$3.00 PER ANNUM

50.¢ PER COPY

THE HOSPITAL WORLD

THE OFFICIAL ORGAN OF

The Canadian Hospital Association

Vol. V. Toronto, March, 1914 No. 3

CONTENTS

EDITORIALS.

The Teaching Hospital........... 129
A Tribute to Worth.............. 131
A Great Advance................. 132
Health Centres 135
Medical Inspection of Schools Should be Placed under the Medical Health Department..... 138
A Faint Hope.................... 139

ORIGINAL CONTRIBUTIONS.

Some Problems in Hospital Training and Teaching. By Miss Charlotte A. Aikens, Detroit, Mich. 140
Report of Committee to Outline Standard Course in Hospital Administration. By Dr. W. L. Babcock, Chairman; Dr. Joseph B. Howland, Dr. J. N. E. Brown.... 154

Fellows–Syrupus Hypophosphitum

Quadraginta per annos et a medicis et ab aegris orbis terrarum totius probatus

Compositio sui generis neque imitabilis

Reject < Cheap and Inefficient Substitutes
Preparations "Just as Good"

LIBRARY MEDICAL FACULTY McGILL UNIVERSITY

Entered according to Act of the Parliament of Canada, in the year one thousand nine hundred and twelve by the Publishers at the Department of Agriculture. All rights reserved.

Contents, vide page v. Index to Advertisers, page 16.

LISTERINE

The original antiseptic compound

¶ Listerine is peculiarly free from irritating properties, even when applied to the most delicate of the tissues, whilst its volatile constituents give it more healing and penetrating power than is possessed by a purely mineral antiseptic solution; hence it is quite generally accepted as the standard antiseptic preparation for general use, for those purposes where a poisonous or corrosive disinfectant can not be safely used. ¶ It is the best antiseptic for daily employment in the care and preservation of the teeth. ¶ In the sick-room, the use of Liste ine by means of spray or saturated cloths hung about is actively ozonifying and imparts an agreeable, refreshing odor to the atmosphere. ¶ For the bath, an ounce of Listerine in a pint or quart of water forms a refreshing and purifying application for sponging the body. ¶ As a prophylactic, in zymotic diseases, Listerine may be used to spray the throat and fauces to diminish the dangers of septic absorption; for the attendant of the patient and for those who are more or less exposed to infection.

Literature more fully descriptive of Listerine may be had upon request, but the best advertisement of Listerine is—LISTERINE

Lambert Pharmacal Co.

Locust & Twenty-First Sts., St. Louis, Mo., U.S.A.

ELECTRIC SERVICE

Means comfort, convenience, economy and safety.

The home that is completely equipped with electrical devices is a happy one.

All the drudgery of housekeeping is eliminated by electricity.

You can wash, iron, sew, sweep, cook, keep cool in summer and warm in winter, by means of electrical apparatus designed especially to relieve you of unnecessary and fatiguing labor.

At our show rooms all these devices are ready for your inspection. Competent demonstrators will operate and explain them for you.

The Toronto Electric Light Co., Limited

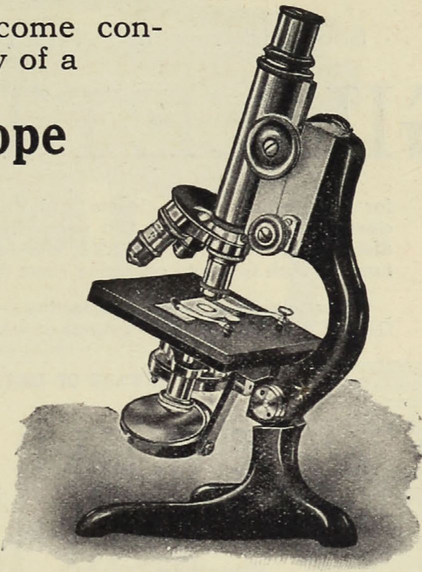
"AT YOUR SERVICE"

12 Adelaide Street East — Telephone Adelaide 404

CONSULT AN EXPERT

on Microscopy and become convinced of the Superiority of a

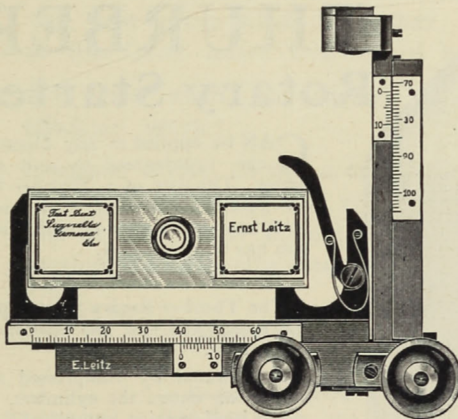
Leitz Microscope



A "Genuine Leitz" carries with it the following facts:

1. The mechanical parts constructed with such precision as to maintain permanently a perfect optical alignment.
   (A microscope will not divulge its weak points until after continued use.)
2. Superior optics with which one feels assured that all the important features of a specimen are clearly revealed.
3. No repairs necessary—no inconveniences to contend with.

The fact that Leitz Microscopes are selected by Governmental and Leading Educational Institutions for Medical and Biological Research should mean a sufficient recommendation to the Practical Physician.



Mechanical Stage

No. 120a

Attached by means of clamp screws to under surface of microscope stage. Can be used without special fitting on any microscope.

Write for Illustrated Catalogue

AGENTS FOR CANADA

The J. F. HARTZ, Limited

406-408 Yonge Street - Toronto

103 Broadway, Detroit, Mich. 812 Superior St., N.E., Cleveland, Ohio.

HOSPITAL SUPERINTENDENTS

Should instruct their Nurses and Domestics to use

GILLETT'S LYE

for disinfecting sinks, closets and drains. It is also ideal for the cleansing of urinals and bed pans—in fact, any vessel that requires disinfecting. GILLETT'S LYE should always be used for scrubbing hospital bath tubs and operating room floors.

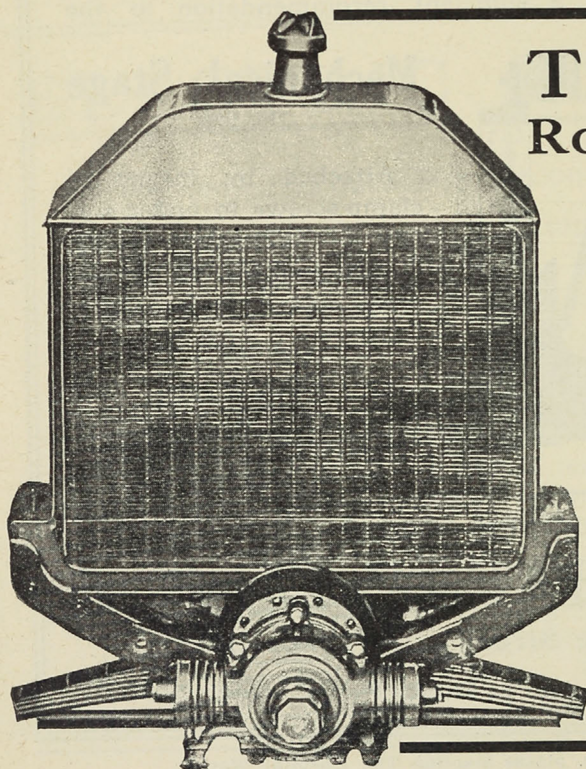
For cleansing and disinfecting — dissolve one teaspoonful of GILLETT'S LYE in two gallons of water.

BEWARE OF IMITATIONS

E. W. Gillett Co. Ltd.

Toronto, Ont.

Winnipeg Montreal



THURBER
Rotary Starter

CAN be applied to any Doctor's car — guaranteed to spin any motor. The user of a Thurber has no trouble in starting and enjoys complete satisfaction after this system has been installed.

SOME PLAIN FACTS

The Thurber Rotary Starter spins the motor at about 250 revolutions per minute.

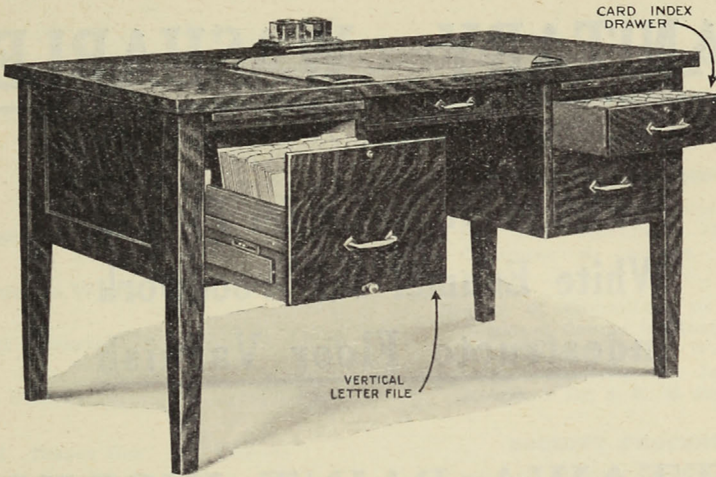
Is operated by compressed air, still no air enters the cylinders, the motor itself remains untouched.

SPECIAL MODEL FOR FORD CARS $85

Every Doctor driving a Ford car should have it equipped with a Thurber Rotary Starter.

Write for our booklet giving full details.

THE CANADIAN ROTARY COMPANY
Windsor, Ontario



THE BUSY MAN PREFERS A SYSTEM DESK

WITH it he can work better and quicker, without a confusion of papers before him. Only those items which immediately interest him are before his attention, the rest being filed in either the Vertical Drawer or the Card Index Drawer of his desk.

Are not such conditions conducive to the most efficient work?

It would afford us the greatest pleasure to demonstrate the details of this desk to you. If you cannot conveniently call at our show rooms, ask us to send you printed particulars. Specify catalogue No. 619.

Head Office and Toronto Showrooms
97 WELLINGTON ST. WEST

Complete Filing Equipment Stores in
MONTREAL OTTAWA HALIFAX WINNIPEG CALGARY
EDMONTON and VANCOUVER

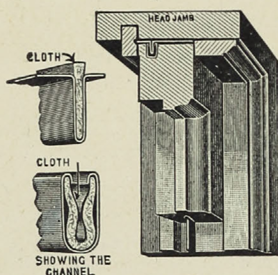
Factories: NEWMARKET, ONT.

SANITARY WASHABLE

Perfect Flat Finish for Plaster
White Enamel for Woodwork
Indestructo Floor Varnish

OTTAWA PAINT WORKS
Makers of Good Paint
OTTAWA - - - - - - CANADA

The "Athey" Metal Cloth-Lined Weather Strip



Something Better in Weather Strips

A post card with your name and address will bring you full particulars and prices.

To be had only from

The Eberhard & Wood Mfg. Co.
Phone M6338 36-38 Lombard Street, Toronto

Contents

EDITORIALS.

The Teaching Hospital........... 129

A Tribute to Worth.............. 131

A Great Advance................. 132

Health Centres 135

Medical Inspec tion of Schools Should be Placed under the Medical Health Department..... 138

A Faint Hope..................... 139

ORIGINAL CONTRIBUTIONS.

Some Problems in Hospital Training and Teaching. By Miss Charlotte A. Aikens, Detroit, Mich. 140

Report of Committee to Outline Standard Course in Hospital Administration. By Dr. W. L. Babcock, Chairman; Dr. Joseph B. Howland, Dr. J. N. E. Brown.... 154

SOCIETY PROCEEDINGS.

American Medical Association.... 161

HOSPITAL INTELLIGENCE.

Items 166

The Advantages of Drinking

Registered Trade-Mark

BAKER'S COCOA

The Cocoa of High Quality

lie in its absolute purity and wholesomeness, its delicious natural flavor, and its perfect assimilation by the digestive organs.

Walter Baker & Co., Limited

Established 1780

MONTREAL, CAN. DORCHESTER, MASS.

PARAGON

A Success That Has Broken All Previous Records Among X-RAY PLATES

From a start in May 1913, during the New York State Medical Meeting, to the FIRST PLACE AMONG X-RAY PLATES IN THE WORLD is our Astounding Record

We tell you this, not in a spirit of self-emulation, but simply that you may know how quickly a superior product is recognized among the progressive radiographers to-day.

Only sheer merit could have won for us this overwhelming preference in this short time, and it is entirely due to the fact that the radiographers demanded something far better than the X-Ray plates then on the market, and the immediate success of the PARAGON is proof that we have accomplished what we set out to do.

To-day they are used by practically every well known radiographer in the United States, and at two recent conventions *over 90 per cent.* of the plates exhibited were PARAGON.

Can you wonder that the other manufacturers are rushing to bring out "new" plates, now that we have shown that the old, slow, plates were 'behind the times."

Imitation is the sincerest flattery according to the old saying, and the best reference to-day, for other plates is that they are not "better than" but "almost as good" as the PARAGON.

Think that over It means "WE LEAD"

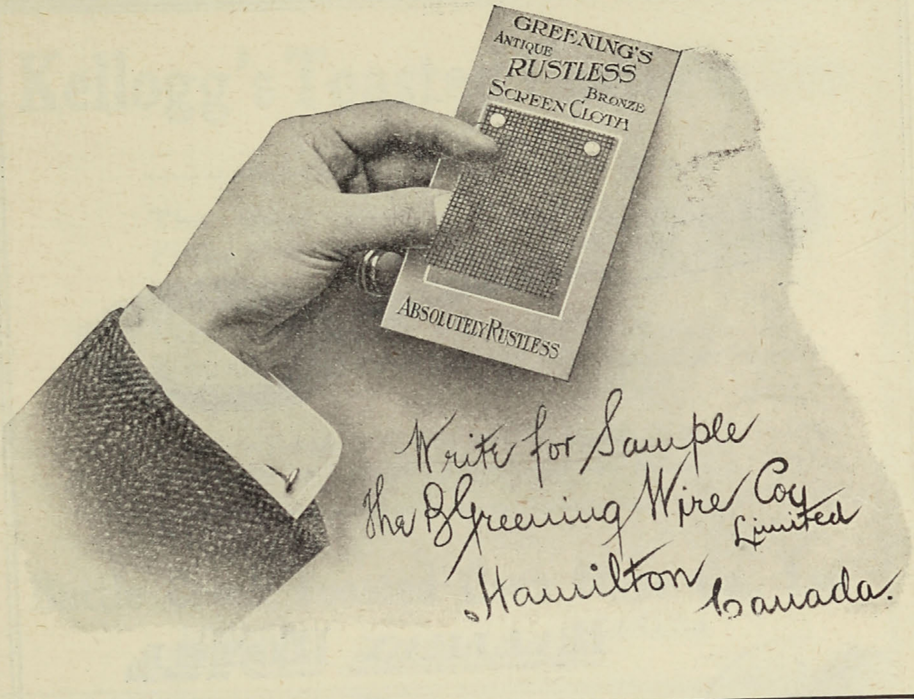
If you have not tried them, send in a trial order for the sizes you use most. We guarantee results. Our bywords are "Develop until dense."

Carried in stock by Ingram & Bell of Toronto

Chandler & Fisher of Winnipeg and Vancouver

GEO. W. BRADY & CO., Sole Distributors,

754 South Western Avenue -:- Chicago



WHY DO

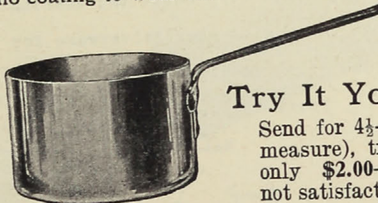
Toronto General Hospital, King George Hospital (Winnipeg), Central Prison Farm (Guelph), Battle Creek Sanitarium, Manhattan State Hospital, Middletown State Homoeopathic Hospital, and Massillon State Hospital, use

"Wear-Ever"

Aluminum Equipment

"WEAR-EVER" cooking utensils require no retinning—are sanitary—are easily kept clean.

"WEAR-EVER" aluminum trays are light and strong—cannot rust—cannot stain linen—no coating to wear off.

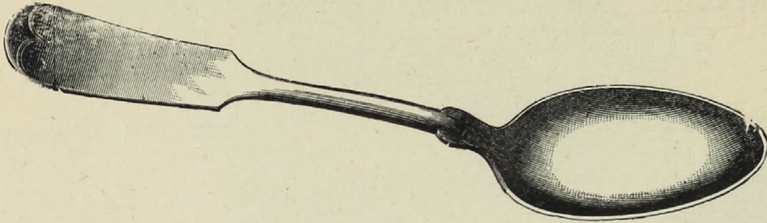


Try It Yourself

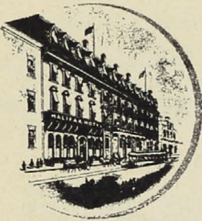
Send for 4½-quart Saucepan (wine measure), transportation prepaid, only **$2.00**—money back if pan is not satisfactory.

CONSULT YOUR SUPPLY HOUSE, OR WRITE

Northern Aluminum Co., Limited TORONTO ONTARIO



HALIFAX HOTEL



E. L. MacDONALD
MANAGER

Halifax, CANADA May 5, 1911.

Messrs. Toronto Silver Plate Co.,
Toronto, Ont.

Gentlemen:-

With reference to your inquiry about the wearing quality of your Silverware, we have been using your Silverware for the past twenty years and it has given us every satisfaction.

Yours truly,

HALIFAX HOTEL.

E. MacDonald

Manager.

Kellogg's Toasted Corn Flakes

The most popular and palatable Flake Food ever placed on the market.

While essentially a breakfast food, it is equally acceptable for luncheon or supper.

Being very nourishing and easy of digestion, it is particularly well adapted for invalids and children.

Battle Creek Toasted Corn Flake Co., Ltd.
LONDON, - - CANADA

MUSKOKA COTTAGE SANATORIUM

GRAVENHURST, ONTARIO, CANADA

For booklet apply to W. B. Kendall, M.D., C.M., L.R.C.S., L.R.C.P., Physician-in-Chief

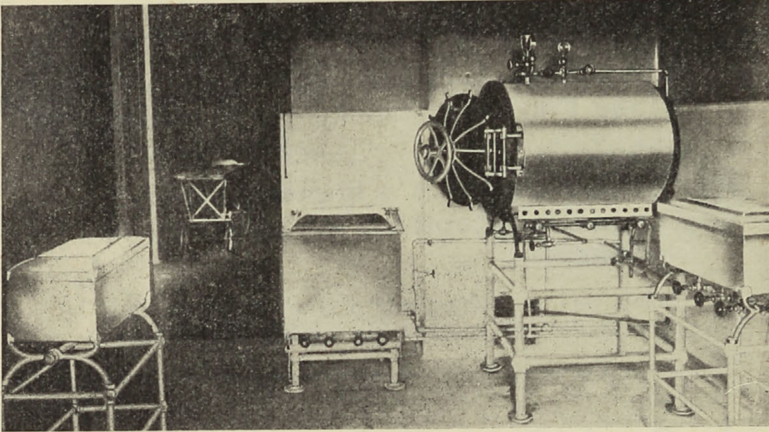
"No better Atmosphere in the World for a Consumptive than that of your own Muskoka."
Sir Wm. Osler

Regular Rates $15 to $20 per week

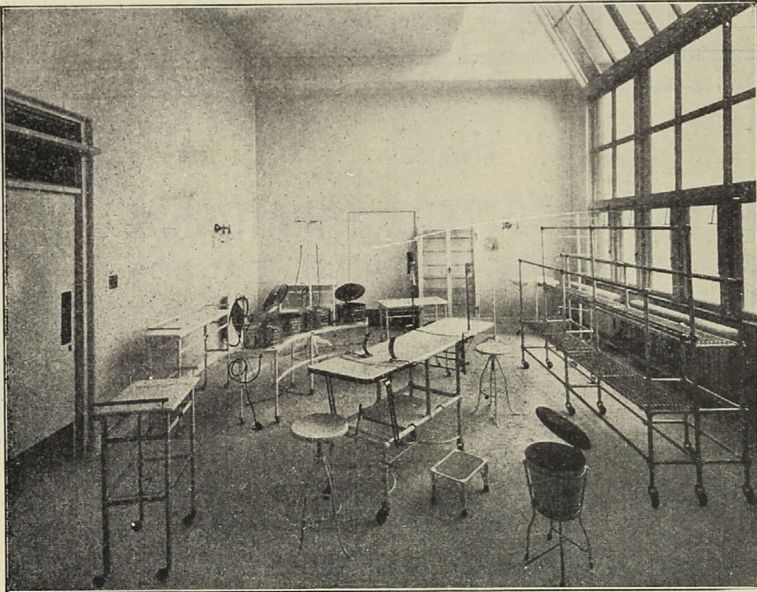
Separate Accommodation for advanced cases in Reception Hospital Rates from $25 per week

Reception Hospital for Advanced Cases

"THE WHITE LINE" SCANLAN-MORRIS COMPANY



Sterilizing Room, St. Mary's Hospital, Rochester, Minn.



Operating Room, Presbyterian Hospital, Chicago

Our catalogue of Modern Operating Room Furniture and Sterilizing Apparatus will be forwarded upon request, to Hospital Superintendents

SCANLAN-MORRIS CO., MADISON, WIS., U.S.A.

Manufacturers of the "White Line" Hospital Furniture and Sterilizing Apparatus

Is Your Hospital Properly Equipped with

REFRIGERATION, ICE-MAKING AND COLD STORAGE?

THE most important **consideration** is the **food** given your **patients**, and it must be kept in proper cold storage. With **mechanical refrigeration** you can have any **temperature** in any **place** for any **purpose**.

Just **think** what this means to your patients' **health** and the efficiency of your **institution** and **staff**.

Pure Ice in any quantity, Cold Drinks and Storage Ice Cream, Rooms or Boxes for Cooling and Freezing

AND A

simple, suitably designed plant will not cost you nearly as much as your present ice bill

WHILE

the savings effected will pay for the plant in a short time, to say nothing of the increased efficiency in every department.

We have equipped hundreds of institutions, and **Frick Ice-Making and Refrigerating Machinery** is known the world over as the **Best Made.**

Look into this matter at once—write or phone, and we will give you all information to your best interests and with absolutely no obligation on your part.

KEITHS LIMITED

111 King St. West, Toronto

TORONTO ∵ ∵ ∵ MONTREAL

THE RUSSELL

THE MODERN HOSPITAL EQUIPMENT

Hospital equipment is inadequate without the "Russell" Motor Ambulance.

SWIFT, SAFE, SANITARY, COMPLETE.

The Russell-Knight Motor Ambulance.

SPEED AND POWER

The Russell-Knight Six engine gives you all the power and speed you will ever require.

SAFETY

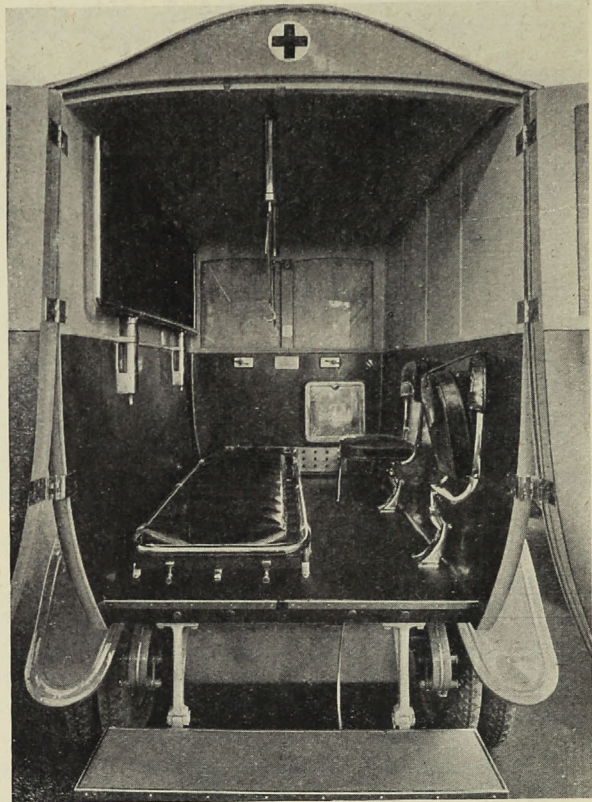
Every precaution that could be taken has made the Russell Ambulance Safe, Strong and Reliable, a Strong car for any emergency.

LEADING FEATURES

Full aluminum body, with all steel interior, flush sides — no germ-collecting corners — can be flushed out with hose —absolutely sanitary.

Equipment for Stretchers, Cot, etc.

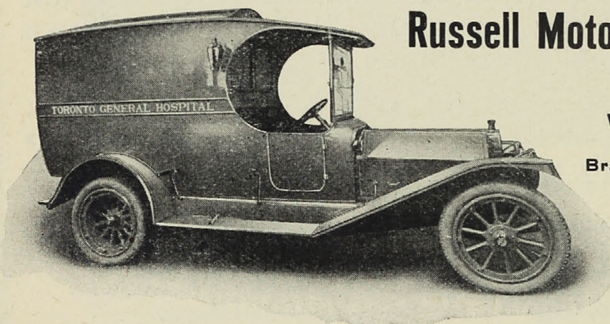
Medicine Cabinet.



Interior View Type—Toronto General Hospital Motor Ambulance.

Drop Seats for attendants. Sound and Germ-proof body wall.
Extra Tire Equipment, no jolt or jar can reach patient.
Electric Starting and Lighting. Heated by Russell System—also Electric Fan.
Every feature has been added that could make—Complete Hospital Equipment.
Designed and Built for "First Aid," along the most scientific lines.

Write for full particulars—detailed specifications. Prices on application.



The "Russell" Motor Ambulance presented to City of Toronto by J. C. Eaton.

Russell Motor Car Company Limited

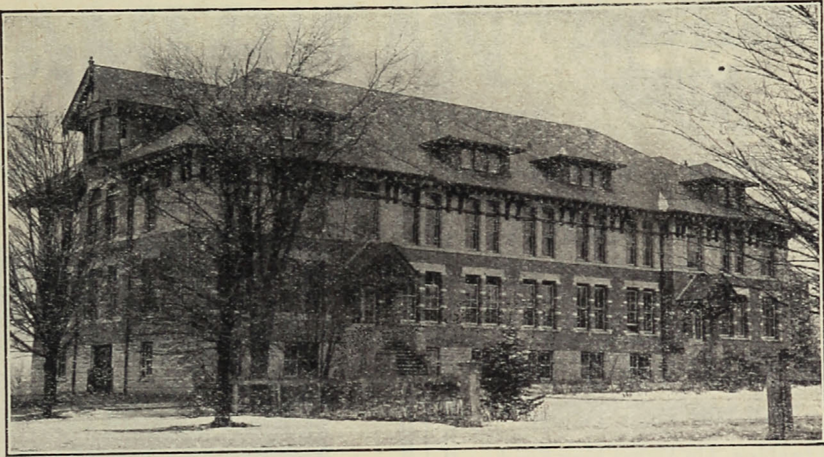
West Toronto

Branches—

Toronto Winnipeg
Hamilton Calgary
Montreal Vancouver

"Made up to a Standard— Not down to a Price."

When writing advertisers, please mention The Hospital World.



This New Husbandry Building at Guelph O. A. C. is Roofed with ASBESTOSLATE

THE Ontario Agricultural College has reason to be proud of this splendid building, which is one of the best in the world of its kind. It cost $60,000, and has class-room accommodation for over 400 students.

The selection of ASBESTOSLATE for the roof of such a building is another official recognition of the superiority of this fireproof, handsome and practically indestructible roofing. Write for prices and Booklet H. J. to

Asbestos Manufacturing Co., Limited

Address E. T. Bank Bldg., 263 St. James St., Montreal
Factory at Lachine, P.Q. (near Montreal)

PHYSICIANS PREFER

GLOSS *Satinette* FLAT

WHITE ENAMEL

SANITARY

WASHABLE——

——DUSTPROOF

ARTISTIC

Will Not Turn Yellow

Elastica The Perfect Floor Finish
Send for Sample Paper

INTERNATIONAL VARNISH CO. LIMITED

TORONTO - ONTARIO

W. E. Dillon Co.

Phone Main 3277 **LIMITED**

76-78 Richmond St. E., Toronto, Ont.

Manufacturers of, and Contractors for

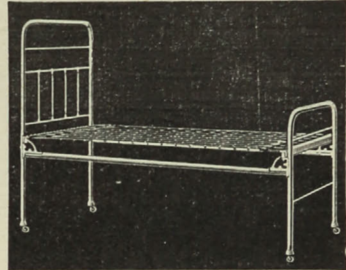
SHEET METAL WORK FOR BUILDING

We make a specialty of ventilating. We have recently installed systems in the following buildings:—

- Pathological Building, Toronto General Hospital,
- Out Patients Building, Toronto General Hospital.
- Emergency Building, Toronto General Hospital.
- Medical Wing Building, Toronto General Hospital.
- Administration Building, Toronto General Hospital.
- Medical Wing, St. Michael's Hospital.

The above buildings all have a complete air change in the various rooms from 6 to 8 minutes. We have expert mechanics in this line and guarantee satisfaction.

Richardson, Wright & Co.



MANUFACTURERS OF

Aseptic Steel Hospital Furniture and Bedsteads . . . .

ALSO

Mattresses and Pillows

FACTORY AND SALESROOM

51 Chardon Street

Boston - - Mass.

"AMERICAN" ENAMELED BRICK

Are thoroughly sanitary and impervious. Adaptable for all kinds of buildings where the highest standard of brick perfection is demanded.

For the Royal Victoria Hospital, Montreal, Canada, we supplied twenty thousand of our Enameled Brick.

Write for Catalog "**Fifth Edition**" illustrating the standard sizes, colors and many of the special shapes.

SAMPLES—Miniature or full size, will be forwarded if desired.

Prompt attention given for all inquiries

AMERICAN ENAMELED BRICK AND TILE COMPANY

1182 Broadway - - New York

Rheumatic Affections—

all hot, painful, swollen, inflamed joints, due to faulty metabolism—retention, and impeded elimination, of body-waste; are speedily relieved and the way to physiological repair opened up, by the intelligent, prompt use of

NOTE—Apply Antiphlogistine, as hot as can be borne by patient, around the *entire* joint; cover with cotton and a *comfortable* bandage. Remove when "ripe" or when peels off nicely. Antiphlogistine *does not interfere with your internal* medication, Doctor—its *composition* being known to you.

Antiphlogistine is prescribed by Physicians and supplied by Druggists all over the world.

"There's Only ONE Antiphlogistine"

THE DENVER CHEMICAL MFG. CO., NEW YORK, U. S. A.

Index to Advertisers

Page

A

Alaska Feather Co....... 28
American Enamelled Brick Co. 15
Asbestos Mfg. Co 13

B

Babcock & Wilcox 71
Baker & Co., Walter.... 5
Barber's Sanitarium, Dr. 54
Battle Creek Toasted Corn Flake Co......... 9
Bell Filtration Co. 46
Blake, John H. & Co. .. 55
Brodeur Co. 39
Burgess & Co. 37
Bush & Co, W. J....... 74

C

Canada Wire Co....... 61
Canadian Feather & Mattress Co. 22
Canadian Furniture Co.. 48
Canadian Independent Telephone Co. 26
Canadian Morehead Mfg. Co. 73
Canadian Rotary Co.... 2
Canadian Sunbeam Lamp Co. 43
Chalfonte Hotel 52
Chisholm Milling Co. .. 30
City Dairy Co.......... 19
Conduits, Limited 20
Consumers' Gas Co. ... 45
Cosgrave Brewing Co. . 52
Cowan Co, Ltd. 59
Cramer & Co. 66

D

Dancy, R. C. 47
Dennis, London 31
Denver Chemical Co. ... 15
DeLaval Dairy Co. 33
Dominion Brewery Co... 55
Dominion Mfg. Co. 59
Dominion Sales Co..... 44
Don Valley Brick Works 67
Drummond & Co....... 27
Duffy Malt Whiskey Co. ....Cover
Dunlop Fire Hose...... 60
Dustbane Mfg. Co. 44
Dyment, Cassells & Co., ...Cover

E

Electro Surgical Instrument Co. 59
Elliott, W. A. 46

F

Fearman Co., F. W..... 61
Fellows Co., The ....Cover

Page

G

Garlock Packing Co. ... 25
Gendron Wheel Co. 66
Gendron Mfg Co. 59
General Accident Assurance Co., Toronto 69
General Accident F. & L. Co. 53
Gillespie Percy Co. 54
Gillett Co. 2
Globe Co. 49
Gowans, Kent & Co.,Ltd. 49
Gowlland 74
Greening Co. 7
Grove Park Inn........ 71

H

Hamilton Importing Co.. 18
Hartz, The J. F., Co..... 1
Heenan & Frowde Co... 25
Heron & Co. 32
Hillock & Co........... 17
Horlick's Malted Milk.. 76
Hydrox Chemical Co. ... 40

I

Ingersoll Packing Co... 33
Inglis & Son, John..... 70
Ingram & Bell......... 24
Imperial Varnish Co.... 28
International Instrument Co. 61
International Varnish Co. 14

J

Jamieson & Co. 24
Jefferson Glass Co...... 63

K

Keith's Ltd. 11
Kress, Owen & Co. 40
Kuntz Brewery 61

L

Laidlaw Lumber Co. ... 29
Lambert Phar. Co. ...Cover
Lever Bros. 27
Lister & Co. 56
Lowe Bros. 47

M

McClary's 23
McKellar Bedding Co... 75
Maplewoods Mills 60
Marvel Co. 56
May-Oatway Fire Alarm Co. 57
Meadows & Co. 62
Meinecke & Co. ......cover
Murray-Kay Co. 65
Muskoka Sanitarium ... 9

Page

N

National Sanitarium Association 9
Norris, Thos. A., Co..... 19
Northern Aluminum Co.. 7
Northern Electric Co. . 31
North British Rubber Co. 50

O

Office Specialty Co. 3
O'Keefe's Brewing Co... 76
Old, R. J. 37
Ormsby, Toronto 21
Ottawa Paint Works ... 4
Otis Fensom Elevator Co. 18

P

Paragon X-Ray Plates.. 6
Paripan Paint 45
Parke, Davis & Co...... 30
Peacock Chemical Co.... 73
Pennsylvania Orthopedic Institute 19
Phipps-Neff Co. 58
Platt, Henry Co. 49
Purdy, Mansell, Ltd..... 62

R

Randall-Faichney Co. .. 64
Reed & Carnrick 32
Revolution Clothes Reel Co. 53
Richards Soaps 66
Richardson, Wright & Co. 14
Roberts & Co., F. G. .. 22
Robertson, Jas., Co. 75
Robins, Ltd. 41
Robinson Cork Co....... 58
Russell Motor Car...... 12

S

Sapho Mfg. Co. 66
Scanlan, Morris 10
Scholl, Chicago 74
Seaman, Kent & Co. ... 48
Sheldon's Limited 42
Society Francaise 20
Soss Invisible Hinge ... 55
Stevens Companies, The. 68

T

Taylor-Forbes Co. 72
The Eberhard & Wood Mfg. Co. 4
Tisdale's Iron Stable Fittings Co. 41
Toronto Electric Light Co. ....Cover
Toronto Silver Plate Co. 8

U

United Brass Co., ... 35
United Typewriter Co... 54

W

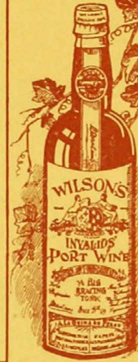
Warren Mfg. Co. 51
Whitney, Boston 53
Wilson & Co., L. A. ... 17

OF INTEREST TO THE MEDICAL FRATERNITY

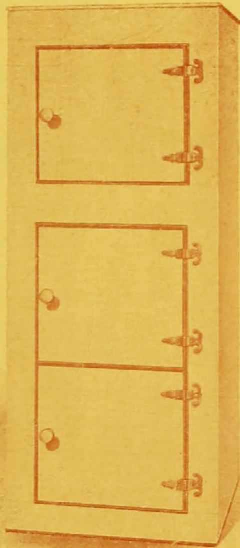
WILSON'S INVALIDS' PORT is a perfect combination of Cinchona Bark and Old Oporto Wine, the Cinchona Bark used is the alkaloid known in the pharmacopaeias as "Cortex Cinchonae Pallidae" which has been recognized for over three centuries to be the best tonic and febrifuge.

We invite physicians who have not already had an opportunity to test the merits and efficacy of this wine-tonic, as a blood-maker and tissue builder, to send us their name and address and also that of their prescribing druggist, upon receipt of which we shall be pleased to forward an order for a full-sized bottle.

Wilson's Invalids' Port Agency,
87 St. James Street, Montreal



WILSON'S INVALIDS' PORT
A LA QUINA DU PÉROU



ARCTIC REFRIGERATOR

WE are especially well equipped to furnish hospitals with refrigerators, from the small one for the out kitchen to the large storage one, either for ice or mechanical refrigeration. It will pay to investigate our goods.

We carry a great variety of stock refrigerators, opal lined and with tile floor, all connected glass to glass, no bindings to collect the dirt.

The following is a partial list of our recent contracts : New General Hospital, Hospital for Sick Children, Hamilton City Hospital, St. Catharines City Hospital, etc.

WRITE FOR CATALOG

JOHN HILLOCK & CO., LIMITED
Factory and Showroom
154 George St. - Toronto, Ont.

OTIS ELEVATORS

are Particularly Adapted for Hospital Service

Smooth Running and Easily Operated

MANUFACTURED AND INSTALLED IN CANADA BY

OTIS-FENSOM ELEVATOR CO.
LIMITED

Head Office:
TORONTO, ONT.

Works:
HAMILTON, ONT.

WHEN WHISKY IS PRESCRIBED

Scotch Whisky is More Acceptable and

ROBBIE BURNS Scotch Whisky

Is Most Acceptable

Its purity and maturity make it most valuable as a stimulant and prophylactic.

R. H. THOMSON & CO.
LEITH, SCOTLAND

Canadian Agents:
Hamilton Importing Co., Ltd.
HAMILTON, ONT.

DOCTOR! Some of your Bottle-fed Babies are not thriving

WE are modifying milk for baby feeding; changing it so that it is like mothers' milk in all essential qualities and in proper proportions.

Nothing is put in foreign to cows' milk.

Dr. Gaertner, Professor of Medicine, University of Vienna, formulated the process after many years study of the proper nutrition of infants.

Dr. Gaertner's Baby Milk was first offered to Toronto Physicians in July this year, in August about 22 babies were being fed daily. September about 44, at the present time (October 21st) 100 babies are being fed and are apparently thriving on Dr. Gaertner's Baby Milk.

That the City Dairy has taken up the process should indicate that it has enough merit to warrant you in asking for information about it.

We can send Dr. Gaertner's Baby Milk to towns within a radius of 100 miles of Toronto.

WRITE FOR INFORMATION

CITY DAIRY CO., LIMITED
TORONTO

Instruction in Massage

Swedish Movements, Medical and Orthopaedic Gymnastics

ELECTRO-THERAPY
HYDRO-THERAPY

All branches of physiologic therapeutics, including electric light, blue light, dry hot-air baths, baking, vibrators, nebulizers, Solar and leucodescent lamps, Bier's hyperemia method, galvanic, faradic, static electricity, high frequency, sinusoidal currents, X-ray, Dr. Schnee's Four-Cell Bath, Bachelet magnetic wave, Nauheim baths and Schott exercises. Medico-Mechanical Zander Gymnasium.

Theoretical and practical instruction. Thorough courses in Anatomy, Physiology, and Pathology. Abundant clinical material. Students attend several city hospitals. Duration of Courses, four months. Diploma. Graduates recommended to well-paying institutional positions. Particulars and illustrated booklet upon request.

Classes open January 7, March 18, May 20, and July 6, 1914.

Pennsylvania Orthopaedic Institute and School of Mechano-Therapy,
Incorporated
1711 Green St., Philadelphia, Pa.
Max. J. Walter, M.D., Supt

SO SILENT THAT IT WILL NOT DISTURB THE PATIENT

The attention of Hospital Superintendents, Physicians and Nurses is called to the

Original Sweeper Type Vacuum Cleaner.

It operates so quietly that it can be used in the sick room without disturbance. The SWEEPER TYPE VACUUM CLEANER is sanitary in the highest sense of the word.

THE DOMESTIC VACUUM CLEANER COMPANY OF CANADA
260 Yonge Street Phone Main 2583
TORONTO

PARIS PATÉ

THE FOOD THAT IS ABSOLUTELY PURE

Hospital Superintendents, Physicians and Nurses should note that

OUR WATCHWORD IS PURITY

ALL of our foods are **absolutely pure** and **free from adulteration,** and for that reason **ideal for use by the sick.**

Our PARIS PATE is composed of choicest meat, is wholesome, nourishing and strengthening. It spreads on bread and toast with the greatest of ease, can be eaten with salad or tomatoes, is put up in air-tight cans, and therefore remains fresh for an indefinite period.

What could be better or more convenient for use in Hospital or Sanatorium ?

MANUFACTURED BY

La Societe Francaise de Specialites Alimentaires

Montreal, Quebec

MR. SUPERINTENDENT:

Are You Sure Your Electrical Wiring is SAFE?

There is but one absolutely safe method of wiring.

Instal a CONDUIT SYSTEM

it will eliminate all risk of fire.

"Galvaduct" & "Loricated" "Conduits" have no equals

Safety First

If your Hospital should burn to-day you might have the loss of the building covered by insurance but---

How About The Human Lives Which Might Be Lost ?

These could not be replaced at any price.

Fire-proof Your Building with Steel

It is the only ABSOLUTE safe and sane way.

Put in Steel Trim---Steel Doors Copper or Bronze Window Frames and Sash

Let us show you how they are better than wood, how they look better, are more economical in the end, last longer and need no paint or repairs.

And let us show you how they are ABSOLUTE PROTECTION against fire losses.

USE THE COUPON

The A. B. ORMSBY COMPANY, LIMITED
KING AND DUFFERIN STS., TORONTO, ONT.

We are interested in your Steel Fireproofing for the .... Hospital.

Name .... Address ....

FRED G. ROBERTS & CO.

DECORATORS

106 Wells Street -:- **Toronto, Ont.**

Phone, Hillcrest 1493

Nights, Sundays and Holidays, " Coll. 1646 Arthur H. Hetherington, Mgr.

Make a specialty of all kinds of interior and exterior

Painting, Decorating, Graining, Tinting and Glazing

All interested in **Hospitals and Institutions generally** should note that this Firm can handle contracts no matter how large, the following being a few of the representative buildings recently completed

C.P.R. Buildings
Process & Press Buildings, Exhibition Grounds
Bell Telephone Co., College Exchange,
Can Foresters Hall, 22 College Street,
Darling Building, Spadina Avenue,
Central and West End Y.M.C.A..
And Many Churches
W.C.T.U., Gerrard Street E.
Allen Building, Simcoe Street,
Canada Foundry Building, Royce Avenue,

DON'T BUY LOW GRADE

PILLOWS

We make them but don't recommend them

A Special Line, Size 21x27, Costing $2.75 Per Pair, are Guaranteed to Please

They are nice, new feathers, well cleaned and put up in good quality ticking

JUST TRY A FEW PAIRS

They will please you so well that you will neither pay more in future nor try to buy for less

CANADIAN FEATHER AND MATTRESS COMPANY, Limited

Toronto and Ottawa

McClary's

SPECIALISTS IN

Sanitary Kitchen Equipments for Hospitals, Institutions, Etc.

Ranges for Coal, Gas, or in Combinations to suit Conditions

Diet Tables Our designs are the very latest. Materials and construction most sanitary.

Dish Washers Hand or power of suitable capacity. Of the most modern type.

Urns Individual or in Batteries. Extra heavy gauge copper, nickel plated. Finest imported earthenware jars. Patent water seal joint.

Kitchens Planned to Best Advantage.

Specifications Furnished Free of Cost or Obligation.

LONDON **McClary's** HAMILTON

Toronto Montreal St. John Winnipeg Saskatoon Calgary Edmonton Vancouver

McCLARY ON GOODS IS A QUALITY NAME

VELVEX

SANITARY FLAT ENAMEL

Specially Designed for use in Hospitals. Its soft, velvety appearance is most RESTFUL TO THE EYE and as it will stand repeated washing it makes the ideal finish where CLEANLINESS is essential.

Made in twenty-one shades including white, and, unlike other enamels, THE WHITE STAYS WHITE.

We will be pleased to give color cards and further particulars to any hospital or similar institution.

R. C. JAMIESON & CO., Limited

ESTABLISHED 1858

Montreal ∴ Vancouver

Surgical Instruments

Hospital Equipments

THE LARGEST

Physicians' and Hospital Supply House

in Canada

INGRAM AND BELL, LIMITED

NOW 256 McCaul Street

Corner College

TORONTO

Laboratory Equipments

Drug and Pharmaceuticals

GARBAGE INCINERATORS

of the "HEENAN" Type

For use in hospitals

ECONOMICAL—
No fuel required but the refuse itself.

SANITARY—
Garbage, etc., burned at a high temperature, emitting no odours or nuisance of any kind.

Sample installation in the new Toronto General Hospital.

Write for descriptive literature to

Heenan & Froude of Canada, Ltd.

LAURIE & LAMB, Managers

211 Board of Trade - - - MONTREAL

INSULATE YOUR STEAM LINES DON'T MERELY COVER THEM

GARLOCK

MINERAL WOOL PIPE COVERINGS

EFFECT a saving in fuel consumption BY PREVENTING losses from RADIATION and CONDENSATION. THE RESULTS ARE increased earning capacity and more profit for the Plant. We believe our coverings are UNEXCELLED and our PRICES ARE RIGHT, and we ask that before placing your order to let us submit samples and quotations.

THE GARLOCK PACKING COMPANY

MONTREAL HAMILTON TORONTO WINNIPEG

" Pioneers in the Packing Business "

THE

PRESTO-PHONE

THIS is an automatic telephone system that enables you to instal any number of telephones up to one hundred in a building or buildings, and secure quick and accurate communication between these telephones.

The system in operation at the Canadian National Exhibition this year attracted the widest interest.

It is the telephone system that successfully solves the question of inside telephone service, and it seems certain to supplant the intercommunicating telephones and all inside systems where a switchboard and girl operator are used.

Write us for full information and literature.

CANADIAN INDEPENDENT TELEPHONE CO., LTD.

Duncan Street, Toronto

5c. LIFEBUOY SOAP

a Cake

In Treating the Skin

Lifebuoy is the perfect soap to use in connection with the treatment of all skin ailments.

The cocoanut and red palm oils are soothing and comforting to an irritated or sensitive skin.

But the greatest value of Lifebuoy lies in its purifying carbolic solution. This prevents the affection of adjacent parts and forms a constant safeguard.

All Grocers

LIFEBUOY
HEALTH SOAP

The Modern Method of Pasteurization for Hospitals, Asylums, Colleges and Convents

THE only safe way to handle your milk supply is to pasteurize it in the BEAVER POSITIVE PASTEURIZER, because it meets the strictest requirements of the various Boards of Health.

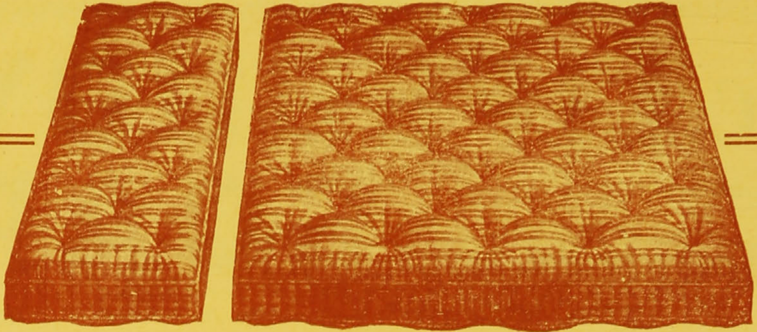
ECONOMICAL Because the pasteurizing, holding and cooling are accomplished with ONE MACHINE.

POSITIVE Every particle of product is HEATED UNIFORMLY and TEMPERATURE MAINTAINED as required by law—then quickly cooled to desired temperature.

SANITARY The entire operation is in an enclosed machine, insuring against any outside contamination.

Write us at once the amount of milk you consume, and we will give you an estimate to handle your supply.

W. A. Drummond & Co., Toronto, Canada



For Hospitals---OSTERMOOR

Note what the Rochester City Hospital says after 25 years' use:

"It is surely proof enough of their superiority to say that after having had 25 years' hard, constant use, without any renovation whatever, they have been made practically new at less than half the original cost."

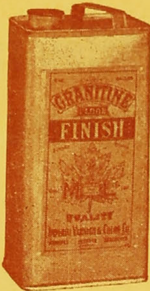
Made in Canada by

The most sanitary and most satisfactory mattress made—especially for hospital use, where a mattress of undoubted purity and cleanliness is absolutely necessary

OSTERMOOR Mattresses possess marvellous, everlasting elasticity; never lump, mat or pack, and are not affected by steam or sterilization. Guaranteed to be positively dust-proof, vermin-proof, non-absorbent and practically germ-proof.

First-class stores everywhere can supply you. Sold at same price as in the United States.

The Alaska Feather & Down Co., Limited, Montreal and Winnipeg



GRANITINE

Floor Finish

A WATERPROOF VARNISH FOR

HOSPITAL FLOORS

DURABLE **SANITARY**

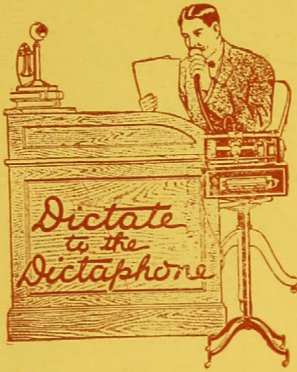
A WATERPROOF floor finish of remarkable toughness and elasticity. Seals up all parts of the floor and does not permit the harboring of disease germs or dust. An excellent coating for oilcloths and linoleums, as it preserves their beauty and lengthens their wearing ability.

Full Description and Samples sent to any Hospital upon request.

THE IMPERIAL VARNISH & COLOR CO. LIMITED

WINNIPEG TORONTO VANCOUVER

CANADA



THE man who is full of ideas and has never found out how to unload them instantly, is bound to find himself congested half the time, which means that half his most valuable work never gets done at all.

His most precious capital is his initiative force—his creative energy and every smallest mechanical act which retards the transcription of his rough memos into permanent form is chains and slavery to him.

Wouldn't it be a relief for you to just say the words that cover the idea—and then forget the whole thing, until you later find that spoken letter neatly typewritten, lying on your desk, ready to be signed.

DIVIDED ATTENTION

ABSOLUTE CONCENTRATION OF THOUGHT

There you have the story of the economy and utility of the DICTAPHONE as it fits the man of ideas. It has equal advantages for the man who must wade through a mass of details—who must carry on correspondence of any sort—who sometimes must do his dictating out of hours—in short, for everyone whose time is valuable.

THE DICTAPHONE

(REGISTERED)

52 ADELAIDE STREET WEST, TORONTO

Columbia Graphophone Company, Sole Distributors

Exclusive Selling Rights Granted Where We are Not Actively Represented
Positions are open in several of the large cities for high-grade office specialty salesmen

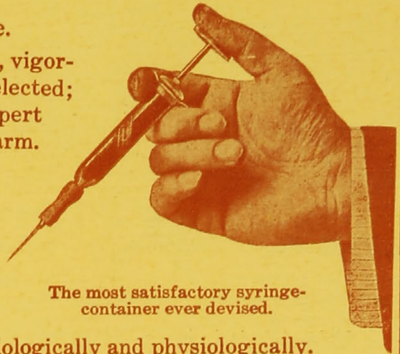
"Just to be sure!"

Thus spoke a careful physician when asked why he used our diphtheria antitoxin exclusively.

Our antitoxin justifies his confidence.

It is evolved in the blood of healthy, vigorous horses—horses that are carefully selected; that are under the watchful eyes of expert veterinarians at our model biological farm.

It is perfected in laboratories that afford unequaled facilities for serum manufacture—laboratories in which it is possible to observe, at every step of the process, the vital principles of asepsis.



The most satisfactory syringe-container ever devised.

It is exactingly standardized, bacteriologically and physiologically.

It is guaranteed as to purity, potency and uniformity.

CONCENTRATED
ANTIDIPHTHERIC SERUM
(GLOBULIN)

Containers of 500, 1000, 2000, 3000, 4000 and 5000 units.

Specify "P. D. & Co." on your orders. **PARKE, DAVIS & CO.**

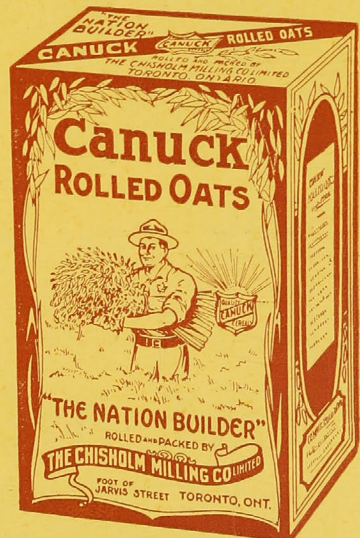
We beg to call the attention of

Hospital Superintendents, Physicians and Nurses

to two of our products which we would like to introduce into every Hospital in Canada. They are

Canuck Rolled Oats and Health Flour

(Whole Wheat)



These products are **absolutely pure** and peculiarly suitable for Hospitals, Asylums and Sanatoria—will Hospital Purchasing Agents note this ?

THE CHISHOLM MILLING CO. Foot of Jarvis Street **Toronto**

No Time is Lost

Any ward can get any other ward immediately when

Northern-Electric Inter-phones

are installed in a hospital. No switch-board is needed. Merely press a button to get a connection from any station.

Northern-Electric Inter-phones are Speedy, Reliable and Sanitary. The most modern of all inter-communicating systems.

For full information write our nearest house.

THE Northern-Electric AND MANUFACTURING CO. LIMITED

Makers of the Nation's Telephones

Montreal, Halifax, Toronto, Winnipeg, Regina, Calgary, Edmonton, Vancouver, Victoria

Special Locker for Maternity Wards.

We give special attention to Hospital Work:

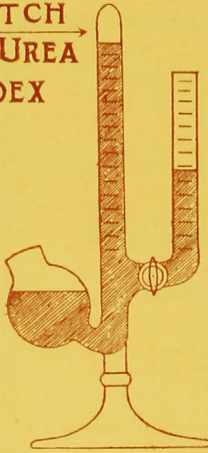
WARDROBE LOCKERS
MATERIAL CABINETS
STEEL SHELVING

Catalogue on Request

Our draughting and estimating department is at your service. Tell us your requirements---we will submit you details of equipment suited to your needs.

DENNIS WIRE AND IRON WORKS CO., LTD.
LONDON, ONTARIO, CAN.

WATCH the UREA INDEX



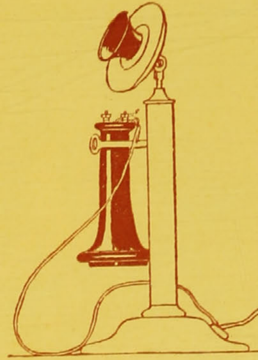
A SMALL ELIMINATION OF UREA WILL GIVE SYMPTOMS VARYING FROM A SLIGHT HEADACHE to UREMIC CONVULSIONS

In BRIGHTS and other CASES of NEPHRITIS the UREA ELIMINATION Can be RAISED, using

NEPHRITIN
·RE-ZYME·

If Interested SEND FOR Samples and Literature ·

REED & CARNRICK
42-46 GERMANIA AVE.
JERSEY CITY, N.J.



The VALUE of the TELEPHONE to the DOCTOR is CONCEDED

PEPTENZYME You will Find of GREAT VALUE in all CASES of INDIGESTION

The REASON is BECAUSE

DIGESTANT
PEPTENZYME

is a DIFFERENT DIGESTIVE from ALL OTHERS

If interested Send for Samples & Literature
REED & CARNRICK
42-46 Germania Ave. Jersey City, N.J.

HERON & CO.
MEMBERS TORONTO STOCK EXCHANGE
Cable Address "Heronco," Toronto

STOCKS & BONDS
Bought or Sold for cash or carried on margin—All markets

Specialists in Unlisted Issues and Mining Shares

CORRESPONDENCE INVITED

16 King Street West, Toronto

The Hospital World

BUFFALO, U.S.A. TORONTO, CANADA LONDON, ENG.

An International Journal published in the interests of Hospitals, Sanatoria, Asylums, and Public Charitable Institutions throughout America, Great Britain and her Colonies.

EDITORS

"Hospital Construction"

CHRISTIAN R. HOLMES, M.D., Cincinnati, Ohio.: DONALD J. MACKINTOSH, M.D., M.V.O., Medical Superintendent Western Infirmary, Glasgow; FRED S. SUTTON, Esq., Architect, St. James Building, New York.

"Medical Organization"

WAYNE SMITH, M.D., Medical Superintendent The New City Hospital, St. Louis, Mo.: H. A. BOYCE, M.D., Medical Superintendent, General Hospital, Kingston, Ont.; and HERBERT A. BRUCE, M.D., F.R.C.S., Surgeon, Toronto General Hospital, Toronto.

"Nursing Department"

MISS MARGARET CONROY, Boston, Mass.

"Hospital Maintenance and Finance"

R. W. BRUCE SMITH, M.D., Toronto, Ont., Inspector of Hospitals for the Ontario Government; WALTER MUCKLOW, Esq., Director St. Luke's Hospital, Jacksonville, Fla.; and MR. CONRAD THIES, late Secy. Royal Free Hospital London, Eng.

"Hospital Equipment and Appliances"

N. A. POWELL, M.D., C.M., Senior Assistant Surgeon in charge Shields Emergency Hospital, Professor Medical Jurisprudence Medical Department, University of Toronto.

"Question Drawer"

H. E. WEBSTER, Esq., Superintendent, The Royal Victoria Hospital, Montreal, P.Q.

Managing Editor

W. A. YOUNG, M.D., L.R.C.P. (London, Eng.), Toronto, Ont.

All Communications, Correspondence and Matter regarding Subscriptions and Advertisements TO BE ADDRESSED TO THE HOSPITAL WORLD, 145 COLLEGE ST., TORONTO, ONT.

Vol. V. TORONTO, MARCH, 1914 No. 3

Editorials

THE TEACHING HOSPITAL

During the conference on medical education held in Cincinnati in mid-January, the new city hospital came in for much admiration and comment.

The installation of Dr. Christian R. Holmes as Dean of the College of Medicine of the University of Cincinnati occurred at the same time, and was

made the occasion of outspoken words of appreciation of that gentleman's labors in connection with the upbuilding of one of the finest hospitals on the continent.

Dr. W. H. Welch, of Baltimore, who was the guest of honor at a banquet held on the closing evening of the conference, paid a great tribute to Dr. Holmes, to whom he gave credit for the new city hospital, which he declared to be "without an equal in the world."

Dr. Welch's words in connection with the relationship of the hospital to the medical school are full of significance.

"The most important part of Johns Hopkins University is the hospital in connection with our medical school. The most important contribution to our present-day medical education is our clinical teachings. Your medical college should by all means take advantage of the great field for clinical teachings offered by your great municipal hospital.

"Patients are better treated in a hospital used for medical teachings than in those which are used purely for humanitarian purposes. The primary purpose of the hospital is the welfare of the state. The teaching hospital is the ideal one. The greatest in the world are the teaching ones.

"The greatest hospitals in the world are of this class. If your municipal hospital is to be a great one—one which will stand out into the world's rank—it must be a great teaching institution. It's functions must not be limited by humanitarian purposes—that is the care of the sick only.

"The heads of the clinics should be men whose main work is in the school. You have here in Cincinnati an unequalled opportunity to build a great medical school. Your great opportunity is the medical clinic, and it should not be overlooked, you have a hospital without equal for educational purposes. The future of medical education is not going to lie with the endowed institution, but with the great public clinical hospital."

A TRIBUTE TO WORTH

That administrative ability in any public direction is appreciated by New York City was instanced in its recent effort to secure Colonel Goethals as supreme head of the city police force. That the effort was not successful did not affect the generally recognized suitability of the man for the place.

A second and more successful selection has been that of Dr. S. S. Goldwater, Superintendent of Mount Sinai Hospital, for the position of Health Commissioner of all New York.

Dr. Goldwater, during the years of his hospital administration has proved himself a first ranker in the profession. He has kept his hospital to the front in all progressive movements, and attacked and solved many of the complex problems peculiar to the varied relationships of these institutions to the outside world.

The New York authorities have been quick to discern the new alliance and blending of service of the

Health Department and the large hospitals. It has also recognized with commendable promptness that the skilled hospital superintendent who administrates his complex domain with a high degree of efficiency, and makes that institution a factor in the solving of larger health problems, has served an apprenticeship in the department of public service that no amount of theoretical study alone can give.

From efficient hospital administration to Commissioner of Public Health is a natural gradation, and New York has been the first to discover the fact.

Dr. Goldwater is a man in the early prime of life, keen, energetic, enthusiastic, and of unusual organizing ability. During the year of his presidency of the American Hospital Association that body made remarkable progress in membership and public recognition.

It will be difficult to fill his place at Mount Sinai, but his appointment to the larger service is a matter of congratulation to New York and to himself, and a tribute to the body of workers which he represents.

A GREAT ADVANCE

NOTHING is more indicative of the fresh advances in scientific understanding of mental diseases than the change in medical terminology. From the term "mad-house," still used by old people, to "asylum" and more recently to "hospital"; from "devil-possession" to "lunacy," to "insanity," the terminology has moved on; until now, the latest effort among men-

tal experts is to discard the latter, and substitute the word "maladjustment."

The effort is admirable, inasmuch as the latest terms are explanatory and in line with the modern attitude of science toward mental disease. It will be doubtless a slow process to educate the common people, not only to a use of the terms, but to a realization and acceptance of their meaning. Yet it is undoubtedly upon a campaign of public education in this direction that the medical world is entering.

The recently appointed National Committee of Mental Hygiene, which has yet to make its first annual report, has already gathered much valuable data. It has, in a measure, outlined its field of activities to embrace three departments—first, scientific research; second, public education; and third, organizing and co-relating existing agencies of allied aims.

Naturally, the existing general hospitals are being pressed into service, until such time, at least, as the various communities shall erect municipal mental hospitals. The institution of out-patient departments for mental diseases, and the utilization of the social service work in connection therewith is already begun in the large general hospitals in New York and Massachusetts. The committee look for the extension of this departure to all other similar institutions. Provision for incipient cases in psychopathic wards in general hospitals is urged, and the establishment of a purely psychopathic hospital in each city of over 100,000 population—such hospital to be the centre of practical work in prevention and social service, as

well as for efficient treatment. "Sanitariums for early cases, especially for the psycho-neurosis; hospitals of moderate size in cities with facilities for active treatment of acute cases, and colonies for chronic cases, where patients may be treated in small groups" is a desirable classification of mental institutions urged by the committee.

These suggestions deal with the provisions needed for the possible cure of incipient and developed cases of mental disease; but in its comprehensive survey of conditions, the committee joins other modern movements in making its final aim, prevention, and to this end is working to enlist the co-operation of all modern educational forces. Increasing facilities for instruction in psychiatrics for both physicians and allied workers, and encouragement for research work in this field are among the important urgings. This group includes judges, magistrates, wardens and others who deal with delinquents; that they may be able to recognize the symptoms of incipient mental disease, and secure for it the earliest diagnosis and treatment.

Removal of the public mystical attitude toward insanity, and substituting for it the prosaic view taken of ordinary organic disease; bringing all the forces now engaged in fighting unsanitary conditions in the home and individual life, to bear upon it; preventive educative education, education, and still education until the percentage of mental disease becomes an irreducible minimum—this is the great and hopeful programme mapped out by the Committee. Success to it.

HEALTH CENTRES

In various recent editorials this journal has commented on the inefficiency and waste arising from competing and individualistic methods of hospital conduct, and the need of some measure of consolidation to correct the same. Two years ago, New York City, realizing the large measure of inefficiency in the conduct of its chain of municipal hospitals, appointed a Hospital Investigating Committee with powers "to inquire into and report upon the several lines of activity now conducted by the Department of Health, Bellevue and allied hospitals, and Department of Charity, and to determine efficiency and economy of methods now employed in conducting the same: that it report also recommendations for programme of development for each of these departments, with recommendations on form of organization, methods, and amount of appropriation."

The committee has been steadily and quietly investigating during the past two years, and has recently published the first part of their report on the municipal hospitals and charities.

The findings, confined chiefly to the out-patient department, disclose much wasted effort and inefficient treatment of patients, with the conclusion that reorganization of this department is necessary to obtain satisfactory results.

The recent rapid extension of hospital service into the homes has naturally brought the hospital to the threshold of the Public Health Department. The

plan formulated by the Investigation Committee suggests that the latter body step over the threshold and into the home preventive work that has hitherto been, in a necessarily very limited way, the work of the hospital social service department.

In the rapid evolution of preventive medicine with its many "bureaus" and overlapping agencies, it has been for some time evident that some system of civic administration will have to be established, if any degree of efficiency and economy is to be maintained. This Investigating Committee is developing a plan which provides for the establishment of "health centres" in the thickly populated districts of New York City, where all the several functions now performed by both the bureaus of the Board of Health, and the hospital out-patient departments will be centralized.

The first such "Centre" will be located in or adjacent to, Bellevue Hospital; and here, in one building will be gathered all the different bureaus of the Board of Health, including tuberculosis, child-hygiene and dental clinics, district nurses, inspectors of contagious and other diseases. A pure milk depot will be included, and a force of nurses, and examining doctors and inspectors will be on hand. And from this building will emanate all civic forces for the conservation of health in that especial district.

It is the belief of the Investigating Committee, after close observation, that only a small part of the sick poor—ten per cent.—are treated in the hospitals. The remainder continue in the home, with, what the

committee believe to be, more or less random or inefficient treatment by the rushed doctors of the hospital out-patient departments.

It is, of course, an open question how far the city should go in an attempt to prevent or care for disease. It may yet become a question in how far the municipal authorities may dictate home conditions. But, as the report says:

"The city has taken responsibility for caring for sickness when it reaches a stage needing hospital treatment, and within certain limits for the prevention of contagious diseases. Any theory of social obligation which warrants the city in undertaking the care and prevention of sickness would warrant it going still further if needful."

If New York or any other city has to assume the responsibility of caring for its sick poor, there should be some means of obtaining fuller knowledge of the conditions which produce sickness; especially in so far as such conditions are controllable.

The health centre to be established in the populous Bellevue Hospital district will be an experiment. It will determine whether preventive and educational health work can be satisfactorily performed by the Health Department. It will centralize the many organizations working toward this end, and will therefore doubtless make largely for economy, both of time and money. It will also do much to relieve the out-patient departments of the hospitals.

MEDICAL INSPECTION OF SCHOOLS SHOULD BE PLACED UNDER THE MEDICAL HEALTH DEPARTMENT

We note with satisfaction that the Board of Control are making application to the Ontario Government for the necessary legislation to place the medical inspection of schools in Toronto under the Medical Health Department. We heartily agree in this move, as it is in the right direction. It seems but reasonable that medical inspection should be placed in charge of the Medical Officer of Health. With but few exceptions, authorities agree in this, and we trust that the legislation asked for will be granted, if for no other reason than the almost universal dissatisfaction that is now prevalent with medical inspection as at present carried on in Toronto.

In Great Britain and some other countries, medical inspection of schools is organized under the Medical Health Officer in the town or city or in the county, as the case may be. There is no doubt that this allows of better organization, and as the Medical Officer of Health must in any event take charge of all cases of contagious disease in the schools, it is generally conceded that both time and money are saved by such a plan, such a method frequently preventing overlapping. The Board of Education in Toronto are an elective body, who, of necessity, frequently have to delegate matters of health to the Medical Officer of Health for a report thereon. Sir Geo. Newman, of London, England, than whom there is no one better

able to give an opinion, stated, when in Toronto a short time ago, that there could be no other view taken than that above stated.

The Provincial Health Officers' Association which convened in Toronto a few months ago were also unanimously agreed on this point.

We feel that the medical profession in Toronto are a unit on this subject. and assuredly all poor over-burdened taxpayers in this city will welcome any efficient measure that will cut down the ever increasing expense necessitated by all the foolish frills and insignia of the system of medical inspection under present management.

A FAINT HOPE

Dr. Howard Kelly, whose religious devotion is known to be as great as is his surgical skill, recently stated that the discovery of radium and its great curative value is prophesied in the Bible. Whereupon a big daily of the irreverent lay press remarks. "It is a great relief to find an eminent surgeon who knows all about the Scriptures. May this attitude spread, is our hope, until the common practice in all the hospitals is 'to open the patient with prayer.' "

Original Contributions

SOME PROBLEMS IN HOSPITAL TRAINING AND TEACHING*

By Miss Charlotte A. Aikens, Detroit, Mich.

In this paper I shall try to bring to your notice several problems relating to hospital training and teaching which seem worthy of discussion and study. I shall not promise to furnish full solutions or panaceas for any of them.

The chief problems which exist in relation to hospital training and teaching may be placed under three main heads—problems growing out of present social conditions, combined with the present state of evolution in the training of nurses; problems caused by difficult people; and problems growing out of special conditions which may differ with each hospital. In any discussion of these problems it is wise to keep the patient and his interests well in the foreground. We cannot properly or intelligently discuss any of these questions and leave the patient out of consideration. Were it not for the patient there would be no need of hospitals, no need of training schools, and very little need of nurses. Neither should we ever lose sight of present social conditions. However high our ideals may be, it seems to be true, that in all the conditions of life we are obliged to stop short of our ideals, and accept the best that can be done under present circumstances. True progress in our work must come by the slow method of evolution, rather than by revolution.

In studying the evolution which has been going on for the last ten years in particular, a close observer cannot fail to note with concern that there is a growing tendency to train our nurses away from service in the common ordinary homes of the people, rather than for such service. Doctors have stated over and over again that it is harder to get nurses for their patients of moderate means in town and country than it was twenty years ago. The public has said the same thing. That fact, for it seems to be a fact, should concern this audience, and any other audience of hospital workers. Several causes contribute to this condition.

* Read at the Canadian Hospital Association, Toronto, 1913.

One cause may be illustrated by a booklet which came to my desk a week or so ago. It contained the rules and regulations pertaining to training which were made by a state examining board of nurses. For the last year of training there was quite an imposing list of lectures which nurses were to receive as a preparation for their coming work in the world outside. I noticed on that list there were to be lectures on factory nursing, welfare-work, so called, army and navy nursing, nursing in department stores, Red Cross nursing, lectures on the duties of the nurse to her profession, and several other sorts of duties which she was supposed to have—all of which lecturing is good, within proper limits—but not a reference was made to the practical needs in the line of nursing in the community which immediately surrounded the hospital, and not a word about nursing needs in the average home. The State which issued the booklet is an agricultural State, with no large hospitals, and no large city in it. Is there not a strong tendency to dwell unduly on these newer openings for nurses, which at most can furnish employment for but a small fraction of them, and to overlook, or fail to give proper emphasis to while in training, the pressing needs in the community which lies adjacent to the hospital. Is it pertinent to ask: "What kind of care are the people in the villages, small towns and townships adjacent to your hospitals receiving when they are ill, what kind of nurses seem to be needed most in these places, and are you training nurses who are adapted to and willing to meet those needs?"

Factories are commendable enterprises, if they manufacture something which the world needs, and we can rejoice every time we hear of a factory which has a nurse employed to care for its wounded men. Armies seem to be needed. They furnish employment for a few hundred nurses in America—possibly not that many all the time. Navies and their nursing needs should have a passing mention, but if we wiped out the armies and navies and factories and a lot of other enterprises which employ nurses, we should still have left the most important enterprise of all for which our nurses are required—the American and Canadian homes where our citizens are born, and reared, and trained, to take their places in the world. I wish to make a plea for a closer study of the average Canadian home and its needs,

in sickness, for nurses in training to be given a vision of those needs, and to be better prepared spiritually and technically to meet the practical nursing needs in those homes. There are several ways of doing this. A study of the home conditions in Brant county or Huron county or whatever county your hospital is located in—of the average income of the families, and what happens when they become seriously ill in those homes, ought to be profitable in the last year of training. A whole course on home conditions and home nursing needs, including the conservation of the middle-class Canadian home when the mother of the family is stricken by illness and there are little children to be cared for, ought to be as profitable as lectures on nursing in the navy, even if the subject is rather less romantic. We have seen in recent years the evolution of the school nurse, the factory nurse, the tuberculosis nurse, and the social service nurse of different classes. We are going to see the evolution of a new type of nurse, or of a nurse with a new vision, and with a little different spirit, and the training schools can help mightily in her development. We are going to evolve a nurse who has gotten in the training school a vision of the middle-class home as a field for service, and of her rightful place in that field. She will not to try to occupy it all, but she will work in it, if we show her how and help her, if if give her in the training school a vision of the needs and how she can best help meet them.

We all rejoice in the splendid development of hospital social service in the last eight years, but we must remember with regret that, as yet, its benefits are to be had mainly by those who come to free dispensaries or who cannot pay. When we get a little more sense and a little more experience, we are going to evolve a little different type of hospital social service for those who *can pay* a moderate rate for its benefits. Up to this time, social service has seemed to be possible only to the large hospital. Few, if any, of the smaller hospitals without dispensaries have established a social service department. I am convinced that there is yet a vast field of social service practically untouched, which the smaller hospitals without dispensaries and fortunately without great crowds of very poor patients, ought to enter. The training school must sustain a very close relation to this problem. It surely should study it, and it will. The chief field of

social service for the smaller hospital is going to be among middle-class people who cannot pay the highest rates for nursing service, but who can pay enough to make such a department self-supporting. The basic idea of hospital social service is, or seems to be, to study the needs of each individual who presents himself for treatment, to look carefully into his environment, and to try to secure for him the particular thing which he needs, whether it be milk or eggs, eye-glasses or crutches, a change of occupation or a few weeks' rest or something else. We have not yet seriously applied this basic idea to the patient in the middle-class home, but this is going to be one of the developments of the future.

At the present time there is no class of patients so neglected in sickness, none more worthy the consideration of this audience, than is the respectable maternity patient with a limited income, whether in city, town, or country. Municipalities have looked out with compassion on the mothers of the slums and poorer districts and provided means for helping them. The unmarried mother has homes and shelter and skilled care available. The middle-class mother gets along as best she can. Few of these patients can pay over from one to two dollars a day for care during the lying-in period. For this sum they have their choice of two classes of caretakers—the nurse who gets her instruction in a correspondence school, or the nurse who has had no instruction at all, usually the latter. We can berate the correspondence course nurses as much as we like, but until we take hold of this practical need and meet it in a legitimate way, the correspondence nurse is going to increase. The middle-class maternity patient furnishes the chief demand for her, and she has simply entered an unorganized, a neglected and unoccupied field. If we want to get rid of the correspondence nurse or to keep her tribe from increasing we have got to do the work she is doing, do it at moderate rates and do it better. The only thing we need fear is that we shall fail to do this. We have no right to ask the graduate nurse to assume this great responsibility without help. We have in this country no midwifery associations that I know of to depend on to meet this need. I am not sure that we want any. I am sure that the hospitals and the hospital schools can do a great deal to help solve this prob-

lem. I have long felt that if the hospitals would only take hold of this community need, and through a special extension department under the direction of a special committee, and with a practical graduate nurse in charge, who would devote herself to studying how to meet this need, working out the details step by step, we should find it not only more profitable than fighting the correspondence nurses through laws or through the press, but we would find it possible to render a much greater service to the community than by pursuing the methods which are now being used. Here and there in different parts of America are hospitals which are doing this extension work by going into the homes and seeing that the lying-in woman who goes down to the gates of the grave to give another child to the nation has a fair chance of return to vigorous health, and that the new citizen of the state gets proper welcome and a fair start. But unfortunately such work thus far reaches out only to the very poor—it must reach farther and include the respectable but neglected lying-in mother who never applied for charity or for free dispensary service.

Several Cleveland hospitals have joined in a campaign to render the midwife unnecessary by giving better service than she could possibly give to those who would otherwise employ her. Last year through the influence of this effort, 1,178 cases were cared for in homes by the hospitals, cases who would otherwise have had to depend on midwives. The training school of Lakeside Hospital, Cleveland, shared in this splendid work by contributing two supervising nurses and a group of pupil nurses each month for this work. I wish that superintendents of Canadian training schools might consider the opportunity for additional experience and for service to their own community which this form of extension work offers. When you are tempted to send your pupils a couple of hundred miles or more away across the border to secure maternity experience, will you not try to adjust your viewpoint so that you can see the maternity cases that are uncared for nearby, or left to the tender mercies of untrained and uninstructed help in their hour of need. I know all about the prejudice there is about letting pupil nurses receive pay for such service—a prejudice which is not based on sound reasoning nor on common sense. I would not exploit

the pupil nurses for the support of the hospital, but I would urge that they be given this experience in the homes of the common people which they need. I would put every dollar they earned into a training school fund, to pay for proper supervision of this extension service, proper instruction, better equipment for the training school and any other thing which the training school needed. I would see that they got to their classes and were properly taken care of in every way, but if I wanted to train nurses for homes I should try to give them this practical experience in the homes of the common people. I would not have this extension work depend wholly on the service that pupil nurses could give, but would supplement their work by a corps of non-graduate helpers who would work under supervision.

At the present time the services of the skilled graduates whom we have trained are available only to about one-third of the population—to the well-to-do, and the poor. I wonder if it is not time that we went farther and tried to possess the whole land—tried to extend the benefits of the skilled care which our nurses can give to the other two-thirds. Nothing will do as much to increase the supply of pupil nurses as a steadily increasing demand for graduate nurses at fair remuneration. This demand we must help to create. Our duties as superintendents may end when we have handed the diplomas to the graduates, but our duties to them as citizens have then only begun. We cannot forever go on turning out the finished product of our schools, and do nothing to extend the uses of that product, or to create a wider demand for it. We must try to get the far vision as well as the near vision of our responsibilities to those who enter our training schools.

Every now and then someone raises the cry that we are training too many nurses. That at a certain registry there are always nurses idle, and that therefore the production of nurses should be lessened. A Western professor in a medical college has made the statement that fifty per cent. of the nurses we graduate are idle all the time. His remedy for this condition which he says exists is to require every candidate who enters a hospital school to have a high school diploma; to make the nursing course a college course with only enough practical work to

familiarize the student with nursing duties, and to have the bulk of the nursing in all hospitals done by graduates.

Making the statement that fifty per cent. of our graduates are idle all the time is not proving it and he has produced no proof for his statement so far as I know. The fact that at a certain registry a number of nurses are idle proves nothing, except that we need some better methods of distribution. Every minister, every doctor, can tell of dozens of cases which he has worried over within the year, who needed skilled care and couldn't get it. Until the needs in this great field, which includes two-thirds of the population, are much better provided for than they now are, we need not seriously worry over an over-production of nurses. We should, however, get under the burden of better distributing their services, in some way.

We have heard a great deal in recent years about educational standards and educational ideals. We are going to hear more in the future about standards of service, and community needs. Much has been said about lifting or elevating the standards or about not lowering the standards. "Elevate the standards" makes a good battle-cry. It serves the same purpose, on certain occasions, as the waving of a flag at a political meeting, but battle cries may be very confusing, and the person who waves the flag may be notoriously unpatriotic at heart. So it is with this cry, "Elevate the standards." The uninitiated who have not thought very much about the question may easily fall into a delusion, and think that an educational standard and the quality of practical nursing mean one and the same thing, when they mean two entirely different things. It would be easily possible for a given group of people to meet and decide that no one should be eligible to enter a hospital training school who had not received an A.M. or A.B. degree, and to prescribe an elaborate and beautiful curriculum for them. They would have the credit of fixing a very high standard but nothing more. The quality of nursing received by the masses of the people would not have been improved in any particular by such measures. In making our standards let us always keep the sick and their needs and our present social conditions where they belong in any discussion of this question—in the foreground—otherwise we may be lift-

ing up standards with one hand and lowering the grade of care given to the sick with the other hand.

Do not settle down into the belief that high educational standards and good nursing in the hospital or outside of it necessarily go hand in hand. They are often, though not always, radically opposed to each other. The spirit of nursing has a lot to do with its quality, and spirit and character cannot be determined by educational tests. It is easy to find schools which announce a very elaborate curriculum and very high theoretical standards, whose reputation for nursing in the hospital is very poor indeed. One doctor, in discussing this condition with me, remarked that in a certain hospital which had these very high theoretical standards "*two nurses were on duty where six would be busy, if the patients got the care they ought to have.*" His remark shows clearly the danger that exists in losing sight of social conditions and in arbitrary educational standards.

While this paper was being prepared a letter came to me from a physician in a western state who is connected with a small hospital there. He complained bitterly at the burdens laid on their little hospital school by the state examining board of nurses. He had counted up the pages in the numerous text-books which the nurses were supposed to cram into their craniums and found them to be over 4,000 pages, besides a history of nursing of three volumes. He believed that the nurses could learn all that would be valuable to them in about 1,400 pages, so he said, and he wanted somebody to write something about their difficulty and somebody to do something about the matter that would help his school. I am not prepared to say how many pages a nurse should be forced to study or needs to study in order to become safe and useful nurse. So much depends on what is on the pages. I do say that the remedy for this burdensome condition wherever it exists is in the hands of hospital and training school superintendents and hospital boards. They can simply refuse to allow their nurses to be burdened with studies which are not calculated to make them better able to care for the sick, and insist that those who desire to pursue these extra studies do it after graduation, and not before. I believe we ought to

always hold out a "beyond" to our pupil nurses as an incentive to them to keep up study after they leave our schools.

Probably most of us would like to see all the training schools in Canada at once brought up to the high level of efficiency now attained by the oldest and best schools. Yet we know it can no more be done than can a child of ten attain at will the strength and experience of mature manhood. Hospitals, most of them, start out small, handicapped by lack of money and by lack of experience. Yet even the smallest and most isolated hospital is doing a life-saving work. It is, or it should be, the work of every one of us to assist in this life-saving work, by helping the weaker hospitals and schools in every way possible. The cry that "small hospitals should not have training schools; let them hire graduate nurses or else get off the earth" (this is a quotation from a letter I received a few weeks ago)—this cry is one that Canadians cannot well afford to join in. Canada is too new. Canada needs hospitals and nurses too urgently to adopt that policy. Rather let us help the small struggling hospital to grow and to do good work within certain limitations. Have we any right to expect or demand such a hospital to give the same full course of study and training that is given in this great institution whose hospitality we are now enjoying. They are clearly not in the same class at all, and our efforts to keep all training schools in one class is unfair to both the large magnificently equipped and organized training school and the small struggling school. It is unfair to both of them.

Most of us remember the time when the newly arrived probationer, the first and second and third year nurses, who happened to be off duty, were all turned loose into the same classroom, and a doctor was placed in front of us to give us such crumbs of medical knowledge as he happened to have ready at the moment. Our present system of grouping all training schools in one class—good, bad and indifferent—and giving all the same training tasks, or of putting a stamp of approval on a certain number, and discrediting the others or regarding the remainder as non-existent, is just about as antiquated and just about as sensible as the hit-and-miss system which prevailed in our training schools a score of years ago. I have known of small hospitals of twelve or fifteen beds trying to give a three-

year course in nursing. They could not give a course of more than one year and make it profitable for any nurse. They could have taught the common methods to be used in general bedside nursing in one year, and that is all they should have tried to do, or have been allowed to do. Better do a small thing well than try to do a bigger thing and make a fizzle of it. Better let the very small hospital devote itself to giving a thorough but limited course, and to meeting the home demands for nurses in its own community at moderate rates, than try to force it or encourage it to attempt something which it is not able to do. Just as long as we adhere to the plan of trying to keep all schools on the same level, we cheapen the work of the best schools and lay unnecessary burdens on the small struggling school.

Every conscientious training school superintendent is working constantly at the problem of how to improve the quality of the teaching done in her school. I take it that most of you have to depend for a considerable part of your instruction on the unpaid medical lecturer, who is sometimes a very good teacher and sometimes very poor. It is easily possible for a man to be a brilliant success as a medical practitioner, and a brilliant failure as a teacher of nurses. We are all familiar with the type of lecturer who is habitually late, or so frequently absent that his course of lectures amounts to nothing of practical value in a nurse's education. He rarely came prepared, and was always offering apologies for lack of preparation. We easily recognize the type of lecturer whose doesn't know the difference between a medical lecture and a nursing lecture, who tells a good deal about diseases but little or nothing about how to care for the patient who has the disease. We greet as an old associate the doctor who thought the nurses couldn't know too much about the things in which he happened to be especially interested, and who wearied us by going into details which we knew did not concern us as nurses. These are some of the trials of the volunteer system of instruction. We are all ready, I am sure, to pay our tribute of respect and appreciation to the medical men who have given time and thought and study to the question of how to adapt their teaching methods to nurses, and whose services have helped to improve and strengthen our training school work in a hundred ways. Yet many of us have now

or have had some of the other kind of lecturers to deal with and they constitute a very real problem in some hospitals.

I am convinced that most schools would find the quality of their work vastly improved and their teaching problems simplified by paying at least two outside medical lecturers and keeping them teaching weekly throughout the school year. Such paid instructors are usually chosen from among the younger physicians and are paid from two and a half to three dollars a lecture, which brings the total cost of a paid instructor to around a hundred dollars a year—a small sum, surely, to pay for punctuality, faithfulness and that careful attention to the needs of the training school that is essential for real success. This does not mean that there is not still a place for the volunteer unpaid instructor. In the last half of the training period, when the pupil nurse has acquired a good foundation of practical knowledge suited to her needs, our medical specialists can be used with great benefit. But it will be found that in the training school as elsewhere the most satisfactory service will be had when we pay something for it. It depends a good deal more on the hospital superintendent than on the hospital board whether this improvement is made in the training school. Make the start by asking for one instructor to be paid, to conduct the classes in certain studies throughout the year. After the first year's work it will not be difficult to have an additional instructor for second year nurses, if it seems desirable. Ladies' Hospital Aid Societies can often be induced to assume this expense in the beginning.

How much teaching should the lady superintendent of a hospital be supposed to do? How much can she do and do justice to the teaching, to the hospital and to herself? This is a practical question which every lady superintendent has to meet. I shall not take time to discuss it, but merely submit it as a subject which is well worth thinking about and talking about in meetings of this kind.

One who closely scans the announcements of a large number of schools from year to year cannot fail to notice the increase in the number of nurses who are listed as instructors. Without doubt, the one who has the best opportunity of all to teach is the head nurse who has the daily and nightly supervision of the work of the pupil nurses. Yet the constant changing of head

nurses which goes on in many hospitals, combined with the fact that we have adopted no general and systematic plan of giving them a course of training calculated to better equip them for training and teaching, hinders the best use of the head nurse's opportunity for teaching. The practice of nursing is one thing. The practice of teaching is a different thing, and needs a good deal of study if one is to achieve success. Nurses in general like to refer to the opportunity afforded in Teacher's College, New York, for acquiring preparation for teaching. Yet we all know that out of every hundred graduate nurses who will enter institutional work in the next five years, ninety-nine of them will not have a chance to go to Teacher's College. Let us, therefore, bid God-speed to the one conspicuous exceptional nurse, as she packs her grip and turns her face toward New York. Then let us look around at the ninety and nine who are our probable teachers and head nurses and nurse superintendents of Canadian hospitals, and see what can be done to better prepare them for teaching and training responsibilities. Some time we are going to develop summer schools and ten-day institutes which will help bring to these ninety and nine who "stay by the stuff," who go on with the task of caring for the sick and teaching, some of the opportunities which a college affords for expert instruction in how to teach. I am convinced that such a course can be worked out, and will be worked out when enough hospitals ask for it and promise to support it by sending their head nurses for instruction. But when we make up our minds a great deal can be done right in the hospital to develop capable nurse teachers. In the rest-room of an athletic association visited recently was this significant placard posted:

The very beginning of success is in a nurse *wanting* to be a successful teacher, and wanting it so badly that she will determine to devote some part of each week to studying teaching methods and acquiring proficiency in teaching. Within the past year I have been at work on a series of papers, on THE MAKING OF A NURSE TEACHER. I have studied numerous books on teaching with a view to securing practical points which might be utilized in developing hospital teachers, in the place in which nine out of ten of them must be developed—right in the hospital. The more I studied into the question, the more

I became impressed with the possibilities of giving a practical course designed to better equip our head nurses for actual teaching. The papers referred to will be published in serial form—probably in the first half of the coming year, so I will not dwell on the details of this subject at this time.

I would, however, like to direct your special attention to the report presented by Dr. W. L. Babcock at the Boston convention of the American Hospital Association, which outlines quite fully a course for head nurses and lady superintendents and the methods which have been found workable and successful in training for larger administrative positions. At least six hospitals in Canada should be giving courses in hospital administration such as are given in Grace Hospital, Detroit, and Massachusetts General Hospital, Boston. The responsibility for deciding on the quality of administration which present and future Canadian hospitals are to have, depends on this association to a very great extent. We can let it develop hap-hazard—we can let each new hospital go through the old-fashioned expensive method of picking out a nurse superintendent who knows not the A, B, C of hospital administration, and letting her get her experience at the expense of the hospital and learn by her blunders, or we can try to look ahead and make provision for the needs in administrative lines of Canadian hospitals and try to meet them in a business-like way. This responsibility is one that should be undertaken by the large, well-manned, well-located, and well-organized hospital, though that does not mean that some splendid hospital executives have not in the past come from the smaller hospitals. Personality enters largely into success in executive work. But the best executive might have been better still had he had a little training in administration to start with.

In this rather disjointed paper I have tried first to make a plea for some special emphasis to be given while the pupils are in training, to the needs in the line of nursing in the community adjacent to the hospital, and that they be given an opportunity to acquire experience right in the homes of the Canadian people in dealing with home nursing problems, so that good practical home nurses may be sent out of our schools. I have made a plea for some special study to be given to the needs of the respectable

but neglected middle-class maternity patient who is not an object for charity, who now is forced to depend largely on untrained care and assistance in her hour of need. I have made a plea for the small, struggling hospital to be given a chance to develop and meet its town community needs without trying to lay on it the same teaching burdens which are assumed by the large, well-established, well-equipped hospital. Attention has been called to the danger that exists when we try to elevate the educational standards more rapidly than our social conditions will warrant, and to the danger that such measures may easily cause the actual care of the sick to deteriorate. Attempt has been made to emphasize the value of employing one or more paid instructors who would assume responsibility for a good deal of the teaching in the first half of the training course. The question has been raised as to how much a lady superintendent should be expected to teach. Attention has been called to the exceptional opportunities which the head nurse has for teaching, and the suggestion has been made that we try in the hospital to help her to acquire proficiency as a teacher. I have asked for special consideration to be given to the outline for a course in hospital administration submitted at the Boston convention.

None of these are very new questions, but each has its bearing on the care of the sick which is our first duty. These questions cannot be settled in a day, or a year, or a decade, but they are ours to wrestle with till better conditions prevail. Let us keep first things first in all our planning for our hospital schools. Let us not set for ourselves any artificial standards which will hinder us in the great work with which we have been entrusted. Let us constantly study how we may improve and at the same time do justice both to hospital and the hospital school. Let us keep very close to human needs while we work at these problems. Let us remember that the world measures real greatness and real values with the yard-stick of service and practical utility.

REPORT OF COMMITTEE TO OUTLINE STANDARD COURSE IN HOSPITAL ADMINISTRATION

DR. W. L. BABCOCK, CHAIRMAN; DR. JOSEPH B. HOWLAND, DR. J. N. E. BROWN.

YOUR committee has prepared its report in two divisions in order to cover the subject of the training of hospital administrators or executives whose future field of work presupposes the larger domain of the large general hospitals; and, secondly, the training of graduate nurses for positions as executives of smaller hospitals and as heads of departments in general hospitals. As this division is made it becomes at once obvious that the method of training candidates under these two headings is quite distinct in subject matter, methods and practical application.

THE TRAINING OF PHYSICIANS AS HOSPITAL ADMINISTRATORS.

After careful consideration, your committee does not believe that it is practical to establish regular courses for the training of physicians as hospital administrators. Any physician desiring to secure training for the position of administrator or superintendent of a large hospital should first take a position as junior assistant and learn the work from the bottom up. While it is true that only a comparatively small number of hospitals have assistant administrators or assistant superintendents, attention may be directed to the many excellent opportunities of training offered in state hospitals for the insane in the junior staff positions. The insane hospitals of New York and Massachusetts alone require over three hundred physicians to make up their medical staffs. Numerous vacancies occur annually, and in New York State the civil service examinations for the purpose of filling those positions are open to residents of any State. For many reasons the training in State hospitals for the insane provides an excellent foundation for work as general hospital superintendents or administrators; in fact the regular routine, excellent methods, and administrative economies practised in State hospital work furnish the young physician with an unusual outline for administration work in general hospitals.

Several of the larger general hospitals of the East and middle West have from one to four positions as assistant superintendent or junior resident. These hospitals, together with the State hospitals mentioned, offer the only practical opportunities known to your Committee for the adequate training of hospital administrators or executives.

Hospital administration requires broad training, covering, as it does, the executive business of the hospital, as well as a certain medical and social work. It is impractical to teach this work in a limited course.

Liberal salaries should be paid assistants in training so that desirable men may be encouraged to take up the work. The time spent in training first assistants before taking charge of large hospitals should be not less than three years, and preferably longer. The assistant, while attending to the routine duties of his position, should be familiarized with the duties of his senior, and in this manner, where several assistants are employed, each will understudy his immediate senior. It is an economical and social error to place an untrained physician at the head of a large general hospital. A certain number of physicians so placed may learn the business, but at what a sacrifice. The financial and professional interests of such an institution will certainly suffer materially until such time as the executive acquires a comprehensive knowledge of the many-sided requirements of the position.

OUTLINE OF PREPARATORY COURSE FOR EXECUTIVES OF HOSPITALS AND HEADS OF DEPARTMENTS.

This course presupposes that the candidate is a graduate or registered nurse and has definitely decided to take up institutional work as a profession. The outline covers a requisite course of training for superintendents of smaller hospitals (100 beds or less), assistant hospital superintendents, superintendents of nurse training schools, night nurse superintendents, operating room supervisors, ward and corridor supervisors and dispensary or out-patient supervisors. A modification of this outline could be used in the practical instruction of women for the position of housekeeper or matron.

The experience of two or three general hospitals that have for several years given a course in hospital economics, administration and institutional nursing, similar to the proposed standard course, has demonstrated that any well-organized hospital of 150 beds or over can give such a course with great advantage to the pupils and material advantage to the hospital.

The heads of departments in any hospital providing this course are greatly benefited by their contact with graduate nurses from other schools. Their interest in their department is stimulated by the practical teaching methods outlined; for example, the matron, the dietitian or the supervisor in whose department the pupil is working, is keenly aroused to the necessity of making every effort to place the practical work of her department on a higher scientific and economical level. Her efforts may be stimulated by suggestions and criticisms from members of the class.

Pupils taking this course of training should act as assistants to the various heads of departments for a limited period of time or in some capacity which carries with it a limited or circumscribed responsibility. After the course is once organized, the amount of time and attention that department heads give to pupils may be greatly minimized, and experience has proven that the teaching does not become an additional burden. It has been demonstrated that the adaptability of pupils in various departments varies to some extent, but that the general average of efficiency is reasonably high, and that few pupils fail to assimilate the training in actual practice. It is not expected that all pupils who take this course will become proficient hospital executives or department heads. A small minority, as in all lines of training, have mistaken their profession and are not adapted to institution work.

The course, as outlined, is essentially a practical one, and pupils should actively participate in the work of all departments of the hospital.

QUALIFICATIONS FOR ADMISSION TO THE COURSE.

Applicants should be registered nurses or graduates of hospital training schools which at least maintain the minimum standard adopted by the American Hospital Association in 1909.

They should be graduates of at least two years' standing and between twenty-four and forty years of age. They should be single, in good physical health, and be definitely committed to a future of hospital work. If individuals could be manufactured as wanted and human nature made more pliable, it would be desirable to include in the qualifications for admission to the course a disposition and temperament of adamantine texture and resourcefulness. It should also be mentioned that, other qualifications being equal, the woman with a commanding presence, whose stature surmounts five feet five inches, and whose activity gives promise of much potential energy, generally proves the most successful in hospital work. Unfortunately, all of these qualifications are seldom combined in one individual.

Nurses who seriously contemplate making hospital work their vocation should first carefully take an inventory of their mental assets in temperament, tactfulness, adaptability, and their physical assets in stature, physique and endurance. A conscientious survey of these qualifications, which cannot be bought, sold or stolen, will unquestionably avoid future disappointments.

LENGTH OF COURSE.

The course as outlined covers a period of six months' practical work, including several didactic lectures. With this outline as a basis, courses of shorter duration in special hospitals could be arranged, notably in psychopathic, obstetric, contagious, tubercular and pediatic work. Special courses in the administration of surgical departments and practical hospital housekeeping could also be arranged to cover a period of two or three months. A special course in "hospital dietics and food service" could be given in a like period.

OUTLINE.

GENERAL MANAGEMENT.

Responsibilities of superintendent; by-laws, rules and regulations; organization of departments; selection of department heads or supervisors; relation of hospital and its officers to the public; relation to city and county poor departments, associated and private charity organizations; co-operation with other in-

stitutions; attitude of local newspapers; relation of executive to board of trustees, attending medical staff, and auxiliary hospital workers; management of resident staff; appeals to public for financial assistance; nature of general and special bequests and endowments; investment of endowment funds; legal relations of hospital, its officers and employes; preparation of annual reports; preparation of specifications and contracts; general care of grounds and buildings; plans and location of new buildings; ambulance service; fire, elevator, liability and industrial compensation insurance.

GENERAL BUSINESS DEPARTMENT.

Classification and training of office clerks; business principles and methods, including hospital bookkeeping; filing of records and reports; hospital statistics; office blanks and records; sources of hospital income; preparation of pay-rolls; cash balances; cost accounting; telephone service; reception of visitors; relation to other departments of hospital; receiving and recording patients' property; credit accounts; collection of old accounts.

TRAINING SCHOOL DEPARTMENT.

Methods of teaching; clinical or bedside demonstrations; demonstration room; preliminary course of training and special teaching of probationers; engagement of candidates; ethics of nursing; relation of training school officers and supervisors to pupils, to patients, and to other departments; training school blanks and records; preparation of curriculum; assignment of head nurses and rotation of pupils; organization of night service; keeping of time books and ward and corridor inventories; construction, care and management of nurses' home; economy in the use of supplies; alumnae work.

MATRON'S OR HOUSEKEEPING DEPARTMENT.

Management of central and branch linen rooms; sorting, storing and reporting of flat work; checking and issuing linen room supplies; management, duties and obligations of housekeeping employes; stock requisitions for dry goods, crockery and housekeeping supplies; housekeeping time books; pay-rolls,

blanks and records; classification, discipline and housing of employes; waste of food in pantries or dining-rooms and economy in the use of supplies; sale of old rags and other waste; destruction of vermin; inspection of waste and garbage.

LAUNDRY DEPARTMENT.

Study and arrangement of laundry machinery; limitation of hand work; marking, sorting, washing, mangling, starching and ironing; soap making; checking and issuing of washed goods; systematic and economical handling of soiled and washed clothing; handling of clothing of nurses and employes.

STEWARD'S DEPARTMENT.

Contracts and bids for supplies; purchase of general supplies, provisions, perishable goods, furniture and special equipment; storekeeper's records; requisitions for, and issuing of, supplies; monthly inventories of material, stock, and daily and monthly issue sheets; marketing for fruits and vegetables; per capita allowance of provisions; waste of supplies; economical handling of meats and dairy products; meat cutting; co-operation between steward's department and kitchens.

KITCHEN DEPARTMENT.

Kitchen management and division of work; preparation of food; delivery of prepared food from kitchen to pantries and diet kitchen; menus and dietaries; food waste; requisition for supplies; diet kitchen management; pantries and handling of pantry supplies; arrangement of kitchen and pantry equipment; trays and tray service; keeping food warm; night food service.

SURGICAL DEPARTMENT.

General management; receipt and issue of supplies; blanks and records; sterilization methods; preparation and care of dressings and sutures; supervision and assistance in operations; preparation for anesthesia; administration and choice of anesthetics; selection and care of instruments; planning, heating, lighting, ventilation and equipment of operating rooms; ward and corridor surgical dressing rooms; operating room economy.

PHARMACISTS' DEPARTMENT.

Preparation of contracts and requests for bids; purchase and issue of supplies; monthly inventory and other reports; checking of prescription and issue records; storage of supplies; care of rubber goods and special surgical equipment; care of poisons and antidotes; pay requisitions for extras and special preparations; purchase of alcohol in bond.

WARDS AND CORRIDORS.

Specal supervision; practical teaching of supervisors in the training of nurses; general care of patients; care of equipment; requisitions and recording of supplies; relations to resident and attending medical staffs; relation to superintendent, superintendent of nurses and other officers; attitude towards visitors.

OUT-PATIENT DEPARTMENT.

Planning, equipment and organization; special relations to in-patient department; clinical records and statistics; dental and other special clinics; school and visiting nurse work; relation to social service department.

RESIDENT STAFF.

Duties of resident physician, of house surgeon, of house physician internes; admitting of patients; treatment of accident and emergency cases; arranging of appointments; classification of patients; handling of attending staff patients; calling of coroner, police, priests and county attorneys; consent of relatives for autopsy; handling of chronic and convalescent cases; isolation of infectious cases and care of dying; care of instruments, splints and apparatus.

MECHANICAL DEPARTMENT.

Duties of engineer, electrician, master mechanic and assistants; daily inspection of machinery, motors, etc.; heating; lighting; ventilation; refrigeration; purchase of coal and other supplies; water system; sewerage system.

Society Proceedings

AMERICAN MEDICAL ASSOCIATION

Hospital Section

(Continued from our November Issue.)

Dr. Thos. Howell, Superintendent of the New York Hospital, New York, forwarded a paper on "Factors Influencing Hospital Costs."

The essayist was asked why it was in spite of standardization and uniformity in prices, per capita costs varied so much. What was per capita cost? And what did it exclude? In most instances it did not include interest on investment, as is the case in factories.

In the cheaply run city hospitals the per capita is low—sometimes not over $1 per diem. In the restricted class of wealthy hospitals, where no expense was spared and the best of everything provided, the cost ran up often to $3 per day.

The factors influencing per capita cost were: location of the hospital, amount of scientific work done, number of employees and salaries paid, medical school connection, proportion of private-room patients to ward patients, service rendered, including food and attendance.

Per capita cost is higher in large cities than in smaller; in the North than in the South.

The chief factor in the variation of per capita cost was the pay roll. It varies from 28 cents per day to $1.50. In municipal hospitals it is low, city officials often acting as treasurer, auditor, purchasing agent, etc. But hospitals with a cost of $1.20 per day for salaries gives a better service than one with a cost of fifty cents. The structure of the hospital affects this item considerably. Hospitals with chronic cases—boarding-houses largely—have a low per capita. Hospitals doing high-class scientific investigation, necessitating paid skilled workers and expensive laboratory equipment, have a high rate, as is the case with teaching hospitals. Also, too, where many private patients are catered to the rate is high. Each hospital has its

own peculiar characters, and an attempt to standardize hospital costs was useless.

Dr. Cleveland Shutt said Governmental differences accounted for the difference between per capita costs in Europe and America: there, influences were permanent; here, fluctuating.

Dr. E. E. Southard, Superintendent of the Psychopathic Hospital, Boston, read a paper on "The Psychopathic Hospital Idea." The essayist said he wished to urge that superintendents of general hospitals look to it either to give their insane patients proper accommodations or to spend time and energy getting their local communities to establish psychopathic hospitals. Excited and delirious patients were not getting proper treatment in general hospitals. The methods employed in hospitals for insane could be introduced—hydrotherapy, special attendance, isolating rooms, and common sense. Until special hospitals for diplomaniacs are created, it would remain the task of general hospitals to take charge of the acute alcoholics of the community.

Seeing that from twenty-five to thirty per cent. of patients admitted during certain months to the Boston Psychopathic Hospital were syphilitics, it was high time that social workers, economists and physicians began to take an interest in that field of mental hygiene which shall seek co-operation with the sex hygiene propagandists.

Social service for psychopaths was as yet scarcely existent in any systematic and well-rounded form. It would soon, however be undertaken.

Whose fault was the present reign of ignorance as to the proper treatment of the acutely insane? Neither the neurologist nor the internist could scarcely be absolved.

The psychopathic hospital was bound to be one of the most concrete sources of enlightenment as to psychopaths, and every society for mental hygiene, for sex hygiene, for the amelioration of alcoholism, for eugenics, should make it part of its business to help start a psychopathic hospital with an out-patient service in every community in which there was any hope of awakening social sense.

Dr. J. A. Hornsby inquired how Dr. Southard would deal with a violent case of surgical delirium.

Dr. Southard, replying, recommended the warm bath or the warm pack, or both. He inquired about how many of such cases Dr. Hornsby had observed.

Dr. Hornsby: Some three a week in a 350-bed hospital.

Dr. Southard: In such an institution I would recommend putting in hydrotherapy. It would not cost a great deal.

Dr. Hornsby: The outlay would not be considered; the cost would be to the patient himself, the danger in transportation to the Hydrotherapy Department and to the other patients.

Dr. A. B. Aucker: The question is not so much one of noise and disturbance to other patients as it is in the danger to the patient himself. It is necessary in many cases to immobilize the injured part, so some restraint or drug seems absolutely necessary. In thirty years I have seen two or three hundred such cases. In certain cases the hydrotherapy cannot be used, nor can the requisite number of attendants be supplied.

Dr. Southard admitted that a pack was somewhat of a restraint; there was, however, no psychologic objection to restraining an unconscious person. In 800 necropsies done in the Boston City Hospital eight per cent. were mental cases—chiefly delirium tremens. He was convinced that many of these delirium cases need not have died had the proper treatment been employed.

Dr. C. H. Shutt believed drugs and restraint were necessary in cases where hydrotherapy proved unavailable—those with abdominal wounds, for instance.

Dr. H. B. Howard considered there was more or less ill-advised restraint—often administered by inexperienced house officers when called to cases in the night. Light and society should be tried before restraint was attempted.

Dr. Southard wished that the State Board would secure a record of these cases from general hospitals.

Dr. Howard said had the State Boards the authority no doubt they would obtain such information.

Dr. Herbert J. Hall read a paper on "Hospital and Asylum Workshops." In opening, he alluded to the work which is being

done for cripples, the blind and the insane in various institutions. His experience had been with nervously exhausted patients, and he had found that among persons of education and taste the ancient handicrafts had appealed to them—work which often could only be done with high efficiency by hand: hand weaving, metal working, leather working, pottery, basket weaving and cement working. Their work had a ready market value. Five handicapped persons last year had made and sold $5,000 worth of pottery. Last summer a small group of men at the State Farm at Gardner, Mass., produced $40,000 worth of supplies. Dr. Philip K. Brown, on the Pacific Coast, has established a pottery where convalescent tuberculous girls are paying their own expenses.

A central bureau should be established to conduct extensive experiments. The whole field should be studied and practical shops established where needed. They might be associated with the out-patient departments of general hospitals.

Dr. Gilman Thompson presented a striking paper on "Efficiency in Nursing." In one experiment he had the nurses wear pedometers. One nurse walked 7½ miles in one day, others made an average of 5½ miles. One nurse had to walk two miles per day to serve meals, carrying one tray at a time to 26 patients in a ward where the most distant bed was 120 feet from the ward kitchen. The loaded tray weighed fifteen pounds. A truck was procured which held eight trays. Eight patients were served in two minutes. In the old way ten were consumed. The distance travelled was 70 feet, as compared with 240 feet. Upon the introduction of the truck the ward maid exclaimed: "Bless the man that invinted thim thrucks—sure the corns is all gone off me hands since."

Dr. Richard Oldring Beard read a paper on "The Trained Nurse of the Future."

Dr. Beard winds up a very interesting and thoughtful paper by saying:

"Like that of medicine, nursing is no longer a privileged profession. It is a profession of privilege, but it is the

privilege of service. It cannot expect to enjoy the honors and the rewards which always attach to social service unless it accepts the fundamental principle of social serving. Freely it has received; it must freely give. It cannot achieve the solidarity of the social group save on the basis of social service. It cannot continue to command the protection of the police power of the state in safeguarding its own interests unless these interests are at one with the larger interests of the people it serves.

"In common with the profession of medicine, it must take its proper place in the ranks of those social agencies which do not produce, but conserve. It must determine, with the aid of the profession of medicine, whose handmaid and co-worker it is, its own educational fitness for the conservation of the most valuable of human assets, that of human health."

Hospital Intelligence

Committee on Grading of Nurses

The first meeting of the committee on grading of nurses appointed at the Boston convention was held in Hotel Statler, Buffalo, Jan. 13th and 14th. The members present were Drs. Howell, Mann and Ross, Misses Aikens, Anderson and Barrett. Dr. Renwick Ross presided over the sessions of the committee.

After considering the important question in its various phases, the committee decided to submit the following list of questions bearing on the subject of grading and classification of all who nurse for hire, to the members of the association and others interested, in order to secure an expression of opinion from all parts of the countries represented in the association. Replies are to be sent to Dr. Renwick Ross, Buffalo General Hospital, Buffalo, before April 15th. The committee is making an earnest effort to improve conditions relating to the care of the sick, and this classification is simply a means to that end, Anyone is at liberty to send a reply to the questions, whether a member of the association or not.

1. In your opinion is it possible to meet the nursing needs of the average community in city, town and country, in the United States and Canada, with graduate nurse service alone?

2. If in your opinion only graduate service should be used, will you kindly present an outline of a practical comprehensive programme for supplying graduate service to all classes needing continuous nursing?

3. If more than one grade of nurse is a necessity, will you please state how many grades you consider necessary? How would you classify nurses so as to include in your classification all who nurse for hire?

4. Will you kindly suggest a substitute term for the grade B or "certified nurse," as recommended by the committee on grading of last year, if you consider that some better terms should be used to designate nurses trained in special hospitals or hospitals unable to give a full training. Please state whether or not you are satisfied with the distinctive terms recommended by the committee of last year. Give briefly your reasons if not satisfied.

5. If several grades seem to be necessary, how and where should the several grades be trained?

6. In view of the fact that many tuberculosis hospitals find it impossible to secure sufficient graduate nurses to care for their patients, what measures would you suggest for meeting the nursing needs in such institutions?

7. If training is given in a tuberculosis hospital, how long should the course be and how would you classify those completing such a course?

8. In view of the fact that there is a constant and pressing demand for maternity nurses in homes of moderate means, what measures that are practicable for the average community would you suggest for meeting this need. How classify such nurses?

9. What constructive recommendations would you make with a view to improving on the plans presented by the committee on the grading of nurses in the report submitted to the Association at the Boston convention, a copy of which was mailed to each member.

10. Will you kindly suggest to the committee of this year any feasible plans which occur to you for improving the quality of home nursing now being received by those who cannot afford graduate nurses?

Thomas Howell, M.D.
William O. Mann, M.D.
Charlotte A. Aikens.
Ida M. Barrett.
Emma A. Anderson.
R. W. Bruce Smith.
Renwick R. Ross.
Buffalo General Hospital, Buffalo, N.Y.

American Hospital Association Meeting, 1914

Dr. Cleveland H. Shutt, Commissioner, City Hospital Department, St. Louis, Mo., will prepare the paper on "Efficiency and Progress" instead of Mr. John Wells, who has resigned the superintendency of the Latter Day Saints Hospital at Salt Lake City.

CANADIAN

Hamilton is to have a new city hospital.

A hospital to cost $60,000 is planned for Glace Bay, N.S.

Quebec city is to have a new $75,000 isolation hospital.

A new fifty-bed hospital is to be erected at Walkerville, Ont.

A hospital will be built near St. Catharines for the benefit of the men who are building the new Welland canal.

A portion of the Nurses' Home of the old Toronto General Hospital is being used as a measles hospital.

An addition to the hospital for insane at Selkirk is being made by the Manitoba Government, to cost $65,000.

A $42,000 addition is being made to the General Hospital at Regina, Sask.

A $35,000 addition is being made to the Children's Memorial Hospital, Montreal.

Hotel Dieu Hospital, Windsor, Ont., is building a $25,000 addition.

The by-law providing that the Vernon Jubilee Hospital should be taken over by the city of Vernon, B.C., was defeated.

A hospital will be established at Chapleau, Ont., to be known as Chapleau Cottage Hospital.

A new isolation hospital has been opened at St. Thomas, Ont.

A sanatorium for consumptives will be established near Mitford, Alta., to be called the Queen Mary Sanatorium.

A tuberculosis hospital is planned for Merritt, N.B.

Hamilton is building a $200,000 hospital on the mountain.

The new Children's Hospital, Hamilton, is about ready for occupancy.

The private ward building of the new Toronto General was opened early in January.

The new wing of the Nicholls Hospital, Peterboro, was opened New Year's Day.

A red brick house in Brantford has been selected for a small-pox hospital, costing $5,000.

Dr. W. E. George has been inspecting the suburbs of Cochrane with a view to recommending a hospital site.

A new $40,000 addition has been built for St. Joseph's Hospital, Chatham, Ont. It was opened by Bishop Fallon.

Galt Y. M. C. A. boys sold stamps at Christmas time for the Waterloo County Tuberculosis Hospital.

Hamilton will be asked to vote on a by-law to provide $100,000 for the tuberculosis hospital there.

The Toronto by-laws to provide $250,000 each for the Riverdale hospital and the Howard Park hospital were both defeated.

The Sick Children's Hospital, Toronto, secured $8,927, the cost of treating 25,507 patients during the year ending Sept. 30th, last.

Canvas chutes have been installed in the Sisters of Providence Hospital at Haileybury. An excellent idea. All hospitals should have some such provision.

Miss G. M. Bennett, for eight years past superintendent of the General Hospital, Brockville, has resigned.

The city hospital of Rosetown, Sask., was opened in December. It stands on five acres, is municipally owned, and undenominational in character. Surrounding municipalities are subscribing.

After a year's experience as Inspector of Private Hospitals and Maternity Homes, Dr. Helen MacMurchy, who has been connected with the Hospitals and Asylums Branch of the Provincial Secretary's Department, reports that the new legislation is working exceptionally well. While there is still a great deal of difficulty in different parts of the Province, largely due to ignorance of the provisions of the Act, it is pointed out that private hospitals, especially in the newer parts of the Province, are doing a great amount of good.

The result in this direction has been, says Dr. MacMurchy, to stimulate a local agitation for more of these institutions where the local organization has not developed sufficiently to warrant a municipal institution.

In the maternity branch of the work a decided improvement has been noticed since these institutions were made amenable to Government inspection, although in a number of places in outlying parts unclean and insanitary methods were detected.

An appeal has been made to the department through the inspector to have medical cabinets distributed through Northern Ontario, stationed at central points with responsible parties. This idea emanates from the Women's Institutes, by whom it is claimed that accidents often happen in parts far removed from the services of a physician, or even where the doctor resides near at hand, his circuit is so wide that he is likely to be distant fifty or a hundred miles when an accident call comes in. The suggestion for a medical cabinet embodies more than the first aid outfit, for in addition to lint and bandages it would also include anaesthetics, morphia, drugs and other chemicals that would enable medical ministrations to be conducted for some days by anyone following proper directions.

A new $300,000 tuberculosis hospital is being erected near St. John, N.B.

The opening of the new joint Municipal Hospital at Davidson, N.W.T., took place on February 11th.

St. Frances Hospital

A new hospital is to be built at Fort Frances, Ont.

Another Hospital

A new hospital is to be erected at Nakusp, B.C., costing $12,000.

Vancouver Hospital

A new nurses' home and a service wing will be added to the Vancouver General Hospital.

Edmonton Hospital Opened

The new South Side Hospital on the University grounds at Edmonton was opened in January. It accommodates eighty patients, and will be a purely civic hospital.

Hamilton, Ontario, Hospital

A by-law to raise $200,000 for hospital buildings was carried January last. Chairman Hospital Board, T. H. Pratt. Architects, Stewart & Witton, H. P. & L. Building. Adv. Architects, Stevens & Lee, 2 College Street, Toronto.

St. Michael's Busy

St. Michael's Hospital, Toronto, will be enlarged during the coming summer at a cost of $150,000. This is to include a nurses' home. His Grace Archbishop McNeil is, it is understood, having the plans prepared and when approved of the work will be started at once. The archbishop intends to give Toronto citizens one of the best equipped hospitals in the country.

Strathroy Hospital

A new hospital was opened in Strathroy early in February.

Strathcona Hospital, Edmonton

The Strathcona Hospital at Edmonton, Alta., was opened in January. It takes its name from the late Lord Strathcona, who made a gift of $25,000 to the institution. The total cost of the hospital is $321,636, and it will accommodate ninety patients. Miss Baird will be in charge.

Goderich New Hospital

The Alexandra Marine and General Hospital will ask the town to submit a by-law to grant $15,000 for the building and equipment of a new hospital. A fine building on what is known as the Cameron estate has recently been purchased, and, providing the town gives this money, this building will be fitted up as a modern hospital.

St. John, N.B.

Plans for a new public hospital in St. John, which it is said will involve an expenditure of between $200,000 and $250,000, were discussed at a conference held in January between a committee of the county council and members of the Board of General Public Hospital Commissioners. The proposed building will have accommodation for 140 patients, and will be complete in every way. It will be provided with a new operating room, with X-ray facilities, and every department will be equipped with all the improvements that advanced science calls for. In connection with the new building there will be a power house, which will be used to light and heat the old building as well as the new.

UNITED STATES

A hospital is recommended for the almshouse, Canton, N.Y.

A tuberculosis sanatorium is advocated for "Little Warren," near Saratoga, N.Y.

The new hospital in connection with the Gratwick Cancer Laboratory, Buffalo, has been opened.

Canvass is being made to raise $150,000 for a new hospital at Washington Heights, New York City.

Over 600 persons have subscribed $31,000 towards the construction of a new hospital at Carlisle, Pa.

A new dispensary of the Hospital for Deformities and Joint Diseases, New York City, is being built.

Jefferson Medical College Hospital, Philadelphia, has opened a new department for diseases of the chest.

The four-story Elizabeth Steel Magee Hospital, Pittsburg, is being erected at Pittsburg, to cost $600,000.

The Franciscan Sisters of Poughkeepsie, N.Y., are buying sixteen extra acres to enlarge their accommodation.

The new St. Luke's Hospital, Jacksonville, Fla., will not be opened until a plan is completed for financing the institution.

The Missouri and Illinois Baptist societies project a hospital in St. Louis to be known as the Mayfield Memorial Hospital.

New $60,000 pavilions of the Bowne Memorial Hospital, Poughkeepsie, N.Y., have been opened for the care of consumptives.

Nathan Barnert, formerly mayor of Paterson, N.J., announces his intention of erecting a hospital, to cost $200,000, for the free care of the sick poor.

One of the pastors in Jersey City writes to the *Journal* complaining of dust on the walls of the wards, and of the refusal to allow a friend of a dying patient to use the hospital phone to reach the relatives.

Efforts are being made to raise $15,000 for the support of St. Luke's Hospital, Newburgh, N.Y.

The King's Daughters of Ithaca have undertaken to furnish one of the rooms in the City Hospital.

The National Emergency Hospital, Chicago, was ordered to be closed by the Health Department. There are others.

The silver anniversary of the Amsterdam City Hospital was celebrated in November. The principal feature of the occasion was the nurses' graduation exercises.

Three new buildings have been added to the Rochester General Hospital—the gifts of George Eastman. They consist of an administration building, a private patients' building and a public ward building. Two hundred and fifty patients can now be accommodated.

The two million Lima State Hospital (Ohio), built for the criminal insane, is said to be much too large and unsuited for the purpose. Experts after examining it, recommend that with some changes it may be used as originally intended. Demented and infirm patients and non-resident insane will be admitted.

The food at the new Sea View Sanitarium, Staten Island, N.Y., is handled as follows:—

Trolley trucks will be run from the kitchen to the ward pavilions and will also pass between the laboratory, laundry and other buildings, all driven electrically by the aid of an ingenious system of switches. When a nurse on any floor of any of the ward pavilions sends an order to the chef for a special diet for a patient she will wait at the door of an elevator connecting with the subway to the kitchen.

The chef has only to place the food in the elevator, close the door, press a numbered button on a board alongside, and then go back to his other duties. The big chimney and No. 2 buckwheat coal and the subway system will attend to the delivery.

The House of Saint Giles, Brooklyn, for Crippled Children completed at $100,000.

Charity Hospital, Cleveland, held a six-day campaign to raise $250,000 in December.

A new 25-bed hospital was opened at Powell River, B.C. It was erected by Andrew Henderson.

The New Britain Hospital (Conn.) received many donations on Thanksgiving Day last—mostly edibles.

The Washington Heights Hospital of New York city is planning to raise $150,000 for a new building.

A county tuberculosis hospital is to be built in Chenango county, N.Y., at Sherburn Falls. Cost, $100,000.

A new hospital is proposed for Elizabeth City, N.C. Dr. John Salba is the moving spirit. The capital stock will be $30,000.

The Children's Hospital, Los Angeles, had a linen shower on Thanksgiving Day. The new hospital building was moved into at Christmas.

The new $1,000,000 City Hospital, Louisville, will open early in the year 1914. The working staff consists of 188, at salaries aggregating $52,800 per year.

Five hundred business men, physicians, clergymen, lawyers, actors and artists took part in a $90,000 whirlwind campaign for the New Rochelle Hospital.

The Millville, Pa., Hospital managers have announced that more than $20,000 is now in hand, in addition to the $10,000 subscribed by Henry A. Dix, a wealthy wrapper manufacturer, and that the proposed structure will be erected in the early spring.

The Insanity Board, reorganized by Governor Foss, is discussing a State-wide probe of asylums. There are thirteen institutions and 13,000 patients. Inquiry at Boston Psychopathic Hospital began early last December. Stories of injuries to patients have not been explained. Too much science is said to exist. Petition is made for opening of the probe at the Westboro Asylum.

Owing to the overcrowded condition of Vassar Brothers Hospital, and the smaller private hospitals in Poughkeepsie, New York, the physicians and citizens have united in a determination to secure another public hospital which will be managed by the Franciscan Sisters.

The beautiful property has been acquired at Hill Crest, overlooking the Hudson, and preparations for a ten-day campaign to raise $75,000 or more are now being made, under the direction of Mr. A. F. Hoffsommer of Harrisburg, Pa.

New York League for Animals is erecting a $50,000 animal hospital at the corner of Bond and Lafayette streets, New York.——Long Island College Hospital is erecting a $35,000 addition to its present building.——Rockford, Ill., is erecting a new Swedish-American hospital. Fifty rooms will be available at the start.——Asheville, N.C., is working to raise $100,000 or more to rebuild the present hospital on the lines of a modern, well-equipped, and fireproof structure.——The decision handed down by a Supreme Court Judge in Rochester, Ill., declares that "A hospital for the treatment of disease, or where surgical operations are performed is not desirable in a residential section, and must necessarily depreciate the value of the property." ——Seattle, Washington, is enlarging its tuberculosis sanitarium by erecting an administration building, and one hospital building, at a total cost of $125,000.——Cambridge, Mass., has purchased a large private estate as a site for a new municipal hospital.——Detroit city fathers are still debating the question of hospital accommodation for the city's sick poor, whether to build a municipal hospital or to give grants to provide further provision in existing hospitals.

Dr. Rupert Norton stirred up the Board of the Cook County Hospital, Chicago, by his charge that the institution was a disgrace. President McCormick asserts that the treatment is being improved daily, gives good service, and is sought by ambitious internes.

Saturday, November 29th, was Donation Day for the Eastern, L.I., Hospital—vegetables, fruits, groceries, meats, old linen, jellies, etc., etc., poured in. Pastors of all churches on Eastern Long Island were requested to give notice of the affair on the Sunday preceding.

The House of St. Giles the Cripple, practically the only exclusive orthopedic institution in Brooklyn conducted a short term campaign to raise $100,000 for a new building, the campaign closing early in December. Despite the difficulties of securing funds for a small institution in a large city, when the campaign closed nearly 3,500 subscriptions had been secured, aggregating $105,332. Subscriptions secured immediately following the close of the campaign bring this total to nearly $110,000. The campaign was directed by Mr. A. F. Hoffsommer, of Harrisburg, Pa., Dr. Burr Burton Moshier, who is surgeon-in-chief, being chairman of the local campaign committee.

Hospital Story

The New Rochelle Hospital, N.Y., closed a twelve-day campaign for $90,000 on December 17th. There were nearly 6,000 subscribers, and the sum aimed for was over subscribed, the total amount being $98,275.

There were three neighboring communities that participated in the use of the hospital, from which probably over $10,000 was contributed. Altogether thirty-five teams of men were organized and thirty-two teams of women. The men met at 6.30 each evening and the women at 1 p.m.; dinner was served in each case, each team of ten having a table of its own.

This fund will provide for the floating debt of $21,000, and it is proposed to erect a nurses' home and administration building costing about $40,000; also provide x-ray machine, a new

elevator, improve laundry and install a new heating plant. It is possible that something may be set aside as the beginning of an endowment fund.

Dr. H. J. Parker is president of the hospital. The campaign leaders were W. A. Bowen, of Waterville, Maine, and his associate, Mr. T. W. Davies, of Brooklyn. Mr. Bowen will begin his fourteenth hospital short term campaign at Newark, New Jersey, January 2, for St. Michael's Hospital. Each campaign requires about five weeks for preparatory work and two weeks for the campaign proper, making the period of service and activity about seven to eight weeks.

Hospital for Criminal Insane at Waupun, Wis.

The new $200,000 hospital for the criminal insane at Waupun, Wis., which has been in process of construction for the past year, will be ready for occupancy shortly.

Bank Loans Hospital Money

A county hospital is being erected in Springfield, Mass. Architect Gardner of that town is planning it. It will accommodate 40 patients. The First National Bank offer to loan the commissioners $50,000 at 4½ per cent. for construction purposes.

Brooklyn Boasts

During the last four years Brooklyn has expended $2,484,011 in hospital buildings: Kings County Hospital, $1,128,178; Coney Island Hospital, $355,391; Cumberland Street Hospital, $45,000; Greenpoint Hospital, $805,442; Bradford Street Hospital, $150,-000.

The City of Brotherly Love

The *Philadelphia Record* says editorially: It is not uncommon for the physicians in charge of hospitals to refuse admittance to patients who are brought to them in such a condition that survival is unlikely. But shall such persons be left on the sidewalk to die? Shall they be denied all the resources of a hospital for rescuing them from death by an accident? Humanity should be found everywhere, even in a hospital.

Manned by Women

The South London Hospital for Women is being erected in Jersey City, to cost a quarter of a million. It will be manned entirely by women for women.

New $50,000 Hospital

A new hospital building is to be erected in Los Angeles for the French Hospital Association. The building committee contemplates a building of reinforced concrete construction to cost about $50,000.

Hospitals in 27 Counties

Twenty-seven counties in New York State are either provided with local hospitals within their boundaries or have voted to establish county institutions. There are 19 such local hospitals in actual operation in 15 counties, while 12 additional counties have voted to provide them. The tuberculosis death-rate is decreasing in this state.

Hope Behind

The *Evening Star,* of Newark, N.J., refers to the Hudson County Hospital thus:

"A new hospital has been talked of for several years, but nothing has been done, and the Board of Freeholders has continued to maintain this shameful plague house, over the portals of which might be written: 'All ye who enter in leave hope behind.'"

Catholic Hospital

A new hospital, the St. Francis, is being erected in Charleston, W. Va. The incorporators, their associates and successors, and officers and directors, are to receive no compensation for their services, except a livelihood, and no dividends or division of income shall be made among the members; all income is to be expended on upkeep and improvement of the hospital and furthering the purpose for which it is established.

Orphan's Hospital

A hospital is being erected at the Montana State Orphans' Home at Twin Bridges, Montana.

SOUTH AFRICA

Mr. Polhemus Lyons, chairman of the Cape Hospital Board, Progress Lane, Cape Town, writes to one of our editorial contributors as follows:—

" We have here seven institutions under one board under a new ordinance which came into effect at the beginning of the year. The Government demands of us a budget at the beginning of the year against which we work our expenses when they have approved of the same, and guarantee to us payment of the deficit when they are satisfied that we have used all reasonable means to collect from the generous public subscriptions, donations, etc.

The Government further give us thirty shillings subsidy for every pound we collect, that is to say $7.20 for every $4.80 we collect, which includes all the grants from municipal councils in our district, said grants amounting this year to over $15,000,000, and the Government gives us pound for pound on all we collect from patient's fees, and on all bequests up to a limit of £500. In this way we are hoping to come through this year without a deficit, but should there be a deficit the municipalities within our hospital district have to bear half the burden while the Government bears the other half, the subsidy in respect to municipal grants could only be valid for such municipal payment prior to October 1st of any year.

" We obtained $4,500.00 from a Saturday street collection last week, which is not very bad for a little town at the world's jumping off place.

" We have an expense account of about $175,000.00 a year for these institutions, which another year will run into considerably more, as we are adding to our engagements. Just now we are considering a Maternity Home and whether we shall take over the Municipal Infectious Diseases Hospital, both of which are sure to come under our care in the near future."

Selected Articles

SOME ABNORMALITIES IN BREAST MILK AND THEIR TREATMENT

By Hugh H. Riddle, M.D., Cantab.

A constant low fat percentage or a decrease in amount in the nursing mother's milk has generally been considered an unanswerable argument in favor of substituting artificial feeding for Nature's own method, *i.e.*, breast feeding.

However convinced the physician may be of the infinite superiority of breast feeding over bottle feeding as a general rule, a sudden cutting off of the supply or a failure of the infant to make a proper weekly gain in weight in practice usually forces him to the conclusion that, under the special circumstances, a change to bottle feeds (to which the requisite amount of additional cream can be readily added) is not only justifiable but absolutely imperative.

Where a gradual decrease in the supply of mother's milk takes place such measures as increasing the fluids in her diet, ordering more rest, etc., sometimes are efficient. Where there is complete cessation of the flow, however, something more radical is needed to stimulate the glandular structures into taking up again their interrupted functional activities.

Where the milk is normal in amount but deficient in fats there are two classic alternatives to resorting to bottle feeding: (1) increasing the nitrogenous elements in the mother's diet while cutting down her exercise, and (2) giving spoonfuls of cow's cream to the infant after or immediately previous to each breast feed.

In actual practice both these alternatives frequently fail to produce the desired effect. The commonest result of the "stuffing" treatment of the mother is a digestive upset, which is frequently the end of all attempts at nursing her baby, while the spoon feeds with cream often lead to undue sickness in the infant, with the appearance of curds and numerous small fat particles in the stools.

Tables I. and II. below give the results of a series of experiments carried out in the past six months at the Queen Char-

lotte's Hospital with a preparation known as Lactagol, which is claimed to act as a direct galactogogue, increasing both the amount of milk and the fat ratio.

To Dr. Arthur Stabb, physician to Queen Charlotte's, I am indebted for the facilities allowed me for observing in the wards a number of his own patients under lactagol and for recourse to his case notes. In the series of observations on out-patients I have to thank Dr. J. B. Banister for his invaluable assistance in carrying out the analyses in the Queen Charlotte's laboratory.

Lactagol is a dry extract of cotton seed containing the active constituents of the seed in a concentrated form. For increasing the amount of milk secreted or raising to the normal a deficient fat ratio it was given in teaspoonful doses in milk three times a day.

The subjects of the first experiment (Table I.) were taken in sequence from the in-patients at Queen Charlotte's, the only common characteristic being a low fat ratio. The analyses were made in the Queen Charlotte's Pathological Laboratories:

TABLE I.

Case No.	Date of 1st Analysis.	Fat p.c.	Time on Lactagol.	Fat p.c. at 2nd Analy.	Fat Increase.
1	4th day	1.8	7 days	2.8	1.0
2	4th "	1.6	7 "	3.0	1.4
3	5th "	1.8	7 "	2.8	1.0
4	5th "	2.4	7 "	3.4	1.0
5	5th "	2.6	7 "	3.6	1.0
6	5th "	2.0	7 "	3.8	1.8
7	5th "	2.2	10 "	2.6	.4
8	5th "	2.2	5 "	3.0	.8
9	5th "	1.9	7 "	3.4	1.5
10	5th "	2.2	7 "	3.0	.8
11	5th "	2.8	7 "	3.6	.8

Carter and Richardson in 94 samples of breast milk examined found an average of 3.07 per cent. of fat in the early months of lactation. The average for these 11 cases after the lactagol is 3.18 per cent.

The second table shows the results when the lactagol was given not at the beginning of the lactation, but at anything

from two to four weeks after the birth of the infant. The mothers here, after samples of their milk were taken for preliminary analysis, were given supplies of lactagol to take at their homes. After the week's supply had been used up they returned to the hospital for the second analysis of the milk:—

Table II.

Case No.	Date of 1st Analysis.	Fat p.c.	Time on Lactagol.	Fat p.c. at 2nd Analy.	Fat Increase.
12	21st day	2.8	7 days	2.8	—
13	24th "	3.2	7 "	3.4	.2
14	19th "	2.4	7 "	3.6	1.2
15	28th "	3.6	7 "	3.6	—
16	15th "	2.8	7 "	3.8	1.0
17	18th "	3.6	7 "	4.0	.4
18	10th "	3.0	7 "	3.8	.8
19	14th "	3.2	7 "	3.0	.2
20	14th "	1.8	7 "	3.2	1.4
21	13th "	2.0	7 "	3.6	1.6
22	12th "	2.2	7 "	3.8	1.6

In those cases, such as numbers 13 and 15, in which the fat percentage was about normal (3.2 and 3.6, respectively) at the start of the taking of the lactagol the increase was slight or none at all. On the other hand, those mothers whose milk showed a serious deficiency in fat (as, for example, Nos. 20, 21 and 22) showed a marked rise in the fat ratio after the week's taking. The average fat percentage of the milk of these 11 cases (which were not selected, but were the whole number who could be induced conscientiously to carry out the treatment and to report themselves for analysis) was, at the finish of the week's course of lactagol, something over 3.5, against Carter and Richardson's average of 3.07. In addition to the above series of trials on the twenty-two cases taken in sequence, lactagol was also given in a number of special cases both in private practice and at Queen Charlotte's, in which the milk was either deficient in quantity or patently poor in quality as shown both by analyses and by the failure of the infant properly to gain weight.

Case 1 (private), Mrs. E. S., primipara, æt. 22, twin girls, premature (7½ months). Milk secretion began on fourth day. Normal in amount on sixth. On seventh began to lessen. On ninth was unable to get even a half-ounce of milk with breast-pump for analysis. Babies put on bottles plus breast feeds every two hours. On tenth day one ounce milk obtained by breast-pump. Analysis showed 1.4 per cent. of fat. Mother put on lactagol same evening. By next evening (11th day) after four doses of lactagol breasts full and milk oozing. Each infant satisfied with two hour breast feeds from then on till time of writing (6th week). Second analysis on nineteenth day, after ten days of lactagol, showed fat percentage of 3.6.

Case 2 (private), primipara, æt. 26, premature infant, eighth month, mother an alcoholic, wife of an inn-keeper. Milk normal in quality and amount until twenty-first day, when it suddenly ceased. Cessation of milk roughly coincided with the mother's return to her duties behind the bar. Infant immediately put on bottle. As the infant failed to thrive on artificial feeding, the mother on the fourth day after cessation of her milk was put on lactagol. After the third dose the milk reappeared, and, on the third day of taking, the bottles were given up entirely. The infant was breast fed exclusively from then on until the eighth month. The lactagol was taken for periods of two or three weeks with fortnight intermissions from the second to the seventh month.

Case III. (Queen Charlotte's), I.C., æt. 25, primipara. This case instances well the rapid action of lactagol in cases where from the start the milk has been deficient in quantity. The infant had a harelip, utterly preventing suckling. From the start the milk has been drawn off with a breast-pump.

On the fourth day attempts were made by the nurse at two-hour intervals to draw off milk, but not more than three or four drachms could be obtained. On the fifth day, the flow not improving, the patient was placed on lactagol. On the sixth day and from then on until discharge the nurse had no difficulty in drawing off from an ounce and a half to two ounces at each feeding time. A special feature of interest here was that the drying up of the milk, which not infrequently follows when the breast-pump must be continuously used instead of natural suckling, apparently had no effect in curtailing the flow.

Case IV. (Queen Charlotte's), E.F., æt. 36, twins. This woman, a healthy multipara, had had ten children previously. The first six she had had no difficulty in nursing to full nine months. The next four had been each nursed for three weeks or a month, after which bottle feeding had to be resorted to. The twins weighed, respectively, 5 lbs. 12½ ozs. and 6 lbs. 3 ozs. at birth. After the normal loss in weight occurring in the first three days the small quantity of milk observable in the breasts on the fourth day and fifth day suggested the advisability of giving lactagol. The patient was ordered a teaspoonful three times a day. On the seventh day both infants had regained their birth weight, and from thence on kept up a steady gain.

Instead of following the ordinary procedure of alternating breast feeding with bottle feeding, the mother, for the three weeks she was in the hospital, was able to give each infant the breast every two hours without any apparent strain on her own system, and with most beneficial results to the two infants.

Case A. G., æt. 31, primipara. Cesarean section. Here the lactagol was given as a precaution against any scarcity of milk which might result from the shock of the abnormal method of birth, and because of the relatively greater value of what will probably prove to be the mother's only child. An abnormal loss of weight occurring the first three days (8 ozs.) also suggested the use of the lactagol. A mixture of one part cream to three parts water and two or three bottles a day were also given in addition to the breast feeding. The lactagol was begun on the fourth day.

Day.	Weight. lbs.	ozs.	Day.	Weight. lbs.	ozs.
1	7	4	8	7	4
2	7	1	9	7	6
3	6	12	10	7	7
4	6	13	11	7	9
5	6	15	12	7	11
6	7	0	13	7	12
7	7	2	14	7	13

On the mother's discharge on the twenty-third day the infant weighed 8 lbs. 10 ozs.

Ethel Pigeon, æt. 34, fourth child. The mother had not been able to nurse any of her previous children on account of lack of milk. After the birth of the present baby there were no signs whatever of milk on the fifth day. Lactagol was given in teaspoonful doses in milk and within twenty-four hours the secretion began, the mother nursing the baby comfortably at the time of discharge from hospital. On examination the breasts were well-rounded and firm, large but not fat, with well-formed nipples, in short the typical healthy breast of the normal nursing mother.—*Medical Press.*

NATIONAL SANITARIUM ASSOCIATION

New College Street Building:

Contracts are being let for the erection of this building on the corner of College and Ross Streets, Toronto, as the personal gift of Mr. W. J. Gage, founder of the National Sanitarium Association. The gift, which was made last year to the King

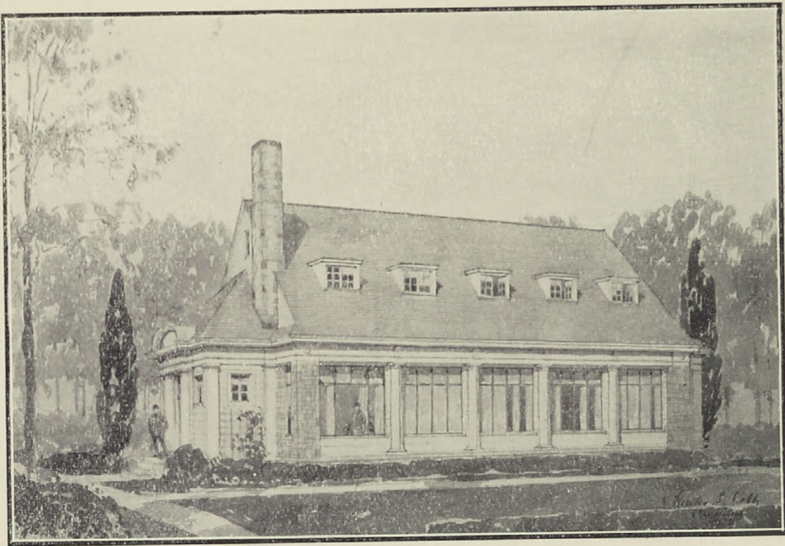
NEW COLLEGE STREET BUILDING, NATIONAL SANITARIUM ASSOCIATION.

Edward Memorial Fund, was $110,000.00. (A recent announcement intimated that Mr. Gage has since made a further gift of $100,000.00.)

The purpose of last year's gift, as above, was thus expressed: " $100,000 to be applied in the erection of a Dispensary and Institute Building in Toronto. $10,000 to be set apart for a scholarship fund for early diagnosis of tuberculosis."

The above buildings and site are expected to cost $100,000.00, leaving $10,000.00 for scholarships.

The building will be the headquarters of the National Sanitarium Association, operating the Hospitals for Consumptives at Muskoka, and of the allied institutions on the banks of the Humber, near Weston. While representing the memorial to the late King Edward, for which the fund of one million dollars was secured, it will also represent a complete modern equipment for fighting tuberculosis.



CHURCH AND RECREATION HALL, NATIONAL SANITARIUM ASSOCIATION, MUSKOKA.

ment for fighting tuberculosis. The building will contain the Head Offices of the Association, Board Room for the Trustees, Free Dispensary and Examination Rooms for tuberculous poor, with separate accommodation for the examination of private patients, headquarters of the Physicians-in-Chief and Consulting Physicians of all the Institutions, also headquarters of the Visiting Nurse and Social Service Department, demonstration theatre for students' lectures and clinics, laboratory for research, etc.

Church and Recreation Hall at Muskoka:

This seven-day church is to be built with the contribution of $10,000 made last year by Mr. Chester D. Massey to the King Edward Memorial Fund.

It will be erected on the grounds of the Muskoka Free Hospital for Consumptives and will be a most important feature in the social life of the patients—giving accommodation for Sunday services, for week-day lectures, for moving pictures, for library, reading, writing, and other social features. It has been specially designed to afford an abundance of light and fresh air, and with a view to the comfort, convenience and cheerfulness of the patients—all of which will be of immense help to the patients while they continue to take the cure.

Book Reviews

Elementary Bacteriology and Protozoology: the Microbiological Causes of the Infectious Diseases. By HERBERT FOX, M.D., Director of the William Pepper Laboratory of Clinical Medicine in the University of Pennsylvania. 12mo, 237 pages, with 67 engravings and 5 colored plates. Price, cloth, $1.75, net. Philadelphia and New York: Lea & Febiger. 1912.

This work is designed as an elementary text-book of bacteriology and protozoology for nurses and for beginners. Without being technical, it gives a good idea of the nature of micro-organisms, and then discusses with more emphasis the ways in which bacteria pass from one individual to another, how they enter the body and act when once within, and their manner of exit. Such general information concerning the character of the disease process has been included as seemed necessary to clarify the nature of microbe action. Indeed, the subject-matter in many places is but elementary bacteriological pathology. In other words, the author has endeavored to show in the simplest manner how bacteria produce disease.

Medical Research and Education. A compilation by twenty-two of the leading medical men in the United States. The Science Press, New York and Garrison, N.Y., 1913. Edited by J. MCKEEN CATTELL.

Dr. Cattell has edited several publications regarding science and education, with the idea of promoting scientific research and educational progress. The first collaborator is Dr. R. M. Pearse, University of Pennsylvania, who takes up the subject of Research in Medicine. This author in his first lecture gives a historical *resumé* of medicine from Hippocrates to 1800, which reads most interestingly. The second lecture is devoted to the development of laboratories for medical science, commencing with those of chemistry, biology and physics, and continuing with those of pathology, the first one of which was established in Wuertzburg in 1855 by Virchow. Many discoveries followed. What changes in the study of medicine succeeded.

Then follows a discourse on Pasteur and the era of bacteriology, and the effect of this study on our knowledge of the causation of disease. The next chapter Pearse devotes to immunology, cancer, protozoology, chemotherapy, physiological chemistry and pharmacology. His last lecture deals with medical research in American universities and discusses their present facilities, needs and opportunities. Pearse also contributes a paper on The Experimental Method: Its Influence on the Teaching of Medicine, and one on Chance and the Prepared Mind. Dr. W. H. Welch makes the next three contributions—The Interdependence of Medicine and Other Sciences of Nature; Medicine and the University; and The Relation of the Hospital to Medical Education and Research. And so on through the volume—such are the subjects written about—by Howell, Mall, Barker, Minot, Cannon, Councilman, Theobald Smith, Stewart, Jackson, Lyon, Herrick, Dodson, Bardeen, Ophüls, Meltzer, Ewing, Keen, Donaldson, Herter, and Bowditch. To every medical man these papers are of great interest, but of especial interest to all professors, lecturers and teachers in medical colleges.

Obstetrics for Nurses. By Joseph B. De Lee, M.D., Professor of Obstetrics in the Northwestern University Medical School, Chicago. New (4th) edition. 12 mo of 508 pages, fully illustrated. Philadelphia and London: W. B. Saunders Company, 1913. Cloth, $2.50 net.

The nurse will find a fund of information within the pages of this clearly-printed, well-illustrated work.

In his preface to the fourth edition the author remarks that but few changes in the text are necessary, " the fundamentals of obstetric nursing remaining the same from year to year." Careful reading of this newest edition will nevertheless prove profitable and convincing that here Dr. De Lee has the last word.

In the chapter on Infant Feeding, by Dr. F. X. Halls, some changes will be found. That on Cesarean section receives lengthy notice, while the after-care of fistula operations, blood transfusion, and Memberg's method for the control of hemorrhage, are among new subjects. M. C.

Anatomy and Physiology. A Text-Book for Nurses. By JOHN FORSYTH LITTLE, M.D., Assistant Demonstrator of Anatomy, Jefferson Medical College, Philadelphia. Illustrated with 149 engravings and 4 plates. Philadelphia and New York: Lea and Febiger.

This new work presents in a clear and untechnical manner the essentials of anatomy and physiology. Emphasis has been placed on the description of organs and their functions. Questions are added to the end of each chapter, and a good glossary appears at the end of the book. The book is clearly printed and illustrated, and would appear to be an admirable one for nurses in training or for graduate nurses to use in review.

PUBLISHERS' DEPARTMENT

A Sick Room Beverage

When the Hospital House Physician is looking for an ideal sick-room beverage, let his mind turn to Cowan's Cocoa. This product has but few equals. Why? Because of its high quality and absolute purity. These two points command for it a prominent place in the list of Hospital niceties. Private ward patients will appreciate it. It is made of the best selected cocoa beans scientifically blended, and contains no foreign elements whatever. Hereafter, you might specify Cowan's Cocoa, whenever a nutritious, slightly stimulating sick-room beverage is required.

Fibreware Utensils

A decidedly strong preference is being shown throughout Canada for utensils made of Fibreware, instead of the old wooden bucket variety. This is especially true in hospitals and other places where the most sanitary methods are adopted.

The reason for this preference is readily apparent. The E. B. Eddy Co., of Hull, produce these fibre vessels and have proved them lighter in weight than those of wood, and also much more durable.

Each article is one solid, hardened mass of indurated fibre, shaped and compressed under enormous hydraulic pressure; then baked at extreme heat. They have no hoops to fall off; no seams to crack, and so are the most perfect vessels to be had from a hygienic viewpoint.

Eddy's Fibreware is made in pails, tubs, wash-basins and similar articles. All dealers can supply them. To use a slogan popularized by the manufacturers, they are "Just as good as Eddy's Matches are."

DE LAVAL MILK CLARIFIERS

ARE rapidly making history, concerning the all-important question of CLEAN MILK. We build them in various sizes including a small machine for laboratory work by boards of health and others for scientific research. Write us about this wonderful machine, and meanwhile insist on the milk supplied to your hospital, being DE LAVAL CLARIFIED.

We also furnish Scientific Milk Pasteurizers, Sterilizing Machines, Babcock and other testing apparatus and instruments. Everything sanitary for milk.

CATALOGUE AND OTHER INFORMATION MAILED ON REQUEST

DE LAVAL DAIRY SUPPLY COMPANY, LIMITED

PETERBORO, ONT.

Montreal Winnipeg Vancouver

Ingersoll Cream Cheese

"Spreads Like Butter"

DELICIOUS—NOURISHING—ECONOMICAL

Made under the cleanest and most hygienic conditions science and money can bring together. Hence its wholesomeness—its goodness. Buy it when and where you will, Ingersoll Cream Cheese

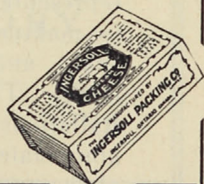
NEVER VARIES IN QUALITY

Always fresh and pure and delicious in flavor. Contains the finest and most expensive ingredients—yet is more economical than any other cheese. You can prepare the most delightful dishes with Ingersoll Cream Cheese. Get a package to-day from your grocer.

Send for our Folder of Recipes

In Packages—15c. and 25c. a package

THE INGERSOLL PACKING CO., LTD.
INGERSOLL, ONT.



When writing advertisers, please mention The Hospital World.

Cold Storage, Refrigeration and Ice-Making Requirements in the Hospital

It is peculiar how many hospitals or institutions which are modern, efficient and careful in every other way are still getting along with the insanitary, inefficient and inadequate use of ice for cold storage and other purposes.

Possibly it may be that mechanical refrigeration, being a comparatively new science, is unknown, considered a luxury or too costly, and no ideas on the subject could be more misleading. Mechanical refrigeration is not a luxury, but a necessity. Surely in institutions whose main purpose is to build and conserve health, the food and drink, which are the fundamental bases of restoring and upbuilding energy, cannot be too carefully kept under the most sanitary and perfect conditions, and these conditions cannot be obtained with the use of natural ice, which is probably impure itself, and the dampness and high temperatures obtained by its use serve to breed mould, contamination and hasten decomposition. Contrast this with the low, dry, constant temperature conditions of mechanical refrigeration, and even if it were a luxury, humanity would demand it and pay the price.

There is no doubt that mechanical refrigeration suitably designed to meet the peculiarities of each individual hospital would prove the most paying investment that could be considered, and the plant would actually pay for itself in a few years with the money saved and the economies effected over those now expended on ice.

What more gilt-edge investment could be desired, and when you add to this all the other considerations, such as convenience, control of temperatures, refrigeration wherever required, low cost of operation, absence of all bother handling natural ice, dry air conditions, low temperatures, elimination of waste and increased efficiency throughout all departments, the question becomes a most important one, and one that delay will only result in further loss.

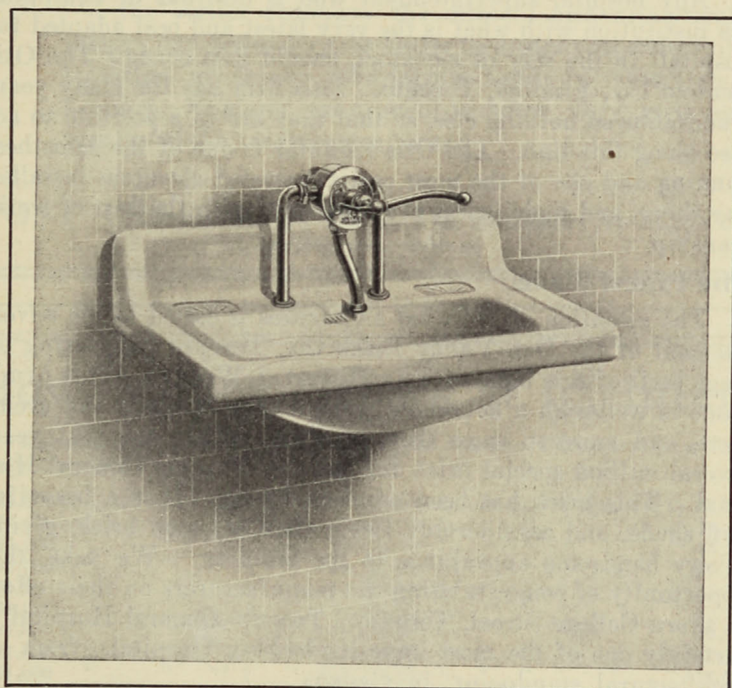
Is your institution still using ice? Are you interested in its progress and equipment? If so, why not investigate the advantages of mechanical refrigeration for your particular needs?

We are at your command and only too pleased to give all information that might be required on this subject, and by way of introduction we would advise that we are the Canadian representatives of the Frick Company, who have been building ice-making and refrigerating machinery for over thirty-five years, and whose apparatus is acknowledged to be the best made. Their reputation and experience on thousands of installations are behind all the contracts we execute, and we would appreciate the opportunity of serving you in any way. A phone or card will do, and you will find the subject most interesting. Keiths Limited, 111 King Street West, Toronto.

United Brass and Lead, Limited

TORONTO

HIGH-GRADE PLUMBING FIXTURES



N 6007

NIEDECKEN MIXER, ELBOW TYPE

For Doctors, Clinic Lavatories and Hospital Fixtures.

VITREOUS CHINA LAVATORY

Slab, 18 x 25 in. Bowl, 12½ x 20 in.

PRICE, COMPLETE, AS SHOWN - **$40.00**

Sanitation the First Consideration

The Cluff "Archer" Closet is one of the most recent styles of closet produced. This closet possesses more sanitary features than any other closet made. It is 14½ inches high, which is the proper height for hygienic reasons; it is elliptical in its shape, with extended front and recessed back. It has a large and deep water seal, covering the entire inside surface. The "Hygienic" seat used with this closet is open front and back, thus affording comfort to the user, and protection from contagious diseases.

This closet will be found to be absolutely sanitary in every particular.

Elevators

Any hospital superintendent who is desirous of equipping his institution with what is the very latest and best adapted for hospitals in the way of elevators, should first consult The Otis Fensom Co., Limited, Toronto. This firm has for many years manufactured nothing else, so that they are in a position to advise along this line. The Otis Elevator is one of the smoothest running and one of the most easily operated elevators installed anywhere, and their prices are consistent with the best of workmanship.

The Finest Made

The attention of Hospital authorities is called to the advertisement of the Don Valley Brick Co., Toronto (appearing on Page lxvii of this issue of The Hospital World). This firm's name is well-nigh a household word among builders and architects, and more so since they supplied, within the past year, several million special brick for the new Toronto General Hospital. This brick has been admired by all. It is a beautiful buff shade, and considerably larger than common brick, giving a very handsome appearance to the building. We take this opportunity of congratulating the manufacturers on their effort to adorn College Street, Toronto. Toronto General Hospital is certainly one of the most imposing-looking Hospitals, from an architectural standpoint, in Canada.

A Dustless Institution

It is a foregone conclusion that such an institution as a hospital or sanitarium should be entirely free from dust. No such thing as successful surgery can be carried on where dust prevails, therefore how important it is that the housekeeper see to the absolute cleanliness of the ward, corridors and operating theatre. This can be accomplished by the use of Dustbane. It is adapted for the sweeping of all kinds of floors, and is at the same time disinfectant in character. In short, it is a sanitary method of eliminating the dust nuisance. Dustbane can be procured from all grocers.

"Some Abnormalities in Breast Milk and their Treatment."

By HUGH H. RIDDLE, M.D., Cantab.

Medical Press and Circular, December 10th, 1913.

IN this article, a reprint of which will be forwarded post free on application to Medical men in Canada, the writer recounts the clinical and analytical history of a series of cases under treatment for deficient lactation at Queen Charlotte's Lying-In Hospitals, London, England, and records some very striking results of the treatment adopted.

POST FREE—R. T. OLD, 416 Parliament St., Toronto

How Money Grows at 6% Interest

Interest never takes a holiday. It works Sundays, Christmas, New Years and every other day.

$1,000	invested to-day at 6%,	$1,000,00—In one year it amounts to	$1,060.00
$1,000	more invested in 1 year,	$2,060.00—In " " " " "	$2,123.60
$1,000	" " " 2 years,	$3,123.60—In " " " " "	$3,311.00
$1,000	" " " 3 "	$4,311.00—In " " " " "	$4,569.60
$1,000	" " " 4 "	$5,569.60—In " " " " "	$5,848.10
$1,000	" " " 5 "	$6,848.10—In " " " " "	$7,159.00
$1,000	" " " 6 "	$8,159.00—In " " " " "	$8,648.50
$1,000	" " " 7 "	$9,648.50—In " " " " "	$10,227.40
$1,000	" " " 8 "	$11,227.40—In " " " " "	$11,901.00
$1,000	' " " 9 "	$12,901.00—In " " " " "	$13,675.00

If this were kept up for 20 years it would amount to $36,800.

20 years is a long time looking forward, but a short time looking back. How many men can look back now and say; "If I had only invested my spare money in safe securities I would be wealthy to-day." A few get rich in a few years by making a lucky strike but more become poor in the same time trying to make a strike.

Invest your money in something that will let you sleep at night and requires no time to look after.

A card will bring you full particulars. An enquiry imposes no obligation.

C. H. BURGESS & COMPANY

Traders Bank Building - - Toronto, Canada

An Ideal Food for Stomach Patients

Physicians will find Kellogg's Toasted Corn Flakes one of the most palatable foods obtainable, especially in those unsatisfactory cases where the usual results are not obtained from therapeutic remedies. Toasted Corn Flakes is essentially a breakfast food. It is exceedingly nourishing, easily digested and will be found well adapted for invalids and children.

The Sliding Furniture Shoes have been further Adopted in Montreal General Hospital

The Onward Manufacturing Company, of Berlin, Ontario, manufacturers of the Onward Sliding Furniture Shoe, have recently received an additional order for shoes from the Montreal General Hospital. This hospital is now almost fully equipped on all their metal beds and furniture with this shoe, which is ideal for adoption in hospitals and similar institutions.

The Athey Cloth-Lined Metal Weather Strip

Is the only cloth lined weather strip made for both metal and wood sash. Is the only one that keeps out *all* the draughts and dirt, that is dust-proof, which will prevent the sash from rattling, and the only one with a cloth lined channel in the sash. It guides the sash, causing it to run much smoother and easier, and is the one that saves the most on coal bills.

The Athey Strip accomplishes the whole purpose of a weather strip by excluding all of the draughts and dirt instead of only part of it.

The cloth used is three-ply Windsor cloth, not felt, but billiard cloth. It is chemically treated and will not decay.

Manufacturers, The Eberhard Wood Manufacturing Co., 36 Lombard St., Toronto.

Telephones in Hospital Work

The " Presto-Phone " is a new telephone system designed for private inside installations. It is an automatic system which will operate up to one hundred telephones without the services of a girl operator. It gives quick and accurate communication and has many special features which will appeal particularly to hospital management. For instance, the service is absolutely private or secret. It is also possible with the system for two parties conducting a conversation to call in one, two, three or four other parties and form a group for a discussion of matters, and, when so desired, conversation can be restored to the original two. It also through its " general call " furnishes an instantaneous and efficient fire alarm.

The Presto-Phone is designed and manufactured by Canadian Independent Telephone Co., Ltd., Duncan Street, Toronto, who have issued a handsome bulletin illustrating and describing the system, which bulletin will be forwarded upon application.

CHINA, PURE NICKEL, AND GLASS FOR HOSPITAL USE

Now Offered by

The BRODEUR CO., Ltd.

The Largest Supply House in the Dominion.

Our equipment for Import being specialized, is unequalled for the following reasons : Our Salesmen are experienced for the Hotel, Railway, and Hospital supplies, and do not cater to the retail merchants. We sell the Hospitals

At WHOLESALE or IMPORT PRICE.

Special Designs, Special Shapes, Special Sizes, Crested or Badged to Order

OUR AGENCIES.

Krupp's Pure Nickel Kitchen Cooking Utensils also Nickel Vessels for sterilizing the doctor's instruments. The most hygienic metal for cooking in existence, guaranteed to stand any test—as hard as steel.

Private Ward Outfits for 4, 6, or 12 persons supplied with oak shelves, in stock in Montreal, or can be supplied from works in 90 days.

Haviland China.—Highest grade of Limoges China made. Special thickness for Hospital use. Special designs made to order. Badged in Gold or in same color and design can be supplied in 90 days.

Glassware—Leerdam, Portieux, Belgian, Holland and English glassware carried in stock ; Plain or etched. Special designs and Crests to order can be supplied in five months.

FROM STOCK—English White and Gold China, Ridgway's Earthenware Plain white, Red Band or Green Band. Austrian Cut Glass Flower Vases from $2.40 dozen to $9.60 dozen. China Invalid Cups, Flower Pots, Jardinieres and Decorative Pieces.

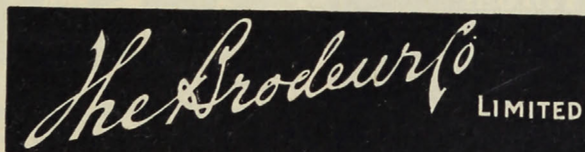
Cutlery and Silverware.

Pressed Glassware—Heisey's, and other high-class makes.

Rosenthal Hotel China—Speciality, Underglaze Decorations.

GET ESTIMATES FROM HEADQUARTERS

Established 1892



Established 1892

84-86 ST. PETER STREET, MONTREAL

A. N. BRODEUR, President and General Manager — A. E. KEATES, Vice-Pres. and Sales Manager. — T. K. CLARKE, Treasurer and Office Manager.

K.&O. DOUCHE FOR THE APPLICATION OF GLYCO-THYMOLINE TO THE NASAL CAVITIES

GLYCO=THYMOLINE

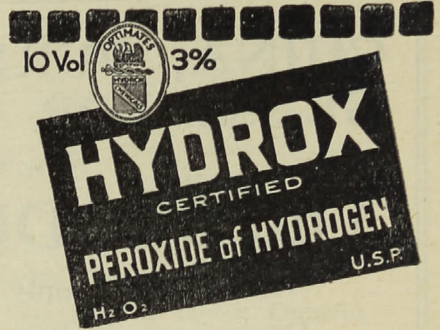
FOR

CATARRHAL CONDITIONS

Nasal, Throat
Intestinal
Stomach, Rectal
and Utero=Vaginal

KRESS & OWEN COMPANY

361-363 PEARL ST. NEW YORK



THE PHYSICIAN WISHES TO KNOW that the peroxide of hydrogen he uses or commends is a pure, full test solution.

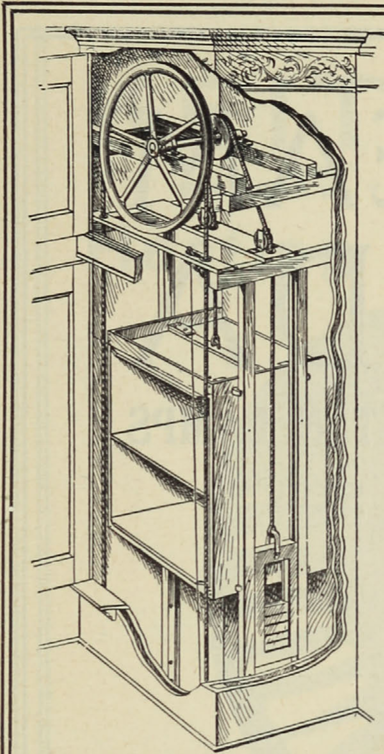
More than likely he is skeptical of solutions marked as full test "on leaving factory." And more than likely he knows of the frequent and dangerous use of second-hand bottles as containers.

HYDROX is guaranteed 3 per cent. 10 volumes as the consumer gets it. It is prepared in the most painstaking way by the nitrate barium binoxide process with the highest grade chemicals, and more than meets the demands of the U.S.P. tests.

It is our aim to merit your preference for Hydrox in choosing peroxide of hydrogen —to back each bottle with a guarantee and to back each guarantee with a carefulness of method that will give it the highest meaning to you.

When you consider the new, carefully treated bottles, the integrity of the solution itself, and the convenient sizes (4 oz., 10c—8 oz., 15c—16 oz., 25c.) you will appreciate both the economy and the safety of using Hydrox.

HYDROX CHEMICAL CO.
NEW YORK CHICAGO SAN FRANCISCO



To complete the convenience of your Hospital you should have installed

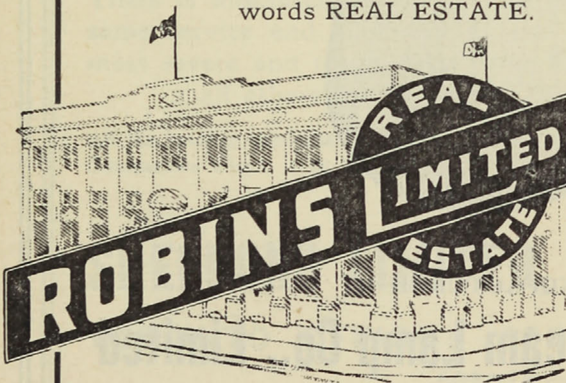
TISDALE'S SAFETY DUMB WAITERS

As seen by the cut, these waiters are very simply and easily operated by hand

Tisdale Iron Stable Fittings Co.
Limited
19 Temperance Street
TORONTO

THE ROBINS SERVICE

is so broad, so comprehensive, you cannot afford NOT to use it when you wish to buy or sell anything described by the words REAL ESTATE.



The enormous business enjoyed by Robins Limited has been built up by years of effort founded upon painstaking effort to please, and upon the solid rock of the "square deal" for everyone.

Whether you wish to buy, rent, lease or sell, we offer you the facilities afforded by each department of this organization.

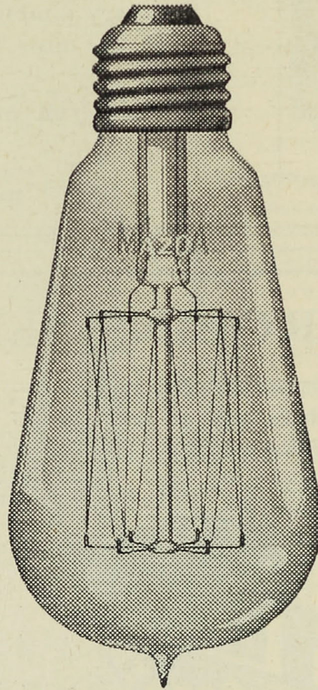
You cannot make a mistake in coming to us---perhaps you will if you don't.

"EVERYTHING IN REAL ESTATE."

The Robins Building
Victoria St. at Richmond
TORONTO

Phone Adelaide 3200
Private Branch Exchange connecting all departments

SUNBEAM
MAZDA
DRAWN WIRE TUNGSTEN LAMPS
EQUAL THE SUN



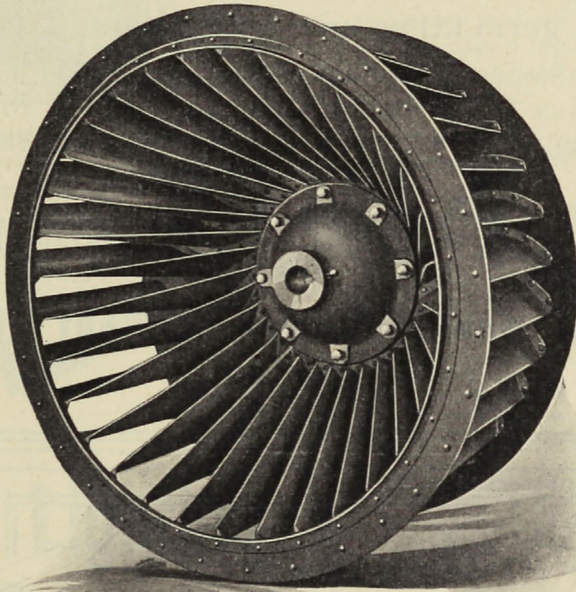
The most Brilliant
and Sunlike Lamp in its
Intensity and Color

MANUFACTURED BY
Canadian Sunbeam Lamp Co., Limited
TORONTO
MONTREAL WINNIPEG CALGARY VANCOUVER

KEITH FANS

SPECIALLY DISTINGUISHED FOR

Heating and Ventilating



There is absolutely no other Fan on the market can give the same service and efficiency as our "Keith Fan." After the most severe and trying tests this Fan has been selected over all others by the leading Navies of the World.

All the leading concerns in Canada are now adopting "Keith." Architects and Contractors admit it to be the most modern and approved production in the Fan World.

SHELDONS LIMITED, GALT, ONTARIO

TORONTO OFFICE: 609 KENT BUILDING

AGENTS:—

MESSRS. ROSS & GREIG, 412 ST. JAMES ST., MONTREAL, QUE.
MESSRS. WALKER'S LTD., 259 STANLEY ST., WINNIPEG, MAN.
MESSRS. GORMAN, CLANCEY & GRINDLEY, LTD., CALGARY & EDMONTON, ALTA.
MESSRS ROBT. HAMILTON & CO., LTD., BANK OF OTTAWA BLDG, VANCOUVER, B C.

DUSTBANE

is adapted for Sweeping all kinds of Floors, Carpets and Mattings without dust.

It's a germ-killer and disinfectant.

It is a Sanitary Method of eliminating the Dust Nuisance. Cut out this ad. and mail it to us with your address and we will send you a large free sample.

Don't delay another day but give Dustbane a trial.

DUSTBANE MANUFACTURING COMPANY LIMITED
OTTAWA, ONT.

Mr. Superintendent !
Your Hospital will not be complete w thout the

SWEEPER-VAC
(the original Carpet-Sweeper and Vacuum-Cleaner)

It is simple in construction, durable, efficient, fully guaranteed, absolutely sanitary and recommended by many physicians.

The SWEEPER-VAC is the only vacuum cleaner in the world that runs a real CARPET-SWEEPER in combination with a vacuum cleaner with the possibility of using either separately or both combined.

REMOVES EVERY PARTICLE of dust, dirt, threads, lint and hair.

The VACUUM CLEANER by its suction will remove from a CUPFUL to a QUART of solid dirt from any large rug in two MINUTES, after it has been beaten or otherwise cleaned. The little CARPET-SWEEPER at the same time, with its especially constructed brush, will pick up all lint, threads and hair.

A Physician writes: "We have been using the SWEEPER-VAC machine for some considerable time in our home and find it EXCEEDINGLY SATISFACTORY. It really takes up ALL THE DIRT AND DUST in a carpet and entirely without causing DUST IN THE AIR OF THE ROOM. It is easily handled and the mechanism is very simple and will not readily get out of repair."

A Lady Physician writes: "It gives me much pleasure to thoroughly endorse all that is claimed for the SWEEPER-VAC, having had one in use for several months. It creates no DUST IN USING and is SURPRISING TO A GOOD HOUSEKEEPER WHAT IT REMOVES."

Dept. H DOMINION SALES CO.
Toronto Arcade - Toronto

REG. TRADE MARK

Still like new after 11 years

In one large Hospital, sixteen acres of Paripan work, done 11 years ago, is practically as good as new and will last for years to come. *Paripan* is hygienic. *Paripan* is washable—in fact, "the more you wash it the better it looks."

Paripan makes the small ward look larger and the dark ward look lighter. *Paripan* is employed on the walls and woodwork of nearly all the principal Hospitals in the British Empire.

PARIPAN

BETTER THAN PAINT.

(Made by RANDALL BROS., London, England).

Paripan is supplied in glossy or flat (dull) and 66 standard shades.

Write for full particulars to

STURGEONS, Ltd., 44 Adelaide Street East, Toronto.

Agents with stock at Vancouver, Edmonton, Winnipeg & Montreal.

Gas Lighting Is Hygienic

THE careful investigations of independent scientific men—such as Professor Percy Frankland, Professor Vivian B. Lewes, Dr. Samuel Rideal, and others—have proved conclusively that, so far from electric light being more healthy than gas light, the latter is as hygienic as the former, and, in many cases, is more hygienic, owing to the assistance it affords to ventilation and the better circulation of the air that it ensures.

The Consumers' Gas Co.
of Toronto
12-14 Adelaide Street West
Telephone Main 1933-1188

Mr. Hospital Superintendent:
We would like to call your attention to our

Automatic Sprinkler

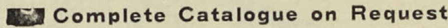
for protection against fire in Hospitals and Public Institutions. Our Sprinkler Head is the ***best in Canada,*** being ***more sensitive*** than any other make, under all conditions, because the fusible factor is ***self-cleaning***, shedding dirt, and flying chips may be brushed away without danger. It is also proof against rupture by ladders in the hands of careless workmen.

If you are thinking of installing a sprinkling system, write us for quotations.

THOS. A. NORRIS CO.
LIMITED
Heating Engineers
26 Verral Avenue - Toronto
Phone M. 5634.

A Few Reasons why **BELL FILTERS** cannot be excelled for Institutional use

1. They are simple in construction, easily managed, and are perfect and economical in operation.
2. They purify the water continuously and uninterruptedly.
3. The capacity of a Bell plant can be increased at any time upon short notice by the addition of extra units, thus avoiding the necessity of outlay for a larger plant before it is required.
4. The filtering material never requires changing, being thoroughly cleaned in three or four minutes with a very small quantity of water. All other filters use at least 100% more water for washing the sand.
5. The material and workmanship being the best obtainable, Bell Filters are practically indestructible and not likely to get out of order.
6. Only 3 H.P. is required to wash the filters.
7. Bell Filters are capable of treating all kinds of water.
8. Great economy of space. One million gallons daily can be purified on an area of six hundred square feet.
9. Bell Filters which have been in operation for over ten years are still using the same sand and have never had it removed
10. Bell's special collecting and strainer system is unexcelled and gives perfect washing results.
11. Definite guarantees will be given on receipt of analysis of any raw water, these guarantees to be good for every day, not merely as an average for the year.
12. Bell Filters are built to suit any pressure and for any desired capacity.

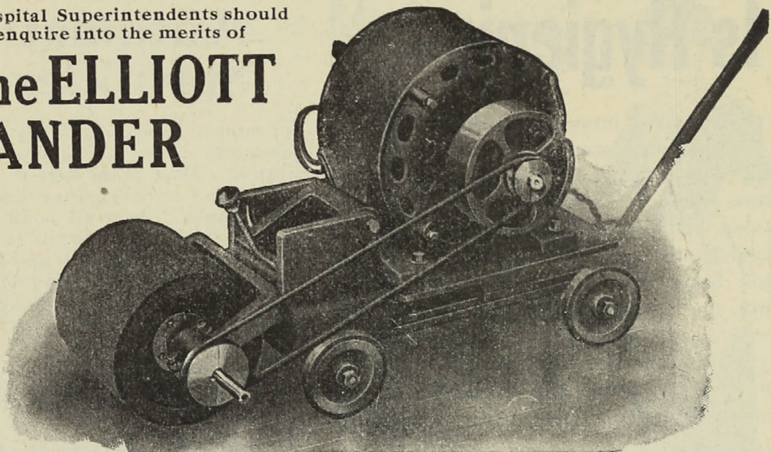


Bell Filtration Co. of Canada Limited
KENT BUILDING - TORONTO

Essential for Hospital Floors

Hospital Superintendents should enquire into the merits of

The ELLIOTT SANDER



It is one of the few devices in existence whereby a hardwood floor can, without much labor, be sanded and polished. It saves 50 per cent. of the cost of labor, and be the means of saving hospital domestics being laid up from backache. The expense of operating the Elliott Sander is very trifling, it being run by attachment to any electric light socket. Bear this machine in mind when next adding to the labor-saving devices of your institution.

W. A. ELLIOTT, COR. BATHURST and COLLEGE ST., TORONTO

Mellotone

"Soft as the Rainbow Tints"

THIS INTERIOR WALL FINISH SOLVES THE PROBLEM OF THE HOSPITAL SUPERINTENDENT

"MELLOTONE" is a flat oil paint for interior use on plastered walls, ceilings, woodwork, etc., imparting to them that subdued, artistic appearance so much desired.

Unlike calsomine and other water paints, "MELLOTONE" is non-porous, and therefore perfectly sanitary. It can be washed with soap and water or antiseptic solutions without being injured in any way.

"MELLOTONE" brushes on smoothly, showing no laps or brush marks. Its soft, velvety effect, its deep, rich toning, its easy-working qualities, win for it a preference over all interior finishes. Write for a "MELLOTONE" booklet.

Lowe Brothers
LIMITED

TORONTO - ONT.

DAYTON CHICAGO NEW YORK BOSTON KANSAS CITY

R. C. DANCY

CONTRACTING PLASTERER

Office—153 Spadina Road -:- Toronto, Canada

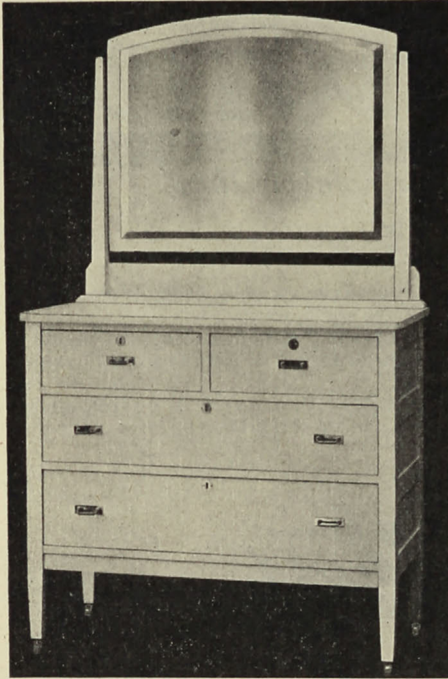
Telephone, Hillcrest 586.

METAL FURRING, LATHING AND PLASTERING

My 2 inch solid cement plastered partitions, specially adapted for Hospital Buildings, being absolutely fire-proof.

All kinds of Imitation Stone and Ornamental Staff Decorations.

REFERENCES—Pathological Building, Toronto General Hospital
Out-Patients Dept. " " "
Emergency Building " " "
Obstetrics Building " " "
Wellesley Hospital, Toronto
Sick Children's Hospital, Toronto



No. 4225—DRESSER

Guaranteed Furniture

WHITE ENAMEL GOODS

To give perfect satisfaction must be as white as snow, and finished so as to retain the purity of color and *not turn yellow* after being in use for a while.

There's Only One Way

To obtain the proper result, and that is to use only the best materials, and employ only experts to apply them, which are exactly the conditions under which "C.F.M." White Enamel Furniture is produced, and explains the reason we positively guarantee our goods to give perfect satisfaction

"Beaver Brand" HARDWOOD FLOORING

FLOORING

THAT IS BEST ADAPTED FOR

Hospital Purposes

THE SEAMAN, KENT CO., Ltd.

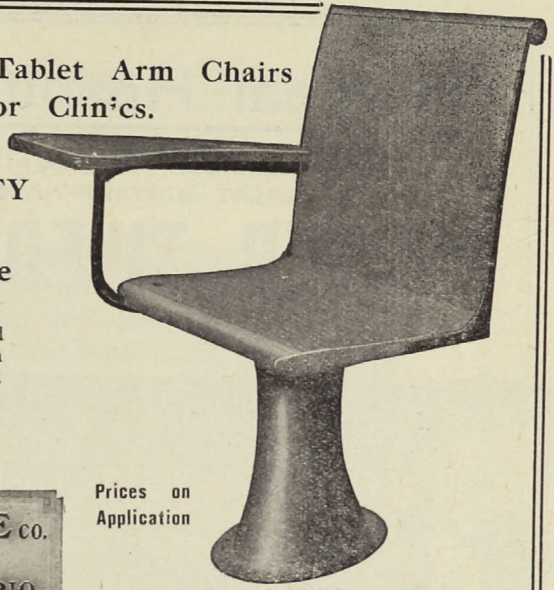
SALES OFFICES:

MONTREAL, P.Q.—970 Durocher Street
TORONTO, Ont.—263 Wallace Avenue
WINNIPEG, Man.—506 Ashdown Block
CALGARY, Alta.—501 McLean Building
VANCOUVER, B.C.—Hamilton and Davie Streets

FACTORIES:

Meaford, Ont. Fort William, Ont. St. Agathe, Que.

Globe Sanitary Steel Tablet Arm Chairs Unequalled for Clin'cs.



COMFORT—UTILITY —EFFICIENCY

Guaranteed for Life

Pedestal, Back Supports and Arm Supports, Steel, Gun Metal Finish. Back, Seat and Arm Standard Birch, but can be made in any wood and finish.

Prices on Application

The Quality Goes in before The Price Goes on.

DON'T WAIT UNTIL SICKNESS COMES

Prevent it by using Platt's Chlorides, the Odorless Disinfectant.

Has no disagreeable Smell. Does not stain when diluted.

Pour a little into the basins, sinks, tubs and toilets every day.

A powerful Disinfectant which destroys germs and prevents odors.

Economical Safe and Sure.

Recommended by Physicians

Two sizes - - 25c. and 50c.

Platt's Chlorides

The Odorless Disinfectant.

Victoria Vegetable Paring Machine

Practical Economical
Save Labor Save Vegetables

Used and endorsed by many of the largest institutions in the U.S. and Canada. Prices **$35.00** and upwards.

Send for Illustrated Catalogue.

GOWANS, KENT & CO., LTD.

Canadian Agents - TORONTO

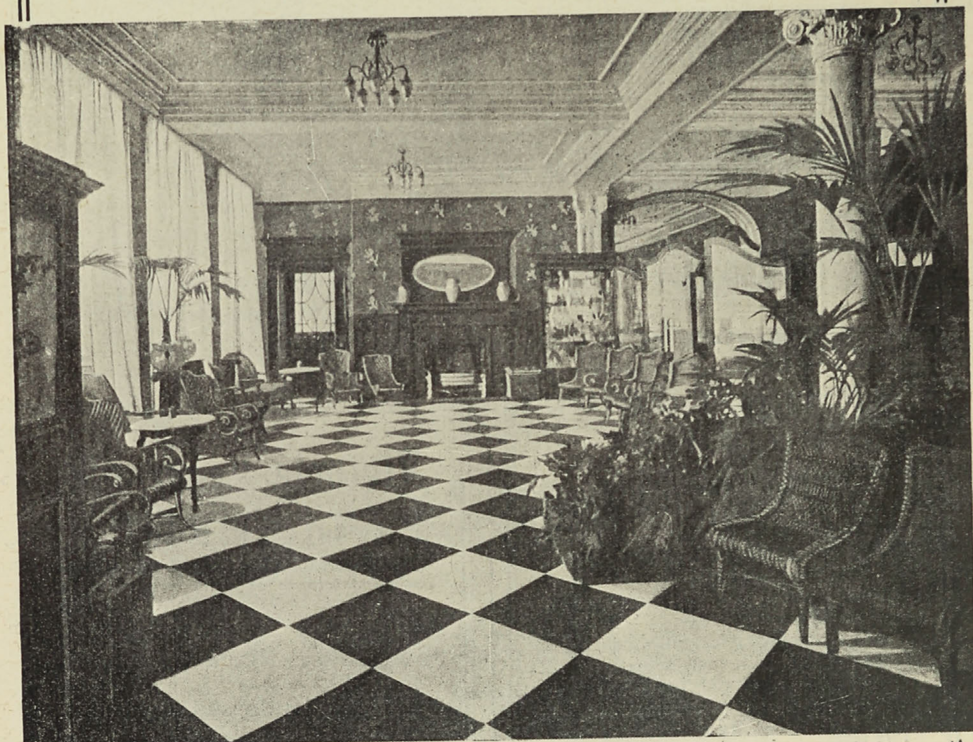
See us for everything in China, Glass and Kitchen Equipment.

An Ideal Hospital Flooring

A LARGE NUMBER OF HOSPITALS THROUGHOUT GREAT BRITAIN HAVE ADOPTED

RUBBER TILED MATTING

AS MOST ADAPTABLE FOR SUCH INSTITUTIONS



QUIETNESS is a **sine qua non** where the Sick are confined to bed. This can be accomplished best by adopting **Rubber Tiled Matting** as the floor covering, not only on account of its **silence**, but because it is **so easily cleaned** and is **practically indestructible.**

We will gladly submit samples of this Tiling, prices, designs, etc., to any Hospital Superintendent writing to, or calling at, our Warerooms.

THE NORTH BRITISH RUBBER CO., LIMITED

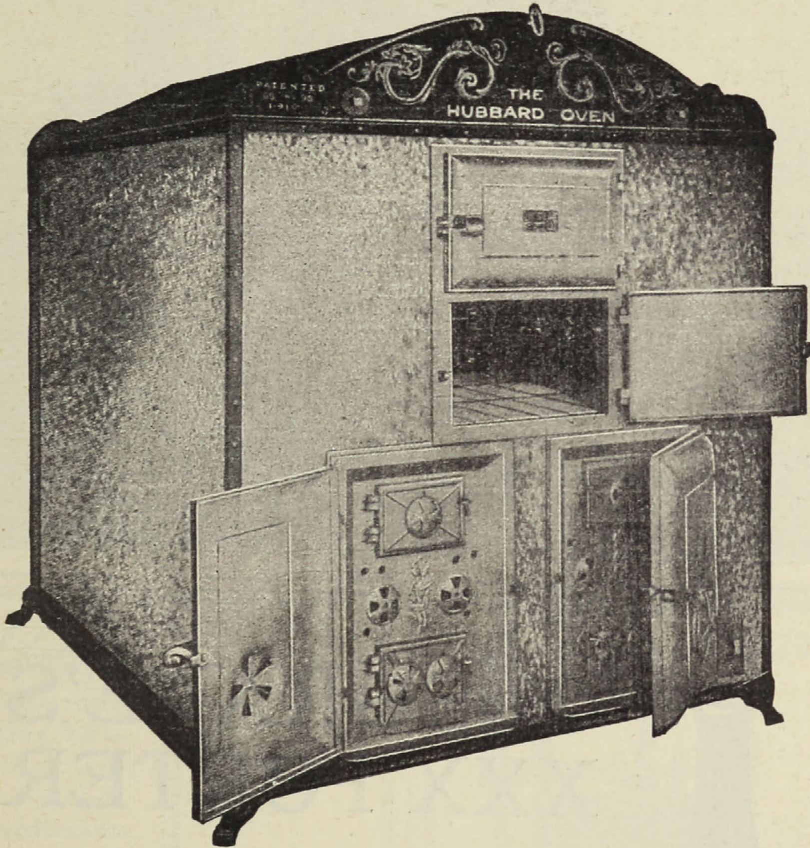
Head Office Warehouse for Canada - 43 Colborne St., Toronto

Factories - - - Castle Mills, Edinburgh, and St. Denis, Paris

Hubbard Portable Steel Baking Ovens

IMITATED, BUT UNEQUALLED

PATENTED 1888, 1892, 1910.



This oven has been manufactured in Canada for the last twenty-three years and has given the greatest satisfaction. It is constructed entirely of heavy Galvanized Iron and is most sanitary. It is already installed in many Public Institutions throughout Canada where it has proved its worth.

Write for information as to sizes and prices.

SOLE MAKERS IN CANADA

THE WARREN MFG. CO., LIMITED

782-4 King Street West :: :: TORONTO

CHALFONTE
ATLANTIC CITY
THE LEEDS COMPANY

ALWAYS OPEN
ON THE BEACH

COSGRAVE'S XXX PORTER

is used in practice by physicians who have endorsed its purity and medical worth.

The best porter for nursing mothers.

SOLD BY GOOD DEALERS EVERYWHERE

Our Physician's and Surgeon's Policy

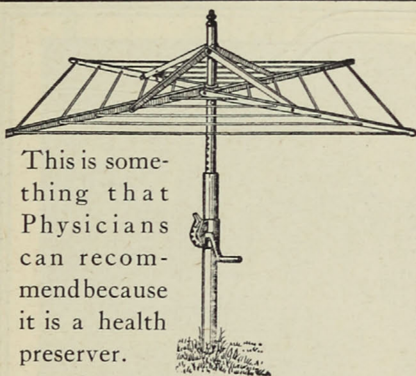
Pays Double Benefits for Disability Caused by ACCIDENTAL SEPTIC INFECTION, or for Accidents which occur in connection with Private Vehicles, Common Carriers, Burning Buildings, Boiler Explosions, or Stroke of Lightning.

Weekly Indemnity Increases 10 per Cent. Each Year for Five Years.

GENERAL ACCIDENT, FIRE AND LIFE ASSURANCE CORPORATION, LIMITED.

C. Norie-Miller, U. S. Manager,

55 JOHN STREET, - - - NEW YORK.

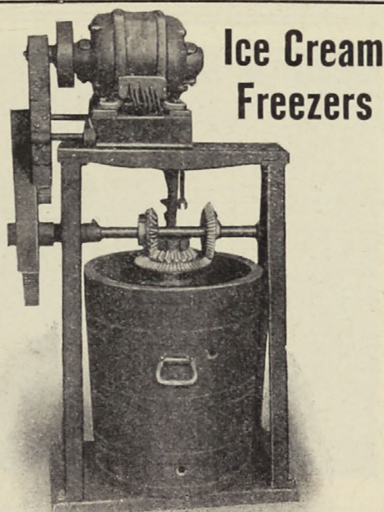


The Revolution Clothes Reel

does away with tramping about the yard through snow and wet. It is within easy reach for hanging clothes and then can be raised out of the way. Ideal for small Institutions. Built to last a lifetime.

Price, $10.00, erected complete.

The Revolution Clothes Reel Co.
60 Oxford St., Toronto
Phone College 344



Electric and Belted.

F. E. WHITNEY
65 Sudbury Street, Boston, Mass.

W. PERCY GILLESPIE COMPANY
LIMITED.

INVESTMENT BROKERS

203-4 McKINNON BUILDING

Lists of First Class Securities will be supplied upon request.

The Underwood for Physicians

IN addition to a standard "medical keyboard" the interchangeable and instantly removable type-bars make it possible to provide for any other special characters which may be required. This feature is peculiar to the Underwood.

United Typewriter Co., Ltd.
7 Adelaide Street E., TORONTO

SIMCOE HALL SANITARIUM, BARRIE, ONT., CANADA

A thoroughly equipped modern institution, for the treatment of Functional and Organic Nervous Disorders (especially all forms of Neurasthenia), and other Constitutional Diseases. 1,000 feet above sea level, 62 miles north of Toronto. Beautiful location on the height overlooking Lake Simcoe. Extensive ornamental grounds, complete Hydriatic and Electrical Departments, all rooms single, or en suite; Water from Flowing Artesian Wells.

For Information address: DR. W. C. BARBER, Medical Director, Allandale, Ont., Box 114.

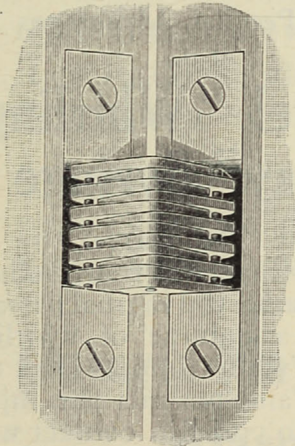
When writing advertisers, please mention The Hospital World.

INVALID STOUT
For Weak Folks

STRENGTHENING and nourishing qualities, combined with a really acceptable flavor, make **Dominion Brewery's Invalid Stout** the ideal beverage for convalescents and bilious people. It is digestible and non-gassy.

Order at any of the dealers

Dominion Brewery Co.,
LIMITED - - TORONTO



"A MOST INGENIOUS AND USEFUL DEVICE"
—*Furnishing World*

Invaluable to—

Piano Manufacturers, Furniture Manufacturers, Case Goods Manufacturers, Architects and Builders

Neat and Strong Write for Booklet

SOSS INVISIBLE HINGE CO., LTD.
104 Bathurst St. TORONTO

The John H. Blake Co.
216 Adelaide St. West
TORONTO

ARE **HEADQUARTERS** FOR

Repairing, Replating, Gilding and Refinishing of all classes of Silverware, Spoons, Forks, Knives, Teapots, etc.

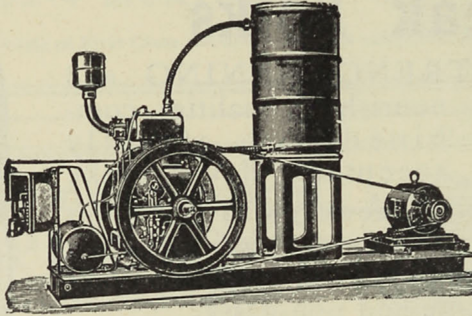
THIS FIRM WILL GIVE SPECIAL QUOTATIONS ON HOSPITAL ORDERS

including the replating of surgical instruments for both hospitals and surgeons.

LISTER-BRUSTON

AUTOMATIC ELECTRIC LIGHTING AND PUMPING INSTALLATION

Suitable for Lighting
Hospitals
Small Towns
Country Houses
Bungalows
Hotels
Clubs
Churches
Schools
Etc.



Protected by Patents all over the World

Self-Starting
Self-Stopping

Write for Catalogue and Full Particulars to

R. A. LISTER & COMPANY, LIMITED

Winnipeg TORONTO St. John, N.B.

The Peculiar Advantage of the

Marvel "Whirling Spray" Syringe

is that **The Marvel**, by its Centrifugal action, **dilates and flushes** the vaginal passage with a volume of whirling fluid, which smooths out the folds and permits the injection to come in contact with its entire surface.

Prominent physicians and gynecologists everywhere recommend the MARVEL Syringe in cases of Leucorrhea, Vaginitis and other Vaginal diseases. It always gives satisfaction.

All Druggists and Dealers in Surgical Instruments sell it. For literature, address

MARVEL COMPANY
44 E. 23rd Street, NEW YORK

The Marvel Company was awarded the Gold Medal, Diploma and Certificate of Approbation by the Societe D'Hygiene de France, at Paris, Oct. 9, 1902.

WE wish to call the attention of the Medical Fraternity, and particularly those in charge of Hospitals, Sanitariums, etc., etc., to our complete line of Fire Appliances. We carry in stock 2½-gallon Chemical Extinguishers. We also carry "PYRENE," which is indispensable where gasoline, benzine, oils and other highly inflammable materials are used. Every Automobile and Motor Boat should carry a "PYRENE GUN."

Our Automatic Fire Alarm System makes every building where it is installed absolutely safe from destruction by fire.

We will be glad to demonstrate our Extinguishers and Automatic Fire Alarm System. Call or write.

Ontario May-Oatway Fire Alarms, Ltd.

92 Adelaide Street West :: :: TORONTO

For Safe, Sane Investments

IN

BUSINESS PROPERTIES

WAREHOUSES

HOMES

VACANT LANDS

CONSULT

PHIPPS-NEFF, LIMITED

40 Victoria Street *Phone Main 185* TORONTO

The only PERFECT FLOOR for Hospitals is

CORK TILING

Our Cork Tiling contains absolutely no other substance than pure cork highly compressed and baked by electricity

It is Noiseless, Resilient, Odourless, Non-slippery, Durable and Absolutely

SANITARY

BLESSING TO NURSES AND PATIENTS. WRITE TO US FOR PARTICULARS.

Robinson Bros. Cork Co., Limited

803 Lumsden Building, - TORONTO

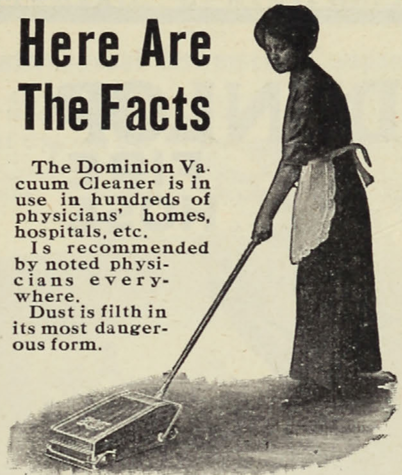
COWAN'S COCOA
IS ABSOLUTELY PURE

As a sick-room beverage Cowan's Cocoa is highly recommended on account of its high quality and absolute purity. It is made of the best selected cocoa beans, scientifically blended, and contains no foreign elements. And it is prepared in a large modern factory where the most sanitary conditions are maintained.

THE COWAN CO., LIMITED
TORONTO

Here Are The Facts

The Dominion Vacuum Cleaner is in use in hundreds of physicians' homes, hospitals, etc.
Is recommended by noted physicians everywhere.
Dust is filth in its most dangerous form.



Dust pollutes the air we breathe, the food we eat, the liquids we drink and the houses in which we live.
Eliminate the dust and you have taken an impo tant step toward reducing the spreading of disease.
Special price to Physicians and Hospitals. Write to-day to
THE DOMINION MFG. CO.
1431 Queen St. West, Toronto, Ont.
Phone Parkdale 1749.

Electrically Lighted Surgical Instruments

Greatest aid to accurate diagnosis. 7th edition E.S.I. Co. catalog describes, among others:

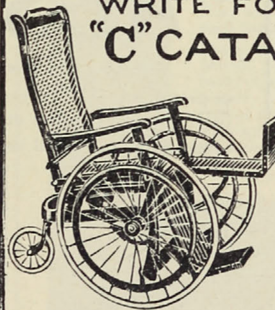
Naso-Pharyngoscopes
Bronchoscopes
Oesophagoscopes Gastroscopes
Laryngoscopes
Tongue Depressors
Nasal Specula Auriscopes
Illuminated Eye Spuds
Transilluminators
Proctoscopes Urethroscopes
Cystoscopes
Uterine Endoscopes
Vaginal Specula
Socket Current Controllers
Socket Cautery Transformers

Designed by eminent physicians. Suitable for general practitioner or specialist. Ask for catalog.

ELECTRO SURGICAL INSTRUMENT CO. Rochester, N.Y., U.S.A.

INVALID CHAIRS
OF ALL KINDS

WRITE FOR GRADE "C" CATALOGUE



THE GENDRON MFG. CO. LIMITED

TORONTO Gendron CANADA.

TORONTO, CANADA.

NATURALLY, science has largely entered into the perfection of present-day Dunlop Fire Hose, both in regard to the weaving and the method of lining the jackets. All Dunlop Hose has a straight and smooth water-way. This is brought about by the infilling of all recesses between the different strands before the tube is placed in its proper position. Consequently, when you look down the interior of a piece of Dunlop Fire Hose it is like looking down the barrel of a gun.

92% OF THE HOSPITALS

WHO FAVOR US WITH THEIR PATRONAGE, BUY

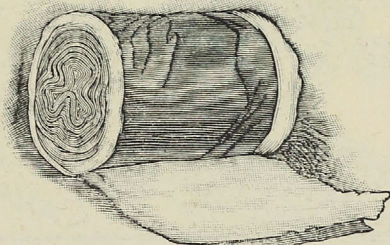
"ABSORBON"

The Low-Priced Absorbent Cotton of Quality

in preference to other brands, because it is better value at the price than any other brand on this market.

Guaranteed pure and sterile—passes through the same 50 different operations as our higher grades—sells for less because made from short staple cotton which costs less than long fibre cotton though quality is identical.

Investigate—A postcard brings samples and prices to your desk.



Maplewood Mills

Largest Manufacturers in the World

FALL RIVER, MASS.

All convalescents can build up their systems, after sickness, by the use of

Kuntz's Old German Lager

brewed from the best Canadian Barley and choicest Bavarian Hops, by the Old German Style.

Bottled only at the Brewery.

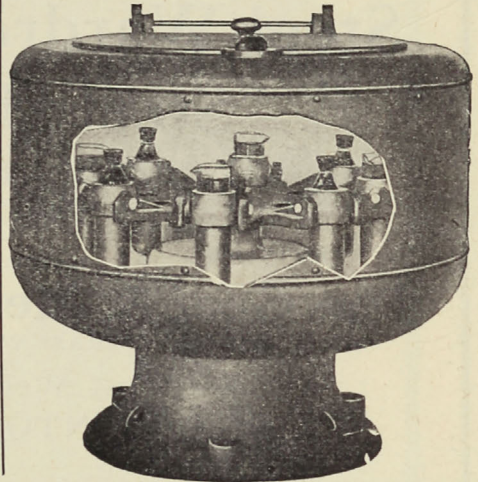
THE KUNTZ BREWERY, LIMITED
WATERLOO, ONT.

ELECTRIC CENTRIFUGES
of the
International Instrument Company

Are used in the Laboratories of the Leading Hospitals of Canada and the United States

21 Church St. Cambridge, Mass.

Kjeldahl Stills — Bottle Shakers — Minot Rotary — Paraffin Microtomes



HAMS BACON, LARD

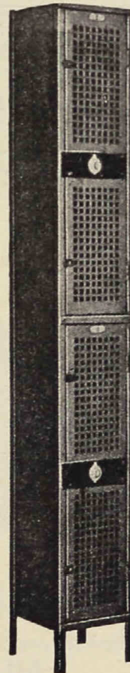
WHEN PURCHASING YOUR SUPPLIES INSIST

upon getting them from houses **under the inspection of the Government.**

It is only fair to you and to those in your care.

If you want something BETTER THAN THE ORDINARY, ask for "STAR BRAND," put up by

F. W. Fearman Co., Ltd.
HAMILTON



Clean Airy LOCKERS

Lockers that are made of wood are most unsanitary, and an additional fuel in case of fire.

Our metal lockers are highly sanitary and made on strictly hygienic principles.

They will not burn, and they occupy but a small space. They are light and airy, and each has a different lock.

These lockers are a great benefit to places where a number of people are employed. They prevent contact of one person's clothing with another's, thus avoiding possible contagion.

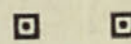
Write for Catalogue.

We make Window Guards, Genuine Bronze Fly Screen Cloth, Sanitary Steel Tables and Racks.

Canada Wire and Iron Goods Co.
Hamilton :: Ontario

Iron Stairs, Fire Escapes
Elevator Enclosures
Steel Wardrobe Lockers
Steel Shelving

And Specialties for Hospital Use



Manufactured by

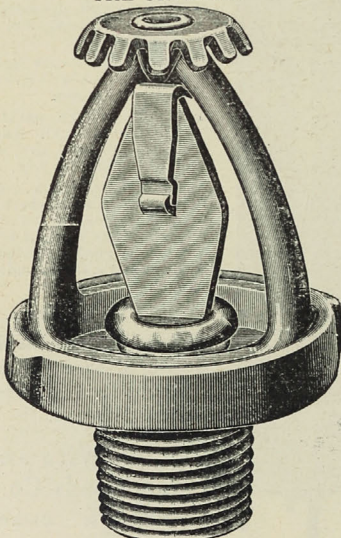
The Geo. B. Meadows, Toronto

WIRE, IRON AND BRASS WORKS COMPANY, LIMITED

479 West Wellington Street
TORONTO, CANADA

PURDY, MANSELL LIMITED

TORONTO



Cut your Insurance in half by having us instal an

Automatic Fire Sprinkler System

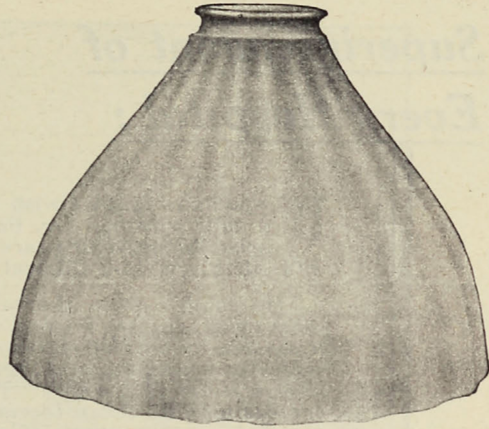
throughout your Factory, Store or Warehouse.

Write us for Estimates

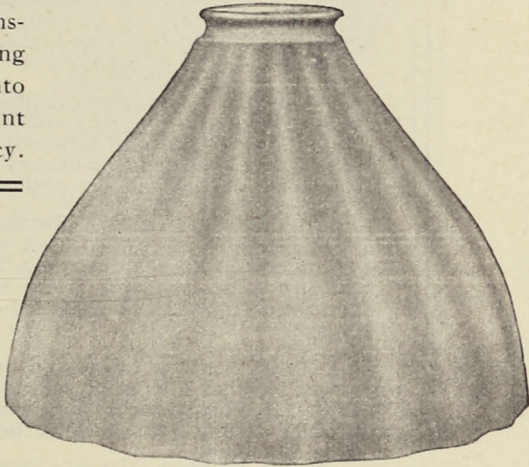
Correspondence Solicited

THE Sanitary Reflectors here shown were especially designed for Hospitals. There is an entire absence of crevices, thus preventing the collection of dust and germs. Another notable feature is that the reflectors can be easily cleaned without being removed from the fixtures.

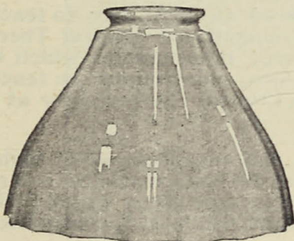
MOONSTONE GLASS was given the preference over all other semi-translucent glasses by the lighting committee of the Toronto General Hospital on account of its color and efficiency.



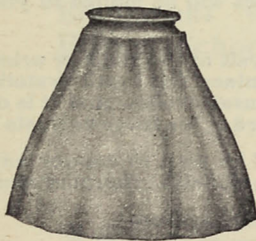
4058—150 Watt



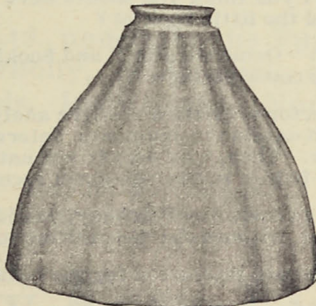
4060—250 Watt



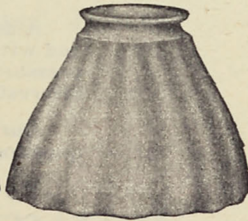
4054—60 Watt



4052—40 Watt



4056—100 Watt



4050—25 Watt

THE JEFFERSON GLASS CO., Limited

Illuminating Glassware, Tableware, Specialties

TORONTO, CANADA

Superintendent of Every Hospital:

DO you know that we wish it was possible for you to have a talk with our Mr. Faichney, a gentleman who has spent twenty-four years in doing one thing and doing it well—that is, making Clinical Thermometers.

He could explain the *trouble* that you have had with those unsatisfactory Fever Cases. He could tell you how it *is possible* for a cheap thermometer to register temperature correctly and on the next register of the temperature be at least 1/2° out of the way. The reason for this is that the contraction in a cheap thermometer does not always allow the molecules or atoms of mercury to expand exactly the same, and where the contraction is imperfect sometimes it allows the mercury to jump farther ahead than in other instruments. In this way you are liable to get an increased reading.

It should be understood, however, that where thermometers have been properly seasoned and where they have been tested for retreaters, it is possible to make a thermometer that will give a perfect history of the rise and fall of the temperature of your fever patients.

Mr. Faichney has also discovered an easy way to teach first year nurses how to read a magnifying Clinical Thermometer and he has devised a large thermometer which is called a "Demonstrator" that allows an instructor to teach a nurse or a patient how to read a Clinical Thermometer at a glance.

He is so much interested in the advancement of high-grade Clinical Thermometers that he will send you one of these "Demonstrator" Thermometers free, along with a little booklet telling just how an honest Clinical Thermometer should be made.

Don't you think you should have both this "Demonstrator" and the little booklet?

Both "Demonstrator" and booklet will be mailed to you for 5c to cover postage.

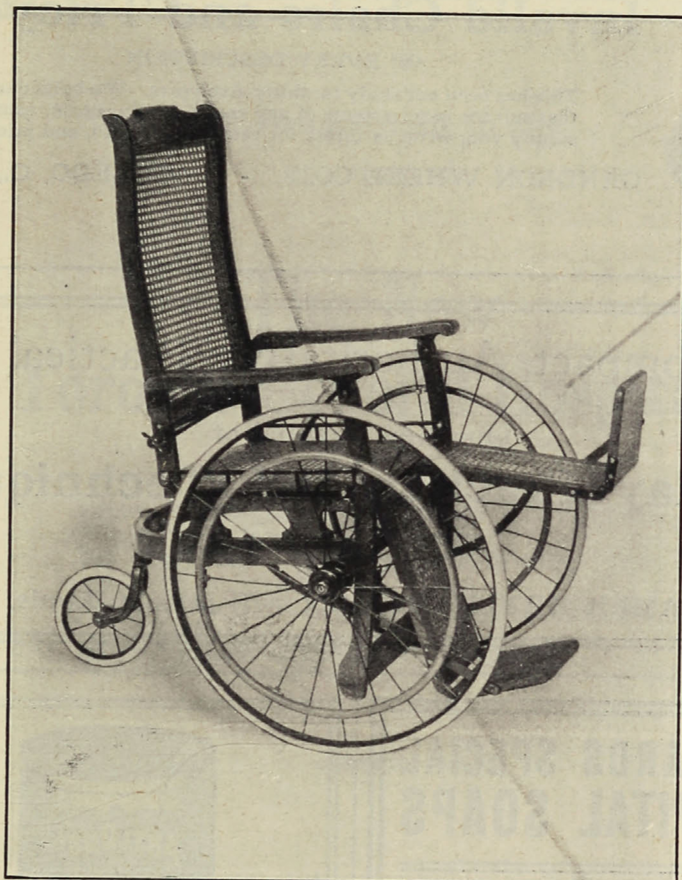
A doctor requires a positive analysis of the blood or urine and with cardiac instruments determines the exact systolic pressure. Then, why does it not naturally follow that it is of interest to him to have an exact record of his fever patients?

Our expert, Mr. Faichney, would be glad to answer any questions, without charge, relative to a Clinical Thermometer.

If you are interested further, kindly address

The Randall-Faichney Company

BOSTON, MASS.



No. Jx52 RECLINING CHAIR, $32.50

Murray-Kay, Ltd., undertake the Furnishing and Equipment wholly, or in part, of Hospitals, Hotels, Schools, Institutions, Nurses' Homes, Etc., Etc.

Write for our quotations on everything you require in this line.

Murray-Kay, Limited

Hospital Equipment Department

36 and 38 King St. West - Toronto

Invalid Chairs and Tricycles

OF EVERY DESCRIPTION

This has been our study for thirty-five years. We build chairs that suit the requirements of any case. If your dealer cannot supply you, write us direct for catalogue No. 80, and prices.

GENDRON WHEEL CO., - -TOLEDO, O., U.S.A.

Compact, Authoritative, Practical

Our New Manual of

X-Ray Practice and Technique

Free on Request

G. CRAMER DRYPLATE CO. - - St. Louis, Mo.

RICHARDS SPECIAL HOSPITAL SOAPS

Snow Flake Soap Chips
Loose in Barrels

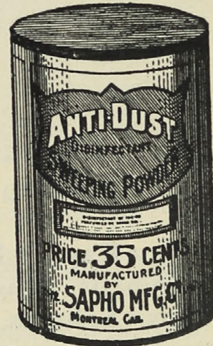
Neutral Soap Chips
Loose in Barrels

Richards Pure Soap
100 Bars wrapped or unwrapped

Richards Quick-Naptha
100 Bars wrapped or unwrapped

Richards Special Carbolic Laundry Soap
In 10 oz. Bars made expressly for Hospital Use; as cheap as ordinary Laundry Soap with the additional advantage Carbolic Acid always gives.

Richards Pure Soap Co., Ltd.
WOODSTOCK, ONT.



DOCTOR!

Do you want your Hospital to be DUSTLESS? If so, permit us to suggest that you instruct your Housekeeper to use

ANTI-DUST

It is exceedingly inexpensive and can be used in the ward with the patient in bed and yet no dust can fill the air being also a disinfectant.

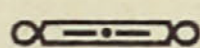
Can be procured through every grocer.

THE SAPHO MANUFACTURING CO.
MONTREAL Ltd.

The Bricks used in the erection of

The New Toronto General Hospital

have been pronounced by experts to be beyond criticism, making the Hospital Block on College Street one of the show spots in Toronto.



These special bricks were made by

THE

Don Valley Brick Works

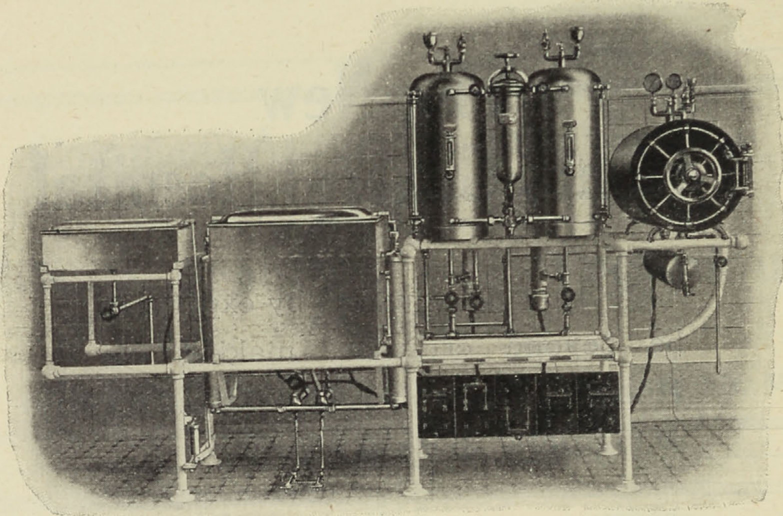
36 Toronto Street

TORONTO

"AMERICAN"

THE PRODUCT OF SPECIALISTS

STERILIZERS—DISINFECTORS



Typical combination of "American" Sterilizers

It is significant that

THE UNITED STATES GOVERNMENT

has selected within the past two months

"AMERICAN" ELECTRICALLY HEATED STERILIZERS

for

Ft. Totten, Ft. Sill, Ft. Adams, Ft. Oglethorpe, Ft. Williams, West Point Enlisted Men's Hospital, Walter Reed General Hospital, Battleship Florida and Naval Station, Guantanamo.

THE STEVENS COMPANIES

TORONTO WINNIPEG VANCOUVER LONDON, ENGLAND

When writing advertisers, please mention The Hospital World

"WORTH WHILE"

AYLESWORTH, WRIGHT, MOSS & THOMPSON
BARRISTERS, &c.

Sir Allen Aylesworth, K.C.

Henry J. Wright — John H. Moss, K.C.
Charles A. Moss — J. A. Thompson
Featherston Aylesworth

E. R. Lynch — A. Murray Garden

CABLE ADDRESS: "BAR TORONTO"

Traders Bank Building G

TORONTO, 23rd August, 1912

General Accident Assurance Co.,
Continental Life Building,
Toronto.

Dear Sir:

—Re Claim Policy 7485 R. A. Smith deceased—

We beg to acknowledge with thanks the receipt of your letter with cheque for $10,000, in settlement of the above claim.

Mrs. Smith desires us to thank you for the prompt payment immediately upon the completion of the claim papers.

Yours truly,

AYLESWORTH, WRIGHT, MOSS & THOMPSON

The above letter refers to claim of Robt. A. Smith, of the firm of Osler & Hammond, Financial Brokers, Toronto, who was killed in an Automobile accident on July 17, 1912.

The claim papers (consisting of certificate of Dr. M. M. Crawford and declaration of the beneficiary) were received on the morning of August 21st and cheque mailed before noon of the same day.

Get particulars of Policies from our Representatives.

THE GENERAL ACCIDENT ASSURANCE CO.
OF CANADA Head Office: CONTINENTAL LIFE BUILDING, TORONTO

PELEG HOWLAND, President — JOHN J. DURANCE, Manager

Personal Accident, Sickness, Liability and Automobile Insurance

Engines & Boilers

STATIONARY AND MARINE OF EVERY DESCRIPTION

PENSTOCKS STAND PIPES
STEEL TANKS STACKS
HEAVY PLATE WORK, ETC.

We have a modern equipped plant, especially adapted to manufacture of this class of work.

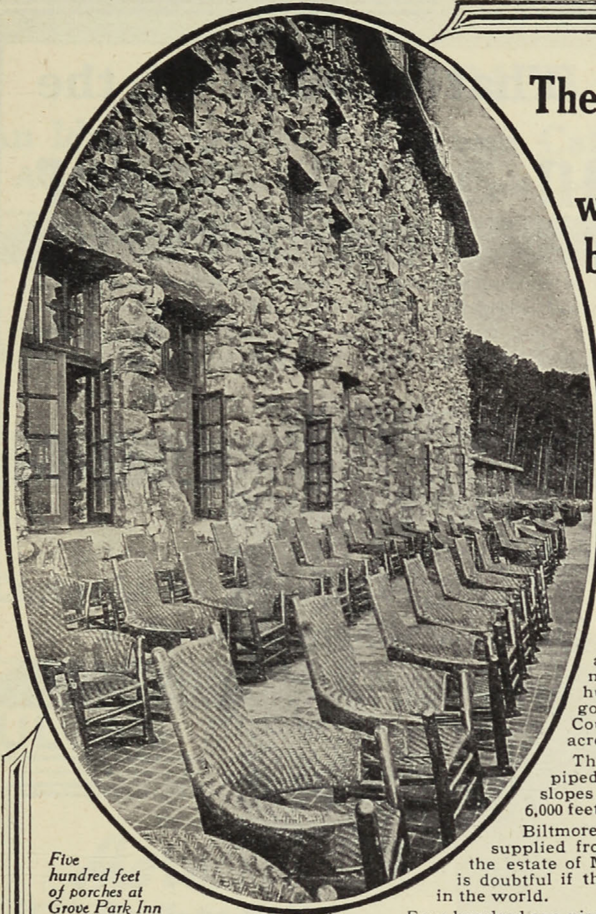
Let us figure on your requirements

THE JOHN INGLIS COMPANY, LIMITED

Boilermakers and Engineers

14 STRACHAN AVE. TORONTO, CANADA

Montreal Office: Room 509, Canadian Express Building



Five hundred feet of porches at Grove Park Inn

The finest Resort Hotel in the world has been built at Sunset Mountain, Asheville, N.C.

Open all the year
Absolutely Fireproof

MR. E. W. Grove, of St. Louis, Mo., has built at Asheville, N.C., the finest resort hotel in the world—Grove Park Inn. Built by hand of the great boulders of Sunset Mountain, it is full of rest and comfort and wholesomeness. The front lawn is the hundred-acre eighteen-hole golf-links of the Asheville Country Club, and with it sixty acres belonging to the hotel.

The purest water obtainable is piped seventeen miles from the slopes of Mount Mitchell, over 6,000 feet altitude

Biltmore milk and cream exclusively, supplied from 200 registered Jerseys on the estate of Mr. Geo. W Vanderbilt. It is doubtful if this famous dairy is equalled in the world.

Four hundred one-piece rugs were made at Aubusson, France. Seven hundred pieces of furniture and over 600 lighting fixtures of solid copper made by hand by the Roycrofters.

The plumbing material is the finest that has ever been placed in any hotel in the world. Bath-tubs and fixtures all solid porcelain. No pipes visible anywhere. No radiators to be seen—all placed in recesses under windows. No electric bulbs visible.

The "Big Room," or what some call the lobby, is 80 by 120 feet, and is probably the most unique public room in the country. Two great fireplaces in it will burn twelve-foot logs.

For the golfers there are lockers and shower-bath rooms with a forty-foot swimming pool that is not excelled by the finest clubs in existence, and the players are less than 100 yards distant when on the links.

Situated amidst the most inspiring mountain scenery, Grove Park Inn offers the finest combination of climate, comfort and happiness that we believe has ever been made possible

Especially available for northern guests in the Spring, Fall and Winter, going and returning from further southern resorts, or for an all Winter resort. Persons with any form of tubercular trouble will not be received at the Inn.

Rates—American Plan—$5.00 a day upward. Write for Booklet "L."

GROVE PARK INN

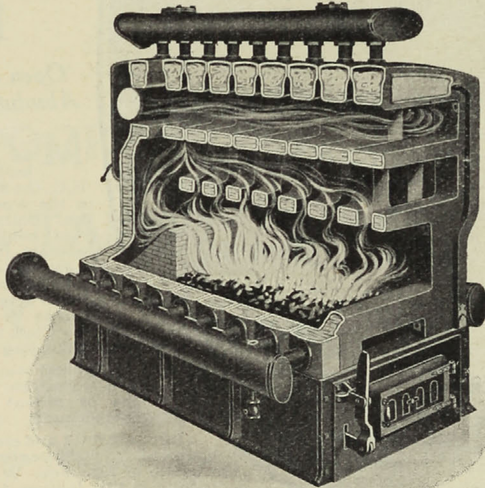
Sunset Mountain **Asheville, N.C.**

Full information and literature may be obtained at 50 Southern Railway Offices, United States and Canada

The Sense That is Back of the

Canadian Steam Boiler

The Canadian Steam Boiler is made of cast iron. It might be made of sheet steel, but then water has a chemical action on steel, causing it to corrode and building a heavy layer of shale upon it that will, in time, seriously diminish the heat producing capacity of the sheet steel boiler.



The Sectional Design is the Logical Form of Construction for a Steam Boiler.

The Canadian Steam Boiler is made up of a series of small boilers, joined at the top by a "header" which equalizes the pressure from each section. There is safety and economy in the design—and lasting satisfaction ; because, if by any accident, a Canadian Boiler should be injured in one of its sections, that section may be taken out, and replaced, without disturbing the boiler as a whole

MADE BY

Taylor-Forbes Company

LIMITED

Makers also of "Sovereign" Hot Water Boilers and Radiators

Toronto—1088 King St. W. Montreal—246 Craig St. W. Vancouver—1070 Homer St.
St. John, N.B.—32 Dock St. Montreal—Mechanics Supply Co.
Winnipeg—Vulcan Iron Works
Head Office and Works — GUELPH, ONTARIO

When writing advertisers, please mention The Hospital World.

PRUNOIDS

An Ideal Laxative Free From Cathartic Iniquities

Assures Physiologic Evacuation Without Unpleasant After-effect

SENG

A Reliable Stimulant of Gastro-Intestinal Secretions

Restores and Promotes Physiologic Processes

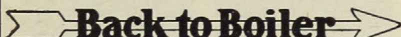
CACTINA PILLETS

Cactus in Its Most Effective and Convenient Form

A Dependable Tonic in Functional Heart Diseases

SULTAN DRUG CO., ST. LOUIS, MO.

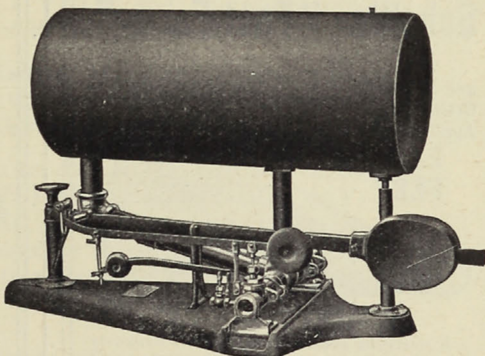
Morehead



SYSTEM

Keeps the entire Steam System Active—Returns the Condensation direct to Boilers

CONDENSATION is taken direct from the steam lines and returned to the boiler with practically no drop in temperature and without the use of Pump or Injector. You thus feed your Boilers with pure HOT water at 320° and above.



Every engineer and manager of a steam plant honestly desiring to improve the steam system under his care will profit by writing us for further information concerning the Morehead System. Information and helpful suggestions are cheerfully given without obligation on your part.

Canadian Morehead Manufacturing Co., Limited

WOODSTOCK, ONTARIO

Canadian Representatives:—Geo. W. Cole, Woodstock, Ontario; Robert S. Bickle, Winnipeg, Manitoba; H. E. Kirkham, Montreal, Quebec; Robert Hamilton, Vancouver, B.C.

Specify "Bush's"

when requiring

PURE

ESSENTIAL OILS B.P.

CHLOROFORM FOR ANESTHESIA, ETC.

W. J. BUSH & CO.

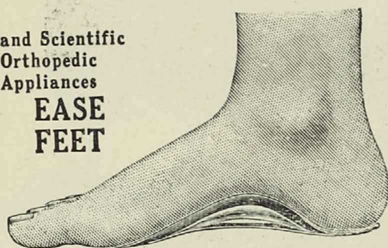
(CANADA) LIMITED

490-492 St. Paul St. MONTREAL | WINNIPEG and VANCOUVER | 122 Wellington St. W. TORONTO

Distilleries and Laboratories also at London, New York, Messina, Grasse, Moscow, Melbourne and Sydney

Scholl's "Foot-Eazer"

and Scientific Orthopedic Appliances EASE FEET



THE SCHOLL "FOOT-EAZER"

A scientific appliance that firmly supports the arch of the foot and instantly removes all ligamentous strain by distributing the body's weight equally.

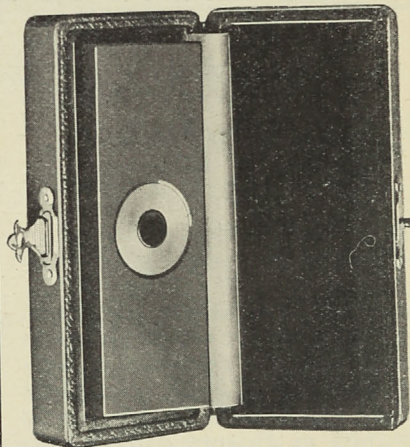
Strongly made of German Silver — very light and springy — easy to wear — fits any size shoe. Price $2.00 per pair.

SATISFACTION ABSOLUTELY GUARANTEED

Sold by druggists and shoe dealers everywhere. Write at once for descriptive book, "Ailments of the Feet and their Correction."

The SCHOLL MFG. CO., LTD.

214 King Street East, Toronto, Can



DO YOU USE A MICROSCOPE?

The GOWLLAND DARK FIELD ILLUMINATOR

for examination of living Bacteria can be used on *any* MICROSCOPE!

Price of Illuminator with 3 slips---$10.00

Write for literature to

THE GOWLLAND CO.

4114 St. Catherine St. W. MONTREAL

Mr. Hospital Superintendent!

For the sake of the many patients under your care, don't you think that it will pay you to examine into the merits of

The Kellaric Mattress

This mattress is particularly well adapted for use by the sick

BECAUSE:

A. It is Built on Scientific Principles.

B. Of its unusual Resiliency.

C. It does not become Lumpy.

The KELLARIC Mattress is made up of clean, elastic sheets of cotton, built layer after layer to a height of TWO AND A HALF FEET, and afterwards compressed to a thickness of FIVE INCHES.

Every KELLARIC Mattress has a laced opening at the end, proving that the manufacturers are not ashamed of the character or quality of the material used inside.

We also manufacture a special mattress that is IDEAL FOR USE IN HOSPITALS, SANITORIA, ASYLUMS, ETC. It has handles down either side, so that in case of any emergency the patient can at once be lifted from the bed to a place of safety. We would call special attention to this mattress for large institutions.

Write Us for Quotations

THE McKELLAR BEDDING CO., LIMITED

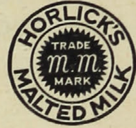
FORT WILLIAM, ONT.

THE BERLIN BEDDING CO., LIMITED

31-33 Front Street E., TORONTO, ONT.

In selecting a Diet for Infant or Invalid remember

HORLICK'S
MALTED MILK



The Food-Drink for All Ages

HORLICK'S MALTED MILK

The basis of "Horlick's Malted Milk" is pure, full-cream milk combined with the extracts of malted grain, reduced to powder form.

HORLICK'S MALTED MILK COMPANY

RACINE, WIS. : MONTREAL, CAN.

In Hospital Practice

Doctor, when ordering your patient a mild stimulant, just bear in mind the name **"O'KEEFE."**

It stands for everything that is best in Malt Goods, and in purity **Cannot be Excelled.**

Hospital superintendents and attending physicians are unanimous in endorsing the high standard of quality and purity maintained, year in and year out, in

Duffy's Pure Malt Whiskey

Produced in compliance with the physicians' "Materia Medica" and the druggists' "Pharmacopoeia," it is comparatively free from fusel oil, the aldehydes, tannic acid, and the usual coloring matter, and it is the preferred medicinal whiskey in every institution into which it has been introduced.

In cases of malnutrition, nervous exhaustion, convalescing, loss of weight and strength, insomnia, etc., Duffy's Pure Malt Whiskey never fails to bring gratifying results to both physicians and patients.

Our booklet, "Plain Facts from the Medical Profession," contains unqualified testimonials from eminent physicians and chemists, many of whom are identified with a large hospital practice. We will be pleased to send it, together with our special hospital and institution rates, on request.

The Duffy Malt Whiskey Co., Dept. B., Rochester, N.Y.

RELIABLE INFORMATION FOR INVESTORS

We shall be glad at all times to answer any enquiries regarding either listed or unlisted Securities dealt in on any Exchange.

We are particularly careful to keep our statistical records revised to date.

DYMENT, CASSELS & CO.

MEMBERS TORONTO STOCK EXCHANGE

BANK OF NOVA SCOTIA BLDG. - TORONTO

A Simple, Cheap and Efficient Outfit for the Murphy Drip

Combined with

A Practical Apparatus for Keeping the Solution Warm

Enlarged View (½ Actual Size) No. 2 Drop Attachment Set as used on the No. 20 Outfit.
A-Glass Drop Nozzle
B-Screw Compressor
C-Rubber Tubing
D-Glass Connection Piece
This No. 2 Outfit can be attached to the Tubing of any Irrigator

The Dropping Attachment
known as the
Meinecke No. 20 Drop Attachment Set
(or Proctoclysis Outfit)

In writing us about our No. 20 Drop Attachment Set (which is illustrated on the right in combination with the Meinecke Saline Solution Heater), Dr. J. B. Murphy, Chicago, says:

"It is an excellent device, and as well adapted to the administration of Proctoclysis as any instrument I have so far seen. At the price you are selling it, it seems to me that it will become very popular.

The main features of our No. 20 Outfit are the Improved Dropping Attachment and the Attachment for the escape of fecal gases and any return flow.

The Dropping Attachment (which is our No. 2 Drop Attachment Set as illustrated on the left), consists of a specially constructed Glass Nozzle (A) and a Metal Screw Compressor (B). The Glass Nozzle is joined to a Glass Connection Piece (D) by a piece of Rubber Tubing (C) on which the screw compressor is secured. The number of drops per minute can be regulated by screwing down or opening up the Metal Screw Compressor (B).

After the required number of drops have been regulated by the screw compressor, it is unnecessary to touch the screw compressor again; as to shut off, or open up, the flow it is only necessary to shut off or open up the ratchet shut-off which is placed above the screw compressor.

For use with this Outfit we recommend our 2 Qt. Seamless Graduated Irrigator No. 2258. In addition to being fitted with a detachable Metal Spout, this Irrigator is graduated in Grams, Ounces, Pints and Quarts.

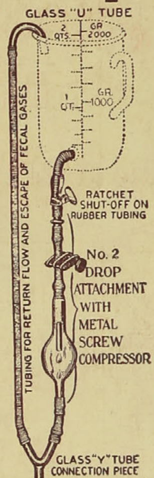
The Heating Apparatus
known as the
Meinecke Saline Solution Heater
(Patent Applied For)

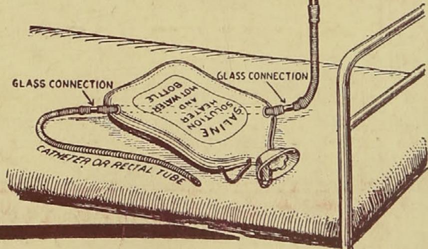
At present the Solution is generally heated before it is put in, or while in, the Irrigator, and then kept warm by various devices. None of these are satisfactory, because the Solution, coming drop by drop, gets cool before it reaches the patient.

With the "Meinecke" Saline Solution Heater (which is shown lying on the bed in the illustration below), it is not necessary to heat the solution before putting it in the Irrigator, and yet the solution will reach the patient at a temperature of between 95 and 105 degrees.

The Heater consists of our regular Metal Hot Water Bottle with a brass tube running diagonally through it. Through this tube a 12-inch length of rubber tubing is drawn, which has a glass connection piece at both ends, and the solution flowing through it comes in contact only with rubber and glass. After the Bottle has been filled with hot water it is placed on the bed and the regular Drop Attachment Tubing is attached to the upper end connection piece, while the rectal tube is attached to the lower end, thus remaining close to the Heater. The Solution, coming drop by drop from the Irrigator, becomes warm as it passes through the Heater and just before it reaches the patient.

By wrapping or covering the Heater, it will retain its heat for many hours, and when the water does begin to get cool it is a simple matter to detach the tubing and re-fill the Heater with hot water. The Rubber Tubing running through the brass tube in the Heater need not be withdrawn when the Bottle is being re-filled.





Net Prices to Hospitals Only

No. 20 Outfit, complete with Saline Solution Heater, 2 Qt. Seamless Graduated Irrigator, Tubing, etc., as illustrated on right... each, $7.50
No. 20 Outfit, without Heater, but with Graduated Irrigator, Tubing, etc. each, $3 00
Saline Solution Heater only each, $4.50
No. 2 Drop Attachment Set, (as illustrated on left) per dozen, $7.20

10% Discount on Full Dozen Lots

Doctors and Nurses supplied at 20% above these Prices

MEINECKE & CO.

ADVANCED SPECIALTIES FOR HOSPITAL AND SICK - ROOM

48-50 Park Place, New York