pneumonia. On the third day she began to vomit, being unable either to retain medicines or nourishment. This continued several days, notwithstanding the fact that I gave the usual remedies to check it, including bismuth, subnitrate, cerium, oxalate and cocaine, hydro-chlorate and minute doses of vini ipecac, etc. I washed out the stomach several times, and still she was unable to retain a teaspoonful of milk. I was compelled, in the meantime, to resort wholly to hypodermic and nutritive enema. As the vomiting was of considerable import at this stage of the disease, and the vitality of the patient was well-nigh exhausted, I had about concluded to give nothing by mouth except cracked ice to relieve the thirst, but thought I would first try Eskay's Albumenized Food. To tell you frankly, I expected the same results from it as I had from the several peptonizing powders I had tried. Accordingly, I ordered the nurse to prepare it according to directions, and a glass was given. She retained it for about an hour and then ejected a portion of it, which I attributed to the fact that she had taken too much at one time. The nurse was instructed to try again in two hours. This time only half a glass was given, the patient sipping it slowly. It was retained. It was then given every four hours. No vomiting has since occurred. This was continued for three weeks, and the patient is now convalescing rapidly."



(Trade Mar.)

BAYER'S PHARMACEUTICAL PRODUCTS

SOMATOSE A tasteless, odourless, nutrient meat powder; it contains all the albuminoid principles of the meat in an easily soluble form. It has been extensively employed and found to be of the greatest service in consumption, diseases of the stomach and intestinal tract, chlorosis and rickets. It is of great value in convalescence from all diseases. SOMATOSE strengthens the muscles and stimulates the appetite in a remarkable manner. Dose for adults: a level teaspoonful three to four times a day with milk, gruel, coffee, etc.

IRON SOMATOSE (Ferro-Somatose). A first-class tonic, containing the albuminous substances of the meat (albumoses) organically combined with iron. Special indications: Chlorosis and Anaemia. Daily dose: 75 to 150 grains.

MILK-SOMATOSE (Lacto-Somatose). A strength giving food containing the albuminous matter (albumoses) of the milk.

TRIONAL A most reliable and quickly-acting hypnotic of the Sulfonal group. Dose: 16 to 20 grains, in a large cup of hot liquid.

IODOTHYRINE The active principle of the thyroid gland. It is most efficacious in Strumous Diseases, Myxoedema, Obesity, Rickets, Psoriasis, Eczema, and Uterine Haemorrhages. Dose: 5 grains two to eight times a day for adults; 5 grains one to three times daily for children.

LYCETOL Tartrate of Piperazine Anti-Arthritic, Uric

Solvent. Has a marked effect on the diuresis. Dose: 16 to 32 grains daily.

ARISTOL An Iodine Cicatrisant which is an excellent odourless substitute for Iodoform and highly recommended for Burns, Wounds, Scrofulous Ulcerations, etc.

EUROPHEN A perfect substitute for Iodoform. Odourless and non-toxic. Has a covering power five times greater than Iodoform. Especially useful in Ulcus molle et durum.

LOSOPHAN A cresoltriiodide particularly efficacious in the treatment of all kinds of cutaneous disorders caused by animal parasites.

PROTARGOL A new silver preparation. Most reliable in cases of Gonorrhoea. Antiseptic wound healer. Excellent results in cases of Gonorrhoeal Ophthalmia. Solutions of 1/4 to 2%. Ointments.

TANNIGEN An almost tasteless intestinal astringent. Most efficacious in Chronic, Acute and Summer Diarrhoeas. Adult dose: 8 grains every three hours.

TANNOPINE (Formerly "Tannone"). A new intestinal astringent. Special indications: Tuberculous and non-tuberculous Enteritis, Typhus. Dose: 15 grains, three or four times daily.

SALOPHEN Specific for Influenza, Headache, Migraine, Acute Articular Rheumatism, Chorea, Sciatica. Dose: 15 grains four to six times daily. In powders, etc.

PHENACETINE-BAYER
PIPERAZINE-BAYER

SULFONAL-BAYER
SALOL-BAYER

Samples and literature may be had on application to the

DOMINION DYEWOOD & CHEMICAL CO., TORONTO.

Sole Agency and Depot in Canada for all "BAYER'S" Pharmaceutical Products.

(WHOLESALE ONLY)

Anti-Tubercle Serum
 (PAQUIN)
 Anti-Diphtheritic Serum
 (PAQUIN)
 Anti-Tetanic Serum
 (PAQUIN)
 Anti-Streptococcus Serum
 (PAQUIN)

INDICATED IN

Tuberculosis
Diphtheria
Tetanus (Lock-Jaw)
 Puerperal Fever, Septicemia,
 Mixed Infections of Tuberculosis
 and Diphtheria, Erysipelas, Scar-
 latina, Pyemia, Bronchitis, Bone
 and Joint Tuberculosis.

Tuberculin, Erysipelas Toxin, Mallein, Vaccine Points. Cultures Pathogenic and Non-Pathogenic, Slides of Germs, Outfit for Microscopical Diagnosis of Tuberculosis, Chemic, Bacteriologic and Microscopic Analyses Made.

Brochure, with Clinical Reports, also Vials for Mailing Specimens for Analysis sent on application.

THE PAUL PAQUIN LABORATORIES, 209 N. 7th St., St. Louis, Mo.

CANADIAN AGENTS

HENRY J. DART & CO. - Wholesale Druggists - MONTREAL

**Climate
 Cure**

FOR . . .

**Weak Lungs
 Weak Throats
 Weak Bodies**

I know where it may be found

Would you like to know, too?
 Just a hint of it here—

THE . . .

**Health Resorts
 OF New Mexico**

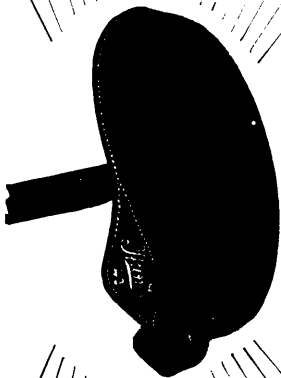
—particularly
LAS VEGAS HOT SPRINGS

Write to me . . .

**F. T. HENDRY, 63 Griswold St.,
 DETROIT, MICH.**

EXAMINE THE FINE LINES OF ALL

Hunt



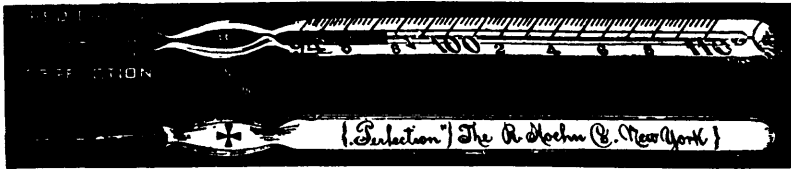
SADDLES

THEY ARE HIGHLY ARTISTIC, GRACEFUL AND SCIENTIFICALLY CORRECT



MR. JOHN ROCKWELL,
19 Yonge St. Arcade, Toronto, Ont.

HUNT MFG. CO., WESTBORO, MASS.

**THE R. HOEHN CO.'S
RED CROSS "PERFECTION" CLINICAL THERMOMETER**



After long experimenting we have succeeded in producing lens front tubing which will magnify fully as well as that of which the Hicks' Clinical Thermometers are made. We are the only American manufacturers who have accomplished this. Our best workmen have used their utmost care to manufacture this tubing into the most perfect Clinical Thermometers which can be produced, and these we are offering under the name "Perfection."

In order to insure the public against imitation, this name "Perfection," as also  (our REGISTERED TRADE-MARK), is etched on every thermometer whether bearing our name or that of our dealers. This cross is always  etched in RED on the genuine. This is the only American-made Clinical which can take the place of Hicks' in every respect.

These thermometers are all *Quick Reading*, i.e., every *two* degrees are numbered on the tube, as shown in the above cut.

They are pointed and divided with the utmost accuracy. Moreover, the tubes of which they are made are thoroughly seasoned, and we guarantee that their reading will not rise.

We will exchange FREE OF CHARGE any PERFECTION Clinical Thermometer which has not given satisfaction within ONE YEAR.

THE R. HOEHN CO., Mfrs., 80 and 82 Chambers St., New York

For sale by all Surgical Instrument Dealers and Druggists.

Photo Engraving
Elliott
Illustrating Co.
31 King St. East, Toronto

NOITOL

The Most Successful
Remedy for

ECZEMA

As also for SKIN DISEASES generally. Is NOT A SALVE, OINTMENT, SOAP, TAR, or other disagreeable preparation, but a limpid, inoffensive, odorless solution, as its NAME SPELLED BACKWARDS indicates. Samples gratis.

WHEELER CHEMICAL WORKS
151 Lake Street, Chicago, Ill.

The Doctor's Advice
is all the more valuable when he recommends the use of the purest and best articles obtainable. Sea Salt bathing is very often recommended, and the best results can only be had by using the purest salt.

Surf Sea Salt

analyzes 99.98/100 per cent. of pure salt, the crystals are as clear as glass, easily dissolved and much more convenient to use than any other brand. All druggists sell it. 5lb. package 15c., 80lb. box \$1.50.
TORONTO SALT WORKS
Importers, - 128 Adelaide Street East, - Toronto

SPOONER'S
Phenyle Germicide
Disinfectant Powder

TOOK TWO GOLD MEDALS
AT THE WORLD'S FAIR, CHICAGO.

ALONZO W. SPOONER, MAKER
PORT HOPE, ONT.

THE ❁ ❁ ❁
**MISSOURI PACIFIC
 RAILWAY COMPANY**



... AND ...

“Chutmuck Special”

**AMERICAN MEDICAL ASSOCIATION, DENVER, COL.,
 JUNE, 1898.**

DEAR SIR:

For the meeting of the American Medical Association, to be held at Denver, Col., in June, 1898, we take pleasure in announcing that the Missouri Pacific Railway has arranged to run a special through train from St. Louis to Denver, to be known as the “Chutmuck Special,” making the trip *via* Kansas City, Pueblo and Colorado Springs.

This will be one of the handsomest trains ever run in the West, consisting of Compartment Sleeping Cars, Dining Car, Buffet Car, etc., affording special accommodations for the wives and families of yourself and friends. Please remember this in making your arrangements.

Due announcement as to dates, schedule, etc., will be made later on.

H. C. TOWNSEND,
 General Passenger Ticket Agent.

B. H. PAYNE,
 Ass't Gen'l Passenger Ticket Agent.

For information write to—

**H. D. ARMSTRONG, Trav. Pass. Agent, Missouri Pacific Railway,
 7 W. Fort Street, Detroit, Mich**

A Magnificent Opportunity for Investment by Medical Men.

The Northwestern Trust and Development Company of America.

*Incorporated under the Laws of
the State of Illinois.*

*Capital Stock, \$500,000 in Fifty Thousand Shares of Ten
Dollars each. Limited Liability and Non-Assessable.*

EXECUTIVE OFFICERS AND DIRECTORS.

OFFICERS: GEO. A. BAYNES, Financial Agent, President; R. M. ROGERS, of Shope, Mathis, Barrett & Rogers, Vice-President; F. C. N. ROBERTSON, Auditor Pullman's Palace Car Co., Treasurer; WALTER R. NURSEY, Explorer, Secretary and General Manager; W. H. F. HOLMES, Counsel; JOHN MURRAY, Electrician, Manager Yukon Telegraph Cable Co. **DIRECTORS:** HON. H. AYLMER, Barrister, M.P., Richmond, Canada; ALEX. MITCHELL, Board of Trade, Montreal, Canadian Representative; THOS. H. WICKES, Vice-President Pullman's Palace Car Co., Chicago, Ill.; W. N. D. WINNE, C. M. & ST. P. R. R., Chicago, Ill.; C. S. KELSEY, Chicago & Alton Ry., Chicago, Ill.

Head Office:

Northwest Territory Office:
DAWSON.

**EQUITABLE BUILDING,
CHICAGO, ILL.**

Alaska Office:
DYE A.

Cable Address, Yukas.

The Northwestern Trust and Development Co.'s Business Undertaking.

REALIZING the situation in the Klondyke and the unprecedented trade opportunity for money making there presented, the Northwestern Trust and Development Company has decided to **at once** equip an expedition for the relief of the isolated miners and in the straight **business interests of its own shareholders.** The supplies selected by the Company for the Klondyke trade consist only of such food products and other articles as will find an immediate market and can be disposed of at **most highly remunerative rates.** It is well to emphasize the fact that the undertaking will be conducted throughout on a strictly business basis.

PROFITS.

After thorough investigation of every phase of the undertaking, as prepared by the practical experts in the employ of the Company—detailed explanatory statements of which are open to the inspection of shareholders—the Directors are satisfied that over \$300,000 of net profit can be promised on an investment of \$50,000 during the ensuing season alone.

Of this sum **\$126,624** will be derived from the sale of Merchandise.

\$90,000 from the Transport of Passengers.

\$62,130 from the Expressing of Valuables.

\$156,300 from the Expressing of Gold Dust, under proper protection and guarantee, from the interior to the coast.

It must be remembered that these figures represent only the earnings upon the investment after deducting the cost of Field Equipment, Management and Maintenance.

Thus it will be seen, that based upon the most conservative estimate, the **net profit on one season's work**, exclusive of the revenue arising from the operating of the Telegraph line, will amount to over **\$300,000.** Cutting this figure in two, the enterprise would still yield over **300 per cent.** upon the capital invested.

The expedition will be accompanied by Dr. Geo. A. Baynes, a graduate of McGill University, of Montreal, President of the Company, a physician and traveler of wide business experience in both temperate and frigid climates. He will establish the business upon a permanent basis and supervise the Company's interests.

THE TRANSPORT SERVICE.

Recognizing the fact that the only practical and available method of transportation to the Yukon in the winter months is overland from the coast by dog-train, with pack horses and horse-sleds as auxiliary, the Northwestern Trust and Development Company has arranged for the despatching of an "outfit" so constituted, from some point on the Lynn Canal, **immediately.**

This "outfit" will consist of several large "brigades" of dog-trains, with the necessary complement of pack-horses, manned by Indian and half-breed drivers and packers, secured in the Canadian Northwest and protected by special contract. The entire transport service will be under the direct management of Mr. Walter R. Nursey, the well-known traveller, and for seventeen years an explorer in the far Northwest. (See Chicago Sunday Tribune, January 2, 1898, page 34.)

From Mr. Nursey's practical knowledge of the various methods of sub-Arctic winter transportation, gained through his carrying of the mails and the freighting of Indian supplies into the remote interior, together with his executive capabilities, his identification with the undertaking is a guarantee of its success.

THE YUKON EXPRESS COMPANY.

The Trust Company will operate its Express business through the Yukon Express Company under Letters Patent from the Dominion Government, and having underwritten the stock of the Express Company, will retain a one-half interest in the same for the benefit of its stockholders.

As the Company will operate under the laws of the Canadian Government, ample police protection is assured, and it will thus be ready to enter into contracts for the carrying of the mails and Government supplies.

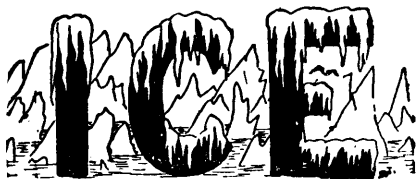
THE YUKON TELEGRAPH CABLE COMPANY.

In like manner the Trust Company will also operate its telegraph business under Letters Patent from the Canadian Government, and will construct a Telegraph Line between the Lynn Canal and various points in the Canadian Northwest Territory.

In this connection it will interest shareholders to know that the Associated Press, through its chief executive officers in Chicago, has already promised in advance to enter into a contract for a daily service, which in itself alone will yield a most handsome revenue.

SHARES.

Application for shares may be made to the President and Directors at the offices of Company, 713, 714 Equitable Building, Chicago, Ill.



REMEMBER THE
Belle Ewart Ice Co.

Are the ONLY exclusive dealers in
LAKE SIMCOE ICE

Our entire stock of Ice is cut and stored at Belle Ewart, Lake Simcoe. At this point the water is known to be absolutely pure. All our ice is *planned* free of snow after leaving the water.

5 cents per day for 10 lbs pure Lake Simcoe Ice; 1 cent extra for each additional 5 lbs.
Write or 'phone for circular giving full particulars.

Office: 18 Melinda Street

'PHONES 1947
2933

LOOK FOR THE YELLOW WAGONS.

SANMETTO FOR GENITO-URINARY DISEASES.

A Scientific Blending of True Santal and Saw Palmetto in a Pleasant Aromatic Vehicle.

A Vitalizing Tonic to the Reproductive System.

SPECIALLY VALUABLE IN
PROSTATIC TROUBLES OF OLD MEN—IRRITABLE BLADDER—
CYSTITIS—URETHRITIS—PRE-SENILITY.

DOSE:—One Teaspoonful Four Times a Day.

OD CHEM. CO., NEW YORK.

NIAGARA FALLS
LINE

STEAMER

“Empress of India”

Daily from Geddes' Wharf at 3.20 p.m., commencing May 16th, connecting at Port Dalhousie with fast through trains for St. Catharines, Niagara Falls, Buffalo, New York, Rochester, Cleveland and all points East, West and South.

Double Trips Commence about
June 10th.

Tickets at all G.T.R. and Empress ticket offices, and at Wharf.

Telephone 260.

Excelsior Piano Album

CONTAINING

100 pages of choice and
Standard Music by eminent composers

CONTENTS

Arieu.....(Schubert).....Heller	Mrs. Langry's Waltz.....Operts
Amatori Waltz.....Conway	Melodie.....Rubinstein
America.....(God Save the Queen).....Simms	Mozart.....Strauss
British Patrol.....Richard	Marquis et Marquise.....Murley
Blacksmith in the Woods.....Asch	Nina.....Joseph
Black Hawk Waltz.....Wasson	Old Oaken Bucket.....Cramer
Bacholdt Galop.....Stanley	Pilgrims Chorus from Tanhaeuser.....Wagner
Crimson Blushes Mazurka.....Conroy	Pearly Dew Drops Mazurka.....Wagner
Dude's Galop.....Conroy	Polish Dance.....Scharoun
El Fresco Galop.....Garland	Rhapsodie Hongroise.....Mazur
Funeral March of a Marionette.....Garland	Racquet Waltz.....Mazur
Good Bye.....Conroy	Royal Waltz.....Op. 2, J.F.
Peer Elise.....Beehoven	Shepherd Boy.....Wilson
Forget Me Not (Gavotte).....Grieg	Serenade.....(Schubert).....Krag
Gavotte Stephanie.....Czibulka	Silvery Waves.....Wolcott
Henry Irving's March.....Cox	Society Polka.....F. Louis
Heart's Longings.....Jungmann	Serenata.....Mozhayski
La Felona.....Cramer	Summer Song.....Schubert
La Caravane.....Asch	Snow Drift Waltz.....Shirk

PRICE - 50 CENTS

A. & S. NORDHEIMER

TORONTO

MONTREAL

HAMILTON

[OVER]

ASSESSMENT SYSTEM.



COST TO JOIN THE I. O. F.

A Candidate for initiation into an existing Court, and taking \$1,000 of Mortuary Benefit, must pay the following fees:—

- 1.—The Deposit Fee, which must accompany his Application for Membership. . . . \$1.00
 - 2.—The Initiation Fee, which must be not less than. 2.00
 - 3.—The Registration Fee, which is 50 cents for each \$500 of Mortuary Benefit taken. . . . 1.00
 - 4.—The Certificate Fee, which pays for the Certificate of Membership. 1.00
 - 5.—The Medical Examination Fee, which is 1.50
- \$6.50**

- If taking \$2,000 Mortuary Benefit, the cost would be \$8.00
- If taking \$3,000 Mortuary Benefit, the cost would be 9.00
- If taking \$4,000 Mortuary Benefit, the cost would be 11.00
- If taking \$5,000 Mortuary Benefit, the cost would be 12.00

THE BEST FRATERNAL SOCIETY IN THE WORLD

THE MAGNIFICENT BENEFITS PAID.

Benefits paid last year (1896)	\$ 820,941 91
Benefits paid last five years	2,754,039 14
Benefits paid last ten years	3,462,142 79
Benefits paid from organization to 31st October, 1897.	4,925,244 12

THE GROWTH OF THE MEMBERSHIP.

Membership 1st July, 1881	369	Date of Re-organization	650
Membership 31st Dec., 1881	1,019	Increase, 6 months	4,785
Membership 31st Dec., 1886	5,804	Increase, 5 years	26,499
Membership 31st Dec., 1891	32,303	Increase, 5 years	70,535
Membership 31st Dec., 1896	102,838	Increase, 5 years	70,535

THE INCREASES DURING 1896.

Increase in Benefits Paid	\$ 135,941 73
Increase in Assessment Income	228,932 00
Increase in Total Income	347,901 19
Increase in Net Assets	438,114 34
Increase in Surplus Funds	455,110 92
Increase in Assurance in Force	20,763,500 00

THE MEMBERS AND THEIR ASSURANCE

At 31st December Each Year.

Year.	Total Membership.	Assurance Carried.	Total Surplus.	Surplus per Capita.	Death Rate per 1000
1881	1,019	\$ 1,140,000	\$ 4,553 55	\$ 4 48	4.50
1882	1,134	1,276,000	2,997 93	2 61	11.00
1883	2,210	2,490,000	10,857 65	4 91	4.73
1884	2,558	2,923,000	23,081 85	9 02	4.23
1885	3,042	4,283,000	29,802 42	8 18	7.76
1886	5,804	6,764,000	53,981 28	9 30	4.85
1887	7,811	9,120,000	81,384 41	10 41	5.78
1888	11,800	13,714,000	117,821 96	9 98	6.43
1889	17,349	20,078,000	188,130 36	10 84	5.85
1890	24,604	28,498,000	283,967 20	11 54	5.18
1891	32,303	39,395,000	408,798 20	12 65	6.40
1892	43,024	53,243,000	580,597 85	13 49	6.25
1893	54,484	67,781,000	858,857 89	15 76	5.47
1894	70,555	86,506,500	1,187,225 11	16 94	5.47
1895	86,521	108,027,500	1,560,373 46	18 03	5.67
1896	102,838	128,791,000	2,015,484 38	19 60	5.50

For further Information, Literature, etc., apply to

ORONHYATEKHA, M.D., S.C.R.,
Toronto, Canada.

HON. D. D. AITKEN, S.V.C.R.,
Flint, Mich.

JOHN A. McCILLIVRAY, Q.C.,
Supreme Secretary,
Toronto, Canada.

A. E. STEVENSON, American Agent,
6340 Monroe Avenue, Chicago, Illinois.

JAMES MARSHALL, General Manager
for Great Britain,
24 Charing Cross, London, England.

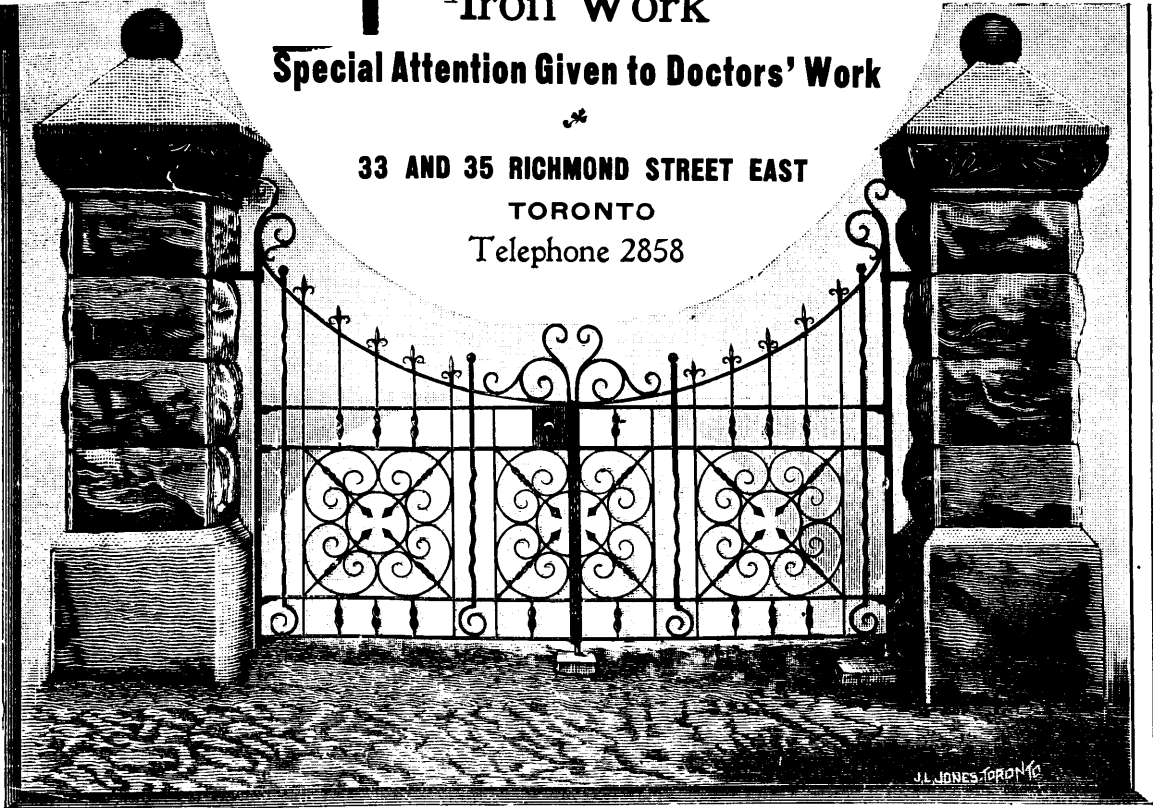
SHIPWAY
Iron and Bell Works

Electric Light Wiring
Bell Hangers Wire Work
Fire Escapes
Locksmiths Speaking Tubes

Iron Work

Special Attention Given to Doctors' Work

33 AND 35 RICHMOND STREET EAST
TORONTO
Telephone 2858



J.L. JONES TORONTO

Electricity

AND UP-TO-DATE



A few Bargains for May, June and July.

- Only \$8.75** for our Standard Milliamperemeter. Can be used with any Battery. Regular price, \$17.50.
 - Only \$30.00** for a Fine Wall Cabinet, with bevelled-plate glass in doors, Galvanic Circle, High Tension Coil, with adjustable Rheotome, Rheostat for Light, Pole Changer, Selecting Switches, etc. Others ask \$20.00.
 - Only \$18.50** for an Elegant Table Plate in highly polished Oak Case, bevelled-plate glass in cover, Galvanic Circle, High Tension Coil with Adjustable Rheotome, Pole Changer, etc. Others ask \$27.00 to \$35.00.
 - Only \$13.50** for a good Cauteury Battery.
 - Only \$4.50** for a Dry Cell Portable Faradic Battery, with large Coil, Indicator and adjustable rapid and slow Vibrator and full set of Electrodes. Regular price, \$10.00.
- Send 2-cent stamp for Catalogue of Faradic, Galvanic and Cauteury Batteries, Cabinets, X-Ray Machines, etc.

Electro-Medical Mfg. Co.,

Dept. 18.

S. E. Corner 59 and Wallace Streets,
CHICAGO, ILL.

INSTRUMENTS

We are not enthusiastic
about the



simply earnest.

We do not claim much, only that it is the

Best Bicycle Lamp on Earth.

ITS SUPERIORITY is shown in three principal points:

IT GIVES THE MOST LIGHT
STAYS ALIGHT IN SPITE OF WIND AND JAR
IS HANDSOME IN APPEARANCE

Send for circular or, better still, send \$2.50 which is the reasonable price at which we sell one, delivered anywhere.

R. E. DIETZ COMPANY

60 Laight Street

Established in 1840 in the Manufacture of Lamps and Lanterns. **NEW YORK CITY**

Beaver Line Royal Mail Steamships

Sailing weekly between MONTREAL, QUEBEC and LIVERPOOL, calling at Rimouski, and Moville, Ireland, each way to embark and land Passengers and Mails.



FROM LIVERPOOL.	STEAMERS.	FROM MONTREAL.
Saturday, May 21	Lake Ontario	Wednesday, June 8
Saturday, May 28	Lake Winnipeg	Wednesday, June 15
Saturday, June 4	Lake Huron	Wednesday, June 22
Saturday, June 11	Lake Superior	Wednesday, June 29
Saturday, June 18	Gallia	Wednesday, July 6

RATES OF PASSAGE.

FIRST CABIN—Single, \$50 to \$65. Return, \$100 to \$123.50, according to steamer selected.

SECOND CABIN—To Liverpool or London, \$34; return, \$65.75. To Glasgow, \$37.65; return, \$74.05. Belfast, \$35.25; return, \$69.25.

STEERAGE—To Liverpool, London, Glasgow, Londonderry and Belfast, \$22.50.

Steamers sail from Montreal, Wednesday morning; passengers may embark the evening previous after 8 o'clock if desired.

Passengers from Quebec embark Wednesday afternoon, and must apply to the Agents, G. M. Webster & Co., Dalhousie Street, not later than Wednesday morning for the time at which they are to embark.

Passengers from the Lower Provinces embark at Rimouski, Thursday morning, on arrival of Mail train, and those so desiring from Montreal and the West, can do so by taking the I.C.R. Mail Train leaving Grand Trunk Depot at 7.05 p.m. Wednesday.

SPECIAL RAIL RATES TO AND FROM ALL POINTS.

Agents:

D. W. CAMPBELL,
Manager,
18 Hospital Street, Montreal.

D. & C. MACIVER,
Managers,
Tower Building, Liverpool.

CHIONIA

THE HEPATIC STIMULANT

INDICATED IN

Diseases Caused by Hepatic Torpor.

Does not purge, per se, but under its use the Liver and Bowels gradually resume their normal functions.

DOSE—ONE TO TWO FLUID DRACHMS, THREE TIMES A DAY

PEACOCK'S BROMIDES

THE STANDARD SEDATIVE

INDICATED IN

Congestive, Convulsive and Reflex Neuroses

Absolutely uniform in purity and therapeutic power, produces clinical results which can not be obtained from the use of commercial bromide substitutes.

DOSE—ONE TO TWO FLUID DRACHMS, IN WATER, THREE TIMES PER DAY.

PEACOCK CHEMICAL COMPANY, St. Louis, Mo.

LYMAN KNOX & CO., Montreal and Toronto, General Agents for Canada

FOR A SUMMER CRUISE TAKE THE COAST LINE

To Mackinac

NEW STEEL
PASSENGER
STEAMERS



COMFORT,
SPEED
and SAFETY

The Greatest Perfection yet attained in Boat Construction—Luxurious Equipment, Artistic Furnishing, Decoration and Efficient Service.

To Detroit, Mackinac, Georgian Bay, Petoskey, Chicago

No other Line offers a panorama of 460 miles of equal variety and interest.

FOUR TRIPS PER WEEK BETWEEN

Toledo, Detroit and Mackinac

PETOSKEY, "THE SOO" MARQUETTE AND DULUTH.

LOW RATES to Picturesque Mackinac and Return, including Meals and Berths. Approximate Cost from Cleveland, \$17; from Toledo, \$14; from Detroit, \$12.50.

DAY AND NIGHT SERVICE BETWEEN

DETROIT AND CLEVELAND

Fare, \$1.50 Each Direction.

Berths, 75c., \$1. Stateroom, \$1.75.

Connections are made at Cleveland with Earliest Trains for all points East, South and Southwest, and at Detroit for all points North and Northwest.

Sunday Trips June, July, Aug., Sept., Oct. Only

EVERY DAY AND NIGHT BETWEEN

CLEVELAND, PUT-IN-BAY AND TOLEDO.

Send 2c. for Illustrated Pamphlet. Address
A. A. SOHANTZ, C. P. A., DETROIT, MICH.

Detroit and Cleveland Navigation Company.

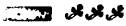
EVERY PHYSICIAN SHOULD HAVE A

Premo Camera

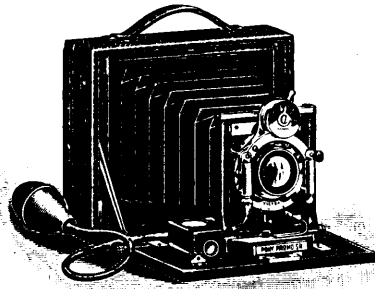
Records of interesting cases may be kept by means of photographs, which are easily made with a

Premo

We furnish complete instructions and guarantee success.



Write for Catalogue "P." . . .



Rochester Optical Co., - Rochester, N.Y.

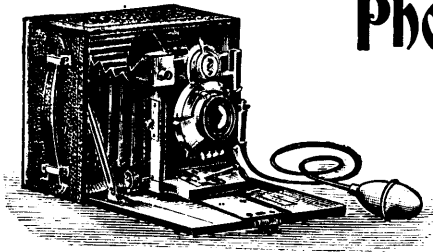
GUNDLACH OPTICAL CO.

OF ROCHESTER, N.Y.

Manufacturers of . . .

Photographic

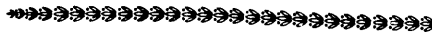
Apparatus



The only concern in the United States turning out a complete Camera, Lens and Shutter all of their own manufacture.

Our LENSES are world renowned. Our SHUTTERS lead.
Our CAMERAS are unsurpassed in workmanship or finish.

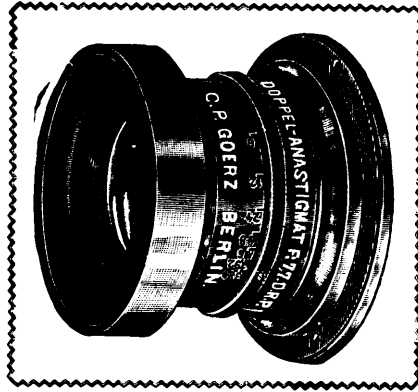
SEND FOR CATALOGUE.



GUNDLACH OPTICAL CO.

753 to 765 South Clinton Street, ROCHESTER, N.Y.

THE
LEADING MEMBERS
OF THE
MEDICAL PROFESSION
USE THE



Goerz Double Anastigmat Lenses

On account of their Microscopical Definition, Unequaled
Covering Power and Rapidity



Apply for Illustrated Catalogue and Prices to

C. P. GOERZ

52 Union Square East

MANUFACTORY IN BERLIN

NEW YORK

ENGLISH TAILORING.....

Messrs. Wacks Bros.

LEICESTER, ENGLAND

Have pleasure in notifying their friends in the Canadian Medical Profession that they are prepared to execute High-Class Bespoke Tailoring at Popular Prices. Patterns and Measurement Forms mailed free. ~~The Pattern attached is a sample of our SPECIAL SUITS.~~

GENTS' SUIT to measure, as Fig. 1, 2, or 3, - - \$10.00



FIG. 1
LOUNGE

THESE SUITS
ARE ALL
**PURE
WOOL**
GUARANTEED

**PURE
WOOL**
GUARANTEED



FIG. 2
REEFER

FROCK COAT SUIT, as Fig. 4, \$12.00

How to Obtain English Tailoring

Write us for Patterns and Measurement Form, stating height, and chest measurement **OVER THE VEST**; also style of garment required. We will cut and forward, with patterns, a linen coat to try on yourself. When replying inform us as to fit and style. We can correct pattern before cutting the cloth. By adopting this system we can guarantee **A PERFECT FIT**.

NOTE.—All garments are made in our own workshops by skilled English tailors. Coats lined best Italian Cloth and Sateen Sleeve Lining. Each suit is carefully packed and forwarded in separate box.

CUSTOM TARIFF

35 per cent. ad valorem.

A \$10.00 suit of clothes will cost the wearer \$3.50. Custom duties cannot be prepaid, but are collected on delivery.

FORWARDING

The cost of sending a suit of clothes (average 6 lbs.) by Parcel Post from our warehouse to any address in Ontario is 76c. But six suits sent to one address would only cost \$3.00.

Our Terms are Strictly Cash. Remittances must accompany the order.

REFERENCES—National Provincial Bank of England, Leicester.

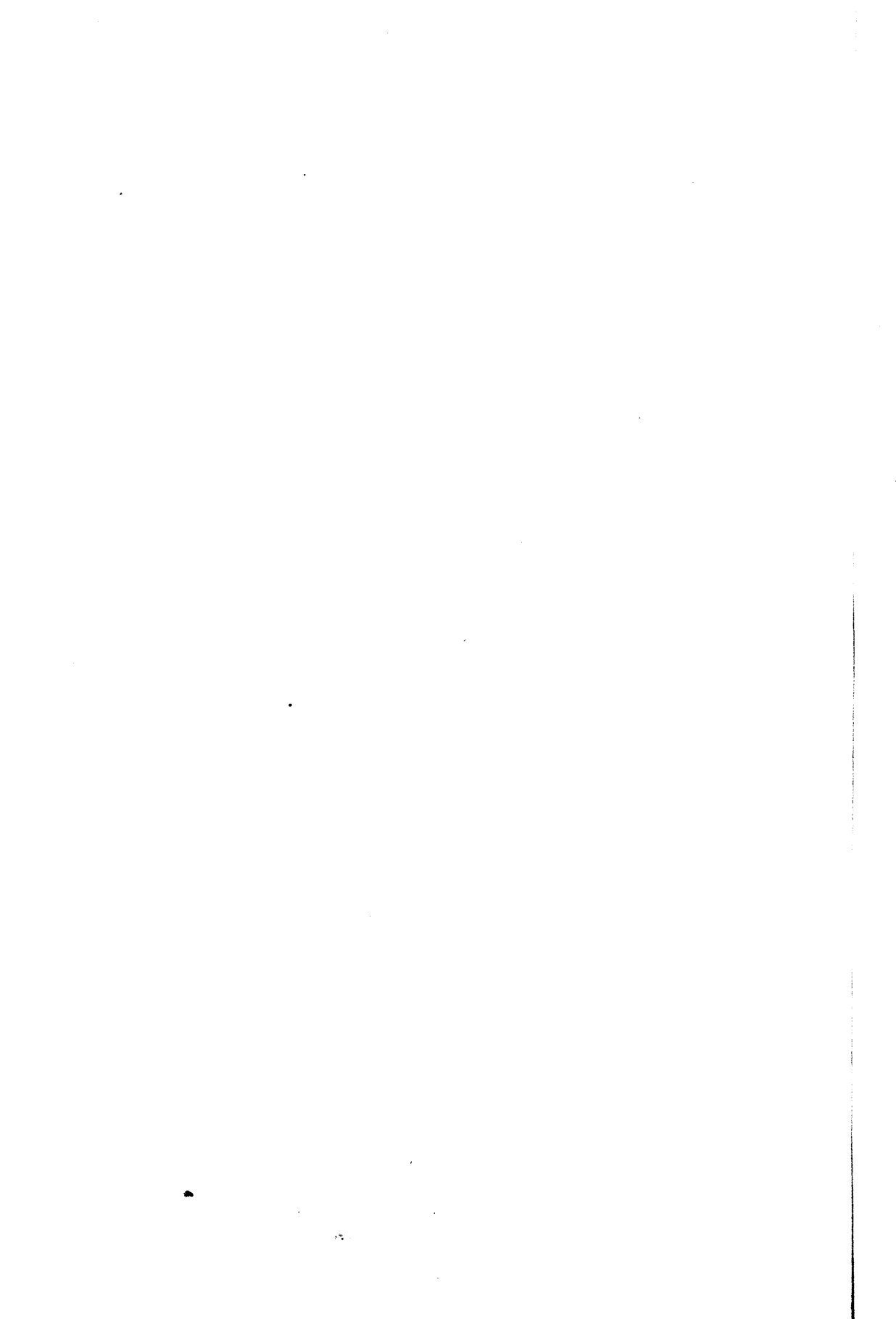


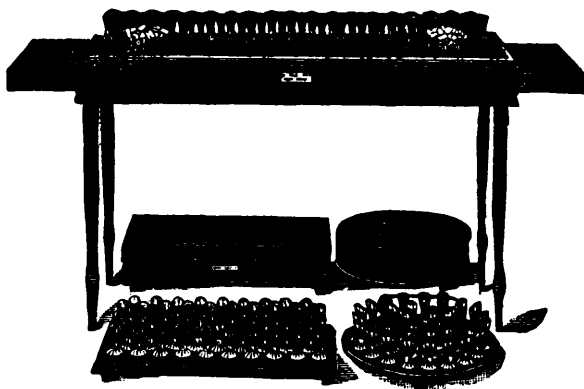
FIG. 4
FROCK COAT



FIG. 3
MORNING COAT

WACKS BROS., Manufacturers, - LEICESTER, ENGLAND





PHYSICIANS do not require to be told that the only hygienic method of administering the Sacrament is by the use of

INDIVIDUAL CUPS,

one being supplied to each and every person taking part in the celebration. Send for Illustrated Catalogue of Individual Cup Communion Service to

THE LEPAGE DOOR CHECK MANUFACTURING CO.

25 CUNNINGHAM AVENUE, TORONTO

NEW YORK SCHOOL OF CLINICAL MEDICINE

Clinical instruction to graduates in medicine at the school and at the various institutions with which the professors are connected. The school offers the following: 1.—Strictly limited classes, enabling each member to obtain personal instruction 2.—Members of classes act as assistants in the clinics, examine and treat patients, and perform operations under the direction of the professors.

PROFESSORS:

Surgery: CARL BECK, M.D.
Surgery: THOS. H. MANLEY, M.D.
Laryngology: T. W. BUSCHE, M.D.
Pediatrics: S. HENRY DESSAU, M.D.
Pediatrics: LOUIS FISCHER, M.D.
Gynecology: AUGUSTIN H. GOELET, M.D.

Dermatology: WM. S. GOTTHILF, M.D.
Ophthalmology: HENRY S. OPPENHEIMER, M.D.
Ophthalmology: FRANKLIN D. SKEEL, A.M., M.D.
Genito-Urinary Diseases: FERD. C. VALENTINE, M.D.
Dermatology: LUDWIG WEISS, M.D.
Practice of Medicine: A. P. ZAMANSKY, M.D.

This school of special instruction for practitioners of medicine and surgery is modeled upon the plans of the most successful European institutions, modified to suit the practical requirements of American physicians.

No didactic lectures are delivered. All teaching is individual.

Courses may be commenced at any time in classes that are not filled.

The classes are no larger than will allow each member to personally treat as many patients as he possibly can.

The members of classes act as assistants and operate under the guidance of their teachers. Special attention is given to the most modern methods of diagnosis and treatment of the cases which the practitioner encounters daily.

The satisfactory results obtained obliges the school to continually increase its teaching facilities, as will be announced from time to time.

For further particulars, address:



FERD. C. VALENTINE,

328 West 42nd Street, NEW YORK.

Sec'y N.Y. School of Clinical Medicine.

When writing advertisers, please mention THE CANADIAN JOURNAL OF MEDICINE AND SURGERY.

NEW YORK POLYCLINIC MEDICAL SCHOOL AND HOSPITAL

A CLINICAL SCHOOL FOR GRADUATES
IN MEDICINE AND SURGERY ❀ ❀ ❀ ❀

THE New York Polyclinic is a school for teaching graduates the most recent methods of diagnosis and treatment in every department of medicine. The clinical material is abundant and the Hospital wards adjoin the lecture-rooms. Since the fire in 1896 a new building has been erected and thoroughly equipped and the Institution is now prepared to offer better facilities than ever. Students may enter at any time.

FACULTY

SURGERY.—Robert H. M. Dawbarn, M.D., George R. Fowler, M.D., W. W. Van Arsdale, M.D., John A. Wyeth, M.D., W. R. Townsend, M.D., James P. Tuttle, M.D.

MEDICINE.—Isaac Adler, M.D., Wm. H. Katzenbach, M.D., R. C. M. Page, M.D., W. W. Van Valzah, M.D.

GYNÆCOLOGY.—J. Riddle Goffe, M.D., Florian Krug, M.D., Paul F. Munde, M.D., Wm. R. Pryor, M.D., W. Gill Wylie, M.D.

DISEASES OF CHILDREN.—L. Emmett Holt, M.D., August Seibert, M.D.

DERMATOLOGY.—Ed. B. Bronson, M.D., Andrew B. Robinson, M.D.

OPHTHALMOLOGY.—Wilbur B. Marple, M.D., David Webster, M.D.

LARYNGOLOGY AND RHINOLOGY.—Morris J. Asch, M.D., D. Bryson Delavan, M.D., Joseph W. Gleitsmann, M.D.

OTOLOGY.—Robert C. Myles, M.D., Oren D. Pomeroy, M.D., J. E. Sheppard, M.D.

DISEASES OF THE MIND AND NERVOUS SYSTEM.—Landon Carter Gray, M.D., E. Sachs, M.D.

OBSTETRICS.—Edward A. Ayers, M.D.

For further information apply to **W. R. TOWNSEND, M.D., Secretary,**
214 to 218 East 34th Street, New York City.

Detroit College of Medicine

SEPARATE
DEPARTMENTS OF

Medicine,
Pharmacy,
Dentistry,
Veterinary Surgery

Thorough Courses and complete equipments in all departments.

Excellent corps of teachers.

Hospital and clinical facilities unsurpassed.

Send for Catalogues to

H. O. Walker, M.D.
Secretary

Detroit, Mich.

POST-GRADUATE COURSE.

McGILL UNIVERSITY, Montreal.

FACULTY OF MEDICINE.

The third special short course of instruction for general practitioners has been arranged by the members of the Faculty of Medicine of McGill University. This course begins **Tuesday, May 3rd, and closes June 11th, 1898.** It will consist of:

(A) Evening Lectures

Four per week on the recent advances in Medicine and Surgery, by Professors Wm. Gardner, Roddick, Stewart, Shepherd, Bell, Wilkins, Adami, Lafleur, Finley, Armstrong and others.

(B) Regular General Clinics

Four per week on groups of cases in the Montreal General Hospital Medical Wards, by Professors Blackader and Lafleur; in the Surgical Wards by Professor Shepherd and Dr. Elder.

In the Royal Victoria Hospital Medical Wards by Professor Stewart and Dr. Martin; in Surgical Wards by Professor Bell and Dr. Garrow.

(C) Regular Clinics on Special Departments of Medicine and Surgery

Ophthalmology in the Royal Victoria Hospital, by Professor Buller; in the Montreal General Hospital, by Dr. J. Gardner; Dermatology, Professor Shepherd; Genito-Urinary Surgery, Professor Bell; Orthopedics, Dr. C. W. Wilson; Laryngology, Professor Birkett; Gynæcology, Professor Wm. Gardner and Dr. Webster in the Royal Victoria Hospital, and Dr. Lockhart in the Montreal General Hospital; these will be given once or twice a week.

(D) Special Demonstrations

One or more as required, on Modern Treatment of Diphtheria, Professor Finley; Pelvimetry and Aseptic Midwifery (at Montreal Maternity Hospital), Professor J. C. Cameron; Mental Diseases (at Verdun Asylum), Dr. T. J. W. Burgess; Medico-Legal Autopsy Methods, etc., Dr. Wyatt Johnston; Clinical Use of Roentgen Rays, Professor Girdwood.

(E) Laboratory Courses

For which a small extra fee will be charged to cover cost of material. These courses will include Operative Surgery, Professor Armstrong; Clinical Bacteriology, Professor Adami; Clinical Microscopy of Dejecta and Blood, Dr. J. C. Martin; Clinical Chemistry, Professor Ruttan; and Post-mortem Methods, Dr. Wyatt Johnston, etc.

(F) Laboratory Demonstrations

On the Physiology of Morbid Anatomy, Professor Adami; Medical and Surgical Anatomy, Dr. McCarthy; Microscopical Methods, by Dr. Gunn; Urinalysis, Professor Ruttan; Serum Therapy, Serum Diagnosis of Typhoid, etc., Drs. Wyatt Johnston and Martin.

The morning of each day will be devoted to demonstrations in the College and Special Clinics. The afternoons to the Hospitals.

The above course of instruction is given wholly apart from the regular Lectures, Clinics, etc., for undergraduates in Medicine.

The Fee for the Full Course, including Hospital Fees	-	\$50 00
The Fee for the Course of Twenty-four Lectures alone (Evenings)	-	\$10 00
For Any Set of Six Lectures	-	\$5 00

Practitioners who purpose attending this Course may obtain time-tables and fuller details on application after end of March, to

Professor R. F. Ruttan, M.D.,
Registrar, Faculty of Medicine.

"MANITOU"

The accompanying analysis was made by Professor Elwyn Waller, Ph.D., Analytical Chemist, New York. Medical men will at once see what a valuable therapeutic agent MANITOU water will prove in cases of rheumatic diathesis, dyspepsia and liver and kidney complaints. *The Medical Profession are respectfully asked to examine the merits of this water and recommend it in suitable cases.*

Absolutely natural, and the only water on the American Continent bottled recharged solely with its own gas.

ANALYSIS

Sodium Chloride	2.983
Potassium Sulphate	1.336
Sodium Sulphate	1.268
Sodium Bicarbonate	8.056
Lithium Bicarbonate	0.162
Calcium Bicarbonate	13.989
Magnesium Bicarbonate	3.624
Iron Oxide	0.003
Alumina	0.009
Silica	0.312

31.752

SWAN BROS., 162-164 KING ST. EAST

PHONE NOS., 937 - 1818.

TORONTO, ONT.

DOCTOR

SEND FOR SAMPLE COPY

Your library is not complete without the HYPNOTIC MAGAZINE. Cost of this handsome monthly, including premium book on SUGGESTIVE THERAPEUTICS, is only One (\$1.00) a year.

THE PSYCHIC PUBLISHING CO., 56 5th Avenue Chicago.

VACCINE VIRUS PURE AND RELIABLE ANIMAL VACCINE LYMPH. FRESH DAILY.
10 IVORY POINTS, - \$1.00 10 QUILL SLIPS, - \$1.00.
Orders by Mail or Telegraph Promptly Despatched.

NEW ENGLAND VACCINE CO. - Chelsea Station, BOSTON, MASS.
WM. C. CUTLER, M.D. J. F. FRISBIE, M.D.

Send for Variola-Vaccina—60 Page New Illustrated Pamphlet Mailed Free.

A. MACDONALD,

Custom Work a Specialty.

N.B.—I have in the past done a large trade with the medical men, and will be most pleased to have them call upon me in the future. They will find my prices right.

.. Merchant Tailor ..

355 Yonge Street, Toronto.

We direct the attention of the Medical Profession to . . .

COWAN'S

HYGIENIC

... COCOA

specially useful for convalescing . . . patients . . .

ONTARIO

Vaccine Farm

ESTABLISHED 1885

Pure and Reliable Vaccine Matter always on hand. Orders by mail or otherwise promptly filled.

10 Ivory Points, \$1.00; 5 Ivory Points, 65 cts.; single Points, 20 cts.

Address all orders: VACCINE FARM, A. STEWART, M.D. Palmerston, Ont.

ROBERT ELDER

Cor. Soho and Phoebe Sts.,
..... TORONTO

Carriage Builder

TELEPHONE 1776

Will the members of the Medical Profession call and give me a trial?

DOCTORS' Horses boarded and carefully looked after.

All Traps kept in separate barn, away from ammonia. *

* Night Carriages FOR PHYSICIANS' USE a specialty.

GERRARD ST. LIVERY,

PHONE 2736

208 GERRARD ST. E. TORONTO.

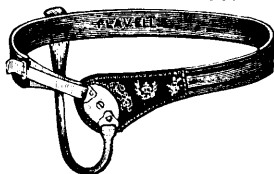
FLAVELL'S Elastic Trusses

FITTED WITH OUR
CELEBRATED
Pneumatic Pads

Can be worn day and night with comfort and ease, which is quite an advantage to be sought for in all cases of rupture, as a cure can be effected if truss is worn at all times.

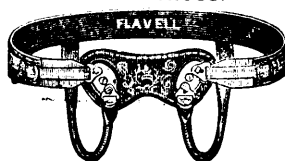
WE SOLICIT THE PHYSICIANS' PATRONAGE DIRECT.

ELASTIC TRUSS.



DIRECTIONS FOR ORDERING.—Give circumference of abdomen on the line of rupture. State if for Single or Double, Right or Left.

ELASTIC TRUSS.



25 % Discount to
Physicians.

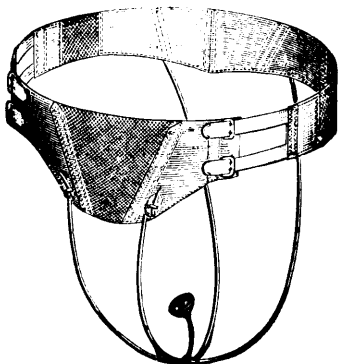
SINGLE TRUSSES.

	Adult's 28 to 42.	Youth's 22 to 28.	Child's 12 to 21
A, Plain - each,	\$3.00	\$2.00	\$1.50
B, Fine - "	3.50	2.50	1.75
C, Silk - "	4.00	3.00	2.00

DOUBLE TRUSSES.

	Adult's 28 to 42.	Youth's 22 to 28.	Child's 12 to 21
A, Plain - each,	\$5.00	\$3.00	\$2.50
B, Fine - "	6.00	4.00	3.00
C, Silk - "	7.00	5.00	4.00

FLAVELL'S IMPROVED UTERINE SUPPORTER



\$4.00

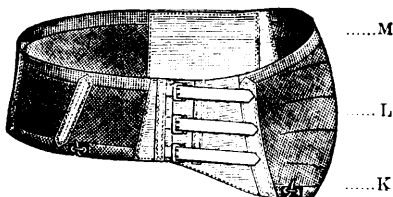
SATISFACTION ASSURED.

DIRECTIONS FOR ORDERING.—Give circumference of abdomen 2 inches below the navel, and state if for Prolapsus, Anteversion or Retroversion.

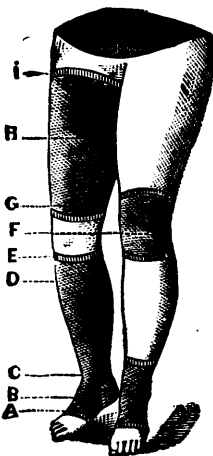
Flavell's Abdominal Supporters

DIRECTIONS FOR MEASUREMENT.

Please give exact circumference of body at K. L. M.



Silk Elastic - - - each, \$5.00
Thread Elastic - - - " 3.50



ELASTIC STOCKINGS, ETC.

	Stout Silk—Each.	Fine Silk—Each.	Thread—Each
Stocking from A to E	\$3.50	\$3.00	\$2.00
" " A to G	6.00	5.00	3.50
" " A to I	8.00	7.50	6.00
Knee Cap from E to G	2.50	2.00	1.50
Legging " C to E	2.50	2.00	1.50
Anklet " A to C	2.50	2.00	1.50

Directions for Measurement.—Give exact circumference and length in all cases. We allow for expansion.

25 % Discount to Physicians.

GOODS SENT BY MAIL UPON RECEIPT OF PRICE

.. Safe Delivery Guaranteed ..

G. W. FLAVELL & BRO., Manufacturers
1005 Spring Garden Street * PHILADELPHIA, PA.

WHEELER'S TISSUE PHOSPHATES

Wheeler's Compound Elixir of Phosphates and Calisaya.

A Nerve Food and Nutritive Tonic for the treatment of Consumption, Bronchitis, Aromatic Cordial, acceptable

Scrofula, and all forms of Nervous Debility. This elegant preparation combines in an agreeable Acid, and the active Principles of Calisaya and Wild Cherry.

The special indication of this combination of Phosphates in Spinal Affections, Caries, Necrosis, Ununited Fractures, Marasmus, Poorly Developed Children, Retarded Dentition, Alcohol, Opium, Tobacco Habits, Gestation and Lactation, to promote Development, etc., and as a physiological restorative in Sexual Debility, and all used-up conditions of the Nervous System, should receive the careful attention of good therapeutists.

NOTABLE PROPERTIES.—As reliable in Dyspepsia as Quinine in Ague. Secures the largest percentage of benefit in Consumption and all Wasting Diseases, by determining the perfect digestion and assimilation of food. When using it, Cod Liver Oil may be taken without repugnance. It renders success possible in treating chronic diseases of Women and Children, who take it with pleasure for prolonged periods, a factor essential to maintain the good-will of the patient. Being a Tissue Constructive, it is the best general utility compound for Tonic Restorative purposes we have, no mischievous effects resulting from exhibiting it in any possible morbid condition of the system.

Dose. For an adult, one tablespoonful three times a day, after eating; from seven to twelve years of age, one dessertspoonful; from two to seven, one teaspoonful; for infants, from five to twenty drops, according to age.

Prepared at the Chemical Laboratory of T. B. WHEELER, M.D., Montreal, P.Q.

To prevent Substitution, put up in Pound Bottles only and sold by all Druggists at One Dollar.

READ THE PAMPHLET SENT YOU

GEORGETOWN UNIVERSITY

MEDICAL DEPARTMENT

Forty-eighth Session opens October 4, 1897, and will continue until May 12, 1898. Instruction is given by lectures, recitations, clinical teaching, and practical demonstrations. In the subjects of Anatomy, Chemistry, Physiology, Hygiene, Histology, Pathology, and Bacteriology special practical instruction is given in well-equipped laboratories. Excellent and ample clinical facilities are furnished. For annual announcement, address the Dean,

G. L. MAGRUDER, M.D., 815 Vermont Avenue, Washington, D.C.

H. M. STEVENSON



" BRILLIANT
SIGN LETTER "

Practical Sign Writer—White Enamel Letters—Estimates furnished on all kinds of Glass, Wood and Brass Signs, Wire Screens, etc.

N.B.—As the Brilliant Letters are especially adapted for Physicians' use, I wish to draw the attention of the profession to them, and will be pleased to call on receipt of message by telephone or mail.

PHONE, 2356.

46 Adelaide Street East, TORONTO

The Federal Life Assurance Co.

HEAD OFFICE: HAMILTON, ONT.

Guaranteed Capital, - - - \$700,000.00.

Amount Assured - - - \$11,000,000.00

Surplus Security to Policy-holders \$704,141.26

Returned to Policy-holders over 750,000.00

Most Liberal Policies. Age having been admitted, there is NO CONDITION but payment of Premiums after the First Year. Inquire for the "Accumulation Policy," the "Compound Investment Policy," or the "Guaranteed Four-per-cent. Insurance Bond."

JAS. H. BEATTY,
(North-West Transportation Line)
President.

DAVID DEXTER,
Managing Director.

When writing advertisers, please mention THE CANADIAN JOURNAL OF MEDICINE AND SURGERY.

DOCTOR!! Do you want a good Smoking Tobacco?
If so, try

OLD GOLD...



Virginia Flake Cut

Smoking
Tobacco

W. S. KIMBALL & CO.,
Rochester, N. Y., U.S.A.

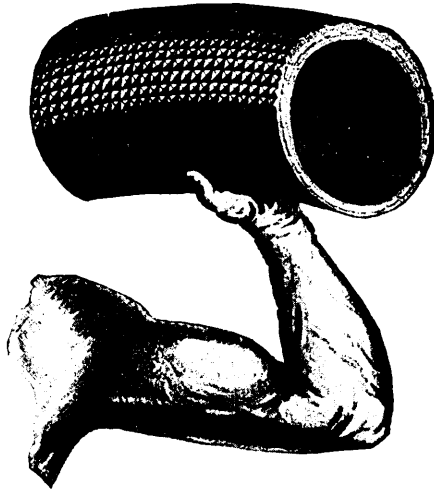
17 First Prize Medals.

Samson New York

TIRES

RIDE

**Rapidly
Restfully
Resiliently**



Write for Catalogue.

NEW YORK TIRE CO.
50 Wellington Street West
TORONTO, ONT.

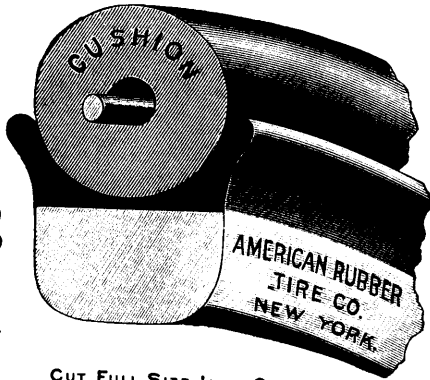
Important to Physicians.

**CUSHION
RUBBER**

CARRIAGE TIRES

Specially adapted
to the
Busy
Physician's
Use and Comfort

Guaranteed for
One Year



Applied to old or new wheels. FIVE SIZES, 3, 3.1, 12, 11, - will last THREE YEARS, guaranteed for one year. Apply to our New York factory or to our licensees in all principal cities.

Also the Best Pneumatic, and the Celebrated Non-Creeping Solid Rubber Tires.

SEND FOR CATALOGUE
AND PRICE LIST

AMERICAN RUBBER TIRE CO.

131 West 38th Street, Cor. Broadway, New York

Fascinating
as Fiction

Dramatists
Nov lists

GREATEST WORK OF THE AGE

THE LIBRARY OF ❁ ❁ ❁ ❁

Historic Characters and Famous Events

OF ALL NATIONS AND ALL AGES ❁ ❁

Edited by AINSWORTH R. SPOFFORD
Of the National Library, Washington

Assisted by PROF. J. P. LAMBERTON, of Philadelphia,
and FRANK WEITENKAMPF, of the Astor Library, N.Y.

Two Thousand Volumes Condensed into Ten.

The work is rich with beautiful illustrations, including one hundred full page photogravures, and many engravings scattered through the text

THE BUSY MAN OF AFFAIRS

finds a refreshing relief from former readings of ponderous encyclopedias and other historical works in the Library of Historic Characters and Famous Events of All Nations and All Ages.

FOR THE TEACHER

possessing the Library of Historic Characters and Famous Events of All Nations and All Ages there is a fund of valuable data, presented in convenient, concise and complete form, that gives an exceptional equipment for instruction in the study of the lives of the world's famous men and women.

THE STUDENT

who has access to the Library of Historic Characters and Famous Events of All Nations and All Ages is entertained as well as instructed by the pleasing variety and great literary merit of this work.

WITH THE CHILD AT HOME

the Library of Historic Characters and Famous Events of All Nations and All Ages acts as a powerful magnet, drawing him unconsciously from cheap and valueless literature to the absorbing stories of the great characters whose words and deeds have left their impress upon the history of the world.

THIS work is of special value to the Physician who does not have the time or opportunity to keep himself posted on what has been done to make the world what it is to-day.

For full Particulars address

VIRTUE & CO.

10 Adelaide St. East, Toronto.

NOTE.—We have made arrangements with the Agents for Canada whereby subscribers to this Journal will be given special prices and terms.

Conquerors
Warriors

Statesmen
Patriots

12th YEAR.

R. L. POLK & CO.'S

MEDICAL AND SURGICAL REGISTER

OF THE UNITED STATES AND CANADA

THIS IS POSITIVELY THE ONLY

NATIONAL

MEDICAL DIRECTORY PUBLISHED

Embraces names of over 112,000 Physicians, with College of Graduation, list of Colleges, Societies, Boards of Health, Journals, Mineral Springs, Hospitals, Sanitariums, Asylums and other Medical Institutions; also Medical Laws of each State.

BELLEVUE HOSPITAL MEDICAL COLLEGE,
NEW YORK.

MESSRS. R. L. POLK & CO.

DEAR SIRS.—Your "Medical and Surgical Directory" we find almost invaluable. It should be in the hands of every physician in active practice, especially in the hands of physicians who are much called in consultation or who have extensive professional correspondence. I have been surprised to find so few errors and omissions. I write now to ask whether you have received sufficient encouragement from the sale of the book to justify you in publishing corrected editions each year. . . . Yours respectfully,

AUSTIN FLINT, M.D.,

Secretary of Faculty, Bellevue Hospital Medical College.

We have hundreds of similar letters from leading physicians of the United States.

Physicians who have not given their names to our canvassers for insertion in the Register are requested to send them to R. L. POLK & CO., Detroit, Mich., immediately.

R. L. POLK & CO., Publishers,

NEW YORK,

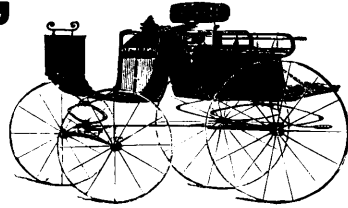
CHICAGO,

BALTIMORE,

DETROIT.

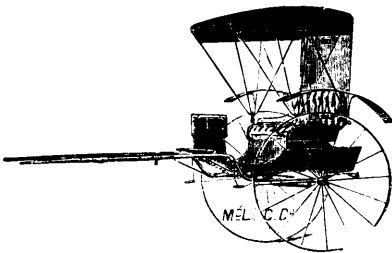
PHYSICIANS'

Phaetons Stanhopes



ABERDEEN

And a Special Physician's Phaeton and Cart.



ORIOLE

Open and Top Buggies

Now on Hand.

MANUFACTURED from the very best selected stock, and upholstered in West of England cloth or hand buffed leather to suit the purchaser. A visit to my warerooms would convince the profession as to the value of my stock. Cheapness and durability guaranteed.

The McLaughlin Carriage a Specialty.

J. H. KENNEDY CARRIAGE WAREROOMS

567 Queen Street West, Toronto, Can.

When writing advertisers, please mention THE CANADIAN JOURNAL OF MEDICINE AND SURGERY.

THE NEW ANTISEPTIC OINTMENT



STYRA-PHENOL

Can be had from your Wholesale Druggist
in ½, 1, 2, 4, and 8 oz. Pots.

EVANS & SONS

WHOLESALE CHEMISTS.

Canadian Agents.



G. R. RENFREW & CO.

FURRIERS TO . . .
HER MAJESTY THE QUEEN

Are now showing a complete stock of

FUR-LINED GARMENTS
SEAL SKIN, PERSIAN LAMB



and
GREY KRIMER JACKETS
GAUNTLETS, MUFFS
RUFFS, STORM COLLARS
CAPERINES

Doctors' Fur and Fur-Lined Overcoats.

PRICES VERY MUCH REDUCED NOW.

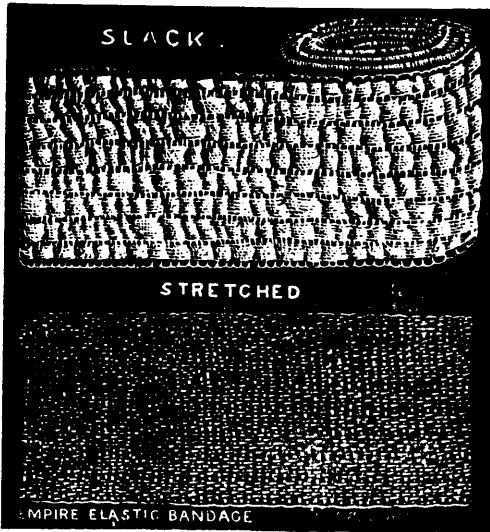
o o

G. R. RENFREW & CO.

5 King Street East,

***TORONTO.

35 and 37 BUADE STREET, QUEBEC.



The Empire Elastic Bandage

SPECIALLY ADAPTED FOR VARICOSE VEINS.

We invite the attention of the Medical and Surgical Profession to the various merits combined in our Bandages:

1st. ITS POROSITY—the greatest in the "Empire." It never causes itching, rash, or ulceration under the bandage.

2nd. ITS ELASTICITY, which will enable the surgeon or nurse to put it on at any required tension, and which will follow a swelling up and down, as the case may be, a feature unknown to any other bandage.

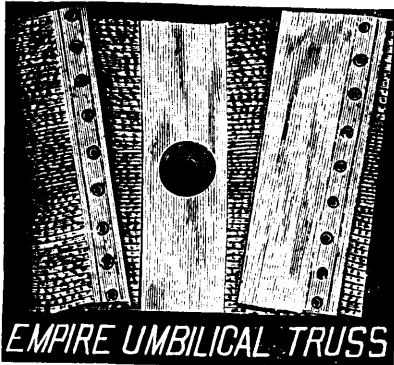
3rd. ITS ABSORBENT PROPERTIES—greatest in the "Empire."

4th. ITS EASY APPLICATION to any part of the body, not being necessary to fold over as with other bandages, as it follows itself with equal uniformity around any part of the abdomen.

5th. ITS SELF-HOLDING QUALITIES. No bother with pins, needle or thread, or string, so tiresome to surgeons, as simply tucking the end under the last fold insures its permanent stay until its removal for purposes of cleanliness.

6th. The only Bandage that is SUPERIOR TO THE ELASTIC STOCKING for varicose veins.

Send \$1.00 for 3 in. by 5 yds. Bandage on approval.



EMPIRE UMBILICAL TRUSS

As an Abdominal Supporter with Button Inserted at the Navel.

Is made of the same material, and possesses the same merits as the Empire Elastic Bandage and Abdominal Supporters, and is pronounced by all who have seen it to be the BEST IN THE WORLD. All of our goods are sent free by mail upon receipt of price, and money refunded if not satisfactory.

Infants, \$1.25. Children, \$2.50. Adults, \$4.00.



THE EMPIRE ABDOMINAL SUPPORTER

Is superior to all others for the following reasons :

1st. It adapts itself to every movement of the body, giving strong and even support.

2nd. It produces warmth without irritation or sweating, as it is perfectly ventilated.

3rd. In pregnancy, corpulency, tumors, or other cases of enlargement of abdomen, it supports weight of body from the backbone, relieving the sinews of their overwork.

4th. Its easy appliance (lace and drawn on over head or feet).

5th. It is cheap; durable. It can be washed when soiled, proper care being taken to cleanse it in lukewarm water and dry in the shade.

In ordering give the measure of the abdomen.

PRICES:

Six inches wide.....	\$2 00
Eight inches wide.....	2 50
Eleven inches wide.....	3 00
Twelve inches wide (double rubber).....	4 00

Manufactured by

The Empire Manufacturing Co.

43 SPRING STREET,

LOCKPORT, N. Y., U. S. A.



Everett House

UNION SQUARE,
NEW YORK CITY

Most centrally situated—charming exposure overlooking Union Square Park.

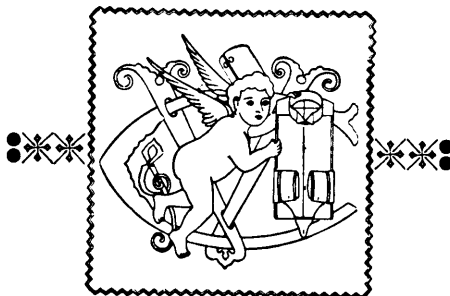
A Hotel of established reputation, enjoying a patronage of the highest class who appreciate comfort, completeness of detail and individual attention.

European plan. Popular prices.

B. L. M. BATES, Prop.

We Know How

AND WE DO IT



Our Celebrated Finish on Linen has made us the LEADING LAUNDERERS IN CANADA

OUR MOTTO:

GOOD WORK, PROMPT DELIVERY

The Parisian Steam Laundry Company

OF ONTARIO, LIMITED

67 Adelaide Street, W., - - TORONTO

PHONE 1127

E. M. MOFFATT, Manager

THE BABY'S DIGESTION

IS the source of most of its troubles. A little baby is mainly a small machine for the transformation of food into flesh. If the food is of the right sort there is usually no trouble. A doctor's chief concern is in getting a palatable food that will digest easily. It's easy to get if you start right. Start with

RIDGE'S FOOD

It is a complete diet in itself. It does not depend on milk to make it nutritious. It has to be prepared, but the results are always good. It has no effect on the bowels—neither laxative nor astringent. It is merely a food, but it is the best food. It digests easily, is readily assimilable and makes sound, healthy flesh. If you are not familiar with it we will be glad to send you a sample can with some literature.

WOOLRICH & CO., Palmer, Mass.

CANADIAN MEDICAL PRACTICE OFFICE.

If You Want To **BUY** OR **SELL** A Medical Practice

SEND FOR OUR PLAN, ENCLOSING STAMP - - ALWAYS ABOUT 20 TO CHOOSE FROM

See Saturday's "Globe" each week under "Business Chances" for interim offers.

DR. HAMILL, 88 Yonge Street, TORONTO

When writing advertisers, please mention THE CANADIAN JOURNAL OF MEDICINE AND SURGERY.



THE ARLINGTON,

Toronto's Favorite Hotel. Under entirely new and liberal management. Newly furnished and decorated. Its bright rooms render this the most comfortable hotel in Toronto. Rates, \$2.00 to \$3.00 per day.

C. J. BEACHAM, Manager.

Medical Men can recommend them

DR. JIM  

**Best 5c. Cigar on the
Canadian Market**

Made from pure, wholesome tobacco.
Only the highest grade of leaf used.
Equal to the ordinary 10-cent cigar.

CECIL  **A**
RHODES **10c.**
Cigar

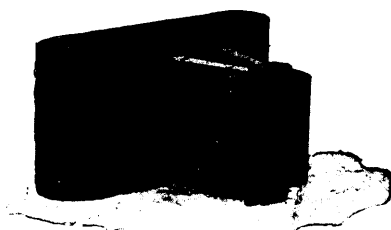
Unsurpassed in flavor and excellence.
Made from the finest grade of Havana
leaf. Imported specially.

The Druggists make a specialty of these brands

THE CANADIAN CIGAR CO.

Toronto, Ontario

Folding



1½ INCHES THICK.
MAKES PICTURES 2¼ X 3¼ INCHES.

Pocket Kodak

So shaped as to go into the pocket without inconvenience, so light as to be no trouble when there, using light-proof film cartridges with which it can be loaded in daylight and withal capable of making beautiful pictures 2¼ x 3¼ inches, the Folding Pocket Kodak is the embodiment of photographic daintiness and utility.

The shape of the picture is artistic and the quality perfect, because the lenses are perfect. These lenses have a fixed focus, are strictly achromatic, have wonderful depth and definition, and every one must undergo the most rigid tests by our own inspector. Every lens with the slightest imperfection is unhesitatingly discarded.



PUT A KODAK
IN YOUR POCKET

The shutter is a marvel of simplicity. It is always set, and snap shots are made by a simple downward pressure on the exposure lever; time exposures are made by touching another lever once to open and again to close the shutter. The shutter has a set of three stops and there are two finders one for vertical and one for horizontal exposures.

Made of Aluminum, covered with fine black morocco with buffed brass fittings.

Price, Folding Pocket Kodak with fine achromatic lens, \$10.00
Light-Proof Film Cartridge, 12 exposures, 2¼ x 3¼40

Kodaks, \$5.00 to \$25.00.

Catalogues free at agencies or by mail.

No Camera is a Kodak
unless manufactured by
the Eastman Kodak Co.

EASTMAN KODAK CO.

Rochester, N.Y.

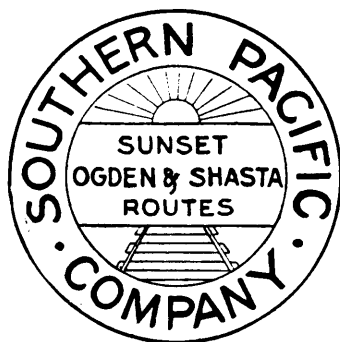
**CALIFORNIA, ARIZONA, NEW MEXICO
AND OREGON.**

**The Southern Pacific
Company**

OFFERS THE
CHOICE OF



**THREE
ROUTES**



Via
CHICAGO
or
CINCINNATI

First-class Pullman and Tourist Sleeping Cars by either route.
Best First and Second Class Service to

LOS ANGELES, SAN FRANCISCO
AND POINTS IN
LOUISIANA, TEXAS, ARIZONA
AND NEW MEXICO

For maps, time tables and further information pertaining to rates,
route and service, apply to

W. G. NEIMYER, G.W.A.,
Chicago, Ill.

S. F. B. MORSE, G.P.A.,
New Orleans, La.

W. J. BERG, T.P.A.,
Room 220 Ellicott Sq., Buffalo, N.Y.

E. HAWLEY, A.G.T.M.,
343 Broadway, New York.

STAND ON THEIR MERITS

CHLORIDE OF SILVER DRY CELL BATTERIES

IF INTERESTED
SEND 5¢ IN STAMPS FOR
NO. 8 ILLUSTRATED CATALOGUE
THE HANDSOMEST AND MOST
COMPREHENSIVE EVER ISSUED

The Chloride of Silver Dry Cell Battery Co.
BALTIMORE, MD. U.S.A.



VICHY — CELESTINS

Property French Republic

Bottled under the direct supervision of the FRENCH GOVERNMENT.
Not equalled in the world for medicinal use.
Known for many centuries as the BEST and STRONGEST Natural Alkaline Waters.

Promote more active endosmose, neutralize and wash out of the system all incompletely burnt bodies.

To give the name of Vichy water to a mere solution of bicarbonate of soda is as great an abuse of language as to give the name of wine to a mixture of cream of tartar, alcohol, and mineral salts which wine furnishes when analysed.

Drink from the **natural spring**, says Sir Henry Thomson, F.R.C.S., London.

**None Genuine
in Bulk or
Siphons.**

TO AVOID DISAPPOINTMENT, PLEASE SPECIFY THE NAME CÉLESTINS.
General Agency, 220 Broadway, New York.

Syr. Hypophos. Co., Fellows

Contains the Essential Elements of the Animal Organization—Potash and Lime;

The Oxidizing Agents—Iron and Manganese;

The Tonics—Quinine and Strychnine;

And the Vitalizing Constituent—Phosphorus; the whole combined in the form of a Syrup with a Slightly Alkaline Reaction.

It Differs in its Effects from all Analogous Preparations; and it possesses the important properties of being *pleasant to the taste, easily borne by the stomach, and harmless under prolonged use.*

It has Gained a Wide Reputation, particularly in the treatment of Pulmonary Tuberculosis, Chronic Bronchitis, and other affections of the respiratory organs. It has also been employed with much success in various nervous and debilitating diseases.

Its Curative Power is largely due to its stimulant, tonic and nutritive properties, by means of which the energy of the system is recruited.

Its Action is Prompt; it stimulates the appetite and the digestion, it promotes assimilation and it enters directly into the circulation with the food products.

The prescribed dose produces a feeling of buoyancy and removes depression and melancholy; hence the preparation is of great value in the treatment of mental and nervous affections. From the fact, also, that it exerts a double tonic influence, and induces a healthy flow of the secretions, its use is indicated in a wide range of diseases.

NOTICE—CAUTION.

The success of Fellows' Syrup of Hypophosphites has tempted certain persons to offer imitations of it for sale. Mr. Fellows, who has examined samples of several of these, finds that no two of them are identical, and that all of them differ from the original in composition, in freedom from acid reaction, in susceptibility to the effects of oxygen when exposed to light or heat, in the property of retaining the strychnine in solution, and in the medicinal effects.

As these cheap and inefficient substitutes are frequently dispensed instead of the genuine preparation, physicians are earnestly requested, when prescribing the Syrup, to write "Syr. Hypophos., Fellows."

As a further precaution, it is advisable that the Syrup should be ordered in the original bottles; the distinguishing marks which the bottles (and the wrappers surrounding them) bear, can then be examined, and the genuineness—or otherwise—of the contents thereby proved.

Medical Letters may be addressed to—

MR. FELLOWS, 48 Vesey Street, NEW YORK.

When writing advertisers, please mention THE CANADIAN JOURNAL OF MEDICINE AND SURGERY.