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THE FARMER'S ADVOCATE

AND HOME MAGAZINE

AGRICULTURE, STOCK, DAIRY, POULTRY, HORTICULTURE, VETERINARY, HOME CIRCLE.

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Vol. LII.

LONDON, ONTARIO, NOVEMBER 22, 1917.

No. 1313



CANADA'S BEST BREAD

AND PASTRY IS BAKED FROM

PURITY FLOUR

the Perfectly Milled Product of the World's
Best Wheat.

Now Ready For Distribution

THE PURITY FLOUR COOK BOOK.—A general-purpose publication on the culinary art, containing between its handsome grey and gold covers the latest advice on food preparation.

A real service to the housewife. Not a publication to exploit the sale of any one food product, but a collection of tried and tested recipes from the pen of Miss E. Warner, Food Specialist and Domestic Science Expert, for the preparation of all manner of dishes for the daily menu, as well as economical suggestions for preparing delicious confections and dainty dishes, which add the necessary variety to the ordinary meal.

Mailed postpaid to any address for 20 cents.

WESTERN CANADA FLOUR MILLS CO., LIMITED
TORONTO : : WINNIPEG

**INTERNATIONAL
Live Stock Show**

December 1st to 8th, 1917

Union Stock Yards, CHICAGO

A Food Production Camp in the Service of the United States.

DAILY SALES OF PUREBRED LIVE STOCK

RED POLLED SALE
Wednesday, Dec. 5th, 10 a.m.
For particulars write H. A. Martin, Gotham, Wis.

ABERDEEN-ANGUS SALE
Wednesday, Dec. 5th, 1 p.m.
For particulars write Chas. Gray, Union Stock Yards, Chicago.

SHORTHORN SALE
Thursday, Dec. 5th, 1 p.m.
For catalogue write F. W. Harding, Union Stock Yards, Chicago.

HEREFORD SALE
Friday, Dec. 7th, 1 p.m.
For catalogue write R. J. Kinser, 1013 Baltimore Ave., Kansas City, Mo.

A season of instruction in the Art of Breeding and Feeding of Live Stock Economically.

Answer the Nation's Call, and put into practice the lessons this Exposition teaches.

Brilliant evening shows, and

A TRIP TO CHICAGO.

LOWEST RATES ON ALL RAILROADS.

**LIFT YOUR CORNS
OFF WITH FINGERS**

Tells How to Loosen a Tender Corn or Callus so it Lifts Out Without Pain.

A noted Cincinnati chemist discovered a new ether compound and called it Freezone, and it now can be had in tiny bottles as here shown for a few cents from any drug store.

You simply apply a few drops of Freezone upon a tender corn or painful callus, and instantly the soreness disappears, then shortly you will find the corn or callus so loose that you can just lift it off with the fingers.

No pain, not a bit of soreness, either when applying Freezone or afterwards, and it doesn't even irritate the skin.

Hard corns, soft corns, or corns between the toes, also toughened calluses, just shrivel up and lift off so easy. It is wonderful! Seems magical! It works like a charm! Your druggist has Freezone. Ask him!



A Better Separator For Less Money

VIKING

Cream Separators of Quality

BE SURE AND ASK FOR THE
Maxwell

Line of WASHERS, CHURNS, BUTTER WORKERS, FOOD CUTTERS, GAS ENGINES, etc. Write for Catalogue.
MAXWELLS LIMITED, St. Mary's, Ont.

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or stuttering overcome positively. Our natural methods permanently restore natural speech. Graduate pupils everywhere. Free advice and literature.
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KITCHENER, CANADA

WANTED

Alfalfa, Red Clover, White Blossom sweet clover. If you have any of the above seeds to offer, kindly send us samples and we will quote you best price F. O. B. your station.

TODD & COOK

SEED MERCHANTS, STOUFFVILLE, ONT.

Cockshutt Catalogue

will give you valuable farming hints, and shows the full line of Cockshutt and Frost & Wood Implements. Write for a copy to-day.
Cockshutt Plow Co., Ltd., Brantford, Ont.

Phonola
REGISTERED

\$45 Model

This is a large size cabinet phonograph for the price, being equal to those selling for \$10 higher.

We are able to offer this value because we make our "Phonolas" complete in our own factories and save middlemen's profits and duty.

Go and hear this Model B Phonola. You'll be charmed with its full, clear tone—its volume will surprise you.

The motor is quiet, smooth-running and winds up easily. The cabinet is beautifully finished, and like all other Phonolas, Model B plays all makes of disc records.

Other Phonolas from \$18 to \$250

DEALERS are advised to secure any unopen territory at once as the Phonola agency is becoming more valuable and harder to secure. Write for our proposition.

The Pollock Manufacturing Co., Limited
Kitchener, Canada. 31

**This Engine Will
Cost You Nothing**

You need an engine—get a Gilson on our new, easy-payment plan, and it will pay for itself. You have the work for it to do this Fall and Winter, help is scarce and high-priced—save yourself a lot of worry and enjoy that "feeling of security" which is such a definite part of the staunch, reliable Gilson Engine.

Gilson Engines have long enjoyed an indisputable reputation of dependability, power, simplicity, and economy. This year finds us with an even more attractive proposition for the discriminating buyer. Prices of everything you have been buying have been soaring, but, by careful management, we are able to furnish Gilson Engines at remarkably low prices. Write to-day for catalogue, price, and easy-payment plan, stating what size you are interested in.

Gilson Mfg. Co., Ltd., 259 York St., Guelph, Ont.

NORTHERN ONTARIO

Millions of acres of virgin soil, obtainable at 50c. an acre in some districts—in others, free—are calling for cultivation.

Thousands of farmers have responded to the call of this fertile country and are being made comfortable and rich. Here—right at the door of Old Ontario a home awaits you.

For full information as to terms, regulations and settlers' rates, write to:

H. A. MACDONELL, Director of Colonization, Parliament Buildings, Toronto, Ont.
Hon. G. H. Ferguson, Minister of Lands, Forests and Mines.

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For that new building.
Milton Pressed Brick Co., Milton, Ont.

5% INSTEAD OF 3%

Your money can earn 5% just as easily as 3% if you invest it in the debentures of the Standard Reliance Mtg. Corp.

Our booklet, entitled Profits from Savings, tells you all about it. It's free.

Write now for a copy.

STANDARD RELIANCE MTG. CORPN.
82-88 King St. E., Toronto, Ont.

**GILSON
SILO FILLERS**

THE GILSON SILO FILLER is the one blower which can be successfully operated with as little power as 4 h.p. There is a Gilson Silo Filler for every purpose—for the individual farmer, for the syndicate, and our large capacity machine for the custom jobber.

We guarantee every Gilson Silo Filler to cut and elevate more ensilage with the same power than any other blower cutter.

**Will Silo Filling Time
find you ready?**

Write for catalogue to-day.

Gilson Mfg. Co. Ltd.
399 York St., Guelph
Ont.
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RENNIE'S SEEDS

WE BUY
ALSIKE, RED CLOVER
ALFALFA and TIMOTHY, PEAS,
BEANS, SPRING RYE, BUCKWHEAT, etc.

WM. RENNIE CO., Limited
Cor. Adelaide and Jarvis Streets
TORONTO

GLAZED SASH 65c.
4 light 8x10.

BUY NOW
AT OLD PRICES

No. 1 clear white pine sash, already glazed. Specially low price for immediate shipment, safely packed. Over sixty other sizes and styles, including house, barn and cellar sash, also storm sash. Send for catalogue free. The Halliday Co., Ltd., Factory Distributors, Hamilton, Ont.

We sell direct. Builders' catalogue free. The Halliday Co., Ltd., Factory Distributors, Hamilton, Ont.

BISSELL

Clean up that stony section of the farm with a Bissell Steel Stone Boat. Built of stiff steel with railing around edges; steel runners. Sizes 2, 2½, and 3 ft. wide. Different styles for all kinds of farm and stable work. Write Dept. W. for folder and prices.

T. E. BISSELL CO., Limited, ELORA, ONT.

**"HANDY"
LONDON CONCRETE
MIXER No. 4**

Capacity, 40 cu. yards per day. Price, complete with gasoline engine, \$225. Pays for itself in fifteen days' use. Built to last a lifetime.

Send for catalogue No. 1 K.

LONDON CONCRETE MACHINERY CO.,
Dept. B, London, Ontario
World's Largest Mfrs. of Concrete Machinery

Post Holes Cost Money

You can save this labor and expense by using Standard Steel Tube Fence Posts. Write for prices.

Standard Steel Tube & Fence Co., Limited
Woodstock, Ont.

**ROOFING
AT FACTORY PRICES**

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**115-in Wheelbase
Delco Ignition—Elect. Sts. & Ltg.
BUSH MOTOR COMPANY, Bush Temple, Chicago, Illinois**

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CHIMES AND PEALS

MEMORIAL BELLS A SPECIALTY

FULLY WARRANTED

McSHANE BELL FOUNDRY CO.,
BALTIMORE, Md., U. S. A.
Chicago Office: 154 W. Randolph St.
Established 1858



The Roofing That IS Roofing

The wind, or the rain, or the sun will ultimately "get" your roofs if they are not covered with Nature's roofing—BEAVER BRAND White Cedar Shingles.

White Cedar Shingles GROW: they are not made up of odds and ends of junk. They are cheaper than any substitute, and will outlast all other materials used in the manufacture of roofing materials—slate excepted. Slate is another of Nature's products, and it is the best roofing in the world; next to slate come BEAVER BRAND White Cedar Shingles, made in New Brunswick, Canada, from choice, live logs, by expert sawyers.

BEAVER BRAND WHITE CEDAR SHINGLES

keep the house and barn cool in summer and warm in winter; they don't add to their cost every year with a coat of paint; their first cost is the last.

Manufactured at
BATHURST, NEW BRUNSWICK, by
**BATHURST LUMBER CO.
LIMITED**

THE SHINGLE ROOF THAT'S STORM PROOF

IF YOU WANT TO SECURE SUPPLIES OF

Sydney Basic Slag

for consumption in Spring, 1918, you will require to arrange for supplies right away.

THE railway authorities advise us that we need not expect to get any goods transported in January, February and March of 1918. The carriage of troops, munitions and coal will tax their facilities to the uttermost, and conditions are almost certain to be worse than last winter. Farmers should, therefore, order supplies from our local agents right away and take delivery ex-car on arrival. If we are not already represented in your district, why not purchase a car of 20 tons and distribute same among your neighbors? Basic Slag retails for \$22 per ton ex-car for cash, and there is reasonable remuneration for the agent. Write us immediately, and our man will call on you.

The Cross Fertilizer Co., Limited
Sydney, Nova Scotia

Look for the Dealer Who displays this Sign



1 1/2 h.-p. \$71.

On Skids With

BUILT-IN MAGNETO

3 h.-p. \$126. F. O. B. Montreal or Toronto 6 h.-p. \$225.

Scarcity and increased cost of material make this advance in price, effective after October 1st, imperative.

A Fairbanks-Morse Quality Engine at a popular price, the greatest Engine value offered. All Sizes Can Be Shipped Immediately from Stock

Simple—Light Weight—Substantial—Pool-proof Construction—Gun Barrel Cylinder Bore—Leak-proof Compression—Complete with Built-in Magneto. Quick starting even in cold weather. Low first cost—Low Fuel Cost—Low Maintenance Cost. Long, efficient, economical "Power Service".

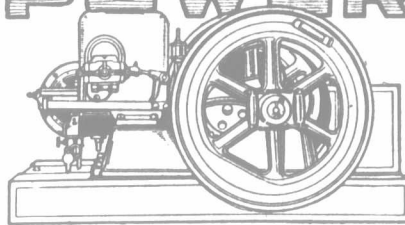
SEE THE "Z" AND YOU'LL BUY IT.

Go to the dealer who displays the sign shown above. See the features that make it the one best engine "buy" for you. When you buy an engine from your dealer you deal with the local representative of the manufacturer. He stands behind the engine he sells. He's responsible to you. He's at your service to see that you are satisfied.

THE CANADIAN FAIRBANKS-MORSE CO., LIMITED
St. John, Montreal, Toronto, Winnipeg,
Saskatoon, Calgary, Vancouver.

See the "Z" And You'll Buy it.

Better - Cheaper **POWER** Get a Page To-day You May Be Short of Help To-morrow



Labor is the most expensive form of power on the farm—and the hardest thing these days to get. Get a Page Engine.

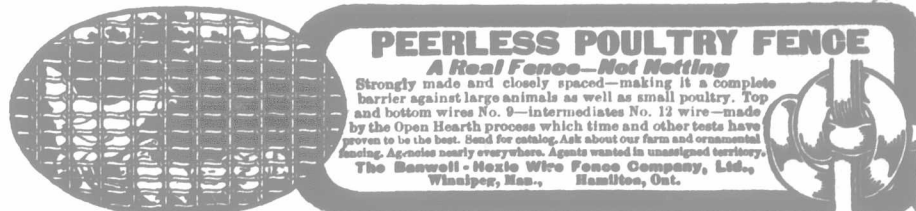
A Page Engine costs less than hired help, and can do many times the amount of work. It will do most everything but the off-the-farm hauling. It will run the churn and separator, pump water for stock, hoist hay and grain into the mow and ensilage into the silo. It will saw your wood and grind your grain. It makes city conveniences possible in your home.

Built to stand rough usage, the Page Engine doesn't easily get out of order. Any one can run it—but the smartest man or boy finds most uses for it.

No engine equals a Page for sturdy construction, dependability, economy and simplicity. Two types—one burning gasolene, and one kerosene and gasolene. There are five sizes of gasolene engines—the smallest 1 1/2 h.-p., the largest 7 h.-p.

And our direct-to-the-farmer selling plan permits us to offer these engines at an extremely low price. Write for full particulars.

THE PAGE WIRE FENCE COMPANY LIMITED.
WALKERVILLE, ONTARIO



PEERLESS POULTRY FENCE

A Real Fence—Not Netting
Strongly made and closely spaced—making it a complete barrier against large animals as well as small poultry. Top and bottom wires No. 9—intermediate No. 12 wire—made by the Open Hearth process which time and other tests have proven to be the best. Send for catalog. Ask about our farm and ornamental fencing. Agencies nearly everywhere. Agents wanted in unassigned territory. The Beaverville-Walkerville Wire Fence Company, Ltd., Walkerville, Han., Hamilton, Ont.

What if Canada Loses this Market

SUPPOSE the farmers of Canada suddenly found that the market for \$320,000,000 worth of agricultural and animal products was suddenly cut off—what would happen?

Yet Great Britain bought just that amount of Canada's total exports of \$417,000,000 worth of grain and animals.

And now Britain must have credit to buy these products or buy them where she can obtain credit.

Canada's Victory Loan will finance the credit.

It means everything to you to keep this market which takes 77 per cent. of all exported products.

It means everything to everybody fighting for freedom.

It is the very substance of Victory to our armies in the field.

**Make the Victory Loan a Success by
Buying all the Bonds you can and
Urge your Neighbors to do the Same**

Issued by Canada's Victory Loan Committee
in co-operation with the Minister of Finance
of the Dominion of Canada

28



The MINISTER OF FINANCE offers for Public Subscription

Canada's Victory Loan

Issue of

\$150,000,000. 5½% Gold Bonds

Bearing interest from December 1st, 1917, and offered in three maturities, the choice of which is optional with the subscriber, as follows:

- 5 year Bonds due December 1st, 1922
- 10 year Bonds due December 1st, 1927
- 20 year Bonds due December 1st, 1937

This Loan is authorized under Act of the Parliament of Canada, and both principal and interest are a charge upon the Consolidated Revenue Fund.

The amount of this issue is \$150,000,000, exclusive of the amount (if any) paid for by the surrender of bonds of previous issues. The Minister of Finance, however, reserves the right to allot the whole or any part of the amount subscribed in excess of \$150,000,000.

The Proceeds of this Loan will be used for War purposes only, and will be spent wholly in Canada.

**Principal and Interest payable in Gold
Denominations; \$50, \$100, \$500 and \$1,000**

Subscriptions must be in sums of \$50 or multiples thereof.

Principal payable without charge at the Office of the Minister of Finance and Receiver General at Ottawa, or at the Office of the Assistant Receiver General at Halifax, St. John, Charlottetown, Montreal, Toronto, Winnipeg, Regina, Calgary and Victoria.

Interest payable, without charge, half-yearly, June 1st and December 1st, at any branch in Canada of any Chartered Bank.

Bearer or Registered Bonds

Bonds may be registered as to principal or as to principal and interest.

Scrip certificates, non-negotiable, or payable to bearer, in accordance with the choice of the applicant for registered or bearer bonds, will be issued after allotment in exchange for provisional receipts. When these scrip certificates have been paid in full, and payment endorsed thereon by the bank receiving the money, they may be exchanged for bonds, when prepared, with coupons attached, payable to bearer, or registered as to principal, or for fully registered bonds when prepared, without coupons, in accordance with the application.

Delivery of interim certificates and of definitive bonds will be made through the Chartered Banks.

Bearer bonds with coupons will be issued in denominations of \$50., \$100., \$500., and \$1,000. and may be registered as to principal only. Fully registered bonds, the interest on which is paid direct to the owner by Government cheque, will be issued in denominations of \$1,000, \$5,000 or any authorized multiple of \$5,000.

Subject to the payment of 25 cents for each new bond issued, holders of fully registered bonds without coupons, will have the right to convert into bonds of the denomination of \$1,000 with coupons, and holders of bonds with coupons will have the right to convert into fully registered bonds of authorized denominations without coupons, at any time, on application to the Minister of Finance.

Surrender of Bonds

Holders of Dominion of Canada Debenture Stock, due October 1st, 1919, and of bonds of the three preceding Dominion of Canada War Loan Issues, have the privilege of surrendering their bonds in part payment for subscriptions to bonds of this issue, under the following conditions:—

- Debenture Stock, due October 1st, 1919, at Par and Accrued Interest.
- War Loan Bonds, due December 1st, 1925, at 97½ and Accrued Interest.
- (The above will be accepted in part payment for bonds of any of the three maturities of this Issue.)
- War Loan Bonds, due October 1st, 1931, at 97½ and Accrued Interest.
- War Loan Bonds, due March 1st, 1937, at 96 and Accrued Interest.
- (These will be accepted in part payment for bonds of the 1937 maturity ONLY of this Issue.)

Bonds of the various maturities of this issue will, in the event of future issues of like maturity, or longer, made by the Government, other than issues made abroad, be accepted at par and accrued interest, as the equivalent of cash for the purpose of subscription to such issues.

Issue Price Par

Free from taxes—including any income tax—imposed in pursuance of legislation enacted by the Parliament of Canada.

Payment to be made as follows:

- 10% on December 1st, 1917
- 10% on January 2nd, 1918
- 20% on February 1st, 1918
- 20% on March 1st, 1918
- 20% on April 1st, 1918
- 20% on May 1st, 1918

A full half year's interest will be paid on 1st June, 1918

The Bonds therefore give a net interest yield to the investor of about:

- 5.61% on the 20 year Bonds**
- 5.68% on the 10 year Bonds**
- 5.81% on the 5 year Bonds**

All payments are to be made to a Chartered Bank for the credit of the Minister of Finance. Failure to pay any instalment when due will render previous payments liable to forfeiture, and the allotment to cancellation. Subscriptions accompanied by a deposit of 10% of the amount subscribed, must be forwarded through the medium of a Chartered Bank. Any branch in Canada of any Chartered Bank will forward subscriptions and issue provisional receipts.

In case of partial allotments the surplus deposit will be applied toward payment of the amount due on the January instalment.

Subscriptions may be paid in full on January 2nd, 1918, or on any instalment due date thereafter under discount at the rate of 5½% per annum. Under this provision payments of the balance of subscriptions may be made as follows:

- If paid on January 2nd, 1918, at the rate of 89.10795 per \$100.
- If paid on February 1st, 1918, at the rate of 79.46959 per \$100.
- If paid on March 1st, 1918, at the rate of 59.72274 per \$100.
- If paid on April 1st, 1918, at the rate of 39.90959 per \$100.

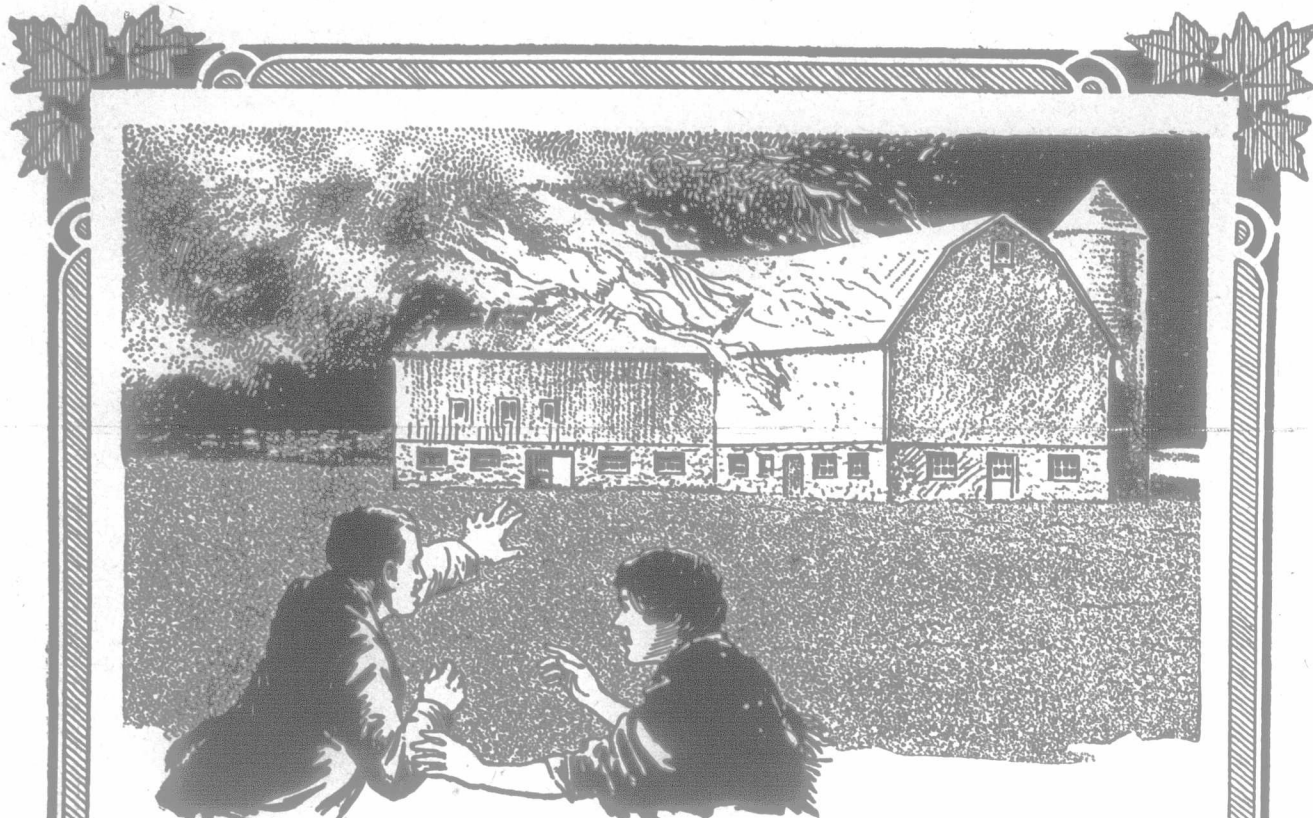
Forms of application may be obtained from any branch in Canada of any Chartered Bank, or from any Victory Loan Committee, or member thereof.

The books of the Loan will be kept at the Department of Finance, Ottawa.

Application will be made in due course for the listing of this issue on the Montreal and Toronto Stock Exchanges.

Subscription Lists will close on or before December 1st, 1917.

DEPARTMENT OF FINANCE,
OTTAWA, November 12th, 1917.



The Barn Can be Replaced —but Not the Farmer

AN ordinary barn is worth say about \$2,000. To his family the average farmer who is able to produce \$1,000 annually from his farm, is worth in mere money value alone, at age forty, fully ten times the value of a barn.

Unprotected against fire, the farmer seldom fails to insure the barn, which may never burn.

Helpless against the certainty of death, sooner or later—he too often fails to insure his life which he is sure to lose.

The farmer shows his practical wisdom by insuring his property against destruction by fire, for it is usually the case that there are few facilities for fighting fire in country places. Nothing could be more necessary than adequate fire protection.

For the sake of their precious loved ones who otherwise would be left helpless on the unreplaceable loss of the breadwinner, nearly 60,000 persons are joined together for mutual protection in the Mutual Life of Canada.

When so great a number of persons are banded together for mutual benefit, the result is that policyholders in the Mutual Life of Canada enjoy the lowest rates for protection, while

maintaining the maximum of strength and security.

The Mutual Life of Canada is under the severest government supervision, and in this does not differ from any other legal reserve life company. The premiums cannot be increased but are often greatly decreased on account of the generous dividends which are paid exclusively to policyholders.

The Mutual has paid in dividends to its participating policyholders \$4,249,554.26.

Every farmer should have this splendid protection in the Mutual. In the event of his death, money will be needed to meet the mortgage, to replace his thought and labor with hired help—and to provide protection.

Without the slightest obligation on your part we will send full information about our participating policies. Write for booklet entitled "Ideal Policies."

The Mutual Life
Assurance Company of Canada
Waterloo, Ontario

600

LISTER

The name that stands for
Quality in Farm Machinery
LISTER ENGINES ARE
BRITISH BUILT



Have the
Largest sale in
the
British Empire.

2.3, 5.7 & 9 H.P. On Skids or Truck.
High Tension Magneto Ignition.
Automatic Lubrication.

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IS
THE CHEAPEST

THE LISTER
GRINDER



Write for price
of our famous
Grinder Outfit
comprising
5 H.P. Lister
Engine and a
9 3/4" Lister
Grinder.

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Artificial limbs are admitted
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and others should get the best
Erickson Artificial Limb Co. 30 Wash. Av. N., Minneapolis, Minn.
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The Farmer's Advocate

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Home Magazine

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1866

REGISTERED IN ACCORDANCE WITH THE COPYRIGHT ACT OF 1875

LII.

LONDON, ONTARIO, NOVEMBER 22, 1917.

1313

EDITORIAL.

The "extra" sow should be of good type and breeding.

The top-notch product always commands a premium no matter where or when it is marketed.

Have you decided whether your candidate is a win-the-war or a win-the-election politician?

Every breeder and feeder of live stock should familiarize himself with market classes and grades.

The political atmosphere is generally quite hazy, but it is a thick fog to the rank and file just now.

Bacon worth 18 cents per pound in normal times recently sold for 60 cents per pound in Britain.

If you keep an extra sow plan to feed her and the litter cheaply. The "Stock" Department this issue tells how.

America must send wheat or its equivalent to the Allies in Europe to the extent of 300,000,000 bushels from this year's crop.

There are three things every reader should do before this month is over, buy a war bond; buy another war bond; buy still another war bond.

A good sow will add anywhere from 1,500 to 2,000 pounds of pork to the food of the Allies next year. Are you planning to add your ton to the lot?

Good hay is plentiful in Eastern Canada this year, but a short supply in the United States and short corn here are making it more valuable than most people anticipated.

Some who favored conscription are now against it, and others who were against it are now for it. Strange things happen and time makes many changes. We respect those who change their minds, but have no use for the "flopper."

An army which has brought forth the praise from military experts of other countries which has been showered upon the Canadians in France and Flanders, is deserving of all the support which a grateful and resourceful people can give.

This is no time for the consuming public to discriminate in favor of light lambs. The lamb weighing 120 pounds or more may be, if properly fed, just as toothsome as the 75 to 90-lb. lamb, which now tops the market because of demand for light lamb.

A pig is a fine pet for the back yard, provided the back yard is big enough and neighbors are either distant or have no sense of smell. But then, what matter if roosters rout the late riser out and pigs perfume his property so long as the fighting Allies are fed?

We recently saw a carload of feeder cattle which the owner had put in to feed this winter at 11 cents per pound. They were choice, and the best generally pays as well as any. To those who think the farmer takes no chances let us suggest that they figure up a carload of eleven-hundred-pound steers at 11 cents per pound, estimate the cost of feed and guess at the price in the spring.

Bonds a Good Buy For Farmers.

Canada's Victory Loan is receiving an enthusiastic reception from those who understand investments and patriotic citizens generally. The Minister of Finance and all those connected with the country's business are particularly anxious that the small investors get the benefit of a part of this loan. There is still time and while millions have been subscribed, millions more may be taken up. All those interested in agriculture, and the farmer's welfare, would like to see the men on the land take up their part of the loan. In previous articles we have shown the merits of the investment as a safe, convenient and sure place for savings or surplus cash. It might be well to go a little farther in an endeavor to make the issue clearer to readers who have not had the opportunity to invest in bonds before, and are not familiar with the procedure.

The denominations of the bonds, according to the prospectus, are \$50, \$100, \$500 and \$1,000, and three different types are available, namely, five-year bonds, due December 1, 1922; ten-year bonds due December 1, 1927; and twenty-year bonds, due December 1, 1937. All that is required is a ten per cent. deposit on December 1 next, followed by ten per cent. on January 2, and twenty per cent. in each of four pays from February 1 to May 1, inclusive. A full half year's interest will be paid on the 1st. of June 1918, even when bought on the foregoing plan. If the investor so desires, he may after paying ten per cent. on December 1, pay the remainder in cash on January 2, when he will be allowed 5½ per cent. per annum discount. The bonds consist of coupon-bearer bonds, coupon registered bonds, and fully registered bonds with interest payable by check, the latter being obtainable only in thousand-dollar or higher denominations. The investor, if he thinks he might need the money in five years, or in ten years, has the opportunity of taking the short-term bond. If he believes that interest rates will ultimately come down and he desires a longer term investment he has the opportunity of taking a twenty-year bond.

There is nothing complicated in the matter of making the investment. If you have been canvassed the prospectus will show you that if you fill in the check form which it carries for 10 per cent. of the amount you wish to take, and leave it with the canvasser to send to Ottawa and be returned to your bank that is all you need do. The bank will notify you re payments. Or, if you choose, you can make all the arrangements through the bank. Fill in your application form, stating the amount, form of bond you wish, and attach thereto your check for the first instalment of ten per cent. and have the bank send it to Ottawa. If you wish to pay cash on January 2, your bank will figure out the discount you will be allowed and will deliver your interim certificates and bond. If you are not clear on any point, ask your banker about it; he will only be too glad to help you. Or, if you are canvassed the men on the committee will be able to give you the necessary information.

Farmers having money which they do not require in their business can do no better than lend it to their country. There is no doubt about the security; all Canada is behind it. The rate of interest is higher than would be obtainable on small amounts loaned elsewhere with as good security. The five-year bonds draw a net interest of 5.81 per cent; the ten-year bonds 5.68 per cent., and the twenty-year bonds 5.61 per cent.; besides, the bonds have a marketable value at any time and may be sold on very short notice if the money should be required by the purchaser. Canada should respond with as large a number of names of investors to this loan as possible. Every true Canadian understands his duty at this time and the investment yields such a rate of interest and is so sound that none will hesitate to buy the bonds.

Some may not feel that they have sufficient ready

funds to warrant their purchasing, but the easy-payment plan and the fact that the banks will loan the purchaser ninety per cent. of the value of the bonds bought, at the rate of five and a half per cent. until paid for, brings them within the reach of all.

A particular case has come to our attention and we pass it on. A certain farmer has undertaken to produce \$1,000 worth of bonds. This man explains that he has a mortgage against his place amounting to \$3,000 which is drawing six per cent. per annum. Notwithstanding this fact, he feels that the Victory Loan carrying five and a half per cent. presents a duty and an opportunity to him and he takes his \$1,000 share. This loan is one place where the farmer may be appealed to on patriotic grounds and where he is also assured of good returns. We feel that Canadian farmers will take their share of the loan and that they are entitled to the share of returns which would be theirs. The Farmer's Advocate is not advising, nor is it asking anyone to do what it has not done itself. We have bought our Victory Bonds. Have you?

Every Spade of Earth—Every Animal Reared.

Herbert Hoover, Food Controller in the United States, recently made this statement: "The farmer who works overtime and the consumer who economizes in his consumption are fighting the submarine with a positive and sure weapon."

"Every spadeful of earth turned by the farmer and every animal reared is lessening human suffering and guaranteeing the liberty of the world."

There is food for thought in these two paragraphs. We believe that the great majority of the farmers, farmers' sons, wives and daughters in this country have during the past three years at least been working just as long hours as their general health would stand. It is next to impossible for the great majority of them to do any more overtime work than they are now doing; in fact, there are those who state that the only wages the farmer and his family gets are obtained for overtime work. If they are getting rich, as so many people believe, then it must be granted that they are doing more overtime work than ever. However, they are ready to go on during the winter and the coming summer, and longer if necessary, to do all the hours of labor possible each and every day if it will the more speedily bring the war to the desired conclusion and aid in the ultimate assurance of the continued liberty of the world.

The second quoted paragraph is worthy of full consideration. We have heard of many young farmers anxious to do their part in the war who are halting between two opinions. Many are undecided as to whether they should remain at home and work their land and produce all the food possible, or should join the colors and go to the front. Hoover, Hanna, Rhondda, Llyod-George—all the leaders who understand the situation maintain that food is of utmost importance. France has been held up as a model of what the old men, women and children could do by way of production, but France were it not for the immediate assistance of the food from this country, we are told, would be starving. It is impossible to increase or even maintain production unless a certain percentage of the men who know how to produce are left on the land. Mr. Hoover says every spadeful of earth turned and every animal reared is lessening human suffering and guaranteeing liberty. This being true, every man, woman and child who puts forth his or her best effort on the farm with a view to producing the food necessary to maintain the Allied armies and the Allied civil population until the safety of democracy is assured is doing a real duty and real service for his country and for the world. No one can point the finger of scorn at the producer who produces with all his might, and by this time with all the speeches

The Farmer's Advocate AND HOME MAGAZINE.

THE LEADING AGRICULTURAL JOURNAL IN THE DOMINION.

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of the Food Controllers and those at the head of affairs who know, all classes should be convinced of the necessity of doing all possible to maintain and increase food products. The slacker is no less a slacker if he lives in the country and does not do his duty. No doubt there are a few such still hiding on Canadian farms, but these are the exception not the rule, and the man who works from 100 to 250 acres with the help of his wife and possibly a boy or girl, is certainly doing his bit and should so be considered.

That Extra Sow.

In this issue is a special article which contains some ideas regarding the maintenance of the extra sow and her spring litter. We are assuming, of course, that readers in so far as it is possible are going to keep an extra sow. We are not attempting to advise anyone. We believe that the farmer himself knows his own business better than anyone else possibly can, but where it is practicable in view of the assurances now given, no doubt more sows will be kept. The article mentioned may carry a few hints which will help the owner to feed his pigs to advantage. It is information we have tried to impart, not advice. The problem facing most of those who would like to keep an extra sow is that of feed and care. The article itself is written with the purpose of giving information regarding the wintering of the sow and the care of the litter, together with the supplying of feed grown on the farm. With proper planning, little extra purchased feed is necessary on the average Ontario farm to carry the litter along until thrashing time next fall, when the fitting for market should begin.

A Feed Branch Established.

We understand that a special Feed Branch is to be established in the Dominion Dept. of Agriculture. This we believe to be a move in the right direction. A special unit to be given to the special care of the farmer, who is the one who is most interested in the rapid increase of his stock, is a move in the right direction. It was doubtless a move in the right direction, as the program has not been as easily available to

Canadian farmers both East and West as they might have been. Difficulties arise also from time to time regarding the composition of commercial feeding stuffs. We believe a Feed Branch is essential to the live stock industry at the present time, and with energetic men on the job many of the farmer's feed problems may be solved. The feeder asks that he be safeguarded in the purchase of commercial feeding stuffs and desires help in obtaining supplies of concentrates at as low a cost as possible. Every good feeder is willing to pay for good feed. He needs help to obtain it.

Nature's Diary.

A. P. KLUGH, M. A.

Among all our Canadian mammals there is none in which more general interest is taken than the Beaver. This is undoubtedly due to the fact that it is one of the emblems of the Dominion as well as to its interesting and unique habits.

The Beaver belongs to the order Glires, the same order to which the Hare, Squirrel, Muskrat, Porcupine, and all the other rodents belong. Its average weight is about thirty pounds and average length about forty-three inches. The hind feet are webbed and the broad, scaly, horizontally flattened tail distinguishes it from all other mammals.

The original range of the Beaver was very extensive, embracing practically the whole of North America wherever there were trees and water. The species still occurs in Canada from coast to coast but has been exterminated in well-settled districts. The favorite haunt of the Beaver is along slow-flowing streams, or small lakes, with clay banks which are covered with poplar and willow.

The Beaver is the engineer among mammals. The dams which it constructs are huge structures of sticks, stones, mud and sods laid across a stream so that the water above the dam is rendered deep enough to protect the Beaver community from their enemies in summer and to avoid the danger of its freezing to the bottom in the winter. Seton, who has made a careful study of the Beaver, thus describes the building of the dam. "The Beaver and his mate first decide on the stream they propose to make into a pond, and it is always a small one, sometimes a mere spring. Next they select a place where the bed is hard clay or gravel, neither rock nor bog being desirable, and then begin the dam by cutting and laying quantities of brushwood lengthwise in the deepest part of the stream bed, but against the current. Each stick as it is laid is partly covered near the thick end with mud, stone, or clay to hold it down and the process carried on until the wall is raised. But very rarely is a log used and never a stake. By this time the original bed of the stream is blocked and the water flooding the shore calls for a still wider dam. Night by night the Beavers work on the dam, piling up sticks and burying them in mud or anchoring them down with stones of one to six pounds in weight. The mud is got in the handiest way, the nearest place that is by digging to the bottom of the pond just above the dam. This has a tendency to enlarge the pond, so that in most cases it is deepest just above the dam. The longest dam on record is 700 feet in length and the highest is 12 feet in height. Some of these large dams contain from 150 to 250 tons of material and represent the work of generations of Beavers.

Not only does this engineer build dams but canals as well. These are made leading inland from the pond to standing timber, and are used for transporting the poles and brushwood that the Beavers cut. Seton came across one canal which was 651 feet long and nearly 4 feet wide, and Morgan records a canal which was 523 feet long and which had locks in it. These locks were low dams making a foot rise in water level, over which the cut wood was hauled when being transported, and while the main canal was supplied with water from the pond, the locks were fed with water gathered by another dam.

The Beaver makes several kinds of houses—a simple burrow in the bank, a bank lodge with a complete roofing of sticks, and an island lodge. As a rule a Beaver community has several burrows and a lodge. A typical lodge is a rounded mass of sticks, and sometimes stones, about 20 feet across, and 3 to 5 feet high, cemented with mud except on the outside, which is covered with sticks. It contains a single chamber, about 2 feet high and 5 feet across, the floor being about 4 inches above the water level. There are usually two entrances, one abrupt and often winding, which is the usual runway and the other quite straight, which is used for bringing in wood.

When a Beaver sets to work to cut down a tree it first cuts two grooves round the tree, one some distance above the other, then splits out intervening wood, cuts two more grooves and so on. Often a pair and sometimes three, work on one tree. Two Beavers can cut down a three-inch sapling in three minutes and a six-inch sapling in half an hour. Morgan gives the following description of the felling of trees: "When but two are engaged they work by turns, and alternately stand on water. When the tree begins to crackle, they desist from cutting, while they afterwards continue with vigorous plucking to fall, when they plunge into the pool and swim some feet for a time as if to find the spot where the tree might attract some enemy. Then they return to the trunk, and reduce the trunk to a mass of chips, and work to the water. From that point they begin to work with the most vigorous energy, and they are engaged with the most incessant activity, until they have cut it up into after night, and the work is done." Trees from 3 to 8 inches in diameter are the usual sizes selected for cutting,

but we have records of some as thick as 30 inches having been cut down.

The main food of the Beaver consists of bark, chiefly that of the Poplar, though that of any hardwood is used. Most of the wood cut is for food purposes. The branches are cut into lengths depending upon their diameter, about a foot if 5 inches thick, about two feet if 3 inches, and so on. These lengths are transported to the vicinity of the lodge, and their ends are stuck in the mud at the bottom of the water, so as to keep them from being frozen in the ice, and are thus stored for winter. They are brought into the lodge from time to time as required, and after the bark has been eaten the bare log is added to the dam. When transporting these lengths over land the Beavers roll them with their forepaws or shoulders if they are heavy, or carry them in the mouth, with the end over their back if they are light. In this way they are brought to the pond, or one of the canals leading to it.

In summer the Beaver eats many kinds of vegetable substances as well as bark—waterlily, rhizomes, grass and berries.

Beavers mate for life. The young are born in May and number from two to five. Their eyes are open at birth. In about a month they begin to eat solid food and to follow the mother and at six weeks they are weaned, but stay with the mother for a year longer. They mate when two years old and live from twelve to fifteen years.

A Change of Mind and Heart Necessary.

BY SANDY FRASER

Last night after I had come in frae doin' the chores and wis-sittin' doon readin' the paper, the auld wumman says tae me, "Sandy," says she, "Did ye notice that the King has been appointin' a day for national prayer an' thanksgivin'?" Some time in January, I think it is, she said, lookin' round for the paper.

"What does he want tae gie thanks for?" I replied. "Maybe for the way the Germans are whallopin' the Dagoes over in Italy these times, d'ye think?"

"There's always somethin' tae be thanku' for," says Jean, "Na dot things might be worse than they are, though ye might not think it. But I hae an idea that thanksgivin' is not the main reason for settin' apart a day in this way. He's callin' this national prayer-meetin' because he is beginnin' tae see that a change o' mind an' heart on the part o' his people will be tae the advantage o' all concerned, an' what's mair, he hys the glimmerin' o' an idea that he's not going tae win the war till this change does take place. Admiral Beatty said somethin' o' the kind about a couple o' years back, but it didna' mak' muckle o' an impression, as far as ye could notice, for there's been little change in the ways o' the people, if ye can believe all the stories ye hear. Human nature doesna' change vera much in the course o' a few thousand years, an' if we've read oor Bible, or some o' the ither books that gie us the history o' past generations, we'll hae found out that the tribes an' nations that got rinnin' off the track an' gaein' tae the bad in o'ny way, were not generally allowed tae rin vera far, for something always happened tae bring them up wi' a short turn, an' in the end tae tie them on the straight an' narrow way again. This has happened hundreds, an' maybe thousands, o' times since man came tae live on this auld earth, but we haven't learned oor lesson yet, apparently, for there is somethin' or someone tryin' tae teach it tae us again. It seems tae me that it is a guid deal like a sickness in the case o' an individual. Nime times out o' ten it's the breakin' o' Nature's law in some way that brings on this sickness, an' the man who has to undergo it generally finds that his punishment and cure are put up in the one battle. One isna' vera apt tae tak' notice o' this at the time, but later on, in the light o' the experience he has acquired, he can see it a'richt. An' sae it is wi' oor wars, I feel sure. Tak' the world as a whole, oor ain nation as well as that o' the enemy. Have we been o'ny better than we ought to hae been? I dinna' think it. Frae what I hae read an' heard I'm inclined tae think that they were all gaein' to the deil about as fast as they kened how. There wis o'ny amount o' prosperity, but monee an' morals dinna' always go thegither, I've noticed. Whiskey drinkin', an' the ither things that gang wi' it, that are as bad if not worse, wis on the increase, an' these things had sic a hold on the people that we hae no' got rid o' them yet, although everybody keens that there is everythin' to be gained an' naething to be lost by pittin' them out o' business, once an' for all. There are some signs that go tae show us that a change is takin' place in the minds o' the nations that are at war, in regard tae these things. Auld England and the Allied countries give some evidence that they are still in need o' some more o' the medicine they are gettin' at present. There are two or three questions that England herself will hae tae settle at home before she need expect tae straighten out that little affair over in France, I'm sure o' that.

"It's funny how short-sighted humanity is, when it come tae think about it. They'd rather hand doon monee an' land an' all that sort o' thing, tae their children an' their children's children, than tae gie them a fightin' chance o' acquirin' a guid character. They must ken better than that, I'm thinkin', but the queer thing is that they dinna' do better. But if there's a Higher Power takin' a hand in rairin' the affairs o' this world, as we ken there is, I feel sure that the future generations o' mankind will hae a better chance to mak' somethin' o' themselves than a cold monee o' the individual that hae lived through part o' what we call the century of progress. An' ye ken sae, wae ye like,

it will be partly because o' this war. It had to come, in the nature o' things. Man created the conditions that made it a necessity, but at the same time it isna' rimm'n' ahead by chance, by ony means. As I said, we're juist gaein' tae continue takin' oor medicine till it mak's us better, or kills us entirely, an' I'm not one o' those that look for ony such endin' up as that tae the British Empire. Na, Na, we'll win oor yet, although it's gaein' tae be by hard scratchin', I can see that."

"I wis juist readin' a chapter in the Book, the ither day," Jean went on, "an' I cam' across one verse that might dae a lot o' good if ilka minister in the country wad tak' it for his text some time, an' preach a sermon frae it. It wis juist this: 'Return unto me and I will return unto you, saith the Lord.' There's the answer tae the hale question, as I see it. When we're ready to dae that we'll be in sight o' the end o' oor troubles, but until we are I dinna see a chance for us."

"Weel Jean," says I, "when she had quit speakin', 'I see ye ha'e been daein' some thinkin' for yersel' in yer spare time... I winna say ye're richt in all yer conclusions, but on the ither hand I winna say ye're wrang. Na," says I, "I winna say ye're wrang. There's mair people o' yer way to thinkin' than ye may imagine, an' that's one reason why we ha'e good grounds for our hope o' something better on ahead. I'm no' one that believes in gettin' discouraged about anything on this auld planet, but at the same time I always pit a guid deal o' stock in a proverb that used tae be in one o' the school-books lang ago. It wis this: 'Be sure you're richt, then go ahead'. We're on the richt side in this war, I'm no' in twa minds about that, but ha'e we been richt in all we ha'e done or said in connection wi' it?" "Ye had better leave it at that, Sandy," says Jean.

THE HORSE.

Diseases of the Feet—I.

There is no subject that calls for more attention by the horseman than the consideration of the feet of his horse. The horse's feet are subject to many diseases, many of which are due to inattention or mismanagement. Before discussing the various diseases of the feet it may be wise to discuss measures that tend to prevent disease. Attention to the feet should be commenced the first winter of a colt's life. It is probable that all horsemen know that under normal conditions there is a constant growth of horn which forms the wall of the foot, that portion seen when the sole rests upon the ground. This growth is from a band or ligament called the coronary ligament, which is situated in a groove in the wall. The secretion of this material, and its deposit upon the upper margin of the wall, is constant, hence the wall grows from above downwards. It can readily be understood that, as this growth is constant, there must be some wear or waste, else the foot would continue to increase in size. In the unshod adult horse the wear on the lower margin of the wall is about equal to the growth from above, hence the foot remains about the same size. In the horse that is wearing shoes, the shoeing-smith cuts or rasps off the lower margin of the wall an amount equal to the growth from above, hence the foot is kept about the normal size. In the young animal the growth is in excess of the wear, hence the foot continues to grow until adulthood. During the early months of the lives of a large percentage of colts, they are at large in the fields with their dams, hence the wear is sufficient to prevent the feet becoming abnormal in size, but after they are weaned they are generally kept in the stable most of the time during the winter months, hence while the growth is constant the wear is little and the feet become abnormally large and often ill-shaped. The growth of horn is often stimulated by allowing the animals to stand in stalls, either box or single, that are not regularly cleaned out. When from any cause the growth exceeds the wear to a marked degree, the feet must attain too great size, and in many cases the heels grow below the frog and have a tendency to turn inwards, the toe grows quite long, and the animal will be noticed treading largely upon the heel, and in many cases the toe turns upwards, not coming in contact with the ground until the animal commences to lift the foot to take another step. This, or other peculiarities of form or over-growth of horn causes too great tension on some ligaments and tendons and too little on others. If conditions of this nature be allowed to continue for any great length of time, there is a danger of the future usefulness and value of the animal being greatly reduced; hence we repeat that "attention to the feet should be commenced the first winter of the colt's life." The feet should be examined regularly and every few weeks, as needed, the wall and heels should be pared or rasped down until the foot is the normal shape, and about the proper size. This, in addition to keeping the feet tight, is good training for the colt, as it teaches him to stand handling and to submit to control. This attention to the feet should be continued until it is necessary to shoe him, after this the shoeing-smith, provided he understands his business, will attend to the shape and condition of the feet. Writers upon the management of the horse's feet and upon shoeing are very numerous, and they have apparently looked upon the feet as a simple and a complex piece of mechanism, and in forgetting that no matter how complex the organ, it is enclosed in a simple horny box, and that the art of shoeing should be directed to preserve the organ in a normal condition, and that its position and the shape of the limb should not be altered by the shoe, they have done much to confuse the horseman. In preparing a horse's feet, the frog, and bars should not be pared,

except sufficiently to remove any partially detached portions. The paring and rasping should be done on the bearing surface the wall and heels, and, if necessary, the toe shortened. In a healthy foot the wall and heels should be rasped off until the frog comes in contact with the ground when the foot is planted or when a flat shoe is put on. As little rasping as possible should be practiced. The wall should be pared or rasped until the bearing surface is level. As this is hard for the average shoeing-smith to do by sight, it is often necessary to place a hot shoe on, this will scorch any elevations that are present, and the smith can then pare them down a little, but they should not be burnt down. Most modern shoeing-smiths know what weight of shoe a horse should wear. Where flat shoes can be worn with safety, they should be worn as this tends to allow the frog to sustain its share of weight and tends to prevent disease, but during winter in this country and even during the summer months, with horses that travel on paved streets, it is necessary to wear shoes with calkins to avoid accidents from slipping. Probably the greatest fault that can be found with the modern shoeing-smith, is the tendency to make the calkins too high. They should not be any higher than is necessary to provide reasonable safety, as the nearer the foot comes to the ground when the foot is planted, the better, the more comfortable the horse will feel, and the more sure-footed. Shoes should be removed and re-set, or new ones applied at most every five or six weeks. During the interim between settings the foot should be cleaned out at every grooming, in order that all foreign matter may be removed. This prevents the accumulation of dirt, and also provides for the removal of any solid matters, as stones, etc., that may have become fixed between the shoe and the bars or frog, also the removal of nails or other substances that if not removed would probably be forced in more deeply and cause trouble. The feet of horses that are kept in



Gainford Matchless.

First-prize Shorthorn senior bull calf at the Canadian National, 1917. Exhibited by Gerrie Bros., Florida, Ont.

the stable at all seasons, require special attention during dry, hot weather. Moisture is necessary for the proper growth and condition of horn. Horses that spend the night or even a few hours daily on pasture will, in most cases, get sufficient moisture for the feet from the normal moisture of the ground and the dew, but some means should be observed to provide moisture to the feet of stabled horses when conditions are not such that they receive it on the roads or streets when in harness or saddle. The various hoof-dressings that are on the market have very doubtful value, water is required. This is to be supplied in various ways. The feet especially require attention. Moisture can be supplied by standing the animal for a few hours daily in a tub of water (called tubbing) or in wet clay; by the application of poultices; by placing pads of thick felt or other material, that have been soaked in water, over the feet and attaching by buckling a strap around the pastern or by filling the sole of the feet with some substance that retains moisture. A form of rock or clay that answers the purpose admirably is on the market, and stocked by most of the up-to-date harness dealers and some hardware men. It absorbs many times its own bulk of water, a quantity can be prepared at once, and the shoes filled every evening. While the above precautions will not necessarily prevent disease, they largely tend to do so. We hope to discuss the various diseases of the feet in our next numbers.

With

The Food Controllers in both the United States and Canada have stated that they have no intention of raising the price at which the farmer sell his stock. However, they are promoting the so-called "pool" for the purpose of protecting the producer, and the consumer, all got mixed up in a deal.

LIVE STOCK.

The Market Classes and Grades of Cattle.

There has been a slight change in the classification of market cattle since the time of the heavy export bullock. Latterly, too, there have been occasions when butcher stock was in such small supply that what ordinarily went as feeders were diverted to the block. The supply and demand are controlling factors deciding as to what use shall be made of cattle differing in quality but in normal times the line of demarcation is more distinct between the classes. One might argue that the slaughtering of a feeder does not make it a butcher animal, and that it went to the shambles in feeder condition and form in order to meet an emergency call. A light butcher steer as now classed on Canadian markets may range between 700 and 1,000 pounds in weight, while feeders (good and fair) range between 800 and 1,000 pounds. Thus it will be seen that quality, condition and conformation go a long way in deciding the relative position wherein different groups of cattle may be classed. In some cases there may be little difference between a good feeder and a poor butcher beast. We wish to emphasize this point in our attempt to describe the market classes and grades of cattle, which is so much an important subject now in view of the fact that so much activity exists in live-stock circles and farmers are being encouraged to purchase stockers and feeders to consume the grain and roughage, produced so abundantly last season, and return them to the market in condition to meet the demand of the Allies for product of this kind.

Before going further we should distinguish between a market "class" and a market "grade." The market classes as we have them now include such as shipping steers, butchers, heifers, cows, bulls, canners and cutters, oxen, calves, stockers and feeders, etc. The grade refers to the quality, condition and general character of the offering within the class. A steer may be prime, choice, good, fair or common. While choice cattle are coming forward practically all the time, the two grades good and common comprise a heavy percentage of the offering.

Shipping Steers.

There is no definite range of weights to include shipping steers. If New York and Boston happen to be particularly short of product they will take well-finished stuff that might ordinarily pass as heavy butcher on the Toronto market. However, the well-fleshed, smooth cattle which are picked up in some of the good grazing districts of Ontario in late September and October and weigh around 1,300 and 1,400 pounds are considered shipping steers of first-rate quality. The same may be said of many stall-fed steers lifted during the spring months ranging around the same weights. The finish, degree of fleshing, and quality of the offering govern the classification, and a shipping steer may at the same time be a choice butcher.

Butchers.—Heavy butcher steers now range between 1,000 and 1,200 pounds, while the light ones will run from 700 to 1,000 pounds. They are usually appraised as good or common in their respective places, according to their quality. The well-bred kind evenly fleshed and carrying some thickness over those parts from which the most expensive cuts are taken grade as good, while the dairy-bred stuff inclined to be paunchy and narrow or thin on top will grade as medium or common. The buyer's eye is trained to estimate the percentage of carcass that an animal is likely to yield, and those which give evidence of considerable offal in proportion to actual carcass are severely scored. It is the good or choice kinds that weather the market fluctuations best, for they are always in demand; but the medium or common ones sometimes do not bring what they are worth on an unsettled market. In the heavy-steer class the difference in price between good and common may amount to as much as 75 cents to \$1.50, and the same difference prevails in the 700 to 1,000 pound class between the good and common kinds.

Heifers. While heifers and cows are usually termed as butcher stock they are usually quoted in a separate classification. The grades are the same as the steers, but there is usually a greater range of differences. The good butcher heifer may sell for as much as the good light steer, yet the minimum prices frequently fall far below those for common steers. Cow, too, are termed as butcher stock when of good quality but in price they are below the heifers, and as much as from \$1.00 to \$2.00 below those for light steers.

Cutters and Canners. There is little difference between a good cutter and the common or poor butcher

cow, and the same thing applies to the canners and cutters themselves. When an animal is a little too good to be classed and graded as a good cutter, it would be classed as butcher stock and graded as medium or common. The grade of cattle, too, spoken of as good canners is a grade lower than cutter cows and heifers. The bulk of the cutter offering consists of farrow dairy cows that carry some flesh but not enough to warrant an attempt to use all as carcass beef. Common cutters and good canners may be considered in the same grade

as they are between canners and cutters. The dividing line between the two is far from being definitely drawn; it is determined by the supply of and demand for such stock rather than the quality and condition of the offerings.

Stockers and Feeders.—Toronto market reports list stockers at 450 to 800 pounds, and feeders at 800 to 1,000 pounds. Growthy, thrifty-looking yearlings giving evidence of good breeding, and weighing somewhere within this range, would be classed as good stock-

ers. Feeders are usually put into the stalls at around 900 to 1,000 pounds in weight, so they will come out in the spring after proper care and feeding and class as heavy steers. The difference between a good feeder and a common steer is that the former does not indicate any attempt being made to fatten him or prepare him for the block. The feeder may be just as heavy as the butcher steer, but the latter has evidently undergone a grazing or stall-feeding period preparatory for the market.

Maintaining that Extra Sow and Rearing the Litter.

With only a slight readjustment in the order of established and working plans it should be possible for ninety per cent. of Eastern-Canada farmers to winter an extra sow and rear the litter next summer, without inflicting any great hardship or disorganizing the present system of management. We are fully cognizant of the labor shortage and the high price of millfeeds. In making this statement we are aware that the barley acreage was not large in 1917, that oats alone are not conducive to rapid and economical gains, and that corn or wheat has not been available for swine feeding. In view of this condition it is at once apparent that some solution of the problem should be presented. When farmers single-handed have done their best to produce, we would be the last to suggest additional efforts if the need was not great and the sacrifice, if such it be, one that every true Canadian is willing to make in behalf of his country. If food can be produced with greatest dispatch, in time of crisis, by rearing swine, surely there is no one who will cavil at the appeal and fiddle while Rome burns.

How shall we go about it to get this increase? It is largely a matter of feed, for the housing problem involved by the keeping of an extra sow is not insurmountable to even the farmer with extremely modest equipment. A small amount of rough lumber, a few nails, a hammer, and a little ingenuity are sufficient to provide accommodation. The hog cabin might be reported to but this was fully discussed in "The Farmer's Advocate" of November 8, so it is unnecessary to set down any further comment here. In regard to feed it is different. Notwithstanding a bountiful harvest in 1917 we, at present, labor under the peculiar condition of being short of grains and concentrates suitable for swine. Barley yielded well but the acreage was not large; corn was a failure in Canada, and it has not been coming from the United States where it is reported to be plentiful; wheat for hogs is out of the question; millfeeds have been held at an almost prohibitive price, and oats alone do not give the desired results. This has been the situation to date. However, relief is in sight. The Food Controller has announced that the embargo will be lifted and corn will be coming forward by the middle of December, or the first of the year, at least. The millers are operating under orders that all by-products in the form of feeds for live stock be sold at cost, which is of vital importance to farmers in this connection for middlings are universally used to mix with oats or other grains for growing pigs or breeding stock. With this ray of daylight ahead it seems that the problem is partially solved and that we are justified in going ahead with plans that will ensure the increase which is so badly needed.

Selection and Mating.

The breeding sow should be retained, or if conditions are such that the herd must be reduced by one or two, the surplus should be disposed of to neighbors who can handle them. This does not mean an increase in breeding stock, but it provides for a conservation of stock that might otherwise go to the block. Proven sows should be bred rather than slaughtered in a time like this.

The swine industry in Canada must be bolstered up and greater production made a certainty by saving the sows farrowed last spring. We should have a "Choose Your Sow" day immediately in order to rescue from the shambles thousands of young females now being fed and shipped for slaughter. Select from a good-sized litter, the progeny of a good mother. The young sow should conform to the type of the breed represented, and possess at least 12 well-developed teats, evenly placed, with the front ones well forward on the body.

There are two factors which influence the date when these young sows should be bred, namely: their age at farrowing time, and the season of the year. The period of gestation for swine is 112 days or 16 weeks, and this time is seldom exceeded with the first litter. It is not wise to have the young sow farrow much under one year old, so the approximate time for mating can be decided upon, having these factors in mind. Furthermore, April weather is usually more clement than that in March, so with the first litter arriving during the early part of April or later they are greeted with more favorable temperatures, and the dam will have had an opportunity to exercise and come in contact with the soil. In the majority of cases, too, the litter will be within about six weeks of finishing when barley and early oats are threshed in August.

Wintering the Sow.

Just as with all classes of breeding stock, extreme conditions should be avoided in the case of the brood sow. The thin, emaciated female cannot farrow a litter of well-developed, robust pigs, and feed them properly during the first few weeks of their life. The over-fat sow is frequently lazy and does not exercise sufficiently, is troubled with constipation, the bane of the swine industry, and often loses the entire litter while her own life is endangered. Even when the young

Keep an extra sow.
Breed the sow about the first of December.
Give free access to a mixture of salt, charcoal, bonemeal and wood ashes.
Feed plenty of roots and clover or alfalfa hay.
Provide the sow with dry, well-bedded sleeping quarters.
Exercise is important for the in-pig sow; keep her moving and working during the day.
Make provision for soiling or pasture crops next summer to cheapen production.
Get the litter out on grass in the spring, where they can exercise and come in contact with the soil.
Feed the young pigs well but wisely, and start to finish after the early threshing in August.

are born successfully, she is liable to be clumsy and lie or tramp on them. Strive for the happy medium—a thrifty, active, well conditioned sow, but not fat. Provide dry, well-bedded sleeping quarters, free from drafts, but allow for ample exercise in the barnyard or elsewhere. If necessary force the in-pig sow to move about and be on her feet a good part of the day. A few oats strewn in the horse manure is an attractive object to place before the breeding stock, and one which will encourage them to work willingly.

It is not possible to recommend any great variety of feeding stuffs. Probably the best for all conditions is a mixture, equal parts, of ground oats and middlings, and if any skim-milk is available the ration can be made almost ideal. When running outdoors in cold weather and taking considerable exercise, a pregnant sow may be fed some corn, but it should not exceed one-third of the grain allowance. Under other circumstances it is too heating and too fattening to be fed with safety, and it does not contain the muscle-forming material required by the unborn pigs. In rare cases where it might be plentiful this winter, the constituents lacking in corn can be provided by adding a little bran and mixing with the oats and middlings previously recommended. Roots are an important item also and so are clover and alfalfa hay; they provide succulency, and the proportion of bulkiness which is necessary and conducive to an efficient digestive system. Constipation should be prevented, for it is responsible for the loss of many sows and hundreds of litters annually. Roots are a good regulator, but oil-cake meal or a little ground flaxseed added to the ration will ward off constipation and make for a thrifty animal. Sometimes the dry meal is fed on the pulped roots which is a suitable method, but the feeder has a wide latitude in regard to feeding practices. When the troughs are placed outdoors it is not wise to mix too much water or slop with the meal. The amount of water required will depend on the quantity of roots fed and the severity of the weather, but they should have it when they want it and in ample quantities. We have seen sows brought through the winter in splendid condition on mangels and dry chop, the feed of which entailed little labor and could not be considered expensive.

Rearing the Litter.

The maintenance of the extra sow this winter does not concern farmers so much as the rearing and finishing of an additional litter next summer. A slight readjustment of established plans will make provisions for the extra sow, but we must also provide for seven to ten or a dozen pigs through the summer months that will require to be reared, developed and finished. Ordinarily this number of hogs will make a very noticeable impression on the feed bin, so it behooves one to anticipate the shortage and provide suitable substitutes. Our success and the extent of our profits will depend upon forage or green feed for it can be utilized in the construction of frame and body organs, in the meantime conserving the high-priced grains with which to lay on flesh and finish.

When the young pigs are about three weeks old they can be taught to eat, and when four weeks of age they should be given access to a small pen wherein a trough is placed for their exclusive use. At six weeks they are usually weaned, but if no skim-milk is available perhaps it would be just as well to postpone the separation for another fortnight. It is necessary, of course, to consider

the next litter, and the pigs must be weaned in good time so the dam may be bred to farrow at a convenient date in the fall. The male pigs should be castrated while still on the sow, preferably when around four weeks old.

Middlings or ground oats with the hulls sifted out are among the best feeds for newly-weaned pigs. The middlings are more palatable if scalded and allowed to stand for several hours or between two feeding periods; then mixed with skim-milk they are very acceptable. In the absence of skim-milk a little tankage may be used to advantage. As previously mentioned, ground oats, minus the hulls, are very good and many litters are started on them, never knowing the taste of middlings. When three months of age the pigs may be introduced to other grains including corn, barley and such, but corn should be fed cautiously at first for it is not a bone-and-muscle-forming feed which is required at this stage in the development of the pigs. Two parts of middlings and one part of cornmeal or ground barley constitute about the proper relation of one to the other. When skim-milk is fed corn can be utilized sooner and to better advantage than when it is not. Middlings with ground oats and barley is a common ration and a very suitable one, especially if supplemented with a little skim-milk or tankage. The feeder has a considerable range of feeds to select from, particularly in summer when the pigs can be gotten out on grass, which is a good conditioner and trouble preventive. The aim at first should be to develop a frame and perfect those body organs which later will be called upon to digest heavier feeds and convert them into flesh. Young pigs need not be fat so long as they are growing well and are thrifty.

The Cost of Production.

There is no class of live stock regarding which the cost of production has been more satisfactorily determined than with swine. Investigators in the United States, Canada and Britain are pretty well agreed in the quantity of grain required to produce 100 pounds of gain during certain specified periods of growth. The following table is an abbreviation of one given in Henry's "Feeds and Feeding." The results from other experiments seem to coincide closely with these figures.

Wgt. of hog	Wgt. feed eaten per day	Feed eaten daily per 100 lbs. live wgt.	Feed for 100 lbs. gain
Lbs.	Lbs.	Lbs.	Lbs.
15 to 50	2.23	5.95	293
50 to 100	3.35	4.32	400
100 to 150	4.79	3.75	437
150 to 200	5.91	3.43	482

With this amount of information condensed into such small space, one should be able to estimate fairly accurately the grain requirements for one or more litters and, incidentally, the cost. Further investigation along the same line was conducted at the Ontario Agricultural College, Guelph, by Prof. G. E. Day, who reports in the following table:

Live weight of hogs	Meal required for 100 lbs. increase in weight
54 to 82 pounds	310 pounds
82 to 115 "	375 "
115 to 148 "	438 "
148 to 170 "	455 "

The evidence we now have and which is verified on every hand leads one to expect that 4 to 4½ pounds of grain will produce one pound of gain in live weight, throughout the growing and finishing period of the hog's lifetime. Another outstanding feature of these tables is the proof that as the hog increases in age and weight more grain is required to produce one pound of gain. It is this peculiarity of all live stock that we should take advantage of next summer in order to bring about an increase in swine products with the least possible expenditure of grain of millfeeds, and in this direction lies the chief solution of the problem with which we are confronted.

Grain Substitutes.

Up to 100 pounds live weight the pig makes very economical gains and requires less than 4 pounds of grain to produce a pound of gain. During this period hogs will consume middlings, middlings and ground oats, ground oats and barley, and tankage (not exceeding 10 per cent. of the meal ration) in the absence of milk. In the meantime we should make provision for laying on that second 100 pounds with as little cost as possible. Substitutes for grain must be resorted to. Reliable experiments have shown that gains can be made on forage

at 20 to 30 per cent. less cost than gains produced with grain and dry-lot feeding. At Guelph it has been found that cheaper gains can be made by soiling than by pasturing, particularly with young pigs, and Prof. Day considers that pigs should weigh at least 100 pounds before being turned to pasture. Alfalfa or clover are amongst the best for either soiling or pasturing, but other crops are extensively used. The hogs should not be allowed or obliged to get their entire sustenance from the green crop, neither should they be fed a full grain ration in connection with it. It is the combination of both that gives best results.

A new seeding of alfalfa should pasture ten or twelve shotes, or a sow and litter per acre, while an older seeding will carry double that number. Red clover will feed from eight to twelve shotes per acre if the clover is about ten inches high when the hogs are turned in. One acre of rape will also handle ten to a dozen pigs. Rape should be sown for this purpose about the first of June either in hills or broadcast. Another good pasture mixture for swine is one bushel of oats, a bushel of barley, a bushel of wheat and seven pounds red clover, per acre. This will be ready to turn on to in about six weeks from date of seeding. If the hogs are taken off for a time after the young grain plants are eaten down, the clover will spring up and make further pasturage for the autumn. A full meal ration with pasture will produce most rapid gains but at greater cost than where only a half or two-thirds meal ration is allowed. The results of experiments conducted to show the actual value accruing from any pasture crop vary considerably on account of the different ages of the pigs and the quality of the crops grown. However, the statement of the Missouri Experiment Station that a 20 to 30 per cent. saving is made, is considered quite conservative. We quote here the general conclusions arrived at by investigators at that Station.

1. "The number of hogs which may be kept on each acre of forage will depend upon the abundance of forage, but in general not more than 10 to 12 head should be used."

2. "The greatest returns have been obtained when grain was fed in addition to the forage at the rate of 2 to 3 per cent. of the weight of the hogs per day. The amount fed per head per day should be increased as the hog increases in size."

3. "A very good plan in feeding 80 to 100-pound hogs on forage would be to feed, per head per day during May, 1.75 pounds of grain; during June, 2 pounds grain; during July, 3 pounds grain, and during August, 4 to 5 pounds grain."

4. "Gains made on forage are made at 20 to 30 per cent. less cost than gains produced with grain and dry-lot feeding."

On practically every farm there is ample wire or rails with which to throw a temporary fence across the corner of a clover or alfalfa field, or enclose a piece of spring-sown pasture or rape. This will cut down the grain requirement very materially and help to bring along a bunch of shotes that otherwise would exhaust supplies. The pasture and outdoor exercise will develop the frame and vital organs of the pigs so when the first grain is threshed in the early autumn it will be consumed by healthy hogs and economically converted into flesh and gains. In this direction, we believe, lies the best solution of the problem confronting the increase in hogs. If farmers will put forth an effort in early spring to provide these grain substitutes they can increase hog products very extensively and with profit to themselves.

Government Assistance Re Market Cattle Explained.

EDITOR "THE FARMER'S ADVOCATE":

While the Free Freight Policy and the special Stocker and Feeder Policy recently announced by the Dominion Live Stock Branch have been widely taken advantage of during the past month, it is evident from inquiries received that many Ontario farmers have not as yet a clear understanding of the nature of assistance offered and of the method of procedure to be followed in securing the benefit of same. To farmers who may still wish to purchase either breeding females or feeder cattle at Stock Yards markets this fall the following condensed statements of these two policies should be of interest:

Free Freight Policy.

(1) The aim of the Policy is to prevent as far as possible the slaughter or exportation of useful heifers and young ewes offered for sale on the open market at central Stock Yards.

(2) An agreement has been made between the Dominion Department of Agriculture and the different railway companies under which the railways rebate twenty-five per cent. of the freight on carload shipments of heifers and ewes returned from the Stock Yards to country points for breeding purposes.

(3) The Dominion Department of Agriculture, through the Live Stock Branch, pays the remaining seventy-five per cent. of the freight on such shipments.

(4) The twenty-five per cent. rebate given by the railroads is allowed at the time of billing out a shipment and the remaining seventy-five per cent. is collected by the railroad companies direct from the Live Stock Branch, thereby allowing the shipper to bill out free of all freight charges.

(5) Shipments must comprise car lots of not less than twenty heifers and forty ewes or mixed car lots of both heifers and ewes, two ewes being accepted as equivalent to one heifer in fixing the minimum for one car.

(6) Heifers included in such shipments should be

under twenty-four months of age and ewes should be three shears or younger.

(7) Only farmers or properly authorized agents for farmers are entitled to receive assistance under the policy.

(8) When a shipper has assembled his consignment, he should see one of the Markets representatives of the Dominion Live Stock Branch with reference to securing a Shipping Certificate.

(9) This officer, after checking over the consignment for the purpose of seeing that it includes only stock covered by the terms of the policy, will require the shipper to make a declaration that each animal included will be retained for breeding purposes either by himself or by parties whose names and addresses must be given on the Declaration form.

The Markets Representatives of the Dominion Live Stock Branch will be prepared to render to farmers unfamiliar with the Yards any assistance desired in making their purchases.

The Union Stock Yards Company has agreed to allow farmers purchasing under this Policy, special rates on feed purchased at the Yards.

Realizing that there are few cases in which a farmer would desire a full car of breeding stock for himself, the Ontario Department of Agriculture, through its District Representatives, is organizing groups of farmers for the purpose of combining small orders and appointing agents to purchase in carload lots. Farmers are advised to consult their District Representatives in this connection.

The Markets Representatives of the Dominion Live Stock Branch at Toronto are W. H. Irvine and R. E. Wilson. Their office is located at 1127 Keele Street, just opposite entrance to the Union Stock Yards. The Markets Representative for the Branch at Montreal is S. N. Chipman, whose office is located in the Live Stock Exchange at the Point St. Charles Yards.

Any inquiries for further information regarding the Policy should be addressed to R. S. Hamer, Chief of Cattle Division, Live Stock Branch, Ottawa.

The Special Stocker and Feeder Policy.

(1) The aim of this Policy is to relieve the congested stocker and feeder market at Winnipeg by encouraging shipments to Ontario districts where feed is reasonably plentiful this fall, thereby preventing the slaughter or exportation of the surplus supply of unfinished cattle which Western demand is unable to absorb. During the first three weeks of its operation in October this year, the Policy was applied on over three thousand cattle shipped east.



First and Champion Poland-China Boar at Toronto and London, 1917.

For Geo. Gould, Essex, Ont.

(2) On carload shipments of stockers and feeders purchased at the Union Stock Yards, St. Boniface (Winnipeg), and shipped to country points in Eastern Canada, the Dominion Live Stock Branch will pay, in the form of a refund, fifty per cent of the actual freight charges on the shipment.

(3) No rebate is allowed on hay supplied or on other charges against the shipment which may be included in the freight bill.

(4) Assistance will not be given on any shipment billed from Winnipeg to the Union Stock Yards at Toronto or Montreal for resale.

(5) Shippers desiring to take advantage of the Policy should see D. M. Johnson, the Markets Representative of the Branch, at the Union Stock Yards, St. Boniface.

(6) After checking over the consignment for the purpose of seeing that it includes only the class of cattle covered by the Policy, Mr. Johnson will issue a shipping certificate to the shipper and will supply him with a Declaration form to be completed after the shipment has been disposed of in Eastern Canada.

(7) The Declaration calls for a definite statement that the stock has been retained by the shipper, himself, for feeding purposes or has been sold for feeding purposes to parties whose names and addresses must be given on the form.

(8) It will be noted that drovers, commission firms and cattle traders may secure the benefit of this Policy provided they can furnish the evidence required by the Department in the Declaration that the stock has been brought down for feeding purposes only.

(9) After the shipment has been disposed of, the shipper should forward his Shipping Certificate, Declaration form and receipted freight bills to R. S. Hamer, Chief of Cattle Division, Live Stock Branch, Ottawa. Provided that the requirements of the Department have been complied with, arrangements will then be made

for the issuing of a cheque covering fifty per cent. of the freight charges on the shipment.

Rebates on Stocker and Feeder Shipments from Toronto and Montreal.

Farmers wishing to purchase stockers and feeders at Toronto or Montreal Stock Yards, are reminded that early this fall the Dominion Department of Agriculture secured from the Railways an agreement to rebate twenty-five per cent. of the freight charges on carload shipments of stockers and feeders returned from these Yards to country points for feeding purposes. The Canadian Pacific Railway tariff covering this agreement has been effective for the past month and it is hoped that similar tariffs will have been issued by the Grand Trunk Railway and the Canadian Northern Railway by the time this letter appears in print.

H. S. ARKELL,
Live Stock Commissioner.

THE FARM.

Read This and Buy a Bond.

The following skit on war bonds is adapted to Canadian conditions from a similar note from the pen of W. E. Vaplon referring to the recent Liberty Bond issue in the United States:

Unless you buy a Victory Bond
Old Kaiser Bill may cross our pond.

I used to read the Daily Times to learn the standing of the nines, to know the follies of the dames, the scores of all the baseball games, I even could endure its rhymes. My fourteen children read the Gumps, and when I had a case of mumps I'd read the Polly and her pals or "Smatter Pop's" old fol-de-rols, they're good for even pip and thumps. But lately I've been getting sore at all the conservation lore; it seems that every thinker's son has got a rapid fire gun a-trying to get our wasteful gore. They tell us to eat less of fat, to use less bread and kill the cat, to eat corn meal and thinner peel the apple and the Irish spud, or we'll awaken with a thud to find its Kaiser William's deal. I've cut out chickory and tea, and coffee too; no more for me the flowing bowl that sweet'ning needs, no more of rich and costly feeds, I'm getting slender as a bee. But now on top of all these woes come bond men just like bands of foes; they take you down, sit on your chest, make of your poverty a jest, it's no use yelling out your noes. I owe the grocer sixty wheels, a butcher's bill of seven reels; my bank account is overdrawn, I walk the floor from dark 'til dawn while dark disaster o'er me steals. But what's the use of dodging fate, last night a boy scout clanged my gate, held out his pen and said, by hen, I want four thousand of your yen; of course I signed without debate. I sponse the Frenchies need our grain; I sponse our country needs our gain, I sponse we all should do our mite just like the boys who've gone to fight and so no longer I'll complain.

All the Farmer Asks is a Fair Wage.

EDITOR "THE FARMER'S ADVOCATE":

The farmers of Canada owe you a debt of gratitude for your articles in their behalf, but especially for "Fed Up." The farmers have certainly been "fed up" of late on every imaginary subject.

City editors, as well as many so-called agricultural editors, have been calling to the farmer to produce and impressing upon him his duty to produce, but with apparently no care whether he is rendered bankrupt in the operation. While you on the contrary desiring, as every loyal Canadian does who has the welfare of our boys at the front at heart, increase of production of farm products ask for some practical means whereby this may be accomplished, for, as you state, "There is no power on earth that can compel a man to produce a commodity at a loss."

The farmer has a long memory and remembers when he has been asked to produce certain crops which were not economically successful. Not long ago we had a bacon campaign and then the bottom dropped out of the business. Bacon, sheep products and, in many places milk, were pushed below the cost of production with the result that the farmer was forced out of them, hence the present shortage and consequent high prices. It takes time and money for the farmer to stock up in a new line so he naturally goes slowly, especially as he has no idea when the next slump is due, and with the recent investigation regarding the profits of the handlers of hogs and other live-stock lines fresh in his memory. The city man, when he sees the scare-heads in the city papers about the profits in farming, berates the fool farmer for not taking advantage of his opportunities. It would all be ludicrous if it were not a life and death struggle. The pity of it is that so many good-intentioned people are led away from facts. Take for instance the Resources Committee and the literature it got out, which was supposed to appeal to farmers and which stated that all that was required to increase production is time and labor. How much money would a banker lend on time and labor? He would ask inquisitive questions about the price of labor; how much labor it would take to produce an article; the cost of raw material, and what that article would sell for when completed, but the "hay-seed" is supposed to fall for anything. An active member of the Central Committee exposed his ignorance still more glowingly. In conversation he stated the great increase in wheat if every farmer produced just one-half

acre more, in blissful ignorance of the fact that wheat is grown in fields of five, ten, twenty or more acres, and that if every farmer put in and worked an extra half acre that it would cost \$10 a bushel to produce it.

But the crowning insult of all is reached in a recent Government bulletin which states that a farmer can buy sheep at present high prices and make from fifty to seventy per cent. profit the first year. If this can be done the first year, he would in later years with greater expense rival the Sir Knight of the bacon business.

Surely it is time for the farmers to call a halt on this hot-air campaign and call for a slow down. Let us have the name and address of the farmer who is making from fifty to seventy per cent. profit on his farm. Until we do this we cannot blame the city man for calling us profiteers, when he reads such items from what is supposed to be reliable authority.

The fact of the matter is that farming is not prosperous. There is no scarcity of labor, but a scarcity of returns to pay for this labor. Our best men have all left the farm for the towns and cities, and I for one do not

blame them, as there is no inducement for them to stay in the country.

The Food Controller, in a recent speech, made the common error of saying there were too few people in the country. On the contrary, there are too many, and will be as long as the farmer, the farmer's son, the farmer's daughter, as well as the farmer's hired man and hired girl still wend their way cityward in order to better their conditions and do not return to that Paradise on earth—the farm in the country. Unless some change is made and that very soon, the city people will have to pay much higher prices until such time as the farmer can give the short hours and high wages that will attract the laborer to the farm.

This matter is very serious, and owing to the uncertainty of the future there will probably be much less produced in 1918 than there was in 1917.

The farmer is no profiteer; he does not want fifty to seventy per cent. profit, but would be satisfied with a fair wage, depreciation, insurance, etc., and two or three per cent., or one-half the interest of war bonds on his investment, as long as his sons are giving their

life blood on the fields of France. Your demand for a guaranteed price is right and just. This has been done in England. The farmer will produce any crop that the country needs, if he can see his way to come out even on the deal.

For many years I have travelled in the districts of the United States where contract crops are the chief dependence of the farmers, and have noted how quick they are to respond to guarantees. If price is low, near the margin, very little is put in, but if supplies are low dealers are anxious and offer good prices, and the acreage of different crops is frequently doubled in a single year. The farmer is long-suffering, but he is becoming exasperated with all this gratuitous advice and fictitious reports of profits, and if something is not done and done quickly it will mean lessened production the coming year and consequently higher prices. For instance, I myself could put in much more crop than I am planning to do, but with the uncertain stability of markets, the high cost of labor, as well as all supplies, it looks like a gamble with all-chances on the losing side.

Grey Co., Ont.

G. T. MARSH.

Canada's Young Farmers and Future Leaders.

Lengthen the Life of Implements.

The farm machinery should all be stored before the snow flies. It is not economical business to allow the plow to become frozen into the ground and left there all winter, nor to leave the cultivator and harrows where they were last used. It does not take long to put them under shelter of some kind. Steel and wood deteriorate rapidly if left exposed to the elements. Not only that, but it takes longer in the spring getting implements that have been left in the open to do proper work than it would take to store them in the fall. Few think of leaving harvesting machinery outdoors. When through with the plow, take an hour if necessary and clean it up thoroughly. Remove all dirt and accumulated grease from wheels and frame, then oil or grease the mold-board and shares. This will prevent rust getting a hold on the surface and the mold-board will clean readily when put in the soil in the spring. There is always room somewhere in the barn for a plow or two. The cultivator and disk should also be cleaned before being put away for the winter. If the cultivator points are worn, it is a good plan to remove them and put them on the emery stone sometime during the winter, so they will cut freely when preparing the spring seed-bed. If the disk doesn't do as work good as it should, it might help to take it apart and grind each disk. Every implement should be gone over carefully and all missing bolts or nuts replaced. If the harrow teeth are dull, take them to the blacksmith's shop early in the winter when work there is slack, rather than leave them until the rush is on in the spring. A lot of repairing can be done during the winter that will save time next spring, or, in other words, it will be preparedness for the spring drive. Too many pay little attention to the condition implements are in in the fall and lose precious time in seeding, replacing bolts or making other repairs that might have been made early in the winter.

The implements with working parts, as mowers,

binders, etc., should be gone over carefully, and if castings, chains, sprocket wheels, etc., are worn badly, new ones should be ordered and put in place, so as to eliminate risk of breakages and delays during harvest, when every hour counts. A little repair work done at the proper time saves large expenditures later on.

Paint freshens things up and really increases their value. It would be a good plan to give wooden parts, and iron parts, too, for that matter, of implements a coat of paint. Anyone can clean an implement up for painting and can apply the paint. Special trimmings are not necessary. The wagon may be made to look about as good as new by a little paint, which can be purchased ready mixed.

Single-trees, double-trees and neck-yokes are continually breaking and it is not always convenient to secure new ones. Why not buy a couple of rock-elm planks and a stick or two of hickory and make up a supply during the winter? There is nothing complicated about the work. A good rip-saw, a hand saw, drawing knife, brace and bits are about all the tools necessary. Of course, it makes the work easier if one has a good vise to hold the timber while reducing it to proper size and shape with the drawing-knife. A vise frequently comes in handy about the farm. The iron parts on broken single-trees can be removed and put on the new ones, and then a coat of paint applied. We know of several young men who have fixed up a little work shop and by practice have become quite handy in repairing things about the place. Take a look around the home farm and see if there is anything requiring repairs. If so, set about to make them; don't wait until the implements are again taken to the field to discover broken bolts. There is no time like the present.

Keep the young calves comfortably housed and well filled.

Plan to Attend the Short Course in Your County.

EDITOR "THE FARMER'S ADVOCATE":

I had the privilege of attending one of the four-week Short Courses held in Wentworth County, under the supervision of our District Representative. I received a good deal of knowledge relative to the feeding of live stock. The varieties of feed suitable for the production of milk and meat were thoroughly discussed and rations were compounded which have proven to give good results. We were made familiar with the common weed seeds and were taught the time and manner of disposing of the foul weeds. Having a small orchard on our own place, I was intensely interested in the lessons dealing with the care of orchards. We had been doing very little spraying and I found out that even what we had been doing was not to the best advantage. We were given instructions in the general care of the orchard, the kind of spray material to use, the time to spray to combat insects and fungus.

At that time the farmers in the district were finding a lot of smut in their oats and I believe nearly all the boys who took the Course treated their oats for smut the following spring with satisfactory results. At the end of the four weeks we organized a Junior Farmers' Association which has been the means of holding the boys together. I was one of the winners in the County competition and therefore had the pleasure of taking the two-week Short Course at Guelph. If it had not been for our County Short Course, I would have missed the competition and the trip to Guelph. Any young man who has the chance to attend a Short Course should not let the opportunity pass, as, if attention is paid to the lectures you will receive a good deal of valuable information which will be of great advantage when running a farm.

Wentworth Co., Ont.

R. A. QUANCE.

Automobiles, Farm Machinery and Farm Motors.

Horse-power Rating.

In your questions and answers I would like to know the difference of rating in the H. P. of an automobile, an oil tractor and a steam tractor.

How is it that the Ford automobile is rated at 22 H. P. and yet on the belt it develops 10 H. P. where an oil tractor which has 10 H. P. on the draw-bar develops 20 H. P. on the belt?

According to oil tractor catalogues it takes a 4 H. P. oil tractor to drive a medium-sized grain separator where a 20 H. P. steam tractor will do the same.

Ans.—In calculating the power of an engine from a formula, the speed, i. e., the number of revolutions per minute is a very important factor, the higher the speed the greater the power, other things being equal. Formulas differ a great deal, but a common one for estimating the H. P. of a gasoline engine is:

$$H. P. = \frac{L \times N \times d^2}{19,000}$$

— for one cylinder.

Where L = length of stroke in inches.

d = bore of cylinder in inches.

N = number of revolutions per minute.

Applying this formula to the Ford motor which has a bore of 3 3/4 inches and a stroke of 4 inches and multiplying by 4 since there are four cylinders, we have

$$H. P. = \frac{4 \times N \times 3 \frac{3}{4} \times 3 \frac{3}{4} \times 4}{19,000}$$

$$= \frac{N}{84}$$

If N=1,000 R. P. M. this gives almost 12 H. P. as the rating. But if N=2,000 then the rating is almost 24 H. P., according to this formula. In both cases the throttle is supposed to be wide open, so that the motor

is taking full charge every time, and thus using twice as much gasoline at 2,000 as at 1,000.

Probably this explains why the Ford motor referred to developed only 10 H. P. on the belt—it was being run much slower than is necessary to develop its full 22 H. P. There is another possibility, but not a likely one in this case: The belt might have been too light or too loose to pull more than 10 H. P., in which case it would slip and power be lost thereby.

There is still a third factor: The rating of 22 H. P. is for a full load, and no machine will stand up indefinitely if used at full load all the time. The gasoline engine is particularly susceptible in this regard. The Ford motor should for a time develop about 22 H. P. on the belt if connected so that it can run at the same R. P. M. as when developing 22 H. P. on the road, but neither it nor any other gasoline engine can be expected to develop their full power continuously on the belt. On the road they fluctuate, probably between 50 and 75 per cent. of their capacity, but seldom are called upon to deliver the full 100 per cent.

Now compare the tractor and the automobile. What is the fundamental difference between them in power application? The automobile is so proportioned and constructed that when on a level road with the car on high gear and the throttle wide open the full power of the engine is applied in producing speed of the car itself. Under such conditions the car would have no tractive power on a drawbar, and the power the motor is using in propelling the car is the same as it should develop on the belt if all conditions were made to suit the motor running at that particular R. P. M. Next let us suppose that on the same level road the car is placed on intermediate gear. The engine can now be made run at the same R. P. M. as before on possibly one-third of the gasoline formerly required. Hence, while the R. P. M. is the same the power is only one-third as great because only one-third as much fuel is being used. If the car was developing 45 H. P. before, it is only developing 15 H. P. now, or in other words it requires 15 H. P. to propel the car alone at this speed.

Let us attach a trailer and load it so heavily that with the throttle wide open the motor just gives the same R. P. M. as when on high. It is now developing the same H. P. as on high, because the R. P. M. and the gasoline are the same. The automobile has thus been turned into a tractor by using a gear which does not and cannot utilize the full power of the motor in propelling the car along a level road. The tractive power of that car on that gear would be 45 minus 15 equals 30 H. P. If a still slower gear is used and the trailer loaded heavier yet, so that the throttle is wide open at the same R. P. M., the tractive power is again increased because the outfit travels slower and less power is needed to propel the car at this diminished speed. The fundamental difference then between the automobile and the farm tractor is that the tractor is so geared that when the motor is running at normal speed the throttle only needs to be about half open to propel the tractor itself forward at its intended speed. As soon as a plow or other load is attached this tends to lessen the R. P. M. and this in turn opens the throttle wider in an attempt to maintain the constant speed at which the motor is intended to run. The extra gasoline taken in provides the tractive power. Let us suppose the motor is running at its normal speed, and is so loaded that the throttle is wide open, then the power being delivered is the same as the belt power, viz. 20 H. P. as stated in R. E. C's query, and 10 of this is being exerted on the drawbar, and the remaining 10 is propelling the tractor itself. The size of the pulley on the tractor is such as to be suited to farm machinery, such as a separator, or corn cutter, and hence when driving these at their proper speed the engine is running at its normal speed, and if the machines are loaded so as to open the throttle completely then the motor develops its rated H. P. or thereabout, but it cannot be expected to do so continuously any more than the automobile motor. Before leaving this phase it might be well to say that manufacturers generally base the rating of their gasoline motors on tests of the work they will actually do on the brake.

Now coming to steam engines, we must observe

that they are not rated at their maximum horse power, as gasoline engines frequently are, and hence the steam engine is capable of handling a large overload for a short time, e. g. when a sheaf is "slugged" into the separator, and this extra demand is taken care of by the overload capacity of the engine. The gasoline engine, however, to have the same flexibility and mastery must be run considerably below its rated H. P. thus leaving a margin for meeting extra demands.

Looking After the Clutch.

A number of 1918 models have been equipped with a dry plate disc clutch and consequently some information regarding the device should prove interesting. With the clutch, drivers have been accustomed to keeping their left foot upon the clutch pedal, but the dry plate disc clutch does not allow of this habit. There was a spring in connection with the cone clutch pedal that brought it back smartly after release, but a similar spring is not used in connection with the dry plate disc clutch. If you keep your foot upon the disc clutch pedal you will create a friction on the face of the plates and in time the clutch is bound to slip. It is an easy matter to drive with your left foot upon the floor of the car if you only bear in mind that keeping the foot upon the pedal creates damage to your machine. There are not many adjustments necessary with the dry plate disc clutch and you should always refrain from putting any oil grease on the discs. When the clutch discs begin to wear slightly, move back the lock nut and adjusting nut on the clutch release rod connecting the pedal to the release fork, and when the clutch is harsh connect the release to the lower hole in the clutch pedal instead of to the upper one. The only lubrication that it is compulsory to look after, concerns the grease cups which are well in view and easily located. If the clutch pedal rattles against the floor boards there is an adjusting stud inserted in the clutch release rod that comes in handy. The popularity of the dry plate disc clutch comes from the fact that a child can easily operate it, the pedal moving with extreme ease.

Owners who have machines equipped with carburetors of the automatic float feed type have only one adjustment to make and this is in connection with the gasoline needle valve. When the fuel passes into the bowl of the carburetor it elevates the float until the inlet needle closes up and cuts off the fuel. By the same token it is easy to understand that as the gasoline goes down, the float lowers, lifts the needle and allows the gas to re-enter.

From this description you can see how the fuel is controlled and why the carburetor is called the automatic float feed type. You will not have any difficulty operating such a contrivance in order to suit it to all purposes and changing weather conditions, but if your carburetor has a number of different adjustments we would not advise you to attempt touching the motor unless you have an instruction book or can act upon the advice of an expert. Tinkering with the carburetor is a dangerous proposition because any failure to maintain accuracy results in constant trouble. Some parts of an automobile can be out of adjustment and not result in a great deal of inconvenience, but a carburetor must be almost, if not quite right, or you are bound to suffer by loss of power and faulty operation. It is desirable that in the cold weather your mixture should be rich, but it is not very delightful to have it so out of proportion that the cylinders, pistons, and valves become sooted. When the motor is carbonized it tends to over-heat. It also chokes and miss-fires. These things are most noticeable at a low speed. A lean mixture, on the other hand, tends towards back-firing because the gas is burning so slowly that combustion is taking place quite frequently when the inlet valves are open. It is an easy matter for even a novice to tell when his carburetor is properly adjusted for the engine will be running smoothly and without undue smoke or odor.

We have been asked for a good temporary method of stopping a leak in the radiator. We suggest any brand of fairly stiff soap. White lead can also be used to advantage. Such stops are only for the time being, however, the radiator should be looked after by an expert and soldered properly if the leaks are to be remedied permanently. There are a number of different compounds on the market that can be put in the radiator and circulated with the engine in operation, but some of these have a bad effect upon the hose connections and the metal.

It is true that some of them have given excellent results but it would not be well to make use of any substance until its quality can be vouched for by some mechanic of standing and experience. AUTO.

Horse-Power.

In the answer to J. S. E., on page 1734 of our issue of November 8, in describing Horse-power, owing to a typographical error it appeared as the power necessary to raise 1 pound 500 feet high in 1 second or 500 foot-pound of work. This should have read 550 in place of 500.

Engine Queries.

My engine has a 24-inch pulley on it. The engine has a 6-inch bore with 8-inch stroke. The speed of the engine is 400 R. P. M. How much more power would I get from my engine with a 22-inch pulley? It is rated with a 22-inch. I have plenty of speed. The engine is 7 H. P. M. P.

Ans.—You could not get any more power by using a 22-inch pulley than a 24-inch, provided your engine

runs at its proper speed of 400, and also that the throttle is wide open in both cases. The only object in changing the size of your pulley would be to turn out a speed suitable to the machine which is to be driven by the engine. See answer to query by J. S. E. in Nov. 8 (p. 1734) issue of The Farmer's Advocate.

W. H. D.

THE DAIRY.

Let There be Light and Fresh Air in the Dairy Stable.

In most parts of Canada the stock must be stabled for more than half the year, consequently it is essential that they be kept reasonably comfortable if the maximum returns are to be obtained. It is not necessary that the stable and barn be costly or elaborately fitted, provided that certain requisites to health be installed. They are mainly fresh air, proper ventilation without drafts, and a fair degree of warmth, especially for cows in milk. If the air is dry, the animals do not suffer even when the temperature drops to within a few degrees of freezing point. However, sudden changes of temperature and dampness are the forerunners of trouble. It is true that some of the finest show herds and herds with high milk records have been led out of low, dark stables, but this is no argument for shutting light out of the dairy stable to-day, or for closing it up so that it becomes damp, filled with carbon dioxide gases, or with a "cowy" odor which clings to the clothes of everyone who enters the door. Light and fresh air are essentials to good health whether with man or beast.

It is not necessary to tear down the old barn and invest a large sum of money in new buildings in order that the herd may be supplied during the winter months with the proper amount of light and fresh air. The high overhead expenses occasioned in many cases by too

is hinged, or if the window is in one sash hinged at the bottom of the frame and made to open inward. The fresh air then flows toward the ceiling and is distributed throughout the stable rather than blowing direct on to a few head of stock directly in front of the windows.

It is necessary that the glass be kept clean. In many of the old stables more light would be obtained than is at the present time if the windows were cleaned at regular intervals throughout the year.

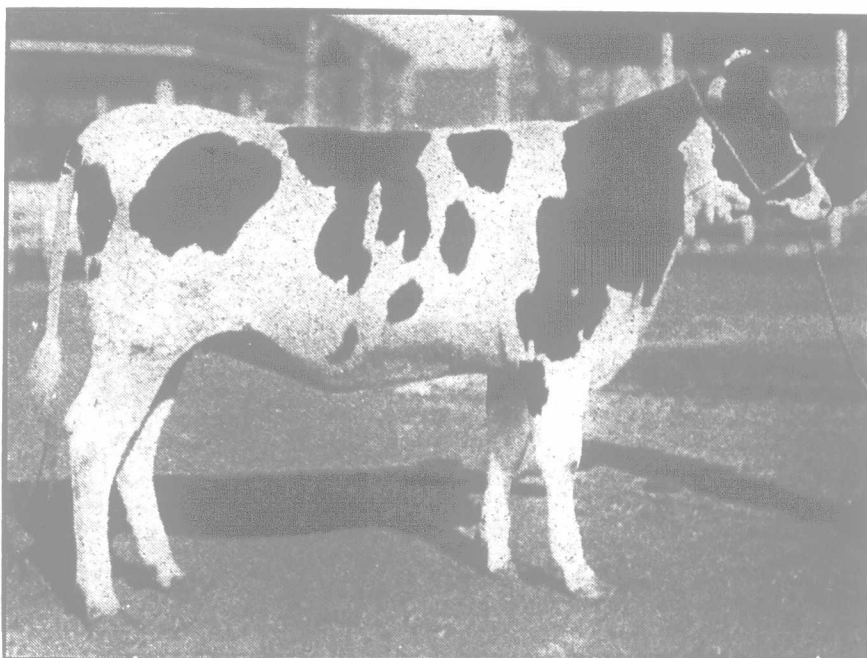
Ventilation is one thing which is lacking in many stables, even though it is essential to the health of the animals. If some means are not provided for carrying off the foul air from the lungs and the odors from food and excrement and providing fresh air, then we cannot expect maximum returns from the herd. A milk cow that is supposed to give a large quantity of milk at the lowest cost must have a reasonably warm stable. Prof. Kildee, of St. Paul, says: "Concentrates and roughage make very costly fuel with which to warm dairy cows. Proper shelter decreases the fuel-feed cost, and results in increased milk production." Working on this principle some have the barn so tight in order to keep out the cold that the air becomes stagnant in the stable and filled with dampness. When the stable is closed up and is quite warm there is little circulation of air unless a ventilating system is provided. The animals use up the oxygen in the stable, replacing it with a poisonous carbon-dioxide gas exhaled from the body. This has more or less of a suffocating effect and decreases the vitality of the animals making them less resistant to disease and unable to make the best use of the feed consumed. Fresh air puts life into the system and it is necessary that the stock be supplied with it if the greatest profits are to be made. Ventilation removes the foul air allowing the pure air to flow in to take its place. Oxygen is necessary to produce healthy blood in the system and to the most economical digestion of feeds. It is claimed that a cow of average weight breathes 2,800 cubic feet of air in twenty-four hours. Where no ventilation is provided dampness is prevalent and it is a breeding ground of the most contagious diseases.

A cow gives off about a gallon of water in her breath alone in twenty-four hours. It is claimed that an animal put in a poorly-ventilated barn requires from a quarter to one-third more feed to maintain bodily weight and production than one kept in proper surroundings. Thus it will be seen that the man who does not provide ventilation is not only running the risk of the vitality of his animals becoming weakened, but it is costing him more than is necessary for feed.

There must be constant circulation of air to draw off the moisture, carbon-dioxide and other gases which accumulate where stock are kept. These substances tend to gather at the ceiling so that flues should be provided leading from the ceiling of the stable to the peak of the barn to carry off these impurities. There are different systems which provide a circulation of air and the carrying off of warm, light air containing the moisture and gases, but none of these systems are automatic to suit all changes. The attendant must regulate ventilation to suit conditions. A certain degree of warmth must be maintained. The temperature should not drop below forty degrees and fifty-five should be the maximum. If the stable is crowded it will be found more difficult to maintain the proper heat without a draft being created than if the proper space is allowed for each individual. If only a few animals are placed in a large stable, it is then found difficult to bring the temperature high enough for comfort. Each cow should have around six hundred cubic feet of space in the stable. This amount cannot always be adhered to as the size of herds varies according to market and feed conditions.

When installing foul-air outlets care should be taken to have them free from cracks or holes. Openings in the outlet check the outflow of impure air in much the same way that an opening in a stovepipe checks the draft. Where the outlet passes through the barn where there is low temperature it is necessary to insulate it. If not the cold causes the moisture in the escaping warm air to condense on the walls thus weakening the service. There must be a fresh-air intake or the foul air will not be driven out. Ventilating systems of stables works on much the same principle as the drafts on a stove. Checks should be installed so that the circulation of air in the stable can be controlled according to the outside temperature. One system is to bring the fresh air in from the outside through the wall so as to enter the stable a foot or two above the floor. The air may be turned upwards by a board in front of the intake. The size of intakes and outlets depends on the size of stable and number of animals stabled.

It is estimated that there should be fifteen square inches of intake and twenty-four square inches of outlet for each cow in order to furnish the greatest satisfaction. Most old stables lend themselves to the installing of a



Aaggie Butter Baroness.

Winner of her class at Toronto and London. Exhibited by M. H. Haley, Springford, Ont.

expensive buildings, are a mill-stone around the necks of some dairymen. So much must be allowed for interest on investment that the net profits are greatly reduced. The old stable may be remodelled to give convenience and fitted with sufficient glass and a proper ventilating system at very small expense.

Many of the new stables are well lighted so that the sunshine has an opportunity to exert its disinfecting power in the innermost corners. Direct sunshine brings death to many of the disease germs; not only that, but it is claimed that greater production and greater profits are secured in a bright, cheerful stable than from the same herd kept in a dark stable. Tuberculosis is one disease which is making inroads into many herds. Dark, improperly-ventilated stables may not be the entire cause, but they are a factor leading to this condition. It is reasonable to expect that the herd provided with plenty of fresh air and light will be healthier than the herd housed in a dark stable, other things being equal. It is not a difficult problem to enlarge the windows in the old stable. Six or eight square feet of glass is recommended per cow. This is a good deal more than is found in the average barn. However, it permits the attendants to do their work more quickly owing to the absence of dark places in the stable; it shows up any dirt or filth which might harbor and spread some of the diseases; it also gives the attendant an opportunity to detect a slight ailment at the start, and so prevent it developing and possibly causing death. There is no hard and fast rule regarding the best way to install the windows. If the long part of the window is placed vertically it will permit of the sunlight reaching further over the stable than if placed horizontally. Windows may be in two sashes with the glass 10 by 12 inches. The sashes may be made to slide so that ventilation may be provided through the windows. However, there is more or less danger from drafts in this way and consequently it is believed that more satisfactory results are obtained if the top sash of the vertical window

ventilating system and the cost need not be great, as any handy man can do the work.

Milk is a substance which absorbs odors very quickly, consequently the aim should be to have the stable air clean and pure. If the stable were ventilated as it should be, steam would not form as it does when the door is opened on a frosty morning. A person feels the cold more on a damp day than on a dry day when the thermometer shows it to be really much colder. The same applies to stock. Cold, dry atmosphere is not nearly so detrimental to health as damp, though warm, atmosphere. The dampness in a stable is removed through the ventilators.

It is usually more difficult to regulate the temperature in the stable during fall and spring than in mid-winter, although it may be easier to ventilate as doors and windows can be left open part of the time. If a dairyman expects his cows to make the greatest use of their feed, comfort must be provided. A cow that is kept in a cold stall uses more feed to keep her warm than the one kept where the temperature is from forty to fifty degrees. However, heat must not be obtained at the expense of fresh air. Oxygen is absolutely necessary to health and it is a substance that is quickly exhausted from a closed building filled with people or stock. The tragedy of the "Black Hole of Calcutta" was due to suffocation through lack of oxygen and accumulation of carbon-dioxide gas. In some stables during the coldest part of winter the live stock are subjected to somewhat the same condition only to a lesser degree. It does get to the stage, however, where the vitality is lowered for a time at least. Opening of doors to do chores permits fresh air to enter, but it does not effectively remove the warm air laden with moisture and impure gases. There is need for the greatest use to be made of all feeds grown in this country, both from an individual and national standpoint. To accomplish the desired results, conditions must be such that the stock will be healthy and vigorous. Let there be light, reasonable warmth, and ventilation in the stable.

Take the chill off the water before giving it to a newly-freshened cow. It may save complications later on.

Light is good. Why not have a plentiful supply in the dairy stable and milk house? Sunshine brings death to many disease germs.

Do not allow dirt to accumulate in the manger or under the water box. It soon becomes foul and causes the animal to lose its appetite.

The feeder, milker, retailer, in fact all who are called upon to handle nature's greatest human food, should practice cleanliness at all times.

Make a permanent job of repairing the leaky water box when you are at it and save having to tinker with it intermittently during the winter.

If the clippers are run over the cows' thighs and flanks, less dirt will adhere to their bodies, thus reducing the chance for contamination of the milk.

At the Nebraska Holstein Breeders' sale, held at South Omaha, 74 head brought a total of \$18,175. In Michigan, 72 Holsteins were sold for an average of \$181.25.

The cobwebs require sweeping down and the windows need cleaning in many dairy barns. This will be a job for the first day the weather bars you from working outside.

At the Hazelwood-Carnation sale of Holsteins, held at Kent, Washington, in October, 127 head realized a total of \$34,515. Hazelwood Cinderella Butter Girl and Hazelwood Alban Ormsby brought \$1,100 and \$1,325, respectively.

Some cows look poor and are poor; others look good but are poor; some look poor but are good; others have good appearance and give good returns. Use the scales and pick out definitely the good producers. Don't rely entirely on the eye; it may deceive you.

The American Jersey Cattle Club reports that since April 1, 1917, they have had an increase of forty-four per cent. in Jersey registrations; an increase of transfers of ownership of nine per cent., and an increase in year's authenticated milk and butter-fat test of five and a half per cent.

The cause of milk fever is frequently attributed to milking the cow out clean soon after calving. It is advisable not to empty the udder the first day or two. If the fever develops the oxygen treatment is recommended. The cows due to freshen soon should have a succulent ration or one which will keep the bowels in good condition.

Do you ever test the cream so as to know how many pounds of butter-fat you shipped before the returns come in from the creamery? A Babcock tester is not an expensive piece of machinery and by following instructions closely anyone can operate it. It pays to know what the milk of every individual in the herd tests. Quality as well as quantity is desired by most dairymen.

POULTRY.

The Cost of Poultry Raising For 1916-1917.

The cost of raising chickens has increased materially since the opening of the war until in 1917 the feed cost of raising chickens of average quality as found throughout the country amounted to almost the market value of such chickens. Such conditions did not exist on the average farm, however, because the majority of farmers have not had to purchase much grain at the increased prices, nor is the above statement applicable to commercial poultry plants because on such plants the great majority of the stock raised had a breeding value over and above the market value. If farmers in 1917 had had to purchase most of the grain fed to their stock and if commercial poultry raisers were producing stock of the same quality as found on the average farm, then the feed cost in each case would have amounted to almost the market value. Under average conditions it costs about five cents to hatch each pullet. To produce a pullet under free range conditions weighing four pounds, which weight the average Plymouth Rock, Wyandotte, Rhode Island Red and Orpington pullet should attain at six months of age, it takes about twenty pounds of grain. In 1914 with wheat at \$1.70, corn at \$1.45 per 100 lbs. it cost thirty-two cents to raise a pullet. In 1916 with wheat at \$2.30, corn at \$2 an oats at \$2.50 per 100 lbs. it cost forty-two cents to raise a pullet. In 1917 with wheat at \$3, corn at \$3.50, and oats at \$2.50 per 100 lbs., it cost sixty-four cents to raise a pullet. The prices of grains given are the average prices during the producing season, March to September, for the three years given. The three grains, wheat, corn and oats, are used as a basis of comparison since these three grains with their by-products are used most extensively in the raising of chickens. Moreover, of all poultry feeds used the greatest increases in prices occurred in wheat, corn and oats.

For the seasons 1916 and 1917 the following method has been followed in feeding the growing stock at Macdonald College:

Chicks in brooders.—The chicks are placed in brooders from incubators when about 24 hours old and are not fed for 36 hours after being hatched. The chicks are first given a mixture of 4 parts bran, 4 parts oatmeal feed, 2 parts cornmeal, 1 part middlings, 1 part beef scrap, and 1 part chick grit, all parts being by weight. This mixture is just slightly moistened with sour milk and is fed three times daily, being alternated with two feedings of rolled oats twice daily for the first few days. When the chicks are three or four days old instead of giving them rolled oats they may be given a mixture of one part boiled infertile eggs and four parts of bread crumb, when infertile eggs are available. At the same time two of the moistened mash feedings are gradually replaced by two feedings of equal parts finely cracked wheat and corn or a good brand of commercial chick feed. Thus when the chicks are about one week old they are fed cracked grains scattered in the litter in the morning and evening, rolled oats or the egg-and-bread-crumbs mixture in the middle of the forenoon and afternoon, and the moistened mash at noon. This method is continued until the chicks are about three weeks old when they are given cracked grains morning, noon and evening, and moistened mash in the forenoon and afternoon. In addition, the mash mixture given above, with 2 per cent. charcoal added, is fed dry in hoppers. When the chicks are five weeks old they are fed cracked grains morning and evening and mash at noon, and the dry mash is still kept before them. Clean water and sour milk are supplied ad libitum and chick grit is supplied in hoppers. If plenty of grass is not available the chicks are given lettuce or sprouted oats.

Chicks on range.—The same method of feeding employed after the chicks are five weeks old is followed when the chicks are placed on the range, except that the grain mixture consists of equal parts whole wheat and coarsely cracked corn, and the mash mixture is made of 2 parts bran, 1 part oatmeal feed, 1 part cornmeal, 1 part middlings and 10 per cent. beef scraps. It is preferable to feed the wheat and corn by hand rather than in hoppers, while the dry mash is given in hoppers which are kept in the houses away from sparrows. The moist mash is fed in V-shaped troughs, care being taken to feed only as much as is eaten within a few minutes after being fed. Clean water and sour milk, when available, are kept before them at all times. Grit and oyster shell are always on hand.

Macdonald College.

M. A. JULL.

HORTICULTURE.

Potato Growers and Specialists in Conference.

A conference of potato growers and specialists was recently held at the Parliament Buildings, Toronto, to discuss the different phases of the potato-growing industry, and the desirability of securing seed potatoes for Old Ontario from New Ontario districts, where diseases of the tuber are not prevalent. The aim of the conference was to ascertain whether the potato yields in Old Ontario could be increased by New Ontario seed, to what extent dangerous diseases become established in our potato fields, and how the potato industry of the Province can be best developed. During the past summer inspection was made of potato

fields in both Northern and Old Ontario. In only one case of the former was leaf roll found, but it was prevalent in all districts in the older-settled portion. In fact, in only two fields in the latter district was none of the disease observed, while it ran as high as fifty per cent. in some. Eight per cent. is considered by pathologists to be serious, as plants diseased with leaf roll yield but one-half to one-third of normal crop. Mosaic is a disease fairly evenly distributed over the whole Province, but, it is not so serious as the leaf roll. However, it is serious enough that immediate steps should be taken to prevent its spread. It was found that the blights are more prevalent in the older potato districts than in the north. The investigation proved that Northern Ontario is superior as a source of first-class seed potatoes. It has less than one-quarter the amount of serious diseases and one-tenth less of the minor diseases than are found in the older portions of the Province. It is estimated that in the Thunder Bay District alone over 500,000 bushels of choice seed might eventually be produced.

A study of the diseases revealed the fact that leaf roll decreases the yield by causing the leaves of the plants to roll or curl, thus weakening the plant and arresting the development of tubers. Its cause is not known, but it was conclusively proven that development is hastened in a climate where periods of hot and dry weather prevail. Clean seed is as yet the only known remedy. Curly dwarf is a disease somewhat similar in effect to the former, although the symptoms are different. The plants become badly dwarfed and lose vigor, resulting in a yield of small, unmarketable tubers. The Mosaic disease interferes with the normal development of the plant, causing the leaves to be more or less puckered and have light green blotches on their surface. The evidence of the plant pathologists went to prove that the two former diseases are both communicable and hereditary, while the latter was probably communicable and certainly was hereditary. They were of the opinion that there was little hope of ridding Old Ontario of the leaf roll by selection, but that it might be done by the importation of disease-free seed from unaffected districts. It was believed that these diseases either originated through impaired vitality or were developed by specific organisms not yet isolated. Hot, dry periods, with hot nights, are believed to aid propagation of the disease. Consequently, the climate of Northern Ontario was the most suitable part of the Province for growing clean seed so far as climatic conditions were concerned. It has yet to be proven how long the imported seed can be replanted before danger of developing disease. P. Murphy, from the Dominion Laboratory of Plant Pathology, of Prince Edward Island, emphasized the fact that while these diseases would not originate in Northern Ontario, due to climatic conditions, they would readily develop and spread if diseased tubers were imported from contaminated districts. He advised a very careful and thorough inspection of the fields in order to prevent the contamination by disease of this source of seed supply. In the opinion of those present at the conference an effort should be made to induce potato growers to plant disease-free, vigorous, northern-grown seed, and to initiate a scheme of roguing out disease and impurities from the fields to be used as a source of seed supply.

Dr. W. A. Orton, United States Department of Agriculture, Washington, declared that all experiments and practical experience in the United States confirmed the belief that those districts where a comparatively cool, moist climate prevailed, with long days of sunlight during the growing season and cool nights with heavy dews, were especially adapted to the production of highest quality seed potatoes. He believed a light soil was superior to a heavy soil for seed production, and that the yields throughout Old Ontario could be increased one hundred per cent. by the planting of northern-grown seed and the general practice of skillful cultural methods. Prof. Macoun and Dr. Zavitz each gave reports of their experiments in proof of the high-yielding quality of northern-grown seed potatoes. Dr. Zavitz has experimented with seed from the Maritime Provinces, Northern Ontario and Old Ontario for five years, and each year the northern seed led in yield. Immature seed grown in Old Ontario resulted in heavier yields than mature seed. The growers present with but one exception, who had had experience with northern-grown seed, concurred in the opinion that it was the best. Walter Cook, of Cataract, found that immature seed potatoes gave high yields. He had planted potatoes in a sod field, after the hay was taken off in mid-summer. When the tops were frozen he harvested the crop and found that the small, immature seed gave good results the following year.

A committee was appointed, composed of men who had given a great deal of study to the potato question, to work out details of standardization of varieties and extension propaganda. After considerable deliberation, recommendations were submitted, which in effect were:

1. That the Irish Cobbler be recommended as a standard early variety for commercial purposes, and Early Ohio as an extra-early variety for market gardeners to meet the requirements of special markets. The Green Mountain was recommended as a standard late variety, with certain other late varieties as Carman No. 1, Dooley, Rural New Yorker No. 2, etc., recognized as standard varieties and be recommended for those districts where conditions are peculiarly favorable to their growth. Where a variety was found especially suited to the conditions, farmers were advised to confine their attention to such variety.

2. That owing to the serious diseases known to have become established, a staff of competent pathologists, consisting of eight or ten men who specialized in potato diseases, be appointed. It was suggested

that these specialists rogue the best potato fields in Northern Ontario of impurity and disease, and to do everything in their power to give the individual potato growers all the information possible regarding the eradication of disease and the best methods of crop improvement.

3. That in regard to a supply of northern-grown seed, this should be secured at once to be used for experimental and demonstration purposes, and the committee suggested that plans be made by the Government to aid farmers and growers to locate a supply of the best northern-grown seed.

4. That a part of one or several Government farms in Northern Ontario be used for growing a supply of the highest quality seed.

5. That the Ontario Government initiate an educational campaign to the end that potato growers be fully informed of the seriousness of the disease prevalent in the Province, and the growers be made cognizant of the desirability of seed potatoes grown in Northern Ontario.

6. That a committee be appointed to study grades and grading, not only for the Province, but for the Dominion.

7. That a potato specialist be appointed by the Ontario Government to have charge of all potato extension work in the Province; to organize the improvement scheme in its broader phases; to direct all publicity and educational campaigns, etc.

8. That an advisory council be appointed to enable the potato specialists to work efficiently and without friction, and that this council should represent every interest comprehended in this scheme and potato extension work.

FARM BULLETIN.

A Few Notes From Leeds.

EDITOR "THE FARMER'S ADVOCATE":

Silo filling for 1917 is a thing of the past. Corn was the surprise crop this year. Planted somewhat late under none too favorable conditions, it was none too good a stand in some fields, and it made very slow growth in its early stages. The excessive heat the latter part of July gave it a start, then came the rains in August, furnishing sufficient moisture for its development. For some reason the killing frost of September 10 missed us, at least it wasn't severe enough to do any damage, and during the warm weather that followed the corn just stretched heavenward. The result was that we had a pretty good corn crop in this section, not so mature as in 1915 but, in most cases, farmers who had silos had them full.

The season on the whole has been a favorable one in Eastern Ontario. The spring was wet, but farmers managed to get their grain in between showers, and a large acreage was sown. Hay was a bumper crop, well saved, even better than 1916. Grain, on the whole, has turned out well, especially wheat and barley—the excessive heat in July was the cause of some light oats. Pastures, as a rule, have been good, excepting a while in mid-summer. New seeding looks well. Potatoes and roots are good, but the excessive wet weather the end of October delayed harvesting these crops.

Fall work is very backward—very little plowing was done November 10, and unless climatic conditions are more favorable from now till freezing up, it is going to find a lot of farmers with their fall work unfinished.

I notice by a recent press dispatch from Ottawa that the Dominion Government is going to launch a campaign for greater hog production. Following on the heels of a slump of over \$2.00 per 100 lbs. in live hogs, it seems to me that unless the Government can promise a square deal to the farmers regarding prices their appeal will fall on deaf ears. While live hogs have declined in price, the prices of ham, bacon and lard have steadily advanced. I think that is a point our Food Controller might explain away.

I consider the cheese factory patrons had a raw deal handed out to them as regards price for their product of the season just closing, and I am not a cheese factory patron either, but know something of the cost of producing milk the past twelve months. If the Government isn't careful it will dry up the source of supply. "There are murmurings in the mulberry trees," to quote the words of a well-known public man now deceased.

Leeds Co., Ont. C. H. M.

Canadian Judges at the International.

The total entries for the International Fat Stock Exposition to be held in Chicago, December 1 to 8, are reported to be the largest in the history of the Show, and it has been found necessary to make elaborate extensions in order to house the event. In the list of judges, several prominent Canadian stockmen are named. Robt. Miller, Stouffville, Ont., and W. A. Dryden, Brooklin, Ont., will pass on the Shorthorns, including the breeding, milking and fat classes. Wm. Grant, Regina, Sask., will officiate in the Clydesdale ring and Robt. Graham, Toronto, will appear in his accustomed place in deciding on the Percherons. Alex. Galbraith, Edmonton, Alta., will assist in judging the Shires. Lincoln and Leicester sheep will be adjudged by J. T. Lethbridge, Glencoe, Ont., and Abram Easton Freeman, Ont., respectively. That important department of the Exposition which comprises grades, cross-breeds and champion steers will be presided over by J. J. Cridlan, Maisemore Park, Gloucester, Eng.

Root and Fodder Crops.

The Census and Statistics Office recently issued a report on the yield, quality and value of the root and fodder crops of 1917, the acreage and condition on October 31 of fall wheat sown for 1918, and the progress of fall plowing.

The area this year under root and fodder crops consisting of potatoes, turnips, etc., hay and clover, alfalfa, fodder corn and sugar beets amounts to about 9,521,500 acres, as compared with 8,843,500 acres in 1916, all crops excepting sugar beets sharing in the increase. In total value, at local prices, these crops amount for 1917 to \$267,664,300, as compared with \$246,761,200 in 1916. The total yield of hay and clover is estimated to be 13,684,700 tons from 8,225,000 acres, as compared with last year's high record of 14,527,000 tons from 7,821,200 acres, and it is higher than in any year previous to 1916. The yield per acre, 1.66 ton, comparing with 1.86 ton last year, is higher than in any year since 1910, when it was 1.82 ton. The average value per ton is \$10.40 as against \$11.60 last year. Potatoes yield a total of 79,892,000 bushels, as compared with 63,297,000 bushels last year and 62,604,000 bushels in 1915; but the increase for this year is due to the larger area planted (656,958 acres as compared with 473,000 acres in 1916), and not to the yield per acre, which averaging only 121.61 bushels is the lowest on record, excepting the year 1910, when the average was 119.36 bushels. The average yield last year was 133.82 bushels; in 1915 it was 130.81 bushels and in 1914 180 bushels, the record year. The average value of the potato crop is \$1 per bushel as against 81 cents last year, and the total value of the crop is \$81,355,000 as compared with \$50,982,300 last year.

By provinces the potato yield is highest in Prince Edward Island and Nova Scotia, 175 bushels, the remaining provinces being in order of yield in bushels per acre as follows: British Columbia, 166.55; Alberta, 151.46; New Brunswick, 149.80; Ontario, 133.67; Saskatchewan, 133; Manitoba, 106; Quebec, 80. The prices per bushel by provinces are as follows: Quebec, \$1.38; Ontario, \$1.00; Nova Scotia, 92 cents; British Columbia, 91 cents; Saskatchewan, 85 cents; Manitoba and Alberta, 76 cents, and Prince Edward Island, 75 cents. The quality of the tubers is 92 per cent. of the standard in Nova Scotia, and 65 per cent. in Quebec; in the other provinces the quality is between 80 and 99 per cent.

The total yield of turnips and other roots is estimated at 63,451,000 bushels from 218,233 acres, as compared with 36,921,100 bushels from 141,839 acres in 1916. Of fodder corn the yield is 2,103,570 tons as against 1,907,800 tons in 1916. Alfalfa yields 262,400 tons against 286,750 tons last year, and sugar beets 117,600 tons against 71,000 tons.

Fall Wheat and Fall Plowing.

The area estimated to be sown to fall wheat for the season of 1918 is 711,112 acres or 4 per cent. less than the area sown in 1916 for the crop of 1917 for the crop of 1917. In Ontario the hard and dry condition of the soil made it difficult to sow fall wheat, and the area sown is estimated to be about 4 per cent. less than last year. In Alberta there is shown to be a slight increase, or 61,384 acres as compared with 60,776 acres. There are also small areas sown to fall wheat in Manitoba, 4,129 acres; Saskatchewan, 11,883 acres, and British Columbia, 3,476 acres. The condition of fall wheat on October 31 for all Canada is 80 per cent. of the standard, as compared with 76 per cent. last year. In Ontario the condition is 80 per cent., and in Alberta it is 91 per cent. Of the total land intended for next year's crops 53 per cent. is estimated to have been ploughed by October 31, the percentage proportions in the West being 40 for Manitoba, compared with 47 last year, 37 for Saskatchewan as against 28 and 39 for Alberta as against 21.

Regulating the Packing Business.

The Government has announced its plan of controlling the packing industry as follows:

"In carrying out the policy of the Union Government as announced by the Prime Minister shortly after its formation, it has been decided to establish effective control over all packing houses in Canada.

"The control of profits shall be as follows:

"1. No packer shall be entitled to a profit of more than 2 per cent. of his total annual turnover, that is, his total sales during any one year.

"2. If the 2 per cent. annual turnover exceeds 7 per cent. on the actual capital invested in the business, the profits shall be further restricted as follows:

"(a) Up to 7 per cent. on capital the packer may retain the profits.

"(b) If the profits exceed 7 per cent. and do not exceed 15 per cent., one-half of the profits in excess of 7 per cent. shall belong to the packer and one-half to the Government.

"(c) All profits in excess of 15 per cent. shall belong to the Government.

"Suitable regulations shall be made to insure the carrying out of this policy."

United Farmers' Annual Meeting.

The annual meeting of the United Farmers of Ontario and of the United Farmers' Co-operative Co., Limited, will be held on December 19th, 20th and 21st at 65 Church St., Toronto.

Take to the Plow.

EDITOR "THE FARMER'S ADVOCATE":

I notice farmers are under a great deal of discussion just now by the Government, the Food Controller, Fuel Controller, and the consuming public. I saw by a Toronto daily that the Provincial Government are to hold a convention and investigate the production of hogs by a committee of the Minister of Agriculture and several farmers. It looks to me as if those arm-chair farmers would just come down and take a hand at the plow and help produce the grain to feed the hogs, and the Government stop manufacturers and profiteers from making the prices to suit their own interests, and arrange a plan whereby farmers could get feed at a price so that there would be a living profit in the growing of hogs, the investigation would be complete and the production of hogs would increase, but at present prices of grain the margin is so close that unless conditions are just right there is very little or no profit in the pork business for the farmer.

Then again I see by the same daily the question of potatoes is discussed by some city dwellers who try to show what the profits of the tubers would be from a farm of one hundred acres. While I am not going to dispute the figures quoted, I will say that those conditions will not hold good only in some favored spot, because the weather generally throughout Old Ontario last season and this was very unfavorable, and in my locality especially nine-tenths of the farmers are not digging as many potatoes as they planted at a cost of anywhere from \$3 to \$5 per bag. The city dweller claims farmers should not receive \$1 per bag, as by good tillage more than 200 bushels per acre can be raised and the farmer must not expect the consumer to pay for his failure. Granting this to be so, how about the weather conditions? We farmers here are willing to pay \$1.50 to \$2 per bag for our winter supply and seed for next spring. The city dweller also says that a short time ago we only received 30 cents per bag and less in Toronto. My good man must have had some sleep and only just awakened now, as I cannot remember potatoes selling at that price for at least twenty-five years, having been in the farming business for over thirty years, and only once do I remember the tubers selling as low as 30 cents per bag. Even so, that is no comparison. Not long ago we could buy groceries of any kind at almost half what they cost now, and also get labor at very much less than we can now. If city dwellers would consider how many profiteers there are getting rich between the producer and the consumer, they would not think the farmer was getting too much for the amount of time spent producing food for the nation in these strenuous times, while our sons are at the front fighting for our liberty.

Haldimand Co., Ont.

FARMER.

Kerosene Lamp Tells the Story.

Like the boiling tea kettle with James Watt, the plain kerosene lamp revealed the secret of perfect combustion to John A. Secor.

A lamp burner when turned too high furnishes too much oil, which results in free carbon and a sooty lamp chimney. If the lamp is turned too low the combustion becomes incomplete, and the lamp throws off poisonous gases of an unpleasant odor. Good illumination is dependent on careful adjustment of the wick by means of the thumb wheel. This must be done several times each evening, as the temperature of the air and other conditions change. When the wick is just at the proper point there is no odor and no soot, and a brilliant, soft light shows how perfectly oil can burn. In other words, good illumination and good combustion are dependent on accurate adjustment in the supply of fuel and air.

The difficulty in an engine is that this adjustment of the oil and air to be exploded in the cylinder must vary from moment to moment, from minute to minute, with the increasing or decreasing load and other changes in atmospheric conditions. The human hand is not quick enough, not deft enough, to regulate the fuel supply of an engine. Regulation must be effected positively and automatically. Those fractions of a few drops of oil must be weighed out with a precision of the finest chemist's scales.

To secure the best results in an oil burning internal combustion engine, water must be used. The quantity of water must vary with the load. If too much is introduced, the cylinder is flooded and engine killed; if too little, the desired effect is not obtained.—J. Macgregor Smith.

Three Memorable Shorthorn Sales.

On October 31, November 1 and November 2, three memorable Shorthorn sales were held at Chicago. Carpenter & Carpenter, and J. W. McDermott led off with 62 head which sold for \$44,310, or an average of \$714. The highest-selling cow at auction was included in this sale, being Maxwalton Queen which went at \$4,200. Leslie Smith & Son realized \$64,800 on 59 head, or an average of \$1,090. Thirty head exceeded \$1,000 each, and 7 sold for \$2,000 or more. On November 1, Carpenter & Ross sold 80 head for \$94,825, or an average of \$1,185. The top on females was \$3,000 and on bulls \$3,250.

W. J. Davis & Son, of Tennessee, passed 120 Herefords through the auction ring on November 1 and 2, making a general average of \$901. The 28 bulls averaged \$1,044, and the 92 females, \$877.

Toronto, Montreal, Buffalo, and Other Leading Markets

Week Ending November 15.

Receipts and Market Tops.

Dominion Department of Agriculture, Live Stock Branch, Markets Intelligence Division

CATTLE							CALVES											
Receipts			Top Price Good Steers (1,000-1,200)				Receipts			Top Price Good Calves								
Week Ending	Same Week	Week Ending	Week Ending	Same Week	Week Ending	Week Ending	Week Ending	Same Week	Week Ending	Same Week	Week Ending	Week Ending	Same Week	Week Ending				
Nov. 15	1916	Nov. 8	Nov. 15	1916	Nov. 8	Nov. 15	1916	Nov. 8	Nov. 15	1916	Nov. 8	Nov. 15	1916	Nov. 8				
Toronto (Union Stock Yards)	9,074	8,262	8,218	\$11.00	\$ 8.00	\$11.00	628	806	740	\$15.00	\$11.50	\$15.50	363	714	578	15.00	10.50	15.00
Montreal (Pt. St. Charles)	2,111	1,092	2,454	10.25	7.90	10.25	269	738	521	15.00	10.50	15.00	457	527	501	10.50	7.50	9.00
Montreal (East End)	955	2,799	2,199	10.25	7.90	10.25												
Winnipeg	10,655	6,472	12,419	10.50	7.40	10.50												
Calgary	3,922	3,209	3,888	9.00	6.10	9.00												

HOGS							SHEEP											
Receipts			Top Price Selects				Receipts			Top Price Good Lambs								
Week Ending	Same Week	Week Ending	Week Ending	Same Week	Week Ending	Week Ending	Week Ending	Same Week	Week Ending	Same Week	Week Ending	Week Ending	Same Week	Week Ending				
Nov. 15	1916	Nov. 8	Nov. 15	1916	Nov. 8	Nov. 15	1916	Nov. 8	Nov. 15	1916	Nov. 8	Nov. 15	1916	Nov. 8				
Toronto (Union Stock Yards)	9,265	13,182	6,760	\$18.00	\$10.75	\$17.00	8,057	11,402	8,787	\$16.50	\$11.50	\$16.00	1,561	1,699	2,308	15.50	11.00	16.00
Montreal (Pt. St. Charles)	1,920	1,284	1,390	17.25	11.15	17.25	1,311	2,677	2,143	15.50	11.00	16.00	1,136	540	983	14.50	11.00	15.50
Montreal (East End)	2,570	1,480	939	17.25	11.15	17.25												
Winnipeg	6,501	4,715	4,075	16.00	10.35	15.75	3,712	2,683	1,158	17.00	10.00	17.00						
Calgary	1,600	1,238	1,236	15.75	10.00	15.25												

Market Comments.

Toronto (Union Stock Yards.)

There was a liberal movement of live stock to the Union Stock Yards during the past week, there being over six thousand head of cattle on sale on the Monday market, and further receipts of three thousand head during the balance of the week. A few loads of the cattle were of good quality, but the great bulk of the receipts were common cows, canners, steers and heifers of inferior type and quality. Very few heavy cattle were on sale and none were of sufficient quality to bring above \$11 per hundred. The bulk of Ontario's heavy cattle are at present going direct to the Buffalo market. A few nice loads of butcher steers of one thousand to eleven hundred pounds weight sold on Monday at a premium of 25 cents above last week's quotations, but for the bulk of the offerings, trading was very slow on Monday and many head were left unsold. Common cattle and canners were fully 25 cents per hundred lower. Trading did not improve any throughout the week, although there was a fair clearance on Thursday. One load of Hereford steers of ten hundred and fifty pounds sold on Monday at \$11 per hundred, while another load of equal weight and quality brought \$10.90; other sales were made at fully as good prices. Handy-weight steers and heifers sold from \$8.75 to \$9.75, with common and medium ranging from \$7 to \$8. Cows of quality sold from \$8.25 to \$8.75, the large proportion being of inferior quality and selling from \$6.50 to \$7.50 per hundred, with canners and cutters selling from \$5.25 to \$6. Bulls were largely of common grades and sold from \$6 to \$7.25, with an odd one reaching \$9 per hundred. Good feeding cattle were in demand for the distillery stables; about four hundred head were shipped out for this purpose during the week. They were bought at \$9 to \$10 per hundred and weighed from nine hundred to one thousand pounds, while an extra good load of 20 feeding steers went to Simcoe, Ontario, at \$10; these weighed one thousand pounds each. A few loads of Western stockers were on sale and brought from \$8.25 to \$8.50 per hundred. The trade for stockers on the whole was about steady with last week. Calves were selling at steady prices, with few choice veal on sale. Lambs were in good demand all week. On Monday the bulk of sales were made at \$15.75 to \$16.35, while on Tuesday \$16.25 was about the top price paid. Prices were higher again on Wednesday with \$16.50 as a top price, closing about steady on Thursday. Two hundred ewe lambs were shipped out for breeding purposes during the week at \$16.50 to \$17.50 per hundred. Breeding ewes are in good demand and are being bought for country shipment at \$13 to \$16 per hundred. Including the lambs about eight hundred sheep and two hundred heifers were shipped out under the terms of the Free Freight Policy of the Live Stock Branch, during the week. Hogs were steady on Monday at \$17 fed and watered. Some sales were made on Tuesday at \$17.25 and on Wednesday an advance was made to \$17.75. The close on Thursday was at \$18 with the market active. A deduction of \$1 per hundred is being made on lights, and \$1 to \$2.50 on sows, while in the case

TORONTO (Union Stock Yards)					MONTREAL (Pt. St. Charles)				
CLASSIFICATION	No.	Avg. Price	Price Range Bulk Sales	Top Price	No.	Avg. Price	Price Range Bulk Sales	Top Price	
STEERS heavy finished	27	\$11.00	\$10.50-\$11.25	\$11.50	3	\$10.25	\$10.25-	\$10.25	
STEERS good 1,000-1,200	385	10.24	9.75-11.00	11.00	33	9.40	9.25-\$9.50	9.50	
STEERS good 700-1,000	555	9.44	8.75-9.75	10.00	35	8.00	7.50-8.50	8.50	
HEIFERS good	294	9.64	9.00-10.00	10.25	16	9.00	8.25-9.25	9.25	
HEIFERS fair	603	8.26	7.75-8.75	9.50	61	7.75	7.35-8.50	8.50	
HEIFERS common	238	7.25	6.75-7.75	8.75	143	6.60	6.50-7.00	7.35	
COWS good	276	7.75	7.25-8.50	9.00	16	7.75	7.50-8.00	8.50	
COWS common	2,319	6.50	6.00-7.00	7.50	188	6.35	6.00-7.00	7.55	
BULLS good	38	7.59	7.00-8.25	9.00	4	8.00	8.00-	8.00	
BULLS common	267	6.45	6.00-7.00	8.00	522	6.25	6.00-6.50	7.00	
CANNERS & CUTTERS	1,661	5.50	5.00-6.00	6.00	840	5.15	5.00-5.75	5.75	
OXEN	2				14				
CALVES veal	566	13.03	11.50-15.00	15.00	71	12.00	11.00-14.00	15.00	
CALVES grass	62	7.00	6.00-8.00	8.00	292	6.25	6.00-6.50	6.50	
STOCKERS good 450-800	257	8.09	7.75-8.50	8.50					
STOCKERS fair	930	7.25	7.00-7.75	7.75					
FEEDERS good 800-1,000	427	9.69	9.00-10.00	10.00					
FEEDERS fair	443	8.75	8.50-9.25	9.25					
HOGS selects	8,735	17.49	17.00-18.00	18.00	1,730	17.20	17.15-17.25	17.25	
HOGS heavies					10	16.15	16.00-16.25	16.25	
HOGS (fed and watered) lights	278	16.29	16.00-17.00	17.00	122	17.20	17.00-17.25	17.25	
HOGS (fed and watered) sows	245	15.48	14.50-16.50	16.50	58	14.75	14.00-15.25	15.25	
HOGS (fed and watered) stags	7	13.64	13.00-14.00	14.00					
LAMBS good	7,921	16.09	15.75-16.50	16.50	495	15.50	15.50-	15.50	
LAMBS common	373	13.65	13.00-15.00	15.00	802	14.50	14.50-	14.50	
SHEEP heavy	21	10.17	9.00-11.00	11.00					
SHEEP light	460	13.19	11.00-15.00	15.00	96	11.80	11.50-12.00	12.00	
SHEEP common	370	7.59	6.00-9.00	9.00	168	9.75	9.00-10.50	10.50	

of stags a cut of \$4 per hundred is made. The bulk of the hogs now being marketed are well finished.

Of the disposition from the Yards for the week ending November 8th, Canadian packing houses bought 405 calves, 205 bulls, 4,878 butcher cattle, 7,681 hogs and 5,979 sheep and lambs. Local butchers purchased 162 calves, 830 butcher cattle, 286 hogs and 487 sheep and lambs. Canadian shipments were made up of 127 calves, 73 milch cows, 81 butcher cattle, 811 stockers, 676 feeders, 180 hogs and 980 sheep and lambs. Shipments to United States points consisted of 21 butcher cattle and 193 feeders.

The total receipts at the Yards from January 1st to November 8th, inclusive, were: 244,376 cattle, 41,949 calves, 119,877 sheep and 366,091 hogs; compared to 246,779 cattle, 40,875 calves, 130,726 sheep and 411,921 hogs, received during the corresponding period of 1916.

Montreal.

With receipts fewer by about four hundred head than last week the market opened rather sluggish and maintained this condition until Monday noon when, after considerable discrimination in purchasing, buyers suspended operations in the expectation of eventually completing their purchases at lower levels. Very little buying was done from Monday

noon until Wednesday morning and the majority of the good cattle having been purchased at the opening market, the offerings on Wednesday were largely of common quality, and the market declined 25 cents per hundred on all grades. The bulk of the receipts consisted of canning stock and medium to common bulls, while a considerable number of common cows and heifers were also on sale. A few heavy steers of medium quality weighing around twelve hundred pounds each, sold at \$10.25 on Monday, while a number of steers averaging about one thousand pounds sold at \$9.25 per hundred. Canners, cutters and bulls were mostly of fair quality, sales on Monday were chiefly of small lots and were made at last week's prices. These prices were reduced 25 cents per hundred on Wednesday and remained unchanged at the close of the week. The bulk of the sales were made at \$5 for canners and \$5.50 for cutters. The market for bulls opened weak on Monday, it being very difficult to obtain last week's prices and 25 cents less per hundred was paid during the remainder of the week, the bulk of the sales being made from \$6 to \$6.50. Very few good bulls were on hand. The receipts of calves was lighter than for some time, as also was the demand, American purchasers having practically finished their buying for the season. The bulk of the calves sold from 50 cents to

\$1 per hundred lower compared with last week's sales. Veal calves averaged about \$12 and grass calves sold mostly at \$6.25.

Sheep and lambs were lower by 50 cents per hundred and at the reduction trading was brisk, a fair number being purchased on American account, constituting about the last United States' purchase for the season. Good lambs sold at \$15.50 per hundred and common at \$14.50. Sheep sold lower, from \$11 to \$12 per hundred being paid for ewes of good quality and \$9 to \$10.50 for common.

Hogs advanced 25 cents per hundred on the market, there being keen competition from the buyers and with only light receipts. The market was active and firm during the remainder of the week and closed unchanged at the advance. Selects sold at \$17.25 per hundred fed and watered. Very few sows were offered.

Pt. St. CHARLES.—Of the disposition from the Yards for the week ending Nov. 8th, Canadian packing houses and local butchers purchased 388 calves, 931 canners and cutters, 635 bulls, 737 butcher cattle, 1,393 hogs, and 1,791 sheep and lambs. Canadian shipments were made up of 46 milch cows and 70 butcher cattle. Shipments to United States' points consisted of 190 calves, 35 butcher cattle, and 537 lambs.

Markets

Culture, Live
ance Division

Calves	Week
Ending	Nov. 8
15.50	15.00
15.00	9.00
9.00	9.00

Lambs	Week
Ending	Nov. 8
16.00	16.00
16.00	15.50
15.50	17.00

Top Price

\$10.25

9.50

8.50
7.85

9.25
8.50
7.35

8.50
7.55

8.00
7.00

5.75

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6.50

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Every farmer who desires to do business with

The Molsons Bank

is always assured of a courteous reception by local managers. And their object is to assist the farmer in a legitimate way, to make his land and stock more productive.

The total receipts from January 1st to November 8th, inclusive, were: 47,179 cattle, 51,932 calves, 62,493 sheep, and 68,406 hogs, compared to 43,137 cattle, 41,676 calves, 52,152 sheep and 77,534 hogs, received during the corresponding period of 1916.

EAST END.—Of the disposition from the Yards for the week ending November 8th, Canadian packers and local butchers purchased 241 calves, 1,948 butcher cattle, 1,020 hogs and 611 sheep and lambs. Canadian shipments consisted of 143 butcher cattle and 535 sheep and lambs. Shipments to United States' points were made up of 155 calves, and 1,947 sheep and lambs.

The total receipts from January 1st to November 8th, inclusive, were: 46,762 cattle, 39,100 calves, 38,604 sheep, and 39,912 hogs; compared to 44,216 cattle, 41,166 calves, 43,409 sheep and 55,143 hogs, received during the corresponding period of 1916.

Winnipeg.

Receipts of cattle for the week showed a decrease of eighteen hundred head compared with last week. Market conditions show some improvement although the yards were slightly congested during the latter part of the week. Many Southern buyers were at the market picking up the choicest of the offerings. Eastern buyers were also active, purchasing chiefly light butcher cattle. On Friday twenty-six hundred cattle were offered on a steady market. Four thousand were on hand on Monday at lower prices which resulted in many being held over until the next day, when the market was firmer under light receipts. On Wednesday, with twenty-five hundred cattle on sale, prices were 25 cents higher, the market closing strong at this advance. Indications are that the big runs are almost over for the season, although a large market is expected for next week. Cattle of good quality met with a strong demand, but light weight cattle of medium to common quality are selling at prices unsatisfactory to the shippers. Packing houses are stocked up with this class of cattle and the buyers demand reduced prices. Forty-two steers averaging twelve hundred and ninety pounds realized \$11.10 per hundred and sixty-eight averaging thirteen hundred and seventeen pounds brought \$10.60. These sales were exceptional, the bulk of the best heavy steers selling from \$9.25 to \$10.70. Steers of one thousand to twelve hundred pounds sold well, many of choice quality being bought for short-keep feeding. Forty-five averaging eleven hundred and forty brought \$10.25, while the bulk of the best sold from \$8.80 to \$10 with medium kind selling from \$7.90 to \$8.75. The best light butcher steers sold from \$7.80 to \$9, and those of fair quality from \$6.60 to \$7.40.

Chicago.

Cattle.—Beeves, \$7 to \$16.25; Western steers, \$9.50 to \$13.50; stockers and feeders, \$5.70 to \$11.50; cows and heifers, \$4.60 to \$11.75; calves, \$7 to \$13.50.

Hogs.—Light, \$17 to \$17.65; mixed \$17.20 to \$17.80; heavy, \$17.15 to \$17.80; roughs, \$17.15 to \$17.35; pigs, \$14 to \$17.25.

Sheep.—Lambs, native, \$12.25 to \$17.

Buffalo.

Cattle.—Cattle market was steady on a few real choice shipping and handy weight steers, last week but lower by a big, quarter on the medium kinds of grass steers running from eleven to thirteen hundred pounds. Western range cattle are coming in pretty freely at western markets and these are in competition with natives and Canadians, and eastern killers appear to be obtaining better results with the westerns at this time. Last week, there were around thirty cars of shipping steers here, mostly of a medium kind and several loads failed to find an outlet. Best shipping steers offered were out of Canada and sold from \$12.50 to \$12.75. In the butchering steer and heifer line, choice grades sold stronger, with the general run of medium kinds of butcher stuff steady to shade lower, canners ruling a dime to fifteen lower. Stockers and feeders sold at shade lower prices, bulls generally were steady sale, while the better kinds of milk cows and springers brought steady prices, others weak. Cattle are running plentifully, more so than was generally expected and the opinion among sellers generally is that there is little prospect for improved prices until the supplies slacken up somewhat. Receipts for the week showed 7,500 head at Buffalo, as against 6,825 head for the preceding week and 5,925 head for the corresponding week last year. Quotations:

Shipping Steers—Native—Choice to prime, \$13 to \$14; fair to good, \$11.25 to \$12; plain \$10 to \$10.75; very coarse and common, \$9 to \$9.75.

Shipping Steers—Canadians—Choice to prime, \$12.75 to \$13.50; fair to good, \$11.50 to \$12.25; common and plain, \$9.50 to \$10.25.

Butchering Steers—Choice heavy, \$11 to \$11.50; fair to good, \$10.50 to \$10.75; best handy \$11 to \$11.50; fair to good, \$10 to \$10.50; light and common, \$8 to \$9; yearlings, choice to prime, \$12 to \$12.50; fair to good \$11.75 to \$12.

Cows and Heifers—Best heavy heifers, \$10 to \$10.50; best butchering heifers, \$9 to \$9.50; fair butchering heifers, \$7.75 to \$8.25; light and common, \$6.75 to \$7.25; very fancy fat cows, \$9.25 to \$9.50; brst heavy fat cows, \$8.25 to \$9; good butchering cows, \$7.50 to \$8; meidum to fair, \$6.75 to \$7.25; cutters, \$6 to \$6.50; canners, \$4 to \$5.

Bulls—Best heavy, \$9 to \$9.50; good butchering, \$7.50 to \$8.25.

Stockers and feeders—Best feeders—\$9 to \$9.75; common to fair, \$7.25 to \$8.50; best stockers, \$7.50 to \$8; fair to good, \$6 to \$7; common, \$5 to \$5.75.

Milchers and Springers—Good to best, in small lots, \$100.00 to \$140.00; in carloads, \$85 to \$100.00.

Hogs.—Buffalo had a good market last week, notwithstanding that prices on the opening day were a little lower. Monday the top was \$18.15 but general range was from \$17.75 to \$18 and pigs landed mostly at \$17. Tuesday bulk sold at \$17.90 and \$18, top being \$18.25 and pigs made \$17.25. Wednesday's market was a dime higher and Thursday and Friday the trade was mostly steady. Friday one deck of heavies scored \$18.50, but most of the sales were made from \$18 to \$18.25 and pigs, like on Thursday, brought up to \$17.50. Roughs, \$16.50 to \$16.75 and stags \$15 down. Receipts last week were 27,800 head, as against 27,162 head for the week before and 49,200 head for the same week a year ago.

Sheep and lambs.—Prices last week were generally lower and trading was slow. Monday top lambs sold at \$17, Tuesday best lots moved at \$16.75 and \$16.85, Wednesday and Thursday bulk landed at \$16.75 and Friday's range was from \$16.50 to \$16.65. Inferior to good cull lambs sold anywhere from \$12 to \$15.50, with a few up to \$15.75. Best wether sheep were quoted around \$11.25 and \$11.50, and while top ewes sold Monday up to \$11, the next four days good fat ewes were hard to place above \$10.50. For the past week receipts were 14,400 head, being against 17,001 head for the week previous and 20,800 head for the same week a year ago.

Calves.—Last week started with top veals selling at \$14.75 and the next three days the bulk had to go at \$14.50. Friday's market was considerably improved, bulk being placed at \$15. The fore part of the week cull grades ranged mostly from \$11 down and Friday the best in this line reached up to \$12.50 and \$13. Grassers ranged from \$5.50 to \$6.50. Receipts the past week were 2,000

head, as compared with 2,167 head for the week before and 2,525 head for the same week a year ago.

Toronto Produce.

Live-stock receipts at Union Stock Yards, West Toronto, Monday, Nov. 19, were 258 cars; 4,839 cattle; 246 calves; 2,595 hogs; 2,531 sheep and lambs. Choice butchers, strong and 25 cents higher; balance cattle steady except canners which were 25 cents lower. Sheep and calves steady; lambs strong, 25 cents higher. Hogs eighteen dollars, fed and watered.

Breadstuffs.

Wheat.—Ontario, No. 2, winter, per car lot, \$2.22; (basis in store Montreal.) Manitoba wheat, in store, Fort William—including 2½c. tax—No. 1 northern, \$2.23½; No. 2 northern, \$2.20½; No. 3 northern, \$2.17½; No. 4 wheat, \$2.10½.

Oats.—(According to freights outside) Ontario, No. 2 white, 70c. to 71c., No. 3 white, 69c. to 70c., nominal. Manitoba oats, No. 2 C. W., 72½c.; No. 3 C. W., 69½c.; (in store, Fort William). Extra No. 1 feed, 69½c.; No. 1 feed, 68½c.

Barley.—Malting, \$1.21 to \$1.22.

Peas.—According to freights outside; No. 2, \$3.80 to \$3.90.

Corn.—American (track, Toronto), No. 3, nominal.

Rye.—No. 2, \$1.75.

Flour.—Manitoba first patents, in jute bags, \$11.50; second patents, in jute bags, \$11; strong bakers', in jute bags, \$10.60. Ontario winter, according to sample, \$9.90, Montreal; \$9.70, Toronto; \$9.70 bulk, seaboard.

Hay and Millfeed.

Hay.—Track, Toronto, No. 1, \$15 to \$16 per ton; mixed, per ton, \$12 to \$14.

Straw.—Car lots, per ton, \$8 to \$8.50, track, Toronto.

Bran.—Per ton, \$35.

Shorts.—Per ton, \$42; middlings, per ton, \$45 to \$46.

Good feed flour, per bag, \$3.25.

Hides and Wool.

Prices delivered, Toronto: City hides.—City butcher hides, green, flat, 20c.; calf skins, green, flat, 23c.; veal kip, 20c.; horse hides, city take-off \$5 to \$6; city lamb skins, shearings and pelts, \$1.50 to \$2.25; sheep skins, \$2.50 to \$4.

Country markets.—Beef hides, flat, cured, 18c. to 19c.; deacons or bob calf, \$1.50 to \$1.75 each; horse hides, country take-off No. 1, \$5.50 to \$6; No. 2, \$5 to \$6; No. 1 sheep skins, \$2.50 to \$3.50; horse hair, farmers' stock, \$25.

Tallow.—City rendered, solids, in barrels, 13c. to 14c.; country solids, in barrels, No. 1, 12c. to 16c.; cakes, No. 1, 14c. to 16c.

Wool.—Unwashed fleece wool, as to quality, fine, 60c.; coarse, \$58c., washed wool, 70c.; coarse, 65c.

Country Produce.

Butter.—Prices kept practically stationary on the wholesales during the past week selling as follows: Creamery, fresh-made pound squares, 46c. to 48c. per lb.; creamery solids, 44c. to 46c. per lb.; dairy, 37c. to 38c. per lb.; separator dairy, 44c. to 45c. per lb.

Eggs.—Cold storage eggs declined on the wholesales, selling as follows: No. 1, 44c. per dozen; select, 48c. to 49c. per dozen; in cartons, 53c. per dozen. The new laid firm sold slightly—selling at 58c. to 60c. per dozen.

Cheese.—Cheese remained unchanged in price: Old cheese selling at 30c. per lb.; new at 24c. per lb., and new twins at 24½c. per lb.

Poultry.—Prices kept practically stationary, as follows: (live weight) spring chickens, 17c. to 18c. per lb.; spring ducks, 16c. to 17c. per lb.; fowl 4 lbs. and under, 13c. per lb.; fowl over 4 lbs., 18c. per lb. Geese, 12c. per lb.; turkeys, 25c. per lb.

Honey.—Honey is still quite scarce, and therefore high priced, selling as follows, wholesale: Extracted 5-lb. and 10-lb. pails, 19c. per lb.; 60-lb. pails, 18½c. per lb. The comb selling at \$3 to \$3.25 per dozen.

Beans.—The bean market is very firm. Hand-picked Canadians selling at \$8 per bushel wholesale; the Indias going at \$6.60 per bushel.

Wholesale Fruits and Veg 'ables. Apples are coming in freely—Ontario Snows and Spys selling at \$6 to \$8 per

bbl. Other varieties going at \$3.50 to \$5 per bbl.; British Columbia, boxed at \$2.25 to \$2.75 per box; Nova Scotias at \$4 to \$7 per bbl.; Washington at \$2.50 to \$2.75 per box.

Artichokes were fairly plentiful, selling at 40c. per 4-qt. basket.

Beets have not been very plentiful, but they are a slow sale at 90c. to \$1 per bag.

Brussels Sprouts arrived freely selling at 12½c. to 15c. per qt. box.

Cabbage has advanced in price, selling at \$1.75 to \$2 per bbl.

Carrots declined slightly selling at 65c. to 75c. per bag.

Cauliflowers have been quite plentiful and of fair to choice quality selling at \$4 to \$5 per bbl., and \$1 to \$1.50 per case (27 box crate).

Celery firm a trifle selling at \$4.50 per case.

Cucumbers.—Hot-house cucumbers came in in small lots—the imported selling at \$2.75 to \$3 per dozen and the home-grown at \$2.75 to \$3 per 11-qt. basket.

Onions continued quite firm at \$3.50 to \$3.75 per 100-lb. sack for the British Columbias and \$2.75 per 75-lb. bag for the home-grown variety.

Potatoes have been wavering in price from \$2 to \$2.10 per bag—firming slightly towards the end of the week and bringing \$2.10 to \$2.15 per bag.

Turnips are a very slow sale at 60c. and 65c. per bag.

Montreal Produce.

Horses.—Very few horses are changing hands. The supply was quite light, so that the tone of the market was firm. Quite a number of horses were purchased for the woods, and a few for carter's purposes. Prices were steady as follows: heavy draft, weighing 1,500 to 1,700 lbs., \$225 to \$275 each; light draft, weighing 1,400 to 1,500 lbs., \$175 to \$225; small horses, \$150 to \$200 each; culls, \$75 to \$125 each; choice saddle and carriage horse, \$200 to \$250 each.

Poultry.—Very little is being displayed for sale, and it would seem that the offerings are not so large as usual, although it is considered that prices are, if anything, relatively lower than usual by comparison with other meats. The stock offering was not of particularly good quality on the whole, as farmers do not appear to be fattening it. Wholesalers claim to be getting 27c. to 33½c. for chickens, which is 5c. to 6c. per lb. higher than a year ago. Turkeys and geese sold at much the same price as a year ago, namely, 32c. for turkeys and 20c. for geese, finest quality being alluded to. Fowl were 22c. to 26c., which is about 4c. to 5c. up, while ducks were a little dearer than a year ago at 26c.

Dressed Hogs.—Abattoir-killed, fresh hogs sold at 24½c. to 25c. per lb., and country dressed at about 1c. under these figures.

Potatoes.—There was not much change in potatoes. Car lots of Green Mountains were quoted at \$2.20 to \$2.25 per bag of 90 lbs., ex-track, while Ontario and Quebec were quoted at \$1.65 to \$1.85 for 80 lbs.; 10c. to 20c. is added for smaller quantities.

Honey and Maple Syrup.—The market was fairly steady, with No. 1 white clover comb honey bringing 21c.; No. 2, 19c., and No. 1 brown clover comb, 19c.; with No. 2, 17c. White extracted sold at 17c. to 18c. per lb. Syrup was in moderate demand, at \$1.40 to \$1.75 per 13-lb. tin, according to quality, and sugar was 15c.

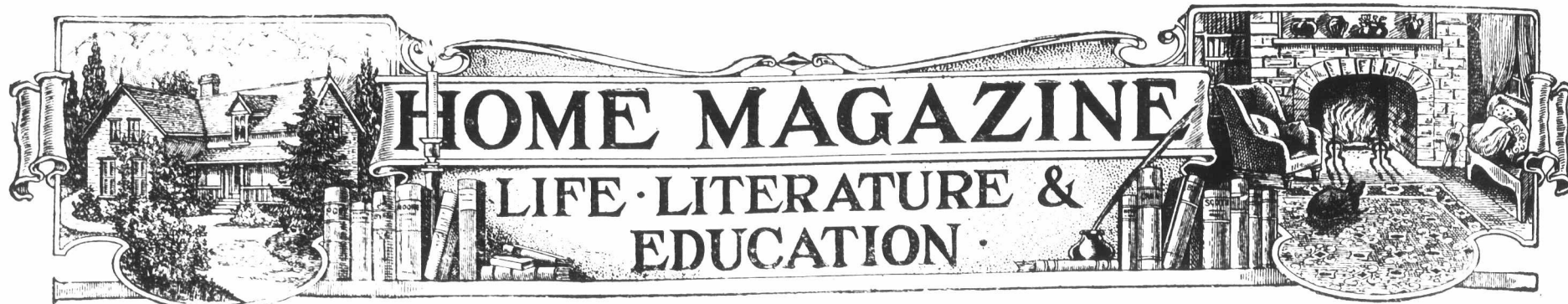
Eggs.—Strictly new-laid eggs were quoted at 53c. to 55c. in a wholesale way, though some think this is too low. Selects were 47c.; No. 1 candled, 43c.; and No. 3 candled, 40c. per doz. The market is steady and firm.

Butter.—Prices strengthened slightly and finest Sept. and Oct. butter was quoted at 45c. to 45½c. wholesale, with fine 1c. less. Fall makes were 43c., and dairies 37c. to 40c. per lb.

Cheese.—The Commission paid 21¼c. for No. 1 cheese; 21¼c. for No. 2, and 20¾c. for No. 3.

Grain.—No. 2 Canadian Western oats were quoted at 82c.; No. 3 and extra No. 1 feed, at 80c.; No. 1 feed, 79c.; No. 2 feed, 76½c.; Ontario No. 3 white, 77c., ex-store. Canadian 3-lb. picker beans, \$8.50; 5-lb., \$8.25; yellow eyes, \$7.25, and Japan beans, \$8 per bushel.

Flour.—The market was unchanged a



Western Ontario Women's Institutes in Convention.

It is utterly impossible to give in this synopsis a detailed account of all the work that has been done by the branches of the W. I. in Western Ontario, as presented in the reports brought before the big Convention held in the Y. M. C. A. Auditorium, London, on November 14 and 15. Page upon page would be necessary for this alone. Suffice it to say that all Western Ontario, and the Superintendent of the Association, Mr. Putnam, may well be proud of the splendid work the women have been doing during the year. Branch reports were presented from Mitchell, Clifford, Rodney, Bothwell, Belmore, Kingsmill, Harwich Centre, Parkhill, Jericho and other places, and District Reports given by Mrs. Kirk for West Huron and Mrs. Geo. Webster for South Perth, each of these ladies referring to the branches in her own district; and in one and all was the same story of work and self-sacrifice for the sake of the soldiers and the suffering peoples of Europe. Much money has been raised, and the number of socks knit and shirts made almost makes one dizzy. Gardening and canning demonstrations and contests have helped the work of conservation of food; nor have causes nearer home been forgotten, for not only has assistance been given to the military hospitals at home, but to other local hospitals, children's shelters, etc., as well. The big hearts of the women of the W. I. do not know where to stop. They just go on.

Very ingenious were the methods spoken of for raising money for Red Cross and Soldiers' Comforts. One dramatic club (West Huron) raised over \$1,000. Socials and concerts were made yield their title, and Rodney hit upon the clever plan of selling homemade candy at the concerts. Quilts loomed large—some "just sold," others "autographed." In West Huron each branch undertook to make three for Byron Sanatorium. Rags, papers and rubbers were sold, cookery and rummage sales held. Wingham instituted a sock contest, closed by a supper "put up" by the losers. How much one would like to tell about it all, giving each little busy spot its due!

But space—or rather lack of it—cries "No," and so we must hasten on, just pausing, lest war causes obscure everything, to note one or two other activities that seem new. In Mitchell an apportionment of \$25 a year is being set aside for a *Magazine* library, while in Rodney the Institute has taken over completely a dying general library and put new life into it. And Parkhill, but Parkhill deserves a whole corner to itself, which it shall have, later. . . . St. Mary's is taking steps for cooperative buying of fish. But here we are back to war measures again! For what is Food Conservation just now but a war measure, and one of the most important. Ah, it is tragic but true, that we cannot in these days, get anywhere away from the war.

And now that we are back to it, may it be told, for the inspiration of other Institutes, that this year South Perth realized, one understands for patriotic purposes, \$3,510.81, and one little branch, Stafford, alone \$1,543.19.

ALTHOUGH the morning (Mrs. Grant, Becher, presiding) was given over to reports, the afternoon (Mrs. McCallum, Shakespeare, presiding) brought the formal opening of the convention, with greetings from the Women's Canadian Club, per Mrs. D. McLean, and from the National Council of Women, per Mrs. Yarker, who represented the President, Mrs. Ross. Miss K. McFarlane, also, in food to the addresses given, and the interest of her talk referring to the intensely practical nature of the

work of the Institute, with its bearing on agriculture, domestic science, and such public questions as Medical Inspection of Schools. Through it, too, a broader and kindlier neighborhood spirit has been brought about. A new development is in the formation of Junior Institutes for the girls. Already one of these is in Barrie, with a membership of 125, and one in Orillia with 150. The first one was formed in Gore Bay, by 25 girls from the Continuation Class. Carlyle said the best thing for each of us is to be the best we are born capable of being. Let us live up to this, help and inspire and be thankful for our fitness for service. Let us remember at this time that every pound of food saved is important, and let us waste no moment in unproductive labor.

The Superintendent's Report.

MR. PUTNAM, in presenting his yearly report, remarked that the Institute naturally appeals to capable workers, and especially to the capable woman of responsibility, who is of more use than the one who sits around and gives advice. As a glimpse into the work the Institute has done since the beginning of the war, he called attention to the fact that a year ago the amount raised by it for patriotic purposes was approximately \$500,000. Since then he thought a conservative estimate would be \$200,000 more.

Although the women were to be congratulated on their fine showing, there were still, as Mrs. Kirk, of West Huron, had said, a few slackers. But we have come to a time in which it is essential for everyone to do something.

As an instance of what one branch can do he cited Ail-a-Craig, which accomplished in the year:

1,545 pairs socks,
123 shirts,
331 bandages,
Quantities of other supplies—
about 30 different articles
Contributions amounting to \$1,980.

Food Production was given a great deal of attention in Mr. Putnam's address, being as it is, with conservation, one of the most important subjects in the world to-day. Women on the farms have a great deal to do with this. In his office this year many letters had been received telling not only of the lighter farm work done by women, but also of heavier work, even to driving heavy machinery. Only the day before a bright young woman who had called had told him that all summer she and two little sisters had milked 12 to 15 cows, besides helping with the harvest and other farm work. This fall they had got a tractor to plough 100 acres. Her brother has to go to the war, and so, she said, "we'll have to do more work next year."

He hoped more city people would get out next year to help all the year round,

not only during the pleasant harvest weather, but also through the mud of spring and deep snows of winter. "The cows have to be milked twice a day," he remarked—an all-the-year job.

Food Preservation was next taken up, and Mr. Putnam gave an outline of the Gardening Campaign set afoot last spring. Seeds were sent by the Department to 250 centres, and Miss Chapman's bulletin on Canning and Preserving distributed. Demonstrators, also, were sent to 180 places.

Child Welfare—This is a subject which has called for increased attention because of the war, and must continue to do so.

Co-operation is another feature which has not received as much attention as it should. "You have seen," he said, "what your own organization was able to do when the war broke out,"—because of its possibilities for co-operation. A very good example of how this mutual helpfulness can be extended is the *Parkhill Canning Centre*. Similar centres, he hoped, would be established in many parts of the province next year, and would be helped by the Department.

Medical School Inspection is very important. Dr. McEwen, inspecting the schools in one county had found, out of 20 rooms, only 2 with proper lighting, and only 4 with proper seating—the children having to "fit the seat" rather than the seat a fit for the children. For this reason one sees round and uneven shoulders among the little ones. Only 2 schools out of the 20 were well ventilated; 18 were clean. Out of 553 pupils examined, 15 per cent. showed malnutrition; 28 per cent. defective vision; 28 per cent. nose and throat trouble; 3 per cent. digestive trouble; 5½ per cent. defective hearing; 71 per cent. bad teeth; 3 per cent. skin disease; 3 per cent. nervous trouble; 49 per cent. results of faulty positions in seating.

Libraries, Mr. Putnam said, must receive more attention from the Department officials. He had consulted Mr. Carson, Inspector of Libraries, and something would be done before long.

Speaking directly to the women, the speaker said they would be looked to provide a wholesome *social life* in their districts. The Department is planning to help by sending out "movies" with good educational films, and already one is being sent to each agricultural representative, to be also somewhat at the disposal of the W. I.'s and the schools.

People, too, should make more use of the publications prepared in bulletin form, e.g., Dr. McCullough's on Public Health, Care of Children, Water Supply. These might be made the basis of discussion at meetings.

In view of the fact that women are coming to a place of greater influence, they should study problems of a national character.

In closing Mr. Putnam referred to the Demonstration Lecture Work, in domestic science, sewing, nursing, etc., which can be undertaken by any branch that confers with the Department.

ADDRESS ON FOOD CONTROL.

AFTER a song, very delightfully rendered, by Miss Challoner, of Parkhill, Mrs. Muldrew, of the Food Controller's office, gave an address explaining the necessity of the food regulations, which have made Mr. Hanna, as she said, "the most-talked-of man in Canada."

We in this country have not begun to realize the awful seriousness of the world-hunger—"not yet." We are too well fed. In some countries food costs 500 times as much, and in others 50 times as much as before the war.—This was the rather startling way with which Mrs. Muldrew began her message. Continuing, she said that there had been much objection when the food cards were sent about. People said they were not wast-



Dr. Annie Backus.

ing anything anyhow. This was not the way to look at it. If they could see the telegrams that keep pouring into the Food Controller's office they would know that three things are continually asked for—BEEF, BACON and WHEAT.

Some might say, "why not send cornmeal and oatmeal as well, when people here are expected to eat it?" The reason is this: People in France are not used to eating these foods. If we could see the women in France we should know why it would be cruel to expect them to learn to eat anything they are not accustomed to—these women with brave faces, doing all the work of the farms; living often in the cellars of their homes, the rest being nothing but a mass of rubble. They are too tired to learn new things. Besides, bacon, beef and wheat are concentrated foods. They economize in the shipping.

By observing the "days" on which it is requested that something else be used instead of beef and bacon, great quantities of these can be liberated to send overseas, to the soldiers and to the French people. Fish is a protein food, as good for us as meat. If we ate twice as much fish as we do in one year enough beef and bacon would be saved to send 25 shiploads of 10,000 tons of meat overseas. The fish is perfectly good, for even that from the Atlantic is rushed through to Toronto in refrigerator cars, the ice being changed twice on the way. The Government pays half the cost of a fish case, and any municipality can buy by negotiating.

Again, it has been pointed out that bread is cheaper in England than here, that is true, but it must be remembered that there it is subsidized. That means that the British Government pays for the wheat, etc. But it is only a loan; it has to be paid back after the war. Last year, here, wheat was put at \$2.21 per bushel. The millers may now have a profit of 25 cents on wheat for a barrel, and none on bran and shorts. This is now law.

Meat and butter are high, but people, to keep fit, must have fats; hence oleomargarine now can come into the country, but cannot be sold as butter. The character of it must be plainly indicated. This is to protect the butter industry, and all the regulations are in the hands of the Department of Agriculture.

In all this work Baron Rhondra, the British Food Controller; Mr. Hoover, the American Food Controller, and Mr. Hanna work hand in hand.

A few days ago a law was put on the Legislative books of Canada that no commodity of food, such as molasses or sugar, shall be used in the manufacture of potable liquors.

We are told that prices should be fixed here as in other lands. They are fixed in England because England is an importing country. Canada is an exporting country. Fixing prices here might hinder production, which would be fatal; North America has to save the situation.

"Let's play straight in politics, whether Brit or Tory," said Mrs. Muldrew. Remember Mr. Hanna did not ask anyone to eat less, but only to spare certain things. Keep your eyes on France, you cannot let your boys starve. There is nobody in Canada better qualified than the Women's Institute to help in the work of production and conservation. The whole issue of the war may hang on next year's crops. Co-operate to Produce, Produce, Produce, and Conserve, Conserve, Conserve.

COMMUNICABLE DISEASES.

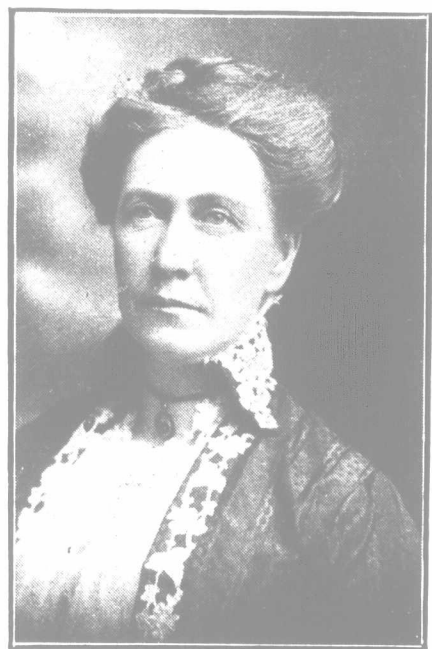
Dr. H. W. Hill, Director of the Institute of Public Health, and Medical Officer of Health, London, took up this subject, outlining the evolution of popular opinion on diseases from its superstitious first phases to the scientific understanding of the most advanced physicians to-day. Our ancestors supposed disease a "punishment" sent by God for our sins. It never occurred to them to ask what kind of God it was who would punish through the little children, who suffer most from diseases. Sometimes the Devil was blamed for it, and our fight to-day of covering our mouths when we yawn really began in a practice designed to prevent the Devil from flying in. At a later day bad smells were supposed to produce disease, but we know that this is ridiculous. The soldiers from the trenches complain more of "the infernal stench" than of anything else, and yet they are freer from disease than in any other people. Dirt was blamed for causing disease, but dirt in the trenches again. "Dirt and stink don't make disease."

"But dirt doesn't prevent disease either," the doctor observed with a twinkle. Disease is caused by the germs that have become accustomed to living in our bodies. About 1,500 of these germs that are about us have been labelled; there are others. As some plants grow best in a hothouse so do some of these live in our bodies. They eat us. Infection means that they can be passed on from one body to another.

If a case of, say chicken-pox occurs, it is one's duty to isolate the case and notify the schools. If the patient goes out too soon he can be fined, even gaol.

The venereal diseases, syphilis and gonorrhoea are also germ diseases; the germs live only in the human body and are communicable, yet we have no legal power to prevent its spread; and it must be remembered that about half the venereal diseases are innocently contracted.

"One of the great advances of the war," said Dr. Hill, "is signified by the fact that public opinion now permits me to be here to-day to speak on this subject." Syphilis has been considered something so terrible that it could be spoken of only in whispers, yet it makes up a total of only one-sixth to one-eighth of venereal diseases. The rest are gonorrhoea. From 60 to 80 per cent. of major operations in women are, as a rule, due to early gonorrhoea in their husbands; most cases of blindness in children are due to the same disease in their mothers, who contracted it, probably from their husbands.



Mrs. Brethour.

Military examinations have stirred women in general to make a stand. It has brought these things to light. But the war is not responsible for these diseases. Two civilians have them for every soldier. When a soldier has one of these diseases he is isolated. If you see a soldier on the street he is clean; that cannot be said of civilians.

In Toronto women patrols (volunteer) have been formed to rout off certain women from the parks. But it is necessary for Canadian women everywhere to band together to break up the diseases. In the United States police women are being found to do very good work.

Chicken-pox does comparatively little harm, measles more, scarlet fever yet more. The Health Officer can act in regard to all of them. But, under the law, syphilis and gonorrhoea are not isolatable. The speaker knew of one woman who had been the cause of four cases of gonorrhoea, yet he could not do a single thing to prevent her going on in her way.

The first thing to do is to make these people isolatable. We need health hospitals where they can be made to stay until they are non-infectious.

In closing Dr. Hill said he hoped the Institute would send representatives to the Baby Welfare exhibit, with clubs, which is to be held in London the first week in February.

The bombardment of questions with which Dr. Hill was assailed after his address showed the interest which the Institute took in his subject, and the result was shown in the resolutions passed at the close of the convention, and which appear at the end of this report.

In reply to a question in regard to the feeble-minded, Dr. Hill said that nearly 80 per cent. of prostitutes belong to this class. He told of one home for these women which has been established in Minnesota.

A pleasant event of the session was a tea given by the city and Canadian Club, for the delegates, in Smallman and Ingram's restaurant.

Evening Session.

(Dr. McEwen presiding.)

In the evening, during which singing by the Elgar Quartette gave much pleasure, the work of the convention was resumed.

Mrs. Nichol, of Parkhill, told of the story-hour for children which has been established there. Children are very impressionable; they love stories, and this love may be a basis for developing character as well as imparting knowledge.

Mrs. (Dr.) Wilson then gave a history of Parkhill's splendid venture in establishing a canning-centre, or, as the children there call it, a "canning factory," but as a paper on the subject is already in this office awaiting publication, (which it will receive at a very early date), Mrs. Wilson's address will not be given at this time. An exhibit of sealers put up at this centre was at the convention, and attracted much attention. It consisted of fruit, pickles, chicken, vegetables, tomato soup and soup stock.

WHY CONSERVE?

Dr. Annie Backus, of Aylmer, who took up this subject, expressed her satisfaction that at last the evils dealt with by Dr. Hill are before the public, and so, in fair way to be fought. She was glad also that children are actually being made things of interest, even to the extent of entertaining them with stories.

Reaching her subject, "Why Conserve?" she noted that of late years conservation has become a political study. In 1909 a Commission of Conservation was appointed in Canada to assist in the business of conserving the natural wealth of this wonderful country. Now the farmers have been asked to conserve land, the lumbermen to conserve the forests, the fishermen to conserve the fish, and so on.

She was mortified at the attitude of some women in regard to this new need for conservation brought on by the war. We are asked to do so little, yet some have refused. "Sign a food-card? No, not until every brewery was closed." The speaker held no brief for the liquor interests, but she did hold one for the women, that they should not be influenced by prejudiced politicians. Let us be reasonable. In the breweries no wheat is used, only rye and barley. Therefore, we need not be enraged when told to save on wheat. Chiefly a refuse product of sugar is used in the breweries. The breweries form no real excuse for refusing to do anything towards food conservation.

We should conserve, too, because we are asked to do so. A good soldier does not argue.

Last year there was a shortage of 108,000,000 bushels in the United States and Canada, and it was figured that if everyone in the United States would conserve 1 ounce of white bread per day, 100,000,000 would be made up, and if everyone in Canada saved 2 ounces per day the rest would be made up. It is co-operation that counts.

Another thing of importance is the atmosphere created by all working together. Think of the influence on the morale of the boys at the front if they know that we are all doing the best we can. The only way we can keep up their morale is to feed them.

We have been asked to conserve bacon, beef and wheat, which are concentrated foods and take up comparatively small space in the ships. Mr. Hoover, in the Geographical Magazine, wrote regarding conservation: The logical first step is to substitute corn, potatoes, vegetables, fish and poultry for those staples we wish to export.

We must not run any danger that the boys at the front will go without a square meal. We can get fat as seeds on the things that are left us. Grouch is about the worst thing we can get at this time. Let us try to escape the danger of getting hung on to party and only say, "If any man has a proposition to win this war that's the man I'm going to cling to."

In closing Dr. Backus advised the women who have a vote to give serious study to the matter, to vote always for good, for some measure and not merely for a man. Win the war, then clean up this soiled, old world.

THE VICTORY LOAN.

In a short address Sir George Gibbons put forward the need of the Victory Loan in winning the war, and its safety as an investment. Canada can no longer borrow from England as in the old days; neither can she borrow in New York, for the United States has her own Liberty Loan. We are, therefore, thrown on our own resources. The money for the war must be provided, but the security is the best in the world, and the interest is 5 1/2 per cent. If the country cannot pay us, nothing we have is any good, neither lands, homes nor money. He hoped the delegates, when they went back home, would be missionaries for the Victory Loan.

Thursday Session.

Thursday morning session opened with Mrs. Aitchison, Clifford, presiding.

ADDRESS BY MRS. BRETHOUR.

In an address planned especially for Institute workers, Mrs. Brethour, of Burford, spoke on a variety of phases of the work.

Women, she thought, who had a talent for helping in any way should not shirk taking office and doing all in their power, in any way, to help. In appointments for officers, however, two kinds of women should be avoided: (1) the nervous, "afraid" woman who takes herself too seriously; (2) the happy-go-lucky species who thinks the meeting will get along "somehow." It usually does. A woman who never thinks about the work until just before the meeting is of little use.

An essential of good Institute work is not to be too critical. There are ladies who sit in their seats and think they can do better than those on the platform. They should take their share of everything and find out how it feels.

In all our work we should have ideals. We should "hitch our wagon to a star." Even if we can't reach all our ideals, we may attain some of them.

The first duty of the District Officer is to know the officers in all the branches. The speaker herself had invited those in her district (South Brant) to a luncheon at her home to meet with the heads of some other institutions, including the hospital, and discuss the work for the year.

"Kit," of the Mail and Empire, once said that to be a successful business woman one must learn to "take her licks." It is the same in Institute work. We must shut our eyes sometimes and just go ahead. To those who have to write papers the speaker gave a good suggestion, viz., to keep a pad in the kitchen and jot down thoughts as they come.

In Mrs. Brethour's district co-operation had been found very effective, the most successful branches working with the Men's Clubs. "It is up to us," she said, "to bring all the men into sympathy with the Institute. In all parts of the work she advised throwing women on their own responsibility. Everyone should be required to do something. If you find a woman who never wrote a paper, never made a motion, sits dumb as an oyster in the meetings, with a face like a stone, she is likely to be the one who as soon as she gets home tells Mrs. Neighbor over the back fence that 'that speech wasn't worth anything.' Don't criticize work.

CO-OPERATION OF INSTITUTES.

Mr. A. R. G. Smith, New Hamburg, spoke on Co-operation between Women's Institutes and Farmer's Clubs. In Wate Lo and Bruce the two had co-operated to bring about improvement in the Rural Schools. In Ayr, every year, a union meeting is held, and public men give addresses. The result is a development in community spirit. Lately they co-operated in sending parcels to the soldiers. They have also taken up horticultural shows, which do so much to develop aesthetic tastes. This year 1,000 people made 1,000 entries in the flower show at Ayr, and the best tulip was grown by a little boy out in the country.

When the war is over a great work will remain for this country; a period of reconstruction will set in. Co-operation will help to solve many of the problems.

The immediate need is greater production. "Keep a smile for the one man on 100 acres of land," said the speaker. "If you encourage us we'll do our dead level best. All cannot go to the front, but we who are left can work, work, work." Our solemn duty now is for the troops at the front, and we must do our best for them now and when they return. . . . In passing Mr. Smith put in a good word for the loyalty of the German Canadians in Waterloo County.

After some spirited discussion by the members, on various topics, the following resolutions were read by Miss Coutts, of Thamesville, and adopted by the convention:

Whereas the prevention of venereal diseases, not only in military but also in civilian life, has been shown to be a great menace to society; be it resolved that we, the Women's Institutes of Western Ontario, assembled in convention at London, desire to urge upon our Provincial Government:

1. That it give wide publicity to the extent of these diseases, in order that our province may know what conditions are.

2. That whereas 80 per cent. of professional prostitutes are known to be feeble-minded, and medical authorities have shown that the problems of feeble-mindedness and immorality are closely interwoven, action be taken to segregate all feeble-minded children and adults, and that an appropriation be made for the extra buildings and equipment required for segregation.

3. That measures be taken to make venereal diseases isolatable, as are all other contagious diseases.

And be it further resolved that we, the members of the Women's Institutes of Western Ontario, pledge ourselves, both as individuals and as societies:

1. To make earnest endeavor to acquaint ourselves with the moral conditions in our own communities.

2. To let no false modesty or cowardice hinder us from taking, locally, whatever stand investigation shows to be advisable.

And finally be it resolved that we earnestly believe that the moral education of our youth and the provision of wholesome recreation and activity for our youth are the two things pre-eminently needed to stamp out the evil of immorality.

It was also announced that Mrs. (Dr.) Wilson, Parkhill, and Mrs. McNaughton, of Mooserville, be appointed a Medical Committee, and Miss McIntosh, of Parkhill, suggested that any questions the members desired to ask might be sent to Mrs. Wilson.

After an expression of the deep sense of loss the Institute had suffered in the death of Miss Maud Hotson, Parkhill, and votes of thanks to the Y. M. C. A., Council of the city, the Canadian Club, Local Council of Women, the Elgar Quartette, and Mrs. Edwards, Komoka, to whom so much of the success of the meetings had been due, the convention closed.

In the afternoon the delegates made a trip to Byron Sanatorium, in cars provided by the city.

Parcels For Prisoners of War.

All parcels from Canada to Officer Prisoners of War interned in Germany or Austria-Hungary containing foodstuffs, on and after January 1st, 1918 can only be sent if they bear a "coupon" issued by the Prisoners of War Department, Canadian Red Cross Society, London, England.

The amount of foodstuffs which may be sent to an officer prisoner of war during four weeks must not exceed 100 lbs. Of this total the Prisoners of War Department of the Canadian Red Cross will send to each interned Canadian officer, including those attached to other than Canadian units, not less than six ten-pound parcels each four weeks. The remaining forty pounds of foodstuffs per four weeks may be sent personally by relatives in Canada, but each parcel must bear a coupon which can be obtained on application from the Prisoners of War Department, Canadian Red Cross Society, London, England.

The right to send food parcels to an officer prisoner of war rests with the next of kin, but may be transferred to any person. It is advisable that application should be made to the Prisoners of War Department, Canadian Red Cross Society, London, England, for the necessary coupons for parcels packed personally at the earliest possible moment. These coupons are to be used on food parcels only, and no coupons can be issued for amounts under ten pounds. If, therefore, it is desired to despatch a parcel weighing less than ten pounds any ordinary coupon must be used, and the parcel counts as one of the four permissible in four weeks.

Articles may not be sent to any society for enclosure in any parcel despatched under the Red Cross label. The importance of guarding against any misuse of the label cannot be too strongly emphasized. Such action would not only harm the prisoner to whom the parcel was addressed but would react on other prisoners and might endanger the whole system of despatching the food supplies to officers and men who have fallen into the hands of the enemy.

Parcels for officers interned in Bulgaria and Turkey come under the new scheme. Owing, however, to the difficulties of postal communication, it is not advisable to send many parcels to officers in Tu kish camps. Supplies can be purchased in Asia Minor, and it is better to remit money to the prisoners rather than send many parcels.

This new scheme relates only to parcels containing foodstuffs for officer prisoners of war interned in enemy countries, and does not affect in any way the present regulations governing the transmission of parcels to prisoners of war other than officers.

The needs of officer prisoners of war holding commissions in the Imperial Army are looked after by the Central Prisoners of War Committee, 4 Thurlow Place, London, S.W., England. This Committee will supply the necessary coupons to the next of kin of these officers for parcels addressed to them which are packed personally.

Hope's Quiet Hour

The Tent-dweller's City.

By faith Abraham, when he was called, obeyed to go out into a place which he was to receive for an inheritance: and he went out, not knowing whither he went. By faith he became a sojourner in the land of promise, as in a land not his own, having taken up his abode in tents, with Isaac and Jacob, the heir with him of the same promise: for he looked for the city which hath the foundations, whose architect and maker is God.—Heb. 11: 8-10, R. V. (margin.)

"I'm but a stranger here,
Heaven is my home
Only a sojourner,
Heaven is my home.
Danger and sorrow stand
Round me on every hand;
Heaven is my fatherland,
Heaven is my home.

"What though the tempest rage,
Heaven is my home,
Short is my pilgrimage,
Heaven is my home.
And time's wild wintry blast
Soon will be overpast;
I shall reach home at last,
Heaven is my home.

The chapter from which our text is taken lifts the veil from one corner of God's Great Honor Roll. When His list of heroes is complete the veil will be removed, and the King will confess before man and angels the saints who have bravely confessed Him on earth. It has been suggested that in addition to the "red-letter" and the "black-letter" saints' days in our Prayer-Book we should have "khaki-letter" saints' days—days set apart in memory of our soldier heroes, who have laid down their lives for us in the Great War. Every day in the year would not be enough, if each khaki-clad "saint" were to have a day to himself. But I am sure those humble-minded lads don't want to be put up in a saint's

niche. The "khaki" color is sacramental—the outward visible sign of unobtrusiveness. The color was chosen because it did not draw attention to itself, and that is the spirit of every real hero. He is not seeking for praise and glory, but is quietly trying to do his duty unobtrusively.

Our text tells us of men who lived in tents on earth, instead of building up walled cities as if they expected to live here for ever. It did not seem worth while to pile up enduring possessions in this world when they were only travelling through the wilderness, as strangers and pilgrims, looking for an eternal inheritance in the City of which God is the Architect and Maker.

We have discovered lately that the greatest earthly cities are far from secure. Earthquakes may shake the buildings from below, bombs may shatter them from above, kings and emperors may be roughly shaken from their thrones, millionaires may become beggars, strong men may suddenly become weaker than little children. We find ourselves in a world that is shaken to its foundations, and it is time we turned our attention to those things which cannot be shaken.

Every day we can read in the paper the names of men and women like ourselves, who have finished their pilgrimage here and been called to meet their God. Soon—perhaps much sooner than we think—we shall be forced to leave this familiar earthly home and find out by actual experience what lies beyond the Great Adventure, which we call "Death."

We are dwelling in tents—not in enduring houses—are we looking for a city which has lasting foundations? It was said of the heroes of old: "These all died in faith, not having received the promises, but having seen them afar off, and were persuaded of them, and embraced them, and confessed that they were strangers and pilgrims on the earth. For they that say such things declare plainly that they seek a country". Dare we, who see so many young men bravely laying down their lives that others may live, dare we—in the face of this great khaki-clad multitude of heroes—waste our lives in selfish living? Listen to these weighty words, written by Robert Herrick about those who "went to the Great War and died." He says:

"In their going they left for the others who lived, who were to be born, a tremendous legacy of honor and noble responsibility. By watering the soil with their blood they have made it infinitely more precious for every human being that treads upon it. They have helped to make life more significant for those who remain to mourn them. It can never be quite the same commonplace affair, so lightly, cheaply spent, as it had been before. They have not left behind them joy, but faith. And that is why the faces of the earnest living who are able to realize this sacrifice of youth have a grave sternness in them which touches even the most careless stranger. Something of the glory created by the dead and the wounded radiates out even to us in a distant land."

When three of David's mighty men broke through the enemy's army, risking their lives in order to bring him a drink of water from the well of Bethlehem, he felt that the gift was too sacred for his use, so he poured it out on to the Lord, saying: "Be it far from me, O Lord, that I should do this: is not this the blood of the men that went in jeopardy of their lives?"

Yesterday I saw in the Canadian honor roll the name of a young cousin of mine. "He died for his country," as so many have done. Dare we accept these splendid lives, laid down so willingly for our safety, and waste our time in selfish living? Shall we not pour out our lives unto the Lord, in prayer and willing service?

Our time on earth is short—only God knows how soon the journey may end. Like soldiers on active service we must not hamper our usefulness by making ourselves dependent on luxuries. If we have pain to bear, or unpleasantnesses to put up with, why should we worry and fret? Our business in this world is not to have an easy time; yet we grumble and complain when we can't get our way, as if only the people who are given "soft jobs" (if I may use a slang term) are making a success of life.

Let us look ahead a little. A year from now it will matter very little to us whether we were comfortable or uncomfortable to-day. After death we shall look back in wondering shame, as

we remember how far from heroic we were when we were given the opportunity to "endure hardships as good soldiers of Jesus Christ."

The young lives poured out before the Lord are not wasted. The Son of David walks with those happy warriors as their everyday Comrade in the Paradise of God. He calls them "friends."

"Ah, faithless hearts! who speak of sacrifice
As 'waste'; have ye not read
Of Him who gave His own life as the price
To bring us from the dead?"

DORA FARNCOMB.

The Shadow.

Shapeless and grim,
A shadow dim
O'erhanging the ways,
And darkened all my days.
And all who saw
With bated breath,
Said, "It is Death!"
And I in weakness
Slipping towards the night,
In sore affright
Looked up, and lo!
No spectre grim,
But just a dim
Sweet face,
A face like Christ's own Mother's face,
Alight with tenderness and grace.

"Thou art not Death?" I cried,
For Life's supremest fantasy
Had never thus envisaged Death to me;
"Thou art not Death, the End?"

In accents winning,
Came the answer, "Friend
There is no Death!
I am the Beginning, not the end."

JOHN OXENHAM.

The Ingle Nook.

[Rules for correspondence in this and other Departments: (1) Kindly write on one side of paper only. (2) Always send name and address with communications. If pen name is also given, the real name will not be published. (3) When enclosing a letter to be forwarded to anyone, place it in stamped envelope ready to be sent on. (4) Allow one month in this Department for answers to questions to appear.]

THE other day a woman was making a trench sweater and all over the inside were knots where she had joined yarn that had been broken off at the joining of a new skein. "I must cut the ends off close," she said, "so they'll not show so much."

Another woman in the room said: "But you don't need to have knots. Here, let me show you."

She took two ends of the yarn, unravelled them out for three or four inches, pulled out a couple of the strands and broke them off, then drew the others together, overlapping them for the full length of the unravelled portion. This done, she rolled and rubbed them together for a moment, and behold!—yarn that looked just like the rest of the yarn and knit up splendidly without the necessity for a knot.

"You can do the same when knitting socks," she said.
—Perhaps you knew this before, perhaps not. If not you will be glad to try it.

HAVE you heard that recently a society was formed in Toronto whose aim is to teach people how to take care of their feet? The account of it appeared in the papers the week after I gave you my screed on the high-heeled people in the park, and so I was especially interested in it.

Doctors and nurses addressed the initial meeting, coming down, one and all, on high heels and narrow toes. Many diseases in other parts of the body remote from the feet, the doctors stated, are caused by high heels, and it is not hard to see that this can be so, since high heels not only jar the whole body with every step, but throw it out of balance so that the gait is entirely unnatural and the whole system under continual strain. . . . After all it is rather hard to improve on things as the Creator made, or developed, them, is it not?

Yesterday afternoon a very trim and sensible little woman was in the Ingle Nook den, and the conversation turned on this subject of shoes.

"Our taste is a great deal a matter of what we are accustomed to seeing," she said. "In our grandmothers' days

the wasp waist was considered beautiful and all the women cultivated it. To-day it is looked upon as a monstrosity. It's just the same with high heels. If everyone wore low ones we would think the high ones monstrosities."

She spoke very truly. The wasp waist proved injurious to the health, and so, after a hard struggle on the part of a few "reformers" it was banished. The high heels of to-day are proving injurious also, to the health. Then why not banish them, with the wasp waist, into the limbo of the half-civilized past where they belong? * * * *

WE were talking about ventilation. The girl said: "I used to keep my bedroom window open half way up all winter, and I always had dreadful colds in my head. I don't keep it up more than a few inches now, and I don't have the colds in my head nearly so often."

My experience has been the same. In my office I used to keep the window open a good foot or more. I sat in the draught, was unequally chilled, and often suffered from colds.

Talking with Dr. Hill of the Institute of Public Health in this city about it three or four years ago he said, in effect: That is the old-fashioned idea of ventilation. The new one is, rather, to keep the air moving, if possible a current coming in at one side of the room and out at the other. So long as this is accomplished there is no need to freeze oneself and keep uncomfortable in the house. The air may be kept moving by keeping a window at one side of the room open at the bottom for about an inch, and another on the opposite side of the room down at the top for about an inch. When the windows are quite closed an open fire in a stove or in a grate is a good ventilator. Of course, doors or windows should be left open frequently, for a short time, to drive out unpleasant odor. When houses are built properly, adequate ventilating systems will be installed. It is a fact, however, and the reason is not known exactly, as yet—that altogether out-of-door living is good for people, if it can be managed. People who can live out of doors, night and day, and keep warm and comfortable at the same time, live in a healthful environment.

I suppose this accounts for the efficacy of open-air sanatoriums (my own observation.—J.)

To finish my story: I tried doing as Dr. Hill said. For the past two winters one of my office windows has been raised about an inch at the bottom (in cold weather, higher, if necessary, on warmer days) and the other on another side of the room lowered a little at the top. In my bedroom there is a window only on one side, but during cold nights it is raised only three or four inches at night, the hot-air register on the opposite side being depended upon to help keep a current of air on the move. During the two winters I have not had a single cold except once when I got my feet wet. Now perhaps I had better "knock on wood."

The damage is done, Dr. Hill says, when a layer of dampness, caused chiefly by the breath, forms over the face and lies there, as it is sure to do when one is lying asleep unless there is a constant moving of the air to drive it away. It is very bad to breathe one's own breath over and over, as it is full of carbon dioxide, a poisonous gas. So it is necessary to keep the air moving but not to be half frozen over it. Cold blasts of air striking on the unprotected body in a house are also likely to do harm. JUNIA.

Needle Points of Thought.

"Help me to need no aid of men,
That I may help such men as need."
—KIPLING.

"Knowledge is incompatible with
slavery."
—SHELLEY

House Plants in Winter.

A few house plants add so greatly to the appearance of a house, especially in winter, that every home should endeavor to possess a few. Unless there has been especial provision for plants when building, such as a greenhouse or conservatory, it is best to try only a few, but to aim at having these really decorative, species that have beautiful foliage and retain a fine appearance

almost continuously. Among these may be mentioned the Boston fern, rubber plant, begonias, and some of the palms. But if one has a cool cellar or outdoor pit in which plants may be rested and bulbs rooted, there is no difficulty in having also a few that are grown chiefly for the beauty of their flowers. Most of the flowering species require a complete rest during some part of the year, or, at least, continual renewing by means of slips. By this sort of cold-storage system, too, plants may be brought up at intervals, hence a succession of bloom assured. To be more explicit, a shelf of roots may be kept dormant, and some bulbs just at the extension of their root-growth development, in a cool, dark place in the cellar, the roots almost dry, the bulbs fairly moist but prevented from making top-growth by the darkness. If brought up to the light and warmth of the house at intervals of say two weeks, these plants will come on in succession, and so a continuous period of bloom will be assured. A watch must be kept on the bulbs, however, as when they begin to make top-growth it is not well to leave them in the darkness much longer. The same holds good in regard to other plants that begin to throw out new sprouts. The period for resting, or for root-development in bulbs, is usually about 8 weeks. The best succession of bulb-flowers is secured, perhaps, by planting the bulbs at intervals of two weeks. Previous to planting, all bulbs should be kept in a cool place, as a hot, dry place has a tendency to shrivel them.

The Soil.

THE soil for house plants is an important matter. Very good soil is that scraped from about the roots of grass in old sod. When considerable quantities are required, the sods are sometimes piled on top of one another and permitted to rot. Most plants, however, do very well in good garden soil, doctored a little. For instance, if heavy, a little leaf mould and sand may be added to make it porous. If too sandy some well-rotted manure and leaf mold may be needed. Bog plants, naturally, do best in the peaty mold from a swamp.

To do away with the possibility of worms or grubs in the soil (these may hatch out from almost invisible eggs) many people resort to the device of baking any soil and manure used, in the oven. Of course, the smell, during the operation, is quite fearsome, but open doors and windows will soon carry it all away.

The Kitchen.

IN the winter, on a farm where gas is not used for cooking, plants do best in a light kitchen, where there is steam enough to keep the air fairly moist. If kept in other rooms, a dish of water should be always on the register or stove—a practice that helps, also, to keep the house warmer.

Nearly all plants require abundance of light, but, as placing them close to the glass in cold weather is likely to prove disastrous, it is usually best to keep them on a table just inside of the window, or on a shelf screwed to the inside of the window frame.

If possible they should be in a spot where cold draughts of wind will not blow directly on them; they need plenty of fresh air, but it should be admitted indirectly, not in a cold current.

Watering.

POSSIBLY more plants are injured by wrong watering than in any other way. A general rule is to give them water (tepid or warm rain water) whenever the soil becomes dry, so that the pot gives forth a hollow sound when struck sharply on the side. This rule, however, must be modified to suit certain kinds of plants. While, in the majority of plants, too much water causes a sort of indigestion, others—the bog plants, for instance—need to be steeped with it most of the time. For ordinary watering give just enough so that a little escapes through to the saucer. During the resting period a few plants require to be practically bone dry, but most of them need just enough water to keep them from drying out.

Most plants, during the growing season, require frequent sprayings and washings to remove dust and keep the breathing-pores open. An exception must be made of rex begonias, the pelargonium and other species whose leaves spot or blister with water. Smooth-leaved plants, as a general rule, like frequent washings and sprayings of the leaves, while hairy-leaved plants resent it.

Pests.

A sharp lookout must be kept for insects on the leaves and stems. Usually spraying every day with water, (or washing by inverting the plants in water) will keep these in abeyance, but if they appear it may be necessary to use one of the solutions sold for the purpose. Sulpho-tobacco solution for lice, and whale-oil soap for scale, are good, but are rather smelly in the house. Bailey recommends instead fir-tree oil and Gishurst's compound. For lice spraying with tobacco water may be sufficient.

If worms seem to be in the soil saturate it with lime water, or, still better, re-pot the plants, washing the roots clean. When potting plants always bake the soil in the oven, as this will prevent much trouble with grubs of all kinds.

In a cold house it is often difficult to keep the plants from freezing at night. A good plan is to have a large box, well-lined with old woollen cloth or several layers of newspaper. Bring this into the warmest corner at night, put the plants in it and put on the lid. If more convenient the box may be nicely painted outside (brown or dark green) and the plants placed on it in day-time.

Some Satisfactory Plants.

IN the lists given in this paper only those plants which can be grown in any ordinary house shall be included, and an attempt will be made to give some indication of the specific treatment required by the different species.

Abutilon or Flowering Maple—Very beautiful, and should be more frequently grown. Leaves maple-like; flowers bell-shaped, red, pink, orange, yellow or streaked and shaded; in bloom in winter. Grown exactly as are geraniums. Propagate by green cuttings at any time of the year. Keep fairly dry during summer.

Agapanthus—Lily-like leaves and handsome tufts of blue flowers in early summer. Grow in tubs, keeping dormant during winter in a light, cool cellar. When growing give plenty of water, and, occasionally, manure water. Not too much sunshine.

Asparagus—The two species chiefly grown in houses are *sprengeri* and *plumosus*. The first of these has racemes of tiny, white flowers followed by red berries; the second solitary white flowers and black berries, but few people manage to have either flower. Very easy to grow otherwise. Put plenty of drainage material in pots, a rich soil, and plenty of water. In the hot spring and summer remove to north windows or verandah away from the sun. Shift to larger pots as needed. If insects appear use plant powder for insects.

Aspidistra—Plants grown for their stiff, shining, decorative leaves, as the flowers are very inconspicuous and borne close to the ground. Very easily grown, so long as it is given plenty of water. Soil should be nearly half sand. Will do very well in cool, poorly-lighted rooms.

Astibe—Plant with white flowers, resembling some of the spireas. Leave roots in garden or cold cellar covered. When wanted pot and give plenty of water. In 10 to 14 weeks should be in flower. Flowers in winter and early spring. Keep in a cool window.

Auricula or Primula—May be grown from seed sown in March in very sandy soil. If plants are bought in fall keep in cool window and give but little water, during the dull winter months. Towards end of February give more water, also a top dressing of pulverized sheep manure, and put in a light, airy place with temperature of 55 degrees. The pots should be well-drained, and no larger than will accommodate the plants. Repot every year.

(To be continued.)

The Cookery Column.

Brussels Sprouts—Brussels sprouts and kale are best after touched with frost in the garden. The sprouts are very nice as follows: Boil one quart of them in 2 quarts salted water about 15 minutes. Drain, then put in a frying pan with a scant fourth a cup of butter; toss about until the butter is absorbed. Sprinkle with 1 teaspoon chopped parsley and a dash of salt. Mix and arrange on a hot platter with bits of fried bread about.

Boiled Apples—Wash the apples and put them in a kettle, just covering with water. Do not peel or core. Boil until they break, then add sugar and boil a little longer. Serve with a dot of bright jelly on each apple.

Browned Carrots—Clean the carrots with a small brush and scrape just a little. Cut into thin strips and cook in boiling salted water, using just enough water to cover. Drain, reserving the water for adding to soup stock, and so wasting none of the medicinal value. Place the carrots in a pan with 2 tablespoons butter heated; add a slight sprinkling of sugar. Cook very slowly until the butter is absorbed and the carrots lightly browned, then season to taste with salt and pepper, and serve on a hot dish. Many people spoil all the vegetables they cook by turning them out into cold dishes. Half cold dishes that are supposed to be hot are never appetizing.

Buttermilk Muffins—Cream together 3 tablespoons butter and 2 tablespoons sugar. Add a well-beaten egg, 2 cups buttermilk in which has been dissolved 1/2 teaspoon soda, then, beating very quickly, 1/2 teaspoon salt and 2 cups flour sifted with 1 teaspoon baking powder. Put in hot greased muffin tins or patty pans and bake in a hot oven.

Barberry Sauce—Pare and slice 3 pears, nearly cover with boiling water and cook until tender. Add 1 quart molasses, 1 pound brown sugar, and 2 quarts barberries, and boil 15 minutes. Pumpkin may be used instead of the pears.

Apple Chutney—Take 5 lbs apples, 2 qts. cider vinegar, 2 lbs. brown sugar, 2 lbs. seeded raisins, 1 onion, 1 oz. each of ground mustard seed and ginger, 1 tablespoon salt, 3 red peppers or 1/2 teaspoon cayenne. Cook together the apples, vinegar and sugar, weighing the apples after they have been pared and cored. When they are soft add all the other ingredients and boil for 10 minutes. Set aside to cool, then bottle.

Maryland Chicken—At this time of year many people are killing off the old hens for meat. Remember that any old hen may be made into chicken by cleaning it and steaming it several hours, until tender. To make Maryland chicken, joint a tender chicken (or a hen prepared as above). Dip each piece in beaten egg then in breadcrumbs and fry in bacon fat until a light brown. Take it up and put in a hot covered dish in the oven while you make the gravy as follows: Strain the fat and add to it 1 tablespoon butter rubbed smooth with 1 tablespoon flour. Stir until cooked, then add 1 cup rich milk or thin cream, and stir until smooth and thick. Add 1 tablespoon minced parsley and pour over the chicken. Serve at once.

Care of Lamps.

In winter when people have to live so many hours by artificial light, the care of lamps becomes important, and the following hints may be useful.

Clean the burners frequently with a small brush, picking out all openings clean. If the holes become clogged the light will not be so bright.

Putting the chimneys in cold water, letting it come gradually to a boil and boil for a time, is said to make the chimneys less likely to crack.

If new lamp wicks are soaked for an hour or two in vinegar then dried before being put in the burner, a far better light will be obtained and there will be less chance of smoking.

The wick should fit exactly. If it is too small there is danger that the flame will run down to the oil and cause explosion. If it is too large draw a few threads from the middle, and it will fit readily.

Always have a strong shelf on which the lamps are kept during the day. Require each member of the family to bring down the lamp from his or her room in the morning; then, when time comes to clean the lamps, the work can be done without needless running up and down stairs.

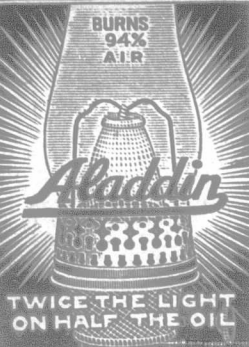
By the way, very ornate lamps are not considered in good taste. Those with dull pottery globes in dark green brown, buff, old blue or gray are the prettiest, and, if one cannot afford them it is best to keep to those with plain glass globes.

The prettiest shades are those made of "crafts" frames in wood, of basketry, or of a simple wire foundation, with silk for the "transparent" part. The silk should be of the "Japanese" weave, in amber, yellow, green, or rose. For general use amber and yellow are best. Rose is pretty, but likely to be rather tiresome to the eyes if used too often, while green is used chiefly for reading lamps, as it is

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very easy on the eyes. If preferred fine chintz or printed muslin may be used instead of the silk. Usually the plain materials are frilled on, while the printed ones may be straight to show the pattern. When a basketry frame is used for the shade a pretty idea is to have a basketry receptacle, also, for the bowl of the lamp, if one the right size and of similar pattern can be found. Bead fringes are no longer used much on lamp shades, which look better without them if the edge is prettily finished with a narrow ruffle or rouching, or, in the case of chintz, a pretty braid.

The Scrap Bag.

That Broken Shoestring.
Sew the broken ends of a shoestring together, flat, with strong thread, and it will pass through the eyelets as before.

Keeping Coats in Shape.

Hang each coat on a separate coat hanger when not in use, fastening the top button to make it hang properly. Coat and skirt hangers are very cheap at "Woolworth's", and every house should have a plentiful supply of them. A fair substitute for the coat hangers (which may also be used for waists) may be made of old barrel hoops covered smoothly with strips of cloth wound round and round. Put a strong loop of cord in the middle to hang the contrivance up.

To Clean Rusty Tins.

Rusty tins may be cleaned by rubbing them well with a woollen rag dipped first in coal-oil then in sifted ashes. Wash with hot soap-suds, wipe thoroughly and dry.

Hemstitching by Machine.

Hemstitching is the favorite finish at present for many things, including waists and curtains of scrim etc. Many stores do this work now at a rate per yard, but it may be done at home as follows. "Draw threads as if to hemstitch in the usual way; turn them slightly over the drawn or loose threads and stitch down, using an ordinary loose machine-stitch. If double hemstitching is desired, stitch next to the last thread on the outside. To make it look like real drawn work, I caught three or four, as desired, of the threads in the middle and went down the length of the curtain. The method is just as good in narrow hemstitching without doing any work by hand, and the method is apparent only upon close examination."—C. S.

Covering an Ironing Board.

A practical and ideal way to cover an ironing-board is to first starch the cover stiff, then while it is still wet to stretch it on the board, and set it away to dry. When it is almost dry, iron carefully. If this method is followed, the cover will not only remain wrinkleless but will also last three times as long as when put on in the ordinary way.

Economizing Closet Room.

Put a pole or a slat turned edgewise across the clothes closet and suspend the coat and skirt hangers to this. It is surprising how many clothes can be packed into a small space by this simple device. If the bedrooms are insufficiently supplied with closets make one for each room as follows: Secure three wide boards, two about 6 feet long for the ends of the closet, one to go across between them for the top. Nail them in place, and nail a brace in at the bottom if necessary. Put a pole across as described above; paint the boards nicely or cover them with wall-paper, and hang curtains across the front.

A Diplomat.—"The man who gives in when he is wrong," said the street orator, "is a wise man, but he who gives in when he is right is—"
"Married!" said a meek voice in the crowd.

Kitchen Diplomacy.—Mr. Exe—"Did you tell the cook that the beefsteak was burned?"
Mrs. Exe—"Mercy, no! She would leave instantly. I told her it was just right, but we preferred it a trifle under-done."

The Beaver Circle

Jim, the Pay-roll Cat.

(A True Story.)

BY LOUELLA C. POOLE.

Bewildered, frightened, hungry, gaunt, A vagrant of the street,
He crept for shelter, one hot day,
Within the cool retreat—

Though deafening was the presses' crash—
Of a great printery,
A paradise it seemed to him,
So spent and bruised was he.

And in this place, all undisturbed,
No more obliged to roam
The city streets, with grateful heart
In peace he made his home.

A fine reserve, born of his woes,
Bade him hide safe from sight,
But on patrol, sharp-eared, keen-eyed,
He stalked the place each night.

And predatory rats and mice
Grew daily less and less—
In truth a paradise it seemed,
These paths of pleasantness.

To one alone did he respond—
The merry office boy—
His call gray Jim ne'er failed to heed
With every mark of joy.

Upon his shoulder he would spring
Each morning him to greet;
About his tasks would follow him,
And purr around his feet.

When the steam whistles blew at twelve,
Jim heeded not the sound,
Though 'twas the office nooning hour,
And quiet reigned around.

But when at one the whistles shrilled,
Quick as a flash he sought
His friend, the boy ('twas then he dined),
To share the food he brought.

"Why, Victor, do you always, lad,
Your lunch share in this way?"
The master asked, as he observed
This friendly pair one day.

Quick on the pay-roll went the name
Of "Jim, the Office Cat,"
'Gainst fifty cents, his weekly wage—
And low enough at that

For keeping office foes at bay
And order in the house;
No longer could be seen or heard
A single rat or mouse.

Quite dignified and proud puss looked,
Said all who noted him,
When every pay-day was passed out
An envelope marked "Jim".

Ever alert, his place assured,
Now sleek, content, and fat,
A valued member of the firm
Is Jim, the office cat!

Little Bits of Fun.

Difficult Feat.—The school-girl was sitting with her feet stretched far out into the aisle, and was busily chewing gum, when the teacher espied her.
"Mary!" called the teacher, sharply.
"Yes, ma'am?" questioned the pupil.
"Take that gum out of your mouth and put your feet in!"—Florida Times-Union.

Bobby had been invited out to dinner and his mother worried lest he should commit some breach of etiquette. On his return home she questioned him as to how he had behaved.
"Well, mamma," he said, "I got along very well until the meat came, but while I was trying to cut mine it slipped off on the floor. But I made it all right, mamma."

"What did you do?"
"Oh, I just said sort of carelessly, 'That's always the way with tough meat.'"
—Boston "Transcript."

Senior Beavers' Letter Box.

Dear Puck and Beavers.—This is my first letter to your charming Circle. I live on a farm of one hundred acres. It is too small for us so in the spring we are going to have a sale and move out

west to Saskatchewan. We must be out there before the first of March so that will be pretty early.

I would like to tell you what our school has done to help during the present war. We sent money to the poor Belgian children and have helped the Red Cross several times. Now we are packing up Christmas boxes to send to the poor, friendless soldiers. Some of the things contained in them were: Chocolates, gum, soap, tobacco, cigarettes and a number of other things. I guess I will close wishing your Circle excellent progress.

Yours forever,

BEATRICE BOUCHER, (age 12).

R. R. 2, Stittsville, Ont.

P. S.—I hope the waste-paper basket is asleep when this enters. B. B.

Dear Puck and Beavers.—This is my third letter to your Circle. One went to the w. p. b. and one was printed. We take the Farmer's Advocate and like it very much. I go to school every day and help my father on Saturday. I have harrowed the summer fallow three times. My little brother, John, is not yet five years old and can milk two cows. The picture is one I took of him milking one of his cows. I would like to see it in the Advocate. I got my camera for passing my exams in July. My teacher's name is Miss Lett and we all like her very much. Hope my letter escapes the w. p. b. this time.

LLOYD E. WILCOX, (Age 12).

R. R. No. 1, Eganville, Ont.

Your pictures are very nice Lloyd, but were hardly clear enough to make cuts from. I am sure you will have much fun with your camera.

Dear Puck and Beavers.—I thought I would write to the Farmer's Advocate to-night as I had nothing else to do.

In the autumn Glen Morris is a very pretty place. If you go up on top of a hill and look across the valley of the Grand River into the woods it is very pretty.

In the summer the boys go into the Grand River to swim. We enjoy it very much to have a cool dip in the hot days. In some of our swimming holes there is a big rock. We jump off the rock and swim to shore. I cannot swim very well because I just learned last summer.

There is a Red Cross meeting every Tuesday in Glen Morris and they do a lot of work for the number of people that go to the meeting. Our school collected about three dollars to give to the British Red Cross. Our school is not very big. Only twenty-one scholars go to it. I am in the senior third class. There are four in my class. Well I guess I will close now wishing the Farmer's Advocate every success.

Yours sincerely,
JAMES MACAULAY.

Honor Roll.—Hester Smith, Jean Portriss, Hector Brown, Cyril Kent, Elliot Patterson.

Junior Beavers' Letter Box.

Dear Puck and Beavers.—This my first letter to your charming Circle. I always read the Beaver Circle first in the Advocate. For pets I have a cat named Billy and a pup called Pad.

Our teacher's name is Miss N. McConkey, and we like her better than others we had. There are just nine going, and I'm just in the second class. I like reading very much. Do you? Some of the books I have read are, "Black Beauty", "Wee McGregor", "Alice's Adventures in Wonderland", and "Kitty and Toddlers". I think "Kitty and Toddlers" is the best book I ever read. Well, as my letter is getting long I will close with a riddle.

Twenty-four horses standing on a hill. Now they go, now they go, now they stand still.

OLIVE MURPHY, (Age 9).

R. R. No. 3, Lakeside, Ont.

P. S.—I wish Lorena Brown would write to me.

Beaver Circle Notes.

Letters written by Helen Gilbertson and others are not printed because written on both sides of the paper. Don't forget next time, girlies.

Riddles.

Black within and red without, with

four corners round about. Ans.—A chimney.

Which runs faster, heat or cold? Ans.—Heat, because you can catch cold. Sent by Hattie Irwin.

Current Events.

The Parliament of Great Britain has been extended for 8 months, the fourth time its life has been extended.

Georges Clemenceau, the greatest statesman in France, has become her Premier.

At time of going to press there is very little definite war news; everything is in progress. On the Venetian plains in Italy a great battle is going on, and the roar of artillery is resounding along the Piave, but as yet Gen. Diaz has received no great reinforcement of men from the Allies. Lloyd-George's recent threat to resign unless something is done at once, is remedying this delay. On the West Front the French have penetrated the German lines behind the Ailette River, while in Palestine Gen. Allenby's troops have again defeated the Turks, and have taken Jaffa, the seaport of Jerusalem. Gen. Maude also reports favorably from Mesopotamia.

Russia is practically in the throes of a civil war. In Moscow, Kerensky's troops and those of the Bolsheviks are locked in deadly struggle, while an unconfirmed report says that Kerensky has called a truce to prevent further bloodshed. At Kiev, however, his Cossacks hold firm and are now in possession of the city. Before this paper reaches its readers important things, both in Italy and Russia, may have happened.

The Dollar Chain

For the soldiers and all suffering because of the war.

Contributions from Nov. 9 to Nov. 16th: K. L. D., \$2.00.

Previously acknowledged.....\$4,996.30

Total to Nov. 16th.....\$4,998.30

Kindly address contributions to The Farmer's Advocate and Home Magazine, London, Ont.

Women Who Can Vote.

The women who have votes in the coming Dominion election are:

(1) Soldiers' mothers, wives, widows, sisters and daughters, 21 years of age and over, who have lived in Canada at least one year, and in a municipality not less than 30 days, if their men or women relatives (military nurses) are on active service overseas—naval or military—or in the Imperial navy on Canadian waters, or if these men or women have been honorably retired.

The only exception is where men or women relatives have joined since the 20th of September and have not left Canada.

Two Englishmen were walking along a Dublin street one day, when Pat came along, looking a likely victim for a joke. "Good-morning, Pat," said one of the Saxons. "Heard the news to-day? The devil's dead!" Pat didn't reply at first, then pulled two halfpennies out of his pocket and handed them to his would be tormentors, saying: "In our country when the father dies we always support the childer!"—"Shamrock."

An Irish magistrate, one of the old school, was summing up a case in a Dublin court. The plaintiff was a handsome woman, and her good-looking daughter was one of the witnesses. "Gentlemen of the jury," said His Honor, "everything in the case seems plain—except, of course, Mrs. O'Toole and her charming daughter.—Wait."

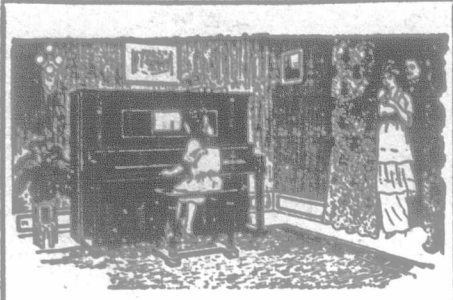
Had an Advantage.—Heck—"Yes, I have met your wife. In fact, I knew her before you married her."

Peck—"Ah, that's where you had the advantage of me—I didn't."

CROWN BRAND CORN SYRUP. will do more than satisfy children's craving for "something sweet" — it will supply them with a wholesome food. Dealers everywhere have "Crown Syrup" in 2, 5, 10 and 20 pound tins and "Perfect Seal" Quart Jars. Write for free Cook Book. THE CANADA STARCH CO., LIMITED, MONTREAL.

Oxford Breeders' Consignment Sale OF SIXTY HEAD OF REGISTERED Holstein Cattle IN THE CITY OF WOODSTOCK ON Wednesday, December 12th, 1917. This is a rare opportunity for dairy men to secure some of the best producing blood of the breed. Most of the females will be fresh or springers with records or from record stock. We are offering a few bulls fit for service, the best lot the Club has ever offered, their dams having records up to 33 lbs. butter and over 100 lbs. milk a day. Our Motto is "Quality and Satisfaction." Write W. E. THOMSON, WOODSTOCK, ONT., for catalogue. MOORE & DEAN, Auctioneers.

What Do You Pay For Your Clothes? If you could order a \$25-tailored - to - your - measure suit or overcoat for \$16 would you take it? You can. We are the largest one-price tailors in Canada. We made over ten thousand suits and overcoats last year for men in all parts of the Dominion. These men simply wrote to us and we sent them samples of cloth, latest fall fashion book and our patented self-measurement form. They selected the cloth they wanted, gave us their measurements according to our instructions, told us the style they preferred, and two weeks later they received their clothes. You have the same opportunity. We guarantee as perfect satisfaction as if you came to our tailor shops personally. We are able to make this offer of a genuine custom tailor suit or overcoat for \$16 because we bought our woolsens before the present high prices. Write to-day. It will cost you nothing to get the samples and outfit. Always \$16 To Measure. TIP-TOP TAILORS Mail-Order Department. 253 Richmond St. W., TORONTO



A Mother's Duty

And, mothers, you should insist that your children know how to play the piano, for you know all your life you have wished you could play.

Don't let the little ones grow up only to wish; the time is NOW, when little minds are alert and bodies strong. The

Williams Piano
Endorsed by Great Musicians

has been training little hands and little ears ever since your grandmother was a girl.

To-day, in every part of Canada, little folks are learning to love the New Scale Williams. Start NOW to let the New Scale Williams train your children as you wish you had been trained.

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 Please send me "Art and the Critic" FREE.
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 Street or R.R.....
 P. O.....
 Prov.....

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 Needs all your furs to fill waiting orders, and will pay the price to get them. Ship to Biggs for higher prices and a square deal. Half a million satisfied shippers.
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 572 Biggs Bldg., KANSAS CITY, MO.

You Will Enjoy
McCormick's
 JERSEY CREAM
Sodas
 Sold fresh everywhere in different-sized packages.

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 WE PAY THE HIGHEST MARKET PRICE IN CASH OR TRADE
 The Tillson Company, Ltd.
 TILLSONBURG, ONT.

Don't put your money into any piano until you have fully investigated the
Sherlock - Manning
 20TH CENTURY PIANO—known as
 "Canada's Biggest Piano Value"
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 THE SHERLOCK - MANNING PIANO CO.,
 London, (No street address necessary) Canada.

The Windrow Among the Books

The Kaiser.

The following, written by Harold Frederic and published in the New York Times in 1888, may be read with interest at the present time.

"Apparently all the women—at least all the Englishwomen—who have had to do with the bringing up of Prince William hold him in horror and detestation. I have had numerous proofs of this, although I have never been able to fasten upon any specific reasons for it. Their dislike for him is based on a general conception of his character. This view is that he is utterly cold, entirely selfish, wantonly cruel; a young man without conscience or compassion, or any softening virtues whatever.

"That he has great abilities they all admit, but they stop there. Heart he has none, upon their reckoning. And I am bound to say that if you look into his face with this preconceived notion of the young man's character you can find plenty of signs which seem to substantiate it.

"Of course, the root of this profound antagonism to him to be found among the little group of English and Anglo-German ladies in the court circles here in Berlin is his unfilial attitude toward his mother. He has, apparently, never liked her—at least since he has attained manhood. The inner reasons for this estrangement it is naturally impossible to discover or determine. The outer causes—or are they effects?—are more obvious. William is very deeply and thoroughly Prussian. He is a living, breathing embodiment of all the qualities and lack of qualities which, through precisely two centuries, have brought the little mark of Brandenburg up from a puny fief, with a poor, scattered population of a million and a half, to the state of a great kingdom ruling nearly fifty millions of people and giving the law to all Europe.

"He is saturated with all the instincts and ideas which have raised this parvenu Prussia to its present eminence, and his character is the crown and flower of these two centuries of might and ruthlessness and spoliation exalted into a creed.

"On the other hand, his mother is the best royal product of a totally and fundamentally different civilization. Victoria Adelaide is unquestionably the broadest, most liberal, and most lovable of all the Guelfs who have been born since Elector George first landed in England. When I say that she is the only one of her family who at present sympathizes wholly with Mr. Gladstone I have most simply and fully indicated her disposition and bent of mind. Obviously she can have but little in common with a son who would handle Gladstone offhand, and who avowedly hates England as the country whence has come all the constitutional nonsense which nowadays hampers kingship.

"Out of this wide political difference between mother and son has grown a personal estrangement which everybody in Berlin knows more or less about, and which, no doubt, strongly colors the opinions of the English circle here which have been quoted. This feud is not rendered the less bitter by the fact that the new Kaiser sides with his wife rather than with his son and heir. Prince William habitually speaks of his mother to his associates and familiars as "the Englishwoman." He ostentatiously addresses her in German, although he knows English perfectly, and she has always made a point of having her children speak English in the family circle."

Might Have Been True.—"Typographical errors," said William Dean Howells, "are always amusing. When I was a boy in my father's printing-office in Martin's Ferry, I once made a good typographical error. My father had written, 'The showers last week, though copious, were not sufficient for the millmen.' I set it up 'milkmen.'"

How the Caddy Makes Good.—First Newsboy—"Chimmie's got a job as caddie for a golf club. Is dere much money in dat?"

Second Ditto—"De salary ain't much, but dey makes a lot extra backin' up fellers when dey lies about de scores dey made."

For All The Years.

BY MARGERY BELTS.

Friend, do not leave me now that you are dead.

Until you died I did not need you so. Living, you were as I: what things men know

You knew. But since you fought and feared and bled

You know the whole of pain and faith and dread;

And know the meaning of your battle-scars,

The dim, far hills and God's triumphant stars.

Therefore I need you, you whose blood was shed.

I am not fit to be a dead man's friend.

Come to me often in the throng and press;

And pace, a silent presence, at my side;

Lest I remain unworthy to the end,

Lest my soul rot in dull forgetfulness,

And I forego my sorrow and my pride.

The Australasian.

"His Family."

[His Family, by Ernest Poole, The Macmillan publishing Co., New York and Toronto.]

TWO or three years ago there appeared among the flood of novels that preceded the war one that caught the attention of those who could recognize real literature in fiction. The name of the book was "The Harbor", its author Ernest Poole—and the press-notices stated that the novel was his first. Of it the *New York Times*, a periodical whose literary criticisms are always worth while, said "By all odds the best American novel that has appeared in many a long day."

Within the last few months another book by the same author has been published under the title *His Family*, and the promise of the first has been fulfilled.

Absolutely true to life, told with an artistic finish that defies criticism, this story is one which can be given unqualified recommendation to any reader, but the mature only, perhaps, can appreciate it to the full, catch all its flavors, grasp all that it means.

THE central figure is Roger Gale, sixty years of age when the story opens. He had been born in the country, but had, like so many other boys who wish to "see life," gone off to New York when but seventeen years of age. Hard days followed, but on the whole he was fairly successful, and at sixty is the possessor of a good business, a fine old home with servants, and—a family.

The family consists of three women, just about as different as women can be, and as they often are in the same home, for consanguinity is no guarantee of likeness in disposition. Edith, the eldest, has been married some time and is the mother of five children. She is mother all through,—just mother—the type that becomes so selfish in regard to her own children that nothing and no one else in the world counts. As her father says of her, "Rather than risk a hair on their heads she would turn the whole world out of doors." She talks children all the time—her children—makes everything revolve about them, takes little or no interest in anything or anyone else. No wonder her sister, Deborah says of this fierce selfishness, "I see it in so many mothers these days—in the women downtown, in their fight for their children against all other children on earth. . . . And all because of this mother love! It is so blind, sometimes, like an animal."

THIS brings us to Deborah. She is by long odds the finest woman in the book, an inspiration, surely, to every woman who reads it. She is a school-teacher in a slum district of the city—a universal mother, so universal that because of her passion for all children and her efforts to help the children of the poor, who have to do without so much that gives life even half a chance, she almost, notwithstanding her great love for the fine, rugged doctor, Allan Baird, foregoes marriage and motherhood herself. When, at last, she has a child of her own one knows that he is in good hands.

L AURA, the youngest and the beauty of the house, is of a different type still. She is the whirlwind that blows where it lists, the one who wants to live a life of her own unencumbered by children, and does so. She is the one who almost ruins her father by her extravagances, and who comes very close to bringing utter disgrace on her house. But she goes blithely on, uncaring, and drifts farther and ever farther away. Yet she is not so much "villainess" of the play as to be entirely unlovable. In this, too, Poole shows his perception of human nature in general and his fineness as a writer.

—And the odd part of it is that the father, who has lived through so much and come to the place in life when he wants quiet—a kindly old man with a hobby of collecting rare rings—sees himself in each of these daughters. In the lives of his children he "lives on."

IT would not be fair to the author, perhaps, to divulge more of the framework of the story here. Suffice it to say again that it is true—true to the life of the country, for in its course it has something to do with a farm up among the hills, where the sun rises "over misty mountain sides all mottled with patches of firs and birches and pines," where a gurgling stream murmurs its greetings to the morning, and where one is awakened at dawn by "the numberless voices of awakening sleepers, cheeps and tremulous warblings from the birch copse just below, cocks crowing in the valley, and ducks and geese, dogs, sheep and cattle faintly heard from distant farms."—True to the city, too, with which the main part of the story is concerned.

As an example of the style of the book, and as a revelation to those of our rural readers who know nothing of what a modern school in a crowded tenement district may be, we have chosen a passage which describes the great human beehive over which Deborah was principal—her family—to which she lures her father one day in the hope of interesting him in her life:

(Part of Chapter X.)

THEY turned into a narrow street between tall dirty tenements, and in a twinkling all was changed. For the street, as far as he could see, was gay with flaunting colors, torrents of bobbing hats and ribbons, frocks and blouses, shirts and breeches, vivid reds and yellows and blues. It was deafening with joyous cries, a shrill incessant chatter, chatter, piercing yells and shrieks of laughter. Children, swarms of children, children of all sizes passed him, clean and dirty, smiling, scowling, hurrying, running, pummeling, grabbing, whirling each other 'round and 'round—till the very air seemed quivering with wild spirits and new life!

He heard Deborah laughing. Five hilarious small boys had hold of her hands and were marching in triumph waving their caps. "Heigh there—heigh there! Heigh—heigh—heigh!"

The school was close in front of them. An enormous building of brick and tile wedged into a disordered mass of tenements, shops and factories, it had been built around a court shut out from the street by a high steel fence. They squeezed into the gateway, through which a shouting, punching mob of urchins were now pushing in; and soon from a balcony above Roger looked down into the court, where out of a wild chaos order was appearing. Boys to the right and girls to the left were forming in long sinuous lines, and three thousand faces were turned toward the building. In front appeared the Stars and Stripes. Then suddenly he heard a crash from underneath the balcony, and looking down he saw a band made up of some thirty or forty boys. Their leader, a dark Italian lad, made a flourish, a pass with his baton, and the band broke into a blaring storm, an uproarious, booming march. The mob below fell into step, and line after line in single file the children marched into their school.

"Look up! Look all around you!" He heard Deborah's eager voice in his ear. And as he looked up from the court below he gave a low cry of amazement. In hundreds of windows all around, of sweatshops, tenements, factories, on tier upon tier of fire escapes and even upon the roofs above, silent watchers had appeared. For this one moment in the day the whole congested neighborhood had stopped its feverish labor and become

an amphitheatre with all eyes upon the school. And the thought flashed into Roger's mind: "Deborah's big family!"

He had a strange, confusing time. In her office, in a daze, he sat and heard his daughter with her two assistant principals, her clerk and her stenographer, plunge into the routine work of the day. What kind of school teacher was this? She seemed more like the manager of some buzzing factory. Messages kept coming constantly from class-rooms, children came for punishment, and on each small human problem she was passing judgment quickly. Meanwhile a score of mothers, most of them Italians with colored shawls upon their heads, had straggled in and taken seats, and one by one they came to her desk. For these women who had been children in peasant huts in Italy now had children of their own in the great city of New York, and they found it very baffling. Deborah spoke in Italian, but turning to her father she would translate from time to time.

A tired scowling woman said, "My boy won't obey me. His father is dead. When I slap him he only jumps away. I lock him in and he steals the key, he keeps it in his pocket. He steals the money that I can earn. He says I'm from the country." And a flabby, anxious woman said, "My girl runs out to dance halls. Sometimes she comes back at two in the morning. She is fifteen and she ought to get married. But what can I do? A nice steady man who never dances comes sometimes to see her—but she makes faces and calls him a fatty, she dances before him and pushes him out at the door. What can I do?"

"Please come and see our janitor and make him fix our kitchen sink!" an angry little woman cried. "When I try to wash the dishes the water spouts all over me!" And then a plump, rosy mother said in a soft coaxing voice, "I have eight little children, all nice and clean. When you tell them to do anything they always do it quickly. They smile at you, they are like saints. So could the kind, beautiful teacher fix it up with a newspaper to send them to the country—this summer when it is so hot? The newspaper could send a man and he could take our pictures."

"Most of us girls used to be in the school," said a bright looking Jewess of eighteen. "And you taught us how we should live nice. But how can we live nice when our shop is so rotten? Our boss is trying to kiss the girls, he is trying to hug them on the stairs. And what he pays us is a joke, and we must work till nine o'clock. So will you help us, teacher, and give us a room for our meetings here? We want to have a union!"

A truant officer brought in two ragged, frightened little chaps. Found on the street during school hours, they had to give an account of themselves. Sullenly one of them gave an address far up in the Bronx, ten miles away. They had not been home for a week, he said. Was he lying? What was to be done? Somewhere in the city their homes must be discovered. And the talk of the truant officer made Roger feel ramifications here which wound out through the police and the courts to reformatories, distant cells.

And this was part and parcel of his daughter's daily work in school! Still dazed, disturbed but curious, he sat and watched and listened, while the bewildering demands of Deborah's big family kept crowding in upon her. He went to a few of the class rooms and found that reading and writing, arithmetic and spelling were being taught in ways which he had never dreamed of. He found a kindergarten class, a carpenter shop and a printing shop, a sewing class and a cooking class in a large model kitchen. He watched the nurse in her hospital room, he went into the dental clinic where a squad of fifty urchins were having their teeth examined, and out upon a small side roof he found a score of small invalids in steamer chairs, all fast asleep. It was a strange, astounding school. He heard Deborah speak of a mother's club and a neighborhood association; and he learned of other ventures here, the school doctor, the nurse and the visitor endlessly making experiments, delving into the neighborhood for ways to meet its problems. And by the way Deborah talked to them he felt she had gone before, that years ago by day and night she had been over the ground alone. And she'd done all this while she lived in his house.

What was to be the end of it? She

was still but a pioneer in a jungle, endlessly groping and trying new things.

"How many children are there in the public schools?" he asked.

"About eight hundred thousand," Deborah said.

"Good Lord!" he groaned, and he felt within him a glow of indignation rise against these immigrant women for breeding so inconsiderately. With the mad city growing so fast, and the people of the tenements breeding, breeding, breeding, and packing the schools to bursting, what could any teacher be but a mere cog in a machine, ponderous, impersonal, blind, grinding out future New Yorkers?

He reached home limp and battered from the storm of new impressions coming on top of his sleepless night. He had thought of school as a simple place, filled with little children, mischievous at times perhaps and some with dirty faces, but still with minds and spirits clean, unsoiled as yet by contact with the grim spirit of the town. He had thought of childhood as something intimate and pure, inside his home, his family. Instead of that, in Deborah's school he had been disturbed and thrilled by the presence all around him of something wild, barbaric, dark, compounded of the city streets, of surging crowds, of rushing feet, of turmoil, filth, disease and death, of poverty and vice and crime. But Roger could still hear that band. And behind its blaring crash and din he had felt the vital throbbing of a tremendous joyousness, of gaiety, fresh hopes and dreams, of leaping young emotions like deep-buried bubbling springs bursting up restlessly to renew the fevered life of the town! Deborah's big family! Everybody's children!

"You will live on in our children's lives." The vision hidden in those words opened wide before his eyes.

Dead in the Snow.

No further shall I go, I am through with hurt and wreck,
Lying dead in the snow with the halter round my neck.

They drove and beat and bound me all my weary strength could bear;
Dead in my stall they found me, and they dragged and left me here.

The heavy iron shoes, see, they cleave about my feet,
So cumbrous in the heavy snow, so slippery in the sleet;

I slipped and fell, I slipped and rose, I slipped and fell again,

And all the while the busy streets were thronged with hurrying men.

I am through with all disaster and the burdened, driven past;

I am free from man, my master, and his cruelty at last;

And my spirit in the haven where they hearken to the least

Cries out to Him who made me against man, my brother beast.

M. E. BUHLER, in New York Sun.

Appreciative.—Children at home hear and understand more than parents realize, the Moundridge Journal believes. The teacher of a Sunday School class recently asked:

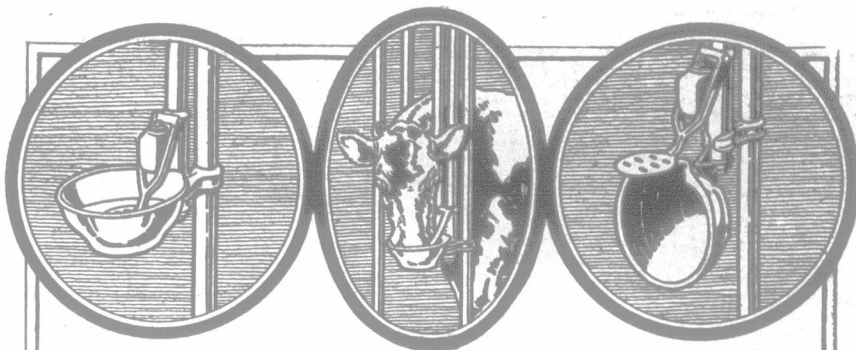
"What is the most wonderful thing a man ever made?" A little girl replied, "A living for a family."

Wife Furnished the Will.—Mrs. Jinks—"My husband was a confirmed smoker when I married him, but to-day he never smokes."

Mrs. Binks—"Good! To break off a lifetime habit like that requires a strong will."

Mrs. Jinks—"Well, that's what I've got!"

The stonemason was on the witness stand describing the way in which he had been assaulted by the defendant. "He walked right into my yard," the witness said, "and slammed me up against one of my own tombstones." "Did he hurt you?" inquired the Court. "Hurt me! Why, I've got 'sacred to the memory of' stamped all down my back!"



**THE SIMPLEX WATER BOWL
Makes Your Cattle Pay You More**

Farmers should be interested in increasing the milk supply from their cows—hence they must be interested in this Bowl—the cheapest one on the market when you consider what it is and what it does.

Cows are unable to give as great a flow of milk in winter because they do not get enough clean, pure, fresh water, at the correct temperature. When they're in the pasture they get lots of it. And they give lots of milk then. This should be the case in winter. When a cow has to drink out of a cold, frigid tank, it does not drink very much water.

In every 100 lbs. of milk there is 87 lbs. of water. So that the more water a cow drinks, the more milk it will give.

The Simplex Water Bowl System places clean, pure water (water from which the chill has been taken by the warmth of the barn) always before your cows. They will drink as much water from their Simplex Bowls as they would from the cool stream in the field.

One user says: "I received 198 lbs. milk from 8 cows before installing Simplex Sanitary Water Bowl System. One week after installing it, I received 198 lbs.—this increase was achieved while weather was 18 degrees below zero, when a decrease might be expected in the flow of milk."

Simplex Water Bowls are absolutely sanitary. They are the only hinged bowls on the market—this feature makes them easy to keep clean.

To Farmers:

The Simplex Water Bowl System, by actual figures, will pay for itself in 10 months' time. Send \$4.00 for one Bowl to-day for a try-out. If you do not like it we will return your money. But we know you will realize the value of the Simplex System and want to install a Bowl for every cow. It is one of the best farm investments you can make to-day. No regulating tank is needed with this system.

To Agents:

Simplex Water Bowls are a line it will pay you to handle. All dairymen who have used them state wonderful increase in milk supply, and general health of stock better. Write us for particulars. There's good money in it for you.

DILLON MANUFACTURING CO., Oshawa, Ont.

Chair or Rocker \$8.95

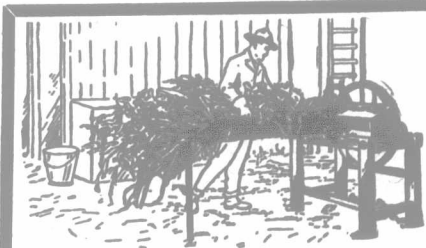
Jacobean design, frames of quarter-cut oak, old English finish. Upholstered spring seat with select tapestry coverings. One of the many good things shown in our large



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Hundreds of the best selected pieces and suites for every room, and all priced freight paid by us to any station in Ontario, Quebec or Eastern Provinces.

Adams Furniture Co. Limited
TORONTO



Government Says Keep More Cattle This Winter

The Ontario Government advises all farmers to keep one or two extra head of cattle this winter. You can do this most economically by cutting your own feed, as cut feed always goes farther.

Peter Hamilton Feed Cutters

will exactly meet your requirements, as they do the work quickly, easily and satisfactorily. Hand and power outfits in a wide range of sizes and prices.

Write To-day for Free Booklet.
PETER HAMILTON CO., LIMITED
Peterborough, Ont. 27

"1900" Gravity Washer

Sent free for one month's trial. Write for particulars.

"1900" WASHER COMPANY
357 YONGE ST., TORONTO, ONT.
(Factory, 78-81 Portland St., Toronto)

You can assure your family a MONTHLY INCOME for LIFE or assure yourself an income during your old age by means of an Imperial Monthly Income Policy

Write for particulars now and mention The Farmer's Advocate, Address: Imperial Life Assurance Co. of Canada Head Office: TORONTO

Hay

References—any Bank

SHIPPERS—We pay Highest Market Values
Don't Write, Come and see us.
THE E. L. RICHMOND CO.
DETROIT

POULTRY AND EGGS

Condensed advertisements will be inserted under this heading at three cents per word each insertion. Each initial counts for one word and figures for two words. Names and addresses are counted. Cash must always accompany the order for any advertisement under this heading. Parties having good pure-bred poultry and eggs for sale will find plenty of customers by using our advertising columns. No advertisement inserted for less than 50 cents.

BARRED ROCK COCKERELS—O. A. College bred-to-lay strain, vigorous range birds. Two dollars each. Order early. W. A. Barnet, Arner, Ont.

CHOICE PEKIN DUCKS AND DRAKES FOR SALE. Joe Walker, R.R. No. 2, Wardsville, Ont.

FOR SALE—ROSE-COMB BROWN LEGHORN cockerels and yearling hens, all first-class, pure-bred fowls, the results of 13 years' careful breeding for record layers. Prices very reasonable considering the laying qualities. Galloway & English, Box A, Ingersoll, Ont.

FEW PAIR YOUNG EMBDEN GEESSE, FINE and large, \$3 each, or \$6 a pair; speak quick. Peter Hord, Parkhill, Ontario.

HIGH-CLASSED BARRED ROCK COCKERELS; large, heavy-boned, healthy fowl, from a good winter laying strain; price, \$2 apiece. R. A. Cowan, Streetsville, Ont.

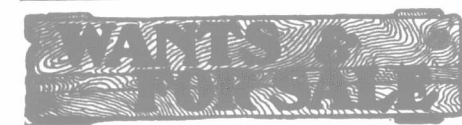
IF YOU WANT A GOOD UTILITY BARRED Rock cockerel, laying strain, send three dollars to David A. Ashworth, Denfield, Ont. Satisfaction or money back.

MAMMOTH BRONZE TURKEYS—YOUNG toms and hens for sale—bred from my Guelph winners; old hens, eighteen to twenty-three pounds; old tom, thirty-eight pounds. Guelph, nineteen-fifteen, four prizes on six entries; nineteen-sixteen, nine prizes on eleven entries. Enquiries promptly answered. Geo. Neil, Tara, Ont.

TWENTY-FIVE YEARS A BREEDER OF Barred Rocks that are barred and bred right, from first-class laying hens. Cockerels for sale, both show and utility. Walter Bennett, No. 1, Cottam, Ont.

WANTED POULTRY OF ALL KINDS

We pay highest price. Write for price list. **Waller's, 702 Spadina Ave., Toronto.**



Advertisements will be inserted under this heading, such as Farm Properties, Help and Situations Wanted and Pet Stock.

TERMS—Three cents per word each insertion. Each initial counts for one word and figures for two words. Names and addresses are counted. Cash must always accompany the order. No advertisement inserted for less than 50 cents.

DAIRY HAND WANTED—GOOD MILKER preferred. Starting at \$45 per month, board and lodging. Military Hospital Commission Industries, Guelph, Ont.

DON'T LET RATS DESTROY YOUR high-priced grain. Special prices on Fox Terriers, best rat dogs on earth. Rabbit Hound puppies. John Annesser, Tilbury, Ont.

FOR SALE—FARM 290 ACRES, FIRST-CLASS buildings and stabling. Brick house, slate roof, modern conveniences. Land all under-tiled; lots of water, good orchard and hardwood bush; also house for hired man. Apply Box 142, Springfield, Ont.

PURE-BRED SCOTCH COLLIES, PUPPIES, females only \$4 each. Apply Urias Cressman, New Hamburg, Ont.

WANTED—BY A MARRIED MAN, A FARM of about 75 to 100 acres, to work on shares. Write, Box 131, Aylmer.

WANTED TO PURCHASE Cheese Factory

within 50 miles of Toronto, one Main Line of either G. T. R. or C. P. R., taking in not less than 10,000 lbs. of milk daily at the present time. Apply

Box No. C, Farmer's Advocate, London, Ont. Stating full particulars in first letter.

PATENTS Trade Marks and Designs procured in all countries. Special attention given to Patent Litigation. Pamphlet sent free on application. **RIDOUT & MAYBEE** Crown Life Bldg. TORONTO, ONT.

Patent Solicitors—Fetherstonhaugh & Co The old established firm. Patents everywhere. Head Office Royal Bank Building, Toronto. Ottawa Office, 5 Elgin Street. Offices throughout Canada. Booklet free

Pure-bred Tamworths

YOUNG BOARS 13 WEEKS OLD

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They breed heavy layers.

\$3.00 each. Order now.

WALTER H. SMITH
Athens, Ontario

Markets

Continued from page 1809.

\$11.80 per barrel, in bags, for Manitoba first patents; \$11.10 for seconds, and \$10.90 for strong bakers'. Ontario 90 per cent. patents were \$10.70 to \$11 per barrel in wood, and \$5.20 to \$5.35 per bag.

Millfeed.—Bran was in good demand, at \$35 per ton, in bags, in car lots; shorts, \$40 to \$42; middlings, \$48 to \$50; mixed mouille, \$55 to \$56 per ton; pure grain mouille, \$58 to \$60.

Baled Hay.—Demand was good, both for domestic account and for export to the U.S. Prices were higher, at \$13 to \$13.50 per ton, for No. 2; \$11.50 to \$12 for No. 3, and \$10.50 to \$11 for clover mixed, ex-truck.

Hides.—The market was unchanged. Lamb skins, \$4.35 each; horse hides, \$6; beef hides, 23c., 24c. and 25c. per lb., Montreal inspection; calf skins, 28c. per lb. for grassers, and 35c. for No. 1, per lb. Tallow, scrap fat, 3½c. per lb., and abattoir fat, 8c.; rendered tallow, 16c. to 17½c.

Cheese Markets.

New York, specials, 23½c. to 23¾c.; average run, 22½c. to 23c.; Belleville, 21¾c.

Gossip.

Sale Dates.

Dec. 6, 1917, Union Stock Yards, Toronto, Ont.—Shorthorns.

Dec. 11, Niagara Peninsula Holstein-Friesian Club, Welland.—Holsteins.

Dec. 12, Oxford District Holstein Breeders' Club Consignment Sale, at Woodstock, Ont., W. E. Thomson, Secretary.

Dec. 18, Elgin Pure-bred Holstein Friesian Breeders' Assoc'n., St. Thomas.

Dec. 19, Southern Counties Ayrshire Breeders' Club Consignment Sale, at Woodstock, Ont., John McKee, Norwich, Secretary.

Dec. 19, Brant District Holstein Breeders' Sale, Brantford, Ont.—Holsteins.

Feb. 6, 1918, W. A. Dryden, Brooklin, Ont.—Shorthorns.

Banking Made Easy.—Bank Cashier—"You will have to be identified, madam." Lady—"My friend here will identify me." Cashier—"But I don't know her." Lady—"Oh, well, I'll introduce you."—Boston Transcript.

Gossip.

Attention is directed to the advertisement regarding the sale of 70 Shorthorns at the Union Stock Yards, Toronto, on December 6.

The Ontario Wind Engine and Pump Co., Toronto, report that fire destroyed a considerable part of their plant and a large stock of manufactured material.

Exhibiting at Guelph.

When ordering a change of advertisement Geo. Amos & Sons, Moffat, Ont., write that their cattle are going into winter quarters in fine condition and that they have some of the best young bulls they ever had. They will exhibit at the Provincial Winter Fair where they will be pleased to meet any of their old customers, or new ones.

The American Aberdeen-Angus Association announce the date of their annual meeting as December 5, 7.30 p. m., at the Palmer House, Chicago. The sale will be held at the Stock Yards on the same day. Many breeders will be interested also in knowing that the revised fourth edition of "Supremacy of Aberdeen-Angus Cattle" is now ready for distribution and will be mailed to anyone on request. It is profusely illustrated and contains many important articles.

The Penrith Shorthorn Sale.

The Penrith Shorthorn Association of England has only been in existence for six years, but it has three shows and sales annually and in 1917 turned over 663 head of cattle. At its October sale this year the five-prize winners, which competed in the class for cows and heifers, averaged £84 16s. 9d. and the first-prize cow made 105 guineas. The top priced female of the sale made 200 gs. In the milk-record class, five animals mentioned in the award list averaged £109 4s. 0d., the winner making 125 guineas. The average for the five winning yearling heifers was £54 5s. 7d. The ninety-six females sold ranging from 200 guineas averaged £72 8s. 1d. The cows and heifers averaged £76 13s. 7d.; the milk record cows averaged £91 9s. 7d., the yearling heifers £52 18s. 9d., and the heifer calves £46 4s. 0d. The 108 bulls sold averaged £60 8s. 11d., the older bulls numbering 27, ranging from 400 guineas, averaged £64 3s. 1d. The middle class for bulls, numbering 34, ranging from 140 guineas, averaged £49 1s. 5d., and the younger bulls, numbering 47, ranging from 250 guineas, averaged £66 13s. 8d. The grand aggregate for the sale was £13,479 1s. giving a general average of £66 4s. 8d. for 203 head.

Our Serial Story

An Alabaster Box.

BY MARY E. WILKINS FREEMAN AND FLORENCE MORSE KINGSLEY.
By arrangement with McClelland, Goodchild & Stewart, Publishers, Toronto, Ont.

Chapter IV.

Elliot slept later than usual the morning after the fair. Generally he slept the beautiful, undisturbed sleep of the young and healthy; that night, for some reason, he did not. Possibly the strange break which the buying of the fair had made in the course of his everyday life caused one also between his conscious and unconscious state, which his brain refused to bridge readily. Wesley had not been brought face to face, many times in his life, with the unprecedented. He had been brought before it, although in a limited fashion, at the church fair. The unprecedented is more or less shattering, partaking of the nature of a spiritual bomb. Lydia Orr's mad purchase of that collection of things called a fair disturbed his sense of values. He asked himself over and over who was this girl? More earnestly he asked himself what her motives could be.

But the question which most agitated him was his relations with the girl, Fanny Dodge. He realized that recently he had approached the verge of an emotional crisis. If Mrs. Black whom he had at the time fairly cursed in his heart, in spite of his profession, had not appeared with her notice of dinner, he would be in a most unpleasant predicament. Only the girl's innate good sense could have

served as a refuge, and he reflected with the utmost tenderness that he might confidently rely upon that. He was almost sure that the poor girl loved him. He was quite sure that he loved her. But he was also sure, with a strong sense of pride in her, that she would have refused him, not on mercenary grounds, for Fanny he knew would have shared a crust and hovel with the man she loved; but Fanny would love the man too well to consent to the crust and the hovel, on his own account. She would not have said in so many words, "What! marry you, a minister so poor that a begging fair-hastobeheld to pay his salary?" She would have not refused him her love and sympathy, but she would have let him down so gently from the high prospect of matrimony that he would have suffered no jolt.

Elliot was a good fellow. It was on the girl's account that he suffered. He suffered, as a matter of course. He wanted Fanny badly, but he realized himself something of a cad. He discounted his own suffering; perhaps, as he told himself with sudden suspicion of self-conceit, he overestimated hers. Still, he was sure that the girl would suffer more than he wished. He blamed himself immeasurably. He tried to construct air castles which would not fall, even before the impact of his own thoughts, in which he could marry this girl and live with her happily ever after, but the man had too much commonsense. He did not for a moment now consider the possibility of stepping, without influence, into a fat pastorate. He was sure that he could count confidently upon nothing better than this.

The next morning he looked about his room wearily, and a plan which he had often considered grew upon him. He got the keys of the unoccupied parsonage next door, from Mrs. Black, and went over the house after breakfast. It was rather a spacious house, old, but in tolerable preservation. There was a southeast room of one story in height, obviously an architectural afterthought, which immediately appealed to him. It was practically empty except for charming possibilities, but it contained a few essentials, and probably the former incumbent had used it as a study. There was a wood stove, a standing desk fixed to the wall, some shelves, an old table, and a couple of arm-chairs. Wesley at once resolved to carry out his plan. He would move his small store of books from his bedroom at Mrs. Black's, arrange them on the shelves, and set up his study there. He was reasonably sure of obtaining wood enough for a fire to heat the room when the weather was cold.

He returned and told Mrs. Black, who agreed with him that the plan was a good one. "A minister ought to have his study," said she, "and of course the parsonage is at your disposal. The parish can't rent it. That room used to be the study, and you will have offers of all the wood you want to heat it. There's plenty of cut wood that folks are glad to donate. They've always sent loads of wood to heat the minister's study. Maybe they thought they'd stand less chance of hell fire if they heated up the gospel in this life."

"Then I'll move my books and writing materials right over there," said Elliot with a most boyish glee.

Mrs. Black nodded approvingly. "So I would". She hesitated a moment, then she spoke again. "I was just a little bit doubtful about taking that young woman in yesterday," said she.

Elliot regarded her curiously. "Then you never had met her before?"

"No, she just landed here with her trunk. The garage man brought her, and she said he told her I took boarders, and she asked me to take her. I don't know but I was kind of weak to give in, but the poor little thing looked sort of nice, and her manners were pretty, so I took her. I thought I would ask you how you felt about it this morning, but there ain't any reason to, perhaps, for she ain't going to stay here very long, anyway. She says she's going to buy the old Bolton place and have it fixed up and settle down there as soon as she can. She told me after you had gone out. She's gone now to look at it. Mr. Whittle was going to meet her there. Queer, ain't it?"

"It does look extraordinary, rather," agreed Elliot, "but Miss Orr may be older than she looks." "Oh, she ain't old, but she's of age. She told me that, and I guess she's got plenty of money."

"Well", said Elliot, "that is rather a fine old place. She may be connected with the Bolton family."

"That's exactly what I think, and if she was she wouldn't mention it, of course. I think she's getting the house in some sort of a business way. Andrew Bolton may have died in prison by this time, and she may be an heir. I think she is going to be married and have the house fixed up to live in."

"That sounds very probable."

"Yes, it does; but what gets me is her buying that fair. I own I felt a little scared, and wondered if she had all her buttons, but when she told me about the house I knew of course she could use the things for furnishing, all except the cake and candy, and I suppose if she's got a lot of money she thought she'd like to buy to help. I feel glad she's coming. She may be a real help in the church. Now don't color up. Ministers have to take help. It's part of their discipline."

Sometimes Mrs. Solomon Black said a wise and consoling thing. Elliot, moving his effects to the old parsonage, considered that she had done so then. "She is right. I have no business to be proud in the profession calling for the lowly-hearted of the whole world," he told himself.

After he had his books arranged he sat down in an armchair beside a front window, and felt rather happy and at home. He reproached himself for his content when he read the morning paper, and considered the horrors going on in Europe. Why should he, an able-bodied man, sit securely in a room and gaze out at a peaceful village street? he asked himself as he had scores of times before. Then the imperial individual, which obtrudes even when conscience cries out against it, occupied his mind. Pretty Fanny Dodge in her blue linen was passing. She never once glanced at the parsonage. Forgetting his own scruples and resolves, he thought unreasonably that she might at least glance up, if she had the day before at all in her mind. Suddenly the unwelcome reflection that he might not be as desirable as he had thought himself came over him.

He got up, put on his hat, and walked rapidly in the direction of the old Bolton house. Satisfying his curiosity might serve as a palliative to his sudden depression with regard to his love affair. It is very much more comfortable to consider oneself a cad, and acknowledge to oneself love for a girl, and be sure of her unfortunate love for you, than to consider oneself the dupe of the girl. Fanny had a keen sense of humor. Suppose she had been making fun of him. Suppose she had her own aspirations in other quarters. He walked on until he reached the old Bolton house. The door stood open, askew upon rusty hinges. Wesley Elliot entered and glanced about him with growing curiosity. The room was obviously a kitchen, one side being occupied by a huge brick chimney inclosing a built-in range half devoured with rust; wall cupboards, a sink and a decrepit table showed gray and ugly in the greenish light of two tall windows, completely blocked on the outside with over-grown shrubs. An indescribable odor of decaying plaster, chimney-soot and mildew hung in the heavy air.

A door to the right, also half open, led the investigator further. Here the floor shook ominously under foot, suggesting rotten beams and unsteady sills. The minister walked cautiously, noting in passing a portrait defaced with cobwebs over the marble mantelpiece and the great circular window opening upon an expanse of tangled grass and weeds, through which the sun streamed hot and yellow. Voices came from an adjoining room; he could hear Deacon Whittle's nasal tones upraised in fervid assertion.

"Yes, ma'am!" he was saying, "this house is a little out of repair, you can see that for yourself; but it's well built; couldn't be better. A few hundred dollars expended here an' there'll make it as good as new; in fact, I'll say better'n new! They don't put no such material in houses nowadays. Why, this woodwork—doors, windows, floors and all—is clear, white pine. You can't buy it to-day for no price. Costs as much as m'hogany, come to figure it out. Yes, ma'am! the woodwork alone in this house is worth the price of one of them little new shacks a builder'll run up in a couple of months. And look at them mantelpieces, pure tombstone marble;

and all carved like you see. Yes, ma'am! there's as many as seven of 'em in the house. Where'll you find anything like that, I'd like to know!"

"I—think the house might be made to look very pleasant, Mr. Whittle," Lydia replied, in a hesitating voice.

Wesley Elliot fancied he could detect a slight tremor in its even flow. He pushed open the door and walked boldly in.

"Good-morning, Miss Orr," he exclaimed, advancing with outstretched hand. "Good-morning, Deacon! Well, well! what a melancholy old ruin this is to be sure. I never chanced to see the interior before."

Deacon Whittle regarded his pastor sourly from under puckered brows.

"Some s'prised to see you, dominie," said he. "Thought you was generally occupied at your desk of a Friday morning."

The minister included Lydia Orr in the genial warmth of his smile as he replied:

"I had a special call into the country this morning, and seeing your conveyance hitched to the trees outside, Deacon, I thought I'd step in. I'm not sure it's altogether safe for all of us to be standing in the middle of this big room, though. Sills pretty well rotted out—eh, Deacon?"

"Sound as an oak," snarled the Deacon. "As I was telling th' young lady, there ain't no better built house anywheres 'round than this one. Andrew Bolton didn't spare other folks' money when he built it—no, sir! It's good for a hundred years yet, with trifling repairs."

"Who owns the house now?" asked Lydia unexpectedly. She had walked over to one of the long windows opening on a rickety balcony and stood looking out.

"Who owns it?" echoed Deacon Whittle. "Well, now, we can give you a clear title, ma'am, when it comes to that; sound an' clear. You don't have to worry none about that. You see it was this way; dunno as anybody's mentioned it in your hearing since you come to Brookville; but we use to have a bank here in Brookville, about eighteen years ago, and—"

"Yes, Ellen Dix told me," interrupted Lydia Orr, without turning her head. "Has nobody lived here since?"

Deacon Whittle cast an impatient glance at Wesley Elliot, who stood with his eyes fixed broodingly on the dusty floor.

"Wal," said he. "There'd have been plenty of folks glad enough to live here; but the house wasn't really suited to our kind o' folks. It wasn't a farm—there being only twenty acres going with it. And you see the house is different to what folks in moderate circumstances could handle. Nobody had the cash to buy it, an' ain't had, all these years. It's a pity to see a fine old property like this a-going down, all for the lack of a few hundreds. But if you was to buy it, ma'am, I could put it in shape fer you, equal to the best, and at a figure—Wall; I tell ye, won't cost ye what some folks'd think."

"Didn't that man—the banker who stole—everybody's money, I mean—didn't he have any family?" asked Lydia, still without turning her head. "I suppose he—he died a long time ago?"

"I see the matter of th' title's worrying you, ma'am," said Deacon Whittle briskly. "I like to see a female cautious in a business way; I do, indeed. And 'tain't often you see it, neither. Now, I'll tell you—"

"Wouldn't it be well to show Miss Orr some more desirable property, Deacon?" interposed Wesley Elliot.

"It seems to me—"

"Oh, I shall buy the house," said the girl at the window, quickly.

She turned and faced the two men, her delicate head thrown back, a clear color staining her pale cheeks.

"I shall buy it," she repeated. "I—I like it very much. It is just what I wanted—in—in every way."

Deacon Whittle gave vent to a snort of astonishment.

"There was another party looking at the place a spell back," he said, rubbing his dry old hands. "I dunno's I exacly give him an option on it; but I was sort of looking for him to turn up 'most any day. Course I'd have to give him the first chance, if it comes to a—"

"What is an option?" asked Lydia.

"An option is a—now, let me see if I can make a legal term plain to the female mind: An option, my dear young lady, is—"

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The minister crossed the floor to where the girl was standing, a slight, delicate figure in her black dress, her small face under the shadowy brim of her wide hat looking unnaturally pale in the greenish light from without.

"An option," he interposed hurriedly, "must be bought with money; should you change your mind later you lose whatever you have paid. Let me advise you—"

Deacon Whittle cleared his throat with an angry, rasping sound.

"Me an' this young lady came here this morning for the purpose of transacting a little business, mutually advantageous, he snarled. "If it was anybody but the dominie, I should say he was butting in without cause."

"Oh, don't please!" begged the girl. "Mr. Elliot meant it kindly, I'm sure. I—I want an option, if you please. You'll let me have it, won't you? I want it—now."

Deacon Whittle blinked and drew back a pace or two, as if her eagerness actually frightened him.

"I guess—I guess I can accommodate ye", he stammered; "but—there'll be some preliminaries—I wa'n't exactly prepared—There's the price of the property and the terms—S'pose likely you'll want a mortgage—eh?"

He rubbed his bristly chin dubiously. "I want to buy the house," Lydia said. "I want to be sure—"

"Have you seen the rooms up; stairs?" asked the minister, turning his back upon his senior deacon.

She shook her head.

"Well, then, why not—"

Wesley Elliot took a step or two toward the winding stairs, dimly seen through the gloom of the hall.

"Hold on, dominie, them stairs ain't safe!" warned the Deacon. "They'll mebbe want a little shoring up, before—Say, I wish—"

"I don't care to go up now, really," protested the girl. "It—it's the location I like and—"

She glanced about the desolate place with a shiver. The air of the long-closed rooms was chilly, despite the warmth of the June day outside.

"I'll tell you what," said the deacon briskly. "You come right along down to the village with me, Miss Orr. It's kind of close in here; the house is built so tight, there can't no air get in. I tell you, them walls—"

He smote the one nearest him with a jocular palm. There followed the hollow sound of dropping plaster from behind the lath.

"Guess we'd better fix things up between us, so you won't be nowadays disappointed in case that other party—" he added, with a crafty glance at the minister. "You see, he might turn up 'most any day."

"Oh, yes!" exclaimed the girl, walking hurriedly to the door. "I—I should like to go at once."

She turned and held out her hand to the minister with a smile.

"Thank you for coming," she said. "I wanted you to see the house as it is now."

He looked down into her upturned face with its almost childish appeal of utter candor, frowning slightly.

"Have you no one—that is, no near relative to advise you in the matter?" he asked. "The purchase of a large property, such as this, ought to be carefully considered, I should say."

Deacon Whittle coughed in an exasperated manner.

"I guess we'd better be gitting along," said he, "if we want to catch Jedge Fulsom in his office before he goes to dinner."

Lydia turned obediently.

"I'm coming", she said.

Then to Elliot: "No; there is no one to advise me. I am obliged to decide for myself."

Wesley Elliot returned to Brookville and his unfinished sermon by a long detour which led him over the shoulder of a hill overlooking the valley. He did not choose to examine his motive for avoiding the road along which Fanny Dodge would presently return. But as the path, increasingly rough and stony as it climbed the steep ascent, led him at length to a point from whence he could look down upon a toy village, arranged in still rows about a toy church, with its tiny pointing steeple piercing the vivid green of many trees, he sat down with a sigh of relief and something very like gratitude.

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No. 68 Waterloo Street
STRATFORD - - ONT.

Wesley Elliot had cherished a firm, though somewhat undefined, belief in a quasi-omnipotent power to be reckoned as either hostile or friendly to the purpose of man, showing now a smiling, now a frowning face. In short, that unquestioned, wholly uncontrollable influence outside of a man's life, which appears to rule his destiny. In this role "Providence," as he had been taught to call it, had heretofore smiled rather evasively upon Wesley Elliot. He had been permitted to make sure his sacred calling; but he had not secured the earnestly coveted city pulpit. On the other hand, he had just been saved—or so he told himself, as the fragrant June breeze fanned his heated forehead—by a distinct intervention of "Providence" from making a fool of himself. His subsequent musings, interrupted at length by the shrieking whistle of the noon train as it came to a standstill at the toy railway station, might be termed important, since they were to influence the immediate future of a number of persons, thus affording a fresh illustration of the mysterious workings of "Providence", sometimes called "Divine."

(To be continued.)

Questions and Answers.

- 1st—Questions asked by bona-fide subscribers to "The Farmer's Advocate" are answered in this department free.
- 2nd—Questions should be clearly stated and plainly written on one side of the paper only, and must be accompanied by the full name and address of the writer.
- 3rd—In veterinary questions, the symptoms especially must be fully and clearly stated, otherwise satisfactory replies cannot be given.
- 4th—When a reply by mail is required to urgent veterinary or legal enquiries, \$1.00 must be enclosed.

Miscellaneous.

Suffocating Gas.

Is hydrogen chloride a suffocating gas? Is it effective in driving animals out of their dens? C. D.

Ans.—This gas is of a suffocating nature and should be effective for the purpose desired. Carbon bisulphide forms a heavy poisonous gas which is commonly used for destroying animals in their burrows. It is a liquid that must be carefully handled, as it is inflammable and poisonous. A rag is moistened with it and dropped into the burrow. For driving animals out of their burrows ordinary wood smoke is sometimes used.

Syrphus Fly Larva.

Would you kindly describe the enclosed worm or insect for the benefit of your readers in "The Farmer's Advocate?" SUBSCRIBER.

Ans.—The insect is the larva of a species of Syrphus Fly of the Genus Eristalis. These larvae are known as rat-tailed maggots, because of the long projection of a telescopic nature at the end of the body. This so-called "tail" can be extended and pushed out of water or moist places into the air. It is really a breathing tube. The maggots are commonly found in wet places and in rotten wood. They are in no respect injurious, neither are they of much value.

The adults are flies a little over half an inch long, bright in color, resembling bees, and frequently seen hovering over flowers. They feed upon the pollen and nectar. They may do some good in fertilizing flowers, but do no harm to the plant itself. L. C.

Killing a Hog—Oil in a Barrel.

1. I have a boar which I wish to butcher. He is two years old and has been used very little. Would the meat be satisfactory for use if he is killed without being castrated?
2. How can I take the taste of coal oil out of a wooden barrel so it can be used for pickling meat? W. W.

Ans.—1. The meat would be all right for use, but it would not command as high a price as hogs around the 200-lb. mark. Packers make a considerable reduction in price. By castrating some time before killing, the hog will fatten up more readily, which improves the quality and quantity of meat.

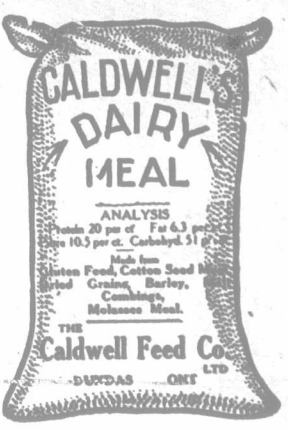
2. The oil permeates the wood and it is difficult to extract it so as to prevent a flavor being transmitted to products stored in the barrel. The oil on the surface may be burned off. Using chloride of lime, or a material like Dutch Cleanser will cut oil or grease from the surface, but we doubt if it is possible to remove the oil to avoid tainting.

CALDWELL'S

Is Your Meal Ration Balanced?

If it is not, you cannot possibly get the maximum amount of milk that your herd is capable of producing. We are prepared to supply you with a Dairy Meal that is balanced, high in protein and easily digested. It gives a maximum flow of milk, and at the same time improves the condition of the cows. Give it a trial. Order some from your feedman, and insist on it being CALDWELL'S.

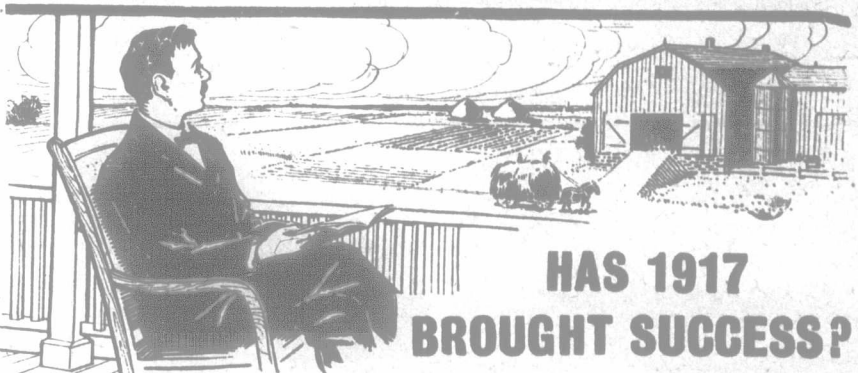
The Caldwell Feed & Cereal Co., Limited
Dundas, Ontario



Makers also of

- Molasses Dairy Meal
- Cream Calf Meal
- Hog Feed
- Molasses Horse Feed
- And Poultry Feeds of all kinds

STANDARD FEEDS



HAS 1917 BROUGHT SUCCESS?

Now that the year is drawing to a close have you figured out the profits of your farm? **ARE YOU SATISFIED?** If you feel that you should be doing better—should be getting bigger returns for all your work—why not consider the possibilities of Western Canada?

Write for any or all of our free booklets, "Homeseekers & Settlers Guide," "Peace River Guide," and "British Columbia Settlers Guide," to General Passenger Dept., Montreal, Que., or Toronto, Ont.

CANADIAN NORTHERN RAILWAY

OUR LATEST IMPORTATION OF CLYDESDALES

arrived at our barns late in November. A number of them since have been prominent winners at both Guelph and Ottawa. But we have others (both stallions and mares) that were never out. The majority of the stallions weigh around the ton, and better quality and breeding were never in the stables. Come and see them. We like to show them. SMITH & RICHARDSON, COLUMBUS, ONT.

WOODLANDS BROWN SWISS AND PONIES

We have no Clydes. left for sale. Our special offering is Brown Swiss bulls out of high-testing and big-producing dams. Strictly high-class. Also Shetland and Welsh ponies.

R. BALLAGH & SON, GUELPH, ONTARIO

HEREFORDS FOR SALE

One bull and four heifers rising two years old. These are all splendid individuals, and registered; selected from one of the best herds in the Dominion.

A. A. CATTON, DURHAM, ONTARIO.

BROOKDALE FARM HEREFORDS

Herd headed by Bonnie Ingleside 7th, the Canadian-bred champion bull at Toronto, 1914—1915. We are offering several young bulls that were Toronto and Ottawa winners this year, all sired by the herd bull, as well as a few females in calf to him. Come and see our herd or write us for anything in Herefords.

W. READHEAD, BROOKDALE FARM, MILTON, ONTARIO

THE MAPLES HEREFORDS

Herd Bulls;—HIGH IDEAL, Junior Champion, Toronto and London; CLAYTON DONALD, own brother to Perfection Fairfax (The World's Greatest Hereford Sire). Offering:—A few cows with calves and re-bred to Clayton Donald. A limited number of yearling heifers and calves, and several choice young bulls. Also a few Shropshire ram lambs. Correspondence invited.

W. H. & J. S. HUNTER, ORANGEVILLE, ONT.

WM. D. DYER, SHORTHORNS.

Pure Scotch or Scotch-topped beef type, yet good milkers. 3 young bulls and a few young cows and heifers for sale.

R. 3., Oshawa, Ont., Brooklin. SHROPSHIRE, Type and quality. A few ram lambs still left.

G. T. R. C. N. R. CLYDESDALES. Stallion 1 yr. old, rich in Baron Pride blood, promises size and quality combined.

IRVINDALE SHORTHORNS

Herd established Fifty Years. Senior Sire, Gainford Select. Junior Sire, Marquis Supreme. We have at present three sons of Gainford Select that are ready for immediate service; two that will be ready soon and others coming on. The best place in Canada to get a grandson of Gainford Marquis. We also have several cheaper bulls, one good Right Sort heifer, and are offering Gainford Select. See him or any of the others if interested.

JOHN WATT & SON, ELORA, ONTARIO

SPRUCE GLEN SHORTHORNS

of such popular strains as Minas, Fames, Miss Ramdens, Florences, Emilys, etc. Have still a few young bulls—thick, mellow fellows, fit for service.

JAMES McPHERSON & SONS, DUNDALK, ONTARIO

OAKLAND---55 SHORTHORNS

A herd of feeders, breeders and milkers that give satisfaction wherever they go. One bull for sale, 18 months, white, extra milk strain. Also females, any age. Priced so you can buy. One of the finest bulls in Ontario heads this herd.

JNO. ELDER & SON, Hensall, Ontario.

ABSORBINE


TRADE MARK REG. U.S. PAT. OFF.

Removes Bursal Enlargements, Thickened, Swollen Tissues, Curbs, Filled Tendons, Soreness from any Bruise or Strain; Stops Spavin Lameness. Allays pain. Does not blister, remove the hair or lay up the horse. \$2.00 a bottle, delivered. Book 1 K free.

ABSORBINE, JR., the antiseptic liniment for mankind. For Synovitis, Strains, Gouty or Rheumatic deposits, Swollen, Painful Varicose Veins. Will tell you more if you write. \$1 and \$2 per bottle at dealers or delivered. Manufactured only by W. F. YOUNG, F. D. F. 258 Lyman Bldg., Montreal, Can.

THE CHOICELY-BRED Imported Clydesdale Stallion

EARL DUDLEY (16236) [12453]



is offered for immediate sale. This is one of the best horses ever imported from Scotland. His sire was the great Royal Edward (11495), he by Baron's Pride. The dam, Princess Favorite (23586) by Royal Favorite (10630). Earl Dudley is well known to followers of the Canadian Show Ring, where he has been a consistent winner. He is a successful stock-getter. If not sold previously, he will be shown at the Guelph Winter Fair. Get particulars from

HUGH McLEAN, Wyoming, Ontario

MORE HORSEPOWER

if your teams are equipped with



These pads prevent Sore Shoulders and cure Gall Sores. Your dealer will supply you, or write:

BURLINGTON BLANKET CO., LIMITED.
793 King Street West, Toronto, Canada.

MESSRS. A. J. HICKMAN & CO. (Late Hickman & Scruby) Court Lodge, Egerton, Kent, England, Exporters of

PEDIGREED LIVE STOCK

of all descriptions. Specialty made of draft horses, beef and dairy breeds of cattle, show and field sheep. Illustrated catalogues and testimonials on application. All enquiries answered with pleasure. Now is the time to import. Prospects were never better, and insurance against all war risks can be covered by payment of an extra 1% only.

Dr. Bell's Veterinary Medical Wonder. 10,000 \$1.00 bottles FREE to horsemen who give the Wonder a trial. Guaranteed for Colic, Inflammation of Lungs, Bowels, Kidneys; Fevers and Distempers, etc. Send 25c. for mailing, packing, etc. Agents wanted. Write address plainly.

Dr. Bell, V. S., Kingston, Ont.

EASTLAKE STEEL SHINGLES
WRITE FOR PRICES
METALLIC ROOFING CO. LIMITED
TORONTO, CANADA.

Boo Spavin

Cure the lameness and have the part looking just as it did before the blemish came.

FLEMING'S SPAVIN CURE (Liquid) is a special remedy for soft and semi-solid blemishes—Dog Spavin, Thoroughpin, Splint, Curb, Capped Hock, etc. It is neither a liniment nor a simple blister, but a remedy unlike any other—doesn't irritate and can't be imitated. Easy to use, only a little required, and your money back if it ever fails.

Fleming's Vest-Pocket Veterinary Adviser describes and illustrates all kinds of blemishes, and gives you the information you ought to have before ordering or buying any kind of a remedy. Mailed free if you write.

75 FLEMING BROS., Chemists
Church Street, Toronto, Ont.

SUNNY SIDE HEREFORDS

Twenty registered heifers, ages ranging from one to three years; some due to calve in November. They carry the blood of Clayton Donald (half brother to Perfection Fairfax), Prime Lad, Protector Imp. and Homer. A good, straight, fleshy lot, priced worth the money. If in need of a good bull, it will pay you to look ours over before buying. Also a few Shropshire ram lambs.

ARTHUR F. O'NEILL & SONS
R. No. 2, Denfield, Ont.

Aberdeen-Angus Cattle
Suffolk Down Sheep

The greatest breeds for producing highest quality of beef and mutton. They are both hardy and prolific. We have bulls, females, rams and ewes for sale.

JAMES BOWMAN, Elm Park, Guelph, Ont

SUNNY ACRES ABERDEEN-ANGUS

Bulls of serviceable age and females not akin.

WM. CHANNON & SON
P.O. and Phone - Oakwood, Ont.
Stations—Lindsay, G.T.R. and C.P.R.

Alloway Lodge Stock Farm

Angus—Southdowns—Collies
SHOW FLOCKS

Rams and ewes. Heifers in calf to Queen's Edward. 1st Prize, Indiana State Fair.

Robt. McEwen, R.R. 4, London, Ont.

Balmedie Aberdeen-Angus

Get high-class Angus bull and breed the champion steers. I have show-ring quality bulls from 10 to 24 months of age; also choice 1 and 3-year-old heifers. **T. B. BROADFOOT, FERGUS, ONT.**

Beaver Hill Aberdeen-Angus Cows

with calves at foot and bred again. Bulls of serviceable age, females all ages; a few Shearling Oxford Down ram lambs. **R. R. No. 1, Erin, Ont. Alex. McKinney.**

ANGUS CATTLE

Aberdeen Farm has for sale a nice bunch of young stuff of both sexes. Come and see us and supply your wants. **J. W. Burt & Sons, Hillsburgh P. O., R. R. 1, Erin Station, C. P. R.**

Kennelworth Farm Aberdeen Angus

A grand lot of calves for sale; ages in the neighborhood of 7 months. Victor of Glencairn at head of herd.

PETER A. THOMSON, HILLSBURGH, ONT.

Mardella Shorthorns

Dual-purpose bulls, 20 young cows and heifers—bred, some calves by side. Size type, quality; some full of Scotch. The great massive Duke—dam gave 13,599 lbs. milk, 474 lbs. butter-fat—at the head.

Thomas Graham, Port Perry, R. 3, Ont.

MAPLE LEAF FARM

Shorthorns, some good young bulls and females. Shropshires, 50 lambs. Our flock leading winners on Eastern show circuit.

John Baker, Hampton, R. No. 1, Ont.

Shorthorns—Pail-fillers for sale. Young bull and heifers out of high record cows. A few young cows and bulls with extra good breeding and quality.

PETER CHRISTIE & SON
Manchester P. O. Port Perry, Ont. Co.

Questions and Answers.
Miscellaneous.

Using the Yeast Treatment.

What kind of an instrument is used for giving the yeast treatment to cows?
R. W.

Ans.—The liquid may be injected into the vagina of the cow by a small rubber tube or a syringe. Disinfect one end of the tube and insert it into the vagina, and place a funnel in the other end of tube to receive mixture. If this end is raised a little above the animal's back the material will flow by gravitation to the vagina.

Cost of Rearing a Chick.

What do you consider it costs to rear a chick up to six months of age?
P. B.

Ans.—It depends considerably on the kind of grains used, and the attention given the birds. We know of one flock where the feed alone cost in the neighborhood of seventy cents up to the time the birds were six months of age. In this case chick feed was used the first three weeks, and then small wheat, cracked corn, oats, bran and shorts, made up the ration.

Value of Violin.

I have in my possession a violin bearing on the inside of the back the following inscription: "Jacobus Stainer in Abfam prope Oenipontum, 1715." It also has the word "Stainer" stamped in the wood of the back at the base of the headpiece. The seams are all tight though the varnish is marred to some extent. The tone is good. Could you give me an idea of its probable value?
R. H. C.

Ans.—If the violin was once owned or played by a noted musician or master it might have a high value with collectors. If you write Lyon and Healey, Music Dealers, Chicago, or probably some music dealers in Toronto or London, they might be able to give you some definite idea as to the value of the instrument.


Weeds.

What are the names of the enclosed weeds: No. 1 has white blossom. What is the best way to get rid of it? No. 2 has a bluish-white blossom; how is it eradicated? I don't know whether No. 3 is a weed or a fodder plant. It has a strong root. Is it a good plant for feed?
A. W.

Ans.—The weed with the white blossom is known as Yarrow. This weed is more or less common in waste places and in fence corners. Sheep will keep it picked down fairly well. A short rotation of crops in which a hoed crop enters will eradicate the weed. The one with the bluish-white blossom and roundish leaves is known as Mallow. It is a biennial plant which spreads from a deep root branched from the base. It, too, is kept in check by sheep or a short rotation of crops. It is not a weed that gives much trouble on moderately well-drained land. The other plant received at this office was a sample of alfalfa. If cut at the right time, it makes excellent hay for all classes of stock; in fact, the leaves are considered to be about equal to bran for feeding purposes. It requires land in which the water level does not come too close to the surface. It is a deep-rooted plant and resists drought. It kills out in many parts of the country where the land is not properly drained.

A Pittsburg Jest.—It was the first week that the Jinkses, who had fallen heir to considerable property, had been in their new home. Mrs. Jinks was giving a dinner-party with the fond hope that from this occasion she would be fairly launched in society. "Lena," said Mrs. Jinks to her new cook, "be sure to mash the peas thoroughly to-night."
"What, ma'am?" exclaimed the amazed cook. "Mash the peas?"
"Yes, that is what I said, Lena, mash the peas," repeated the mistress. "It makes Mr. Jinks very nervous at dinner to have them roll off his knife".—Pittsburg Chronicle Telegraph.

"This is the Kind of Horse the Government wants"



No horse with a Spavin, Splint, Ringbone, Curb, Bony Growth, Capped Hock, Wind Puff, Strained Tendon or Sweeney can now pass the keen-eyed Inspectors of the Government Remount Stations.

Splendid-looking Horses—otherwise sound—are being turned down because of some blemish that could be quickly cured with

Gombault's Caustic Balsam

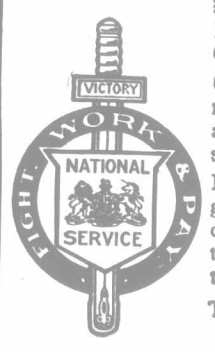
Here is your chance to make money for yourself and at the same time to help in the Government's great Thrift and Production movement.

Put your horse into condition with Gombault's Caustic Balsam. A safe and reliable remedy.

Gombault's Caustic Balsam if applied immediately after burns, bruises or cuts, is a perfect antiseptic—soothing and healing. An absolutely safe, external remedy for man or beast.

Every bottle of **Caustic Balsam** sold will surely give satisfaction. Price \$1.50 per bottle. Sold by druggists, or sent by parcel post with full directions for its use. Send for descriptive circulars, testimonials, etc.

THE LAWRENCE-WILLIAMS COMPANY
TORONTO, ONT. 20



SPECIAL ANNOUNCEMENT!

70 Head Straight Scotch SHORTHORNS

BY AUCTION

Thursday, December 6th, 1917

UNION STOCK YARDS, TORONTO

By instructions from Mr. A. M. Steed, of Stirling, Alberta, we will sell this high-class consignment, without reserve, on the above date, commencing at 10 30 a.m.

The following families are well represented in the consignment, which includes 15 cows with calves at foot, 25 heifers in calf; balance rising two-year-old heifers: "Lavenders," "Matchlesses," "Nonpareils," "Glosters," etc.

Catalogues now ready. Will be mailed on request.

The sale will be conducted by **Mr. Theo. Martin, of Bellevue, Iowa, and Capt. T. E. Robson, London, Ont.**

UNION STOCK YARDS OF TORONTO, LIMITED

Glengow Shorthorns

We have a choice offering in young bulls, fit for service. They are all of pure Scotch breeding, and are thick mellow fellows, bred in the purple.

WM. SMITH, Columbus, Ontario. Myrtle, C.P.R.; Brooklin, G.T.R.; Oshawa, C.N.R.

Robert Miller, Stouffville, Ont.

still has a few Shorthorn bulls, fit for service, and some females that are as good as can be found for the man that wants to start right in Scotch Shorthorns. They will be sold at a low price, considering the quality, and the freight will be paid.

Write for anything in Shorthorns and Shropshires. One hour from Toronto.

PLEASANT VALLEY FARMS

Herd headed by (imp.) **Newton Grand Champion and Belmont Beau**. We have for sale a goodly number of real good young bulls that will suit the most exacting; also females. Inspection invited.

Geo. Amos & Sons, C.P.R., 11 miles east of Guelph, Moffat, Ontario

WILLOW BANK STOCK FARM

Shorthorn Cattle and Leicester Sheep. Herd established 1855—Flock 1848. The great show and breeding bull, **Browndale = 80112 = by Avondale**, heads the herd. Extra choice bulls and heifers to offer. Also a particularly good lot of Leicester rams mostly from imp. ewes.

JAMES DOUGLAS, CALEDONIA, ONT.

Barns Destroyed by Fire.

The record of barn fires is again so heavy in number and amount as to cause some concern. From January 1 to September 30, 1917, we have had in Ontario 788 barn fires involving a loss of \$791,247.00. Between June 1, 1917, and the day on which this is written (October 22, 1917) we have investigated or have had special reports made upon no less than 211 barn fires, and we can therefore speak with some degree of authority on some phases of the causes of such fires.

Of the total of 211 investigated fires, 13 of the barns affected were equipped with lightning rods, but only two of the fires in such barns were caused by lightning. We gave particular care to a full examination of these two cases because of the apparent failure of the rods, and we have determined that in one case the whole equipment was out of order and it was well known to the farmer that two of the conductors had been completely severed where they entered the ground; the equipment in this case was, therefore, not only completely useless but it would have been better had it been altogether removed.

In the second case, which occurred in Hastings County on the 19th September, 1917, we have a much more interesting case, Prof. W. H. Day, our recognized lightning-rod authority, who had all the reports sent to him, sums up this case in the following words:

"It brings out very forcibly the value of our instructions that the ground rods should not run from the peak but from the eaves. It appears that this stroke hit the building part way down between the peak and the eaves, and in such cases there is absolutely no chance of the current going upward to the peak to get on the ground rod. Rodding men who have been adhering to the old method of ground from the peak have agreed with us time and again that there was no possibility of a stroke occurring part way down the roof as we claim. This example is a concrete answer, and is another case that demonstrates very clearly the importance of our recommendation that buildings should be grounded from the eaves, and all water spouts grounded."

The question "Do lightning rods protect from fires by lightning?" is unmistakably answered in the affirmative by our records and investigations of this year as also in the work we commenced last year. Of the 211 barn fires specially investigated, 128 have been due to lightning, and the balance, 83, from cause "unknown." We are not yet through the season of the "unknown" fire, but next month we hope to be able to give some valuable information for the benefit of those seeking to know something definite on the subject of other causes.—From Fire Marshal's Report in Public Service Bulletin.

Questions and Answers.
Miscellaneous.

Qualifications of Birds.

What are the good points in Buff Orpingtons and Barred Rocks for exhibition purposes, especially regarding color markings?

Ans.—According to the "Standard of Perfection" of the American Poultry Association the shanks and toes of the Buff Orpingtons are white or pinkish-white; comb, face, wattles and ear lobes, bright red; plumage surface throughout an even shade of rich golden buff, free from shafting or mealy appearance. The head, neck, hackle, back, wing bows and saddle richly glossed. Under color a lighter shade of buff, free from foreign color. Different shades of buff in two or more sections is a serious defect. Harmonious blending of buff in all sections is most desirable. The disqualifications are white in ear lobes, covering more than one-third of the surface; yellow beak or skin; shanks other than white. With the Barred Rocks the beaks should be yellow; comb, face, wattles and ear lobes, bright red; shanks and toes yellow; red showing at the outside of shanks back of scales, not a defect in males; the plumage greyish white; each feather crossed by regular, narrow, parallel, sharply-defined, dark bars that stop short of positive black; free from shafting, brownish tinge or metallic sheen; the light and dark bars should be of equal width and extend throughout the length of the feathers.

STANFIELD'S

Unshrinkable

UNDERWEAR.



Made and Worn by Two Generations

Over a quarter of a century ago the late C. E. Stanfield, Pioneer underwear manufacturer of Truro, N.S., discovered a way to prevent woollen underwear from shrinking—by the radical but sensible plan of taking the shrink out of the wool before it went to the knitting machines.

From the very first, the sterling quality of Stanfield's Underwear, as proved by wear and washing, has been its most prominent feature. It actually DOES NOT SHRINK "full up" nor mat—and on the basis of length of service it is the best value offered in underwear.

Stanfield's Original Pure Wool; the Universal Favorite with Outdoor Workers. Wonderfully warm and absorbent. Red, Blue and Black Labels—regular, medium and heavy weights.

Mothers will be specially interested in the wonderfully handy Adjustable Combinations and Adjustable Sleepers for growing children. Simply moving the buttons on the waist allows for two to three years' growth, and the detachable lower part is a great convenience.

Write for Free Sample Book showing over a dozen weights and textures, from the lightest Silkwool to the heaviest ribbed goods for Outdoor Men.



STANFIELD'S LIMITED, - TRURO, N. S. 21

Dual-Purpose SHORTHORN BULL

For Sale—A fine, big, dark roan bull, calved Aug. 13, 1914, bred by Frank Cockshutt, Brantford, from the imported cow, Mimosa, bred by Lord Rothschild, and sired by Director 91341, also from the Rothschild herd. Send for full particulars or call and see this great bull. Farm just outside Toronto and can be reached in half an hour from city.

HARNELBEL FARMS, Islington, Ont. Harry McGee, Proprietor, 61 Forest Hill Road, Toronto.

Maple Shade Farm—SHORTHORNS

An importation consisting of forty-three head now in quarantine will be home about September 30th Myrtle, C.P.R., Brooklin, G.T.R., Brooklin, C.N.R. Will. A. Dryden, Brooklin, Ontario Co

SHORTHORNS

I can spare a couple of cows, imported or Canadian bred with calves at foot and in calf again to Imp Dalesman. I can also give one the choice of fifteen bulls from five months to two years old. About half are Imp. They are priced to sell. Write or come and see me. A. G. Farrow, Oakville, Ont.

FIFTY IMPORTED SHORTHORNS

I have fifty head of choice Scotch bred cattle now on the water, which will land at Quebec early in November. These were selected from many of the best herds in the old land. Wait for these. Write for particulars. GEO. ISAAC, COBourg, ONTARIO.

SPRING VALLEY SHORTHORNS

Herd headed by the two great breeding bulls, Newton Ringleader (imp.) 73783, and Nonpareil Ramsden 83422. Can supply a few of either sex.

KYLE BROS. DRUMBO, ONT. PHONE AND TELEGRAPH VIA AYR

Blairgowrie Shorthorns and Shropshires

20 imported cattle, cows and heifers; all have calves at foot or are in calf to British service. Bulls for breeders wanting herd headers. Also home-bred bulls and females. Prices right. Rams and ewes in any numbers. JOHN MILLER, Myrtle Station, C.P.R., G.T.R. ASHBURN, ONTARIO

SALEM SHORTHORNS

Herd headed by Gainford Marquis (imp.), undefeated in England and Canada. Sire of the winning group at Canadian National, 1914, 1915, 1916. Can supply cattle, both sexes, at all times. J. A. WATT, ELORA, ONTARIO.

Imported Scotch Shorthorns

Our present offering includes 100 imported females and 12 young imported bulls, representing the most desirable lines of breeding. If interested come and see them. Burlington Jct., G.T.R., is only half mile from farm. J. A. & H. M. PETTIT, FREEMAN, ONTARIO.

IMPORTED SHORTHORN BULLS

We have several newly-imported bulls of serviceable age. Cruikshank, Marr and Duthie breeding, as well as a number of choice, home-bred young steers, got by our noted herd sire, Proud Monarch, by Royal Blood. Get our prices before buying elsewhere. RICHARDSON BROS., Columbus, Ont.

CREEKSIDE SCOTCH SHORTHORNS

Herd headed by Gay Monarch 79611, dam, Sally 8th Imp., and sire, the great Gold Sultan 75411. My present offering of young bulls includes several 7 to 14 months' youngsters, all thick, mellow well-grown fellows—reds and roans—and priced right. Can also supply females in most any numbers Geo. Ferguson—Elora Station, C.P.R., G.T.R.—Salem, Ont.

PURE SCOTCH SHORTHORN BULLS

Our present offering of young bulls, sired by our herd sire, Broadhooks Star, a son of the great Newton Ringleader, Imp., are the best lot of bulls we ever had on the farm. Come and see them or write for particulars. We also have females of the richest breeding and highest individuality. GORDON SMITH Woodlee Sta., M.C.R., Essex County. SOUTH WOODSLEE, ONT.

WE WANT

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Sire in service, Roan Chief, Imp. 60865. Young bulls from 10 to 14 months, and a choice lot of rams and ewes. All by imported sires.

W. A. Douglas, Caledonia, Ontario

A GOOD
SHORTHORN BULL FOR SALE

A rare opportunity to secure the high-class bull, Sea King -84762-, Mayflower bred son of the great Trout Creek Wonder. Red roan, 5 years old. For particulars write:

W. W. SCOTT, R. No. 2, HIGHGATE, ONT.

R. O. P. SHORTHORNS

The Evergreen Hill Herd. Your next sire should be backed by both R.O.P. sires and dams. Our offering of young bulls are all bred this way. Write for particulars and come and see herd.

S. W. JACKSON, R.R. 4, WOODSTOCK, ONT.

Glenfoyle Dual-Purpose Shorthorns

Herd bull College Duke 4th, 95430, big, thick young cows and heifers for sale; 8 young bulls, some herd headers. Also a yearling Clyde, tallion.

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Brownlee Shorthorns.

Offers a choice lot of young bulls, ranging in ages up to nine months and sired by the Nonpareil bull, Royal Saxon. See these before buying elsewhere. Could also spare a few females. Douglas Brown, Bright, Ont., R. R. 3, Ayr Station, C. P. R.

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We are open to buy cream both for churning and table use.

ASK ANY SHIPPER
about our service and prompt returns.

Ask for Prices

The figures of yesterday may be TOO LOW for to-morrow. We furnish cans.

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Cream Wanted

Ship your cream to us. We pay all express charges. We supply cans. We remit daily. We guarantee highest market price.

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If it is anything in the feed line, we have it. In car lots or less. Write or phone for prices.

CRAMPSEY & KELLY
Dovercourt Road, Toronto, Ont.

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Skunk, Red Fox, Coon

and all other kinds wanted. We pay all express and postage, and remit money same day for shipment. Write for Price List and Tags, free.

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Record HOLSTEINS

We have the only two sons in Canada of the 46-lb. bull, Ormsby Jane King, only mature son of the world's most famous cow. One of them for sale. Also a 30-lb. calf, whose dam and 2 great grandams average 38.4 lbs. butter in 8 days. Eleven bull calves of lesser note and females all ages.

R. M. HOLTBY, R. 4, PORT PERRY, ONT.

Manor Farm Holsteins

Those wishing a young sire from high-record dams and sired by King Segis Pontiac Posch will do well to write for pedigree and prices before buying elsewhere.

SATISFACTION GUARANTEED
Gordon S. Gooderham
CLARKSON ONTARIO

For Milk, Butter, Cheese, Veal Holstein Cows Stand Supreme

If you try just one animal you will very soon want more.

WRITE THE
HOLSTEIN-FRIESIAN ASSOCIATION
W. A. Clemons, Sec'y - St. George, Ont.

HOLSTEINS

Twelve to fifteen females, cows, heifers, calves; extra well bred, choice individuals. Priced reasonable to anyone taking the lot; also two bull calves, grandsons of "King Pontiac Artis Canada." Inspection invited.

WM. A. RIFE, Hespeler, Ontario

BULL CALVES FOR SALE

Two bull calves for sale, sired by my herd sire, Netherland Segis and out of tested dams; one mostly white, the other half black and white. Born in March and April. Price \$45.00 and \$50.00.

JACOB SCHEIB
Evergreen Farm R. R. 3, RODNEY, ONT.

Are We on the Trail?

EDITOR "THE FARMER'S ADVOCATE":
One of the most suggestive impressions of my early life is associated with the track or trail in the woods.

In the pioneer days the cows were allowed to roam in summer with the other cattle in the "bush." One of the cows usually wore a bell, so that their whereabouts could be known, except on occasions when they wandered into the depths of the forest. Then the fun, or mayhap, the trouble, began—the hunt for the cows. Sometimes no trail could be found; in other instances two or three "tracks" might be seen, and one would be quite at a loss as to which of these to follow. To leave the trail might mean to be "lost in the woods." In this case the search was usually abandoned, and the cows left to their instinct to "come home."

"Though reasoning at every step he treads
Man still mistakes his way,
While meaner things which instinct leads
Are seldom known to stray."

By this wonderful instinct the bird from fields and woods afar, returns unerringly to its nest. The honey-bee, laden with nectar from distant flowers, makes no mistake about the location of its storehouse of honey, and all without chart, compass, or course of instruction. Man, with his teachers, science, logic, philosophy, is yet liable to error, and makes many mistakes both along the beaten path and also in his pathless excursions in quest of truth. His geometry, though in itself absolute truth, yet cannot conduct him infallibly to truths or systems outside its own domain. If geometry could fashion government or political economy and formulate it according to its own principle, man would long ago have been on the right trail and have had a government with the party spirit eliminated, and a political economy based on union, such as initiated for Canada.

Long have we wandered in the wilderness of political division, strife and unrest. In division and strife are weakness and decay; in harmony is strength. Are we on the right trail?
Kent Co., Ont. W. J. WAY.

Questions and Answers.

Miscellaneous.

Barn Construction.

I am considering building a barn. Have you any books dealing with barn construction, particularly plank-frame? Does the Agricultural Department at Ottawa issue any literature regarding desirable types of barns?

K. L.

Ans.—The Experimental Farm, Ottawa, has issued a pamphlet describing different types of plank-frame barns and giving specifications for material used. The following books may be secured through this office: "Plank-Frame Barn Construction" 60 cents, postpaid; "Farm Buildings," by Shearer, \$1.10.

Blackhead in Turkeys.

What are the symptoms of blackhead in turkeys? What remedy is recommended?

A. S.

Ans.—The symptoms first likely to appear are lack of appetite, emaciation, inclination to keep away from the rest of the flock, diarrhoea, discoloration of the head as the disease advances. A post mortem examination will usually show the caeca filled with cheesy contents and sunken spots may be seen on an enlarged liver. Remedies do not always prove effective. One teaspoonful of muriatic acid to a pint of drinking water is recommended. Sulphur, 5 grains; sulphate of iron, 1 grain, and sulphate of quinine, 3 grains, administered night and morning, is a mixture sometimes used. This remedy should be preceded and followed by a dose of Epsom salts or castor oil. All birds which show symptoms of the disease should be isolated from the main flock, and it is necessary to put the healthy flock on fresh ground occasionally. The disease germs may remain in the pen or yard for some time, or in the ground on which the birds have fed.

SUNNYBROOK FARM HOLSTEINS

A few choice yearling bulls and heifers. Fine individuals, beautifully marked and highly strained in the blood of the world's record cattle.
1 Clydesdale stallion, "Coming Star". Fine type, excellent breeding. Rising 5 yrs. Write for particulars.

JOS. KILGOUR, EGLINTON. Toronto Phones: Bel 184, Adel. 3900

HIGHLAND LAKE FARMS

Herd sire, AVONDALE PONTIAC ECHO (under lease) a son of MAY ECHO SYLVIA, the world's record cow. Only one other 41-lb. bull in Canada.
We have young bulls for sale whose two nearest dams (both Canadian champions) average as high as 35.62 lbs. butter in seven days; another whose two nearest dams are both 100-lb. cows; and one ready for service from a 41-lb. sire and an 18,000-lb. two-year-old dam. Send for our BOOK OF BULLS. A few females for sale. Satisfaction guaranteed.

R. W. E. BURNABY (Farm at Stop 55, Yonge St. Radial) JEFFERSON, ONT.

Roycroft Farm Holstein-Friesians

Our 30-lb. bulls have all been sold, but we still have several sons of Pontiac Korndyke of Het Loo, that are just nearing serviceable age. Get one of these for your next herd sire, have a brother of Het Loo Pietertje, the world's greatest junior two-year-old at the head of your herd. We also have a 9 months, 27.78-lb. son of King Segis Alcartra; and one other, same age, by Dutchland Colantha Sir Mona. See them at once or write early.

W. L. Shaw, Roycroft Farm (Take Yonge Street Radial Cars from N. Toronto) Newmarket, Ont.

Hospital for Insane--Hamilton, Ont.

Present offerings are 4 grandsons of Dutchland Colantha Sir Mona, and high-testing, large-producing R. of P. dams of Korndyke and Aaggie DeKol breeding. Born during April and May, 1917. Apply to Superintendent.

SUMMER HILL HOLSTEINS

The only herd in America that has two stock bulls that the dam of each has milked over 118 lbs. a day and their average butter records are over 35 lbs. a week. We have 50 heifers and young bulls to offer by these sires, and out of dams just as well bred. We invite personal inspection.

D. C. FLATT & SON, R. R. 2, HAMILTON, ONT. PHONE 7165

TWENTY-FIVE HOLSTEIN FEMALES

The first I have ever offered. I am away over-stocked and am offering females for the first time I have over eighty head. Come and make your selection—one or twenty-five. The best-bred lot of cattle in Ontario. I also have five young bulls.

A. A. FAREWELL, 30 miles east of Toronto—C.P.R., C.N.R., G.T.R. OSHAWA, ONT.

DUMFRIES FARM HOLSTEINS

100 head to choose from. Special offering—cows and heifers fresh and to freshen. Visitors always welcome.

S. G. & ERLE KITCHEN, ST. GEORGE, ONTARIO.

CLOVERLEA DAIRY FARMS OFFER FOR SALE

THREE CHOICE, YOUNG HOLSTEIN BULLS

about ready for service, from high-testing dams. For price and extended pedigrees apply to GRIESBACH BROS., R. R. NO. 1, COLLINGWOOD, ONTARIO.

MAPLE SOIL STOCK FARM HOLSTEINS

Fine quality, typey, heavy-producing Holsteins—forty head to choose from. The females are sired by Idaline's Paul Veeman and King Segis Pietertje, and are in calf to FINDERNE King May Payne. Two bull calves, about ready for service, sired by the latter bull and out of heavy-producing cows, for immediate sale. Females in milk have made high records and sires used have the backing and are proving good. Correspondence solicited, visitors welcome. **H. C. HOLTBY, GLANWORTH, ONT.**

HOLSTEINS

Present offering: a number of yearling heifers by Butter Baron, a son of the 33-lb. champion cow, Queen Butter Baroness. Also some choice young cows due to freshen this fall and early winter. A few young bulls by the herd header will be sold right. Get of Butter Baron was first at Toronto and London this year.

M. H. Hailey, Springfield, Ont.

Record Breeding and Great Individuality are combined in the young sons we are now offering from daughters of Lewis Prilly Rouble Hartog, and sired by Baron Colantha Payne. They will improve most herds. Several are of serviceable age. See these.

T. W. McQUEEN, Oxford County, TILLSONBURG, ONT.

Riverside Holsteins Herd headed by "King Johanna Pontiac Korndyke," a brother of Pontiac Lady Korndyke, 38.02 lbs. butter in 7 days, 158.92 in 30 days—world's record when made. His ten nearest relatives have official records that average 34.94 lbs. butter in 7 days. His daughters have made good in official test. The present R. of P. cow of Canada was bred here. Choice young bulls for sale.

J. W. RICHARDSON, R. R. NO. 2, CALEDONIA, ONT.

Pioneer Farm Holstein Herd With big yearly records and high average butter-fat test, and headed by Canary Hartog, grandson of Royalton Violet, at 10 years 30.39 lbs. butter, 735 lbs. milk in 7 days; 29,963 lbs. milk, 1,300 lbs. butter in 1 year. Sire's dam, Royalton De Kol Fern, 34.69 lbs. butter in 7 days, 116 lbs. milk in 1 day. Bull calves for sale, born after Jan. 25th, 1917; dams over 11,000 lbs. milk up to nearly 16,000 lbs. milk in 1 year, at 2 years old. Walburn Rivers, R.R. No. 5, Ingersoll, Ontario. Phone 343L, Ingersoll Independent Line.

WILLOWBANKS HOLSTEIN-FRIESIANS

Herd headed by King Walker Pride (C. H. B., 17362) (A. H. B., 207261) who is a son of the famous King Walker and the great show cow, Pride Hengerveld Lennox 30.12, who is a granddaughter of Blanche Lyons De Kol 33.31 and King Segis, who is a grandsire of world-champion cow, also of the two highest-priced bulls of the breed. Young stock for sale.

C. V. ROBBINS, Bell Phone, WELLANDPORT, ONT.

Low Banks Farm Holsteins Fairview Korndyke Boy, our senior herd sire, is son of Pontiac Korndyke, from a daughter of the same sire, and is proving his relationship to his noted sire in his daughters, 4 of which have made over 20 lbs. butter each in 7 days. Only 2 sons of Fairview left, nice straight, deep-bodied fellows. Have 2 sons of Sir Echo, 3/4 brother to May Echo Sylvia—beautiful individuals **K.M. Dalgleish, Kenmore, Ont.**

EVERGREEN STOCK FARM HOLSTEIN-FRIESIANS
Our unparalleled success at the Toronto and London Exhibitions during the past five years places Evergreen Holsteins in a class by themselves. The strong combination of size and type found in our individuals makes record producers. Your next herd bull should be carefully selected. See our offering before buying elsewhere.

A. E. HULET, (Oxford County), NORWICH, ONT.

SILVER STREAM FARM HOLSTEINS

The home of high-class R.O.P. and R.O.M. tested Holsteins. King Lyons Colantha and King Lyons Hengerveld head the herd. No stock for sale at present.

J. Mogk & Son, R. R. No. 1, Tavistock, Ont.

Edgeley Stock Farm The home of Canada's greatest producing Jersey, **SUNBEAM OF EDGELEY**, the Sweepstakes Dairy Cow at the recent Guelph test; is also the champion R.O.P. butter cow for Canada. Would a grandson or great-grandson of this famous cow improve your herd? We have them. Write for particulars.

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Dehorned cattle take on flesh quicker. Their meat is tender and firm and brings a higher price. The KEYSTONE DEHORNER is used at the Government Agricultural Colleges. Write for booklet.

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We have bred over one half the world's Jersey Champions for large yearly production at the pail. We bred and have in service the two grand champion Berkshire boars. If you need a sire for improvement, write us for literature, description and prices.

HOOD FARM, LOWELL, MASS.

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will make money on any farm.

WRITE W.F. STEPHEN, Secretary
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Box 513, Huntingdon, Que.

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Young bulls for sale (out of R.O.P. dams) from one to fifteen months old; tracing closely to the world's champions, Garclaugh May Mischief and Jean Armour.

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Choice Offering in Ayrshires
At Special Prices. Several young bulls of serviceable ages. All from R. O. P. sires and dams. Come and see them.

Jno. A. Morrison, Mount Elgin, Ontario.

Kelso Farm R. O. P. Ayrshires. Herd headed by Palmerston Speculation Imp. We never had a stronger line-up of R. O. P. producers than we have at present. Our 1917-1918 young bulls are sure to please. D. A. Macfarlane, Cars Crossing, G.T.R., Athelstan, N. Y. C.; Kelso, Que.

Glencair Ayrshires 40 years. Producing ability from 8,600 to 11,022 lbs. If that sort of production appeals to you, we have heifers all ages and young bulls for sale. Thos. J. McCormick, Rockton, Ont. Copetown Stn., G.T.R.

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Champion Oxfords of America

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For size, quality and breeding our Oxfords cannot be excelled. Our flock has won the Chicago championship yearly since 1910 and the championships at all the leading fairs of Canada since the flock was established in 1879. We have for sale 20 yearling rams and 30 ram lambs (flock headers), 50 yearling ewes and 50 ewe lambs, all sires by the best rams obtainable. Write and let us know what your requirements are. Prices reasonable.

Peter Arkell & Sons, R.R.No.1, Teeswater, Ont.
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Cloverdale Shropshires and Berkshires—40 shearing rams, 70 shearing ewes, an exceptionally choice lot; true to type and well grown; nearly all sired by the show ram, Nock 16 Imp. In Berkshires, the usual strong offering, including sows just bred. C.J. LANG, Burketon, Ont

ELM VIEW OXFORD DOWNS

Fifteen yearling rams and ewes, including Winter Fair prize rams. 50 ram lambs and 25 ewe lambs. Prices reasonable. Visit or write.

BRUCE A. McKINNON, HILLSBURG, ONT.

SHROPSHIREs

30 Yearling Rams—12 Yearling Ewes.

W. H. PUGH, MYRTLE STATION, R. R. 1
Farm 2 miles from Claremont

OXFORDS and COLLIES

We offer a number of splendid ram lambs, registered, also choice, pedigreed Collie puppies. We guarantee satisfaction.

B. ARMSTRONG & SON, Cadrington, Ontario

Experimental Farm at Cap Rouge.

EDITOR "THE FARMER'S ADVOCATE":

It is very probable that many owners of pure-bred Yorkshires throughout Canada can trace their start in the business, to breeding stock purchased from one Gus Langelier, who, prior to 1911 made a specialty of developing this popular breed. Of course, he is as much interested in live-stock matters as in the old days, but from the standpoint of an experimentalist. It is, no doubt, well known among his old friends and customers in the other provinces, that the Federal Government some six years ago took over Stadacona Farm, as Mr. Langelier's place was known, for an experimental farm, along with its erstwhile owner as superintendent.

Situated at Cap Rouge, about ten miles from the city of Quebec, the intention is that the work carried on there will be particularly applicable to the central portions of the Province. Of the 320 acres, about one-half is under cultivation. The soil varies from a sandy to a heavy clay loam, and contains a great deal of shaly material. Though it is not considered very fertile it is fairly representative of the farms in Central Quebec.

The work in Field Husbandry at this Station comprises crop management, soil management and agricultural engineering. Since becoming a government institution many experiments have been carried out. Among the most valuable were those relating to rotations. It has been the practice for farmers thereabouts to follow long rotations. With a not over fertile soil it is being demonstrated that better results, both as to crop yields and soil conditions, may be secured by a shorter rotation period ranging anywhere from three to five years according to circumstances.

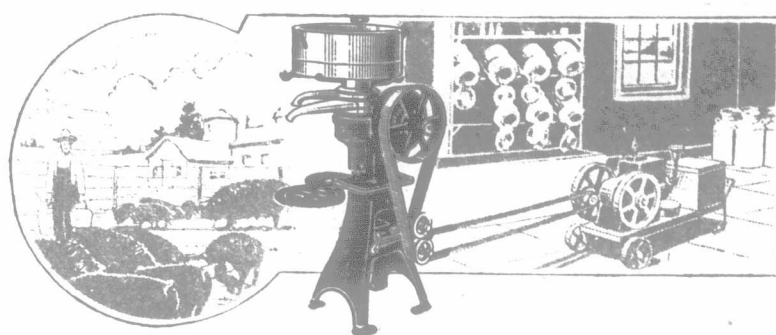
Variety tests of oats, barley, wheat, peas, corn and roots are carried on with the object of determining the best varieties that will mature in the rather short-growing season of the district. The average of five years places Banner first among the oats, Manchurian among barleys, Huron among wheats, and Early Longfellow among silage corns.

A dairy herd of French Canadian cattle, numbering 36 head, is maintained in connection with the farm, the majority of which are pure-breds. Twelve of these have qualified for the Performance test, a record that speaks for their quality. Some fine specimens of French Canadian horses, Yorkshire swine and Shropshire sheep are kept, and the numbers are being gradually increased as circumstances direct. Considerable attention is being paid to the work with sheep. This line of stock is proving popular in the province, due to the high prices of wool and mutton. A large and commodious sheep barn was completed about a year ago, and enables more extensive operations to be carried on in this connection. Data is being sought by means of experiments as to whether it would not pay the farmer better to keep his lambs until some time during the winter than to follow the usual custom of dumping them on to a low, autumn market. At the same time tests are being made to decide whether a ration can be compounded from home-grown materials that will profitably take the place of purchased concentrates.

An effort has been made to have the stables and barns thoroughly up-to-date as regards lighting, ventilation, etc., and in this respect good ideas are furnished the farmers who plan to build on their own farms. The superintendent takes a special interest in poultry, and is trying to let some of his enthusiasm radiate to the people in his district. A large series of houses have been built, and the growing equipment promises a rapid development for the industry.

Horticulturally, a good start has likewise been made. The chief interest, however, centres around a young, ten-acre apple orchard. This is being added to every year, a careful account kept of the cost and new varieties and methods of culture are being tried out. It is expected that by showing the farmer exactly how he can make money in orcharding and lending him a hand when he needs help, that the fruit-growing possibilities of this district will be brought rapidly to the front.

There is no doubt that Mr. Langelier as a farmer and an expert stockman is



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EVEN though you have no more than two or three cows, there are good reasons why you should have a Primrose cream separator. The Primrose has a record of skimming out all the cream except the last drop or two in each gallon of milk.

Of the many reasons for this close skimming, we can mention only two good Primrose features—the double cream outlet and the regulating screw in the skimmed milk outlet. It is important that the cream have a free outlet from the bowl, plenty of room to escape without cutting or crushing the large fat globules which make such smooth, rich butter and give quality and value to the cream. Therefore, we not only place no screw in the cream outlet, but we provide a second outlet as large as the first. Through these the cream finds easy passage after its complete separation in the bowl.

If a less dense cream is wanted, a turn of the screw in the skimmed milk outlet forces a thin edge of skimmed milk into the cream channel, thinning the cream but not interfering in any way with the closeness of the skimming.

These and other valuable Primrose features are fully described in catalogues which we will send promptly. Write us for them, addressing the nearest branch house.

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WEST—Brandon, Man., Calgary, Alta., Edmonton, Alta., Estevan, Sask., Lethbridge, Alta., N. Battleford, Sask., Regina, Sask., Saskatoon, Sask., Winnipeg, Man., Yorkton, Sask.
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Buy Jerseys NOW!

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JNO. PRINGLE, President, London, Ont. BARTLEY A. BULL, Secretary, Brampton

THE WOODVIEW FARM JERSEYS LONDON, ONTARIO John Pringle, Prop.

CANADA'S MOST BEAUTIFUL JERSEY HERD The foundation of this herd is made up of very high-class cows, imported from the island of Jersey, most of them in the record of Performance, and while we have, at all times, a few mature cows for sale, we make a specialty of in-calf heifers and young bulls. Write us your wants, or better still, come and see the herd. We work our show cows and show our work cows.

BRAMPTON JERSEYS

Special Offering—50 cows and heifers in calf, 7 bulls; the best breeding ever offered in Canada from R.O.P. stock. The ancestors of these bulls have made and are making Jersey history. No better stock can be obtained. B. H. BULL & SON, BRAMPTON, ONTARIO

SPRING BANK R. O. P. AYRSHIRES

Herd Sires, Netherton King Theodore, Imp. and Humeshaugh Invincible, Grand Champion, London, 1917. Our herd at present holds the Canadian records for both milk and butter in the two-year, the three-year and the mature classes. Let us tell you about the daughters of Netherton King Theodore. We have sons of both bulls for sale—all have R. O. P. dams. Visitors met at Hamilton by appointment. A. S. Turner & Son (3 miles from Hamilton) Ryckman's Corners, Ont.



Glenhurst Ayrshires

For 50 years I have been breeding the great Flos tribe of Ayrshires; dozens of them have been 60-lb. cows. I have lots of them get 60 lbs. a day on twice-a-day milking. Young bulls 1 to 10 months of age, females all ages. If this kind of production appeals to you, write me. James Benning, Williamstown, Ont.

RAVENSDALE AYRSHIRES

We have a number of exceptionally good bulls as well as a choice lot of young heifers that we can offer at present. They are all sired by Auchinbrain Sea Foam (Imp.) or cherry Bank Fair Trade 44413. We can also spare a few young cows with the best of type and breeding. Come and see the Ravensdale herd. Correspondence solicited. W. F. Kay, Phillipsburg, Que., St. Armand Station, C. P. R.

"The Maples" Stock Farm—R. S. Robson & Son, Props., Denfield, Ont.

Present offering—100 home-bred Lincoln ewes, ages 1 to 4 years (registered); 20 imp. yearling ewes, all bred to the best of 20 rams we imported this season—an extra-good lot of the heavy-shearing kind. In Shorthorns we have for sale cows and heifers of such strains as Clarets, Clippers, Village Girls, Missies and Miss Ramdens.

Farnham Oxford Downs

Ewes and yearling rams all sold. We have still a number of strong ram lambs to offer. Also a few Hampshire lambs, rams. Henry Arkell & Son, (Phone 355, R. 2.) Guelph, R.R. 2, Ontario.

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You get strong, healthy porkers when
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The Canada Linseed Oil Mills, Limited
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YORKSHIRES

We have four large litters of choicely bred Yorkshires and are booking orders for delivery as soon as weaned. Great Britain and her Allies will be requiring pork products. Now is the time to buy good breeding stock.

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Farmer's Advocate

LONDON, ONTARIO

PEDIGREED TAMWORTHS

Several sows, 2 years old, in pig.
Also younger stock.
Write:

Herolds Farms, Beamsville, Ont.

Meadow Brook Yorkshires—Young pigs weaned and ready to wean, both sexes, and pairs not akin; also a choice lot of sows near breeding age. Prices right.

G. W. MINERS, R.R. No. 3, Exeter, Ontario

BEAVER MEDI CHESTER WHITES

won over 75% of the prize money at Toronto this year with three herds showing. Write us for bred sows or young boars. We guarantee satisfaction. We also have Percherons.

Wm Roberts & Sons, Peterboro, Ontario

TAMWORTHS

Young sows bred for Fall farrow, and a nice lot of young boars for sale. Write

John W. Todd, R.R. No. 1, Corinth, Ont.

Morrison Tamworths and Shorthorns—Bred from the prizewinning herds of England. Tamworths, both sexes, boars from 2 to 12 months. Shorthorn bulls from 5 to 10 months old, reds and roans—dandies.

CHAS. CURRIE, Morrison, Ont.

Polands, Durocs and Berkshires Young stock at all times, both sexes and all ages. Can also supply anything in Dorsets or South-downs. Everything priced to sell.

Cecil Stobbs, Leamington, Ont.

PROSPECT HILL BERKSHIRES

Young stock, either sex, for sale, from our imported sows and boars; also some from our show herd, headed by our stock boar, Ringleader. Terms and prices right. John Weir & Son, Paris, Ont., R. R. 1

SPRINGBANK CHESTER WHITES

Pigs, both sexes, five months old and younger; a number of them sired by Curly King—9997—, who has been a winner at Toronto and London the last several years. Satisfaction guaranteed. Inspection invited. Wm. Stevenson & Son, Science Hill, Ont.

Featherston's Yorkshires—The Pine Grove Herd I have the choicest lot of young sows of breeding age that were ever on the farm. A few are already bred. Also have 10 young litters. Prices reasonable. J. K. FEATHERSTON, STREETSVILLE, ONT.

DUROC JERSEYS.

Our herd won all champion prizes at Toronto and London, 1916 and 1917. Pairs not akin. Young stock all ages for sale. Visitors welcome. For further particulars write:

Culbert Malott, No. 3, Wheatley, Ont.

Lakeview Yorkshires If you want a brood sow or a stock boar of the greatest strain of the breed, (Cinderella), bred from prizewinners for generations back, write me. Young sows bred and boars ready for service. JOHN DUCK, PORT CREDIT, ONTARIO

bearing out the government's expectations. That the farm has become a popular institution is evident from the thousands who visit it annually. In Quebec city there is a good market, and when the farmers learn better methods of production and marketing there is no reason why they shouldn't derive more profit from their farms than they do. At any rate, that is the mission of Supt. Langelier and "The Farm" at Cap Rouge. AGRICOLA.

Underdrainage at the Central Experimental Farm, Ottawa.

While the Central Experimental Farm was yet in its infancy the necessity for installing a system of underdrainage was realized. From year to year the system has been improved and extended, until at the present time a very complete drainage scheme is in operation.

Soil conditions vary greatly. The surface soil ranges from sand to clay with all intervening types. Besides there are considerable areas of muck. The sub-soil is of the same variable character, and in many places the problem of combating quick or running sand is encountered. The contour of the land may be termed gently to abruptly rolling, inclined to form pockets or basins, and on the whole having little natural outlet. Under these conditions, the problem of drainage was rather a difficult one, entailing considerable thought and accurate work. Three main outlets are used, two located at the western and one at the eastern boundary. In explanation of the system it may be defined as a combination or modification of the herring-bone, gridiron and across-the-slope systems of drainage. The first-described system is well suited to drain ponds or basins; the second or gridiron system is adapted to level land where the drainage required is fairly uniform; the across-the-slope system is used on the side hills and slopes. Clay tile were used throughout, varying in size from 3 to 10 inches. Tile smaller than three inch were considered too small in this instance, and are not recommended for ordinary operations.

Sand traps or silt basins are indispensable, furnishing clearance for the fine sand that enters the tile and which, if not provided for, would lodge in and clog such tile as are laid on somewhat less than a two-inch grade. These sand traps are of different sizes, according to requirements. Some are six feet square while the majority are approximately four feet square, extending into the ground about two feet below the outlet tile, thus providing ample space for considerable deposits of sand and silt. The traps are enclosed by concrete walls six inches thick, flush with the surface of the ground and covered by concrete tops provided with man-holes protected by gratings. They are located, as far as practicable, adjacent to roadways, fences or other suitable places to ensure the least possible obstruction in cultivated fields.

The depth and distance apart of the drains vary with soil conditions. In clay sub-soil, the laterals are as close as forty feet at a depth of approximately three feet. In lighter soils, the laterals are farther apart and often deeper in the ground, especially towards the outlets.

With regard to the maintenance of a drainage system the most important factor to observe is to practice systematic inspection of the whole and prompt repair of part or parts that require attention. This is essential for a low cost of maintenance and for an efficient system.

From the earliest time in the history of the Farm the staple field crops grown have included silage corn, alfalfa, red clover, roots and cereals, which require thoroughly drained soils for best results. During this period the records show that corn has never been a failure, red clover and cereals have rarely suffered.

In recent years, especially in the season of 1916, the benefits of and necessity for underdrainage were very pronounced. In that memorable season 11.13 inches of rainfall were recorded at the Central Farm for the months of May and June, but even under these adverse conditions the following creditable yields of crops per acre were recorded: silage corn, 12.4 tons; oats, 44.4 bushels; roots, 10.4 tons, and hay, 4.6 tons. Throughout the district, however, no such yields were obtained and, with the exception of hay, farm crops were practically a failure.—Experimental Farms Note.

Help Your Country AND HELP YOURSELF

It doesn't matter who you are or what you are, how old or how young, you should buy Canada's Victory Bonds.

Many people have the idea that buying a bond is a very serious matter and that they should think it over very carefully before putting money into it.

As a matter of fact a Victory Bond is practically as transferrable as a fifty- or a one-hundred-dollar bill. You can spend it or you can borrow money on it as security at any time. It differs from money only in one detail—it bears interest.

Buying a Victory Bond is a safe, sound, profitable investment, as they not only pay a high rate of interest but are free from taxation and will eventually be worth much more than you pay for them. Ask your banker.

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ELMHURST LARGE ENGLISH BERKSHIRES

From our recent importation of sows, together with the stock boar, Suddon Torredor, we can supply select breeding stock all ages. Satisfaction and safe delivery guaranteed. H. M. VANDERLIP, Breeder and Importer, R. R. 1, BRANTFORD, ONT. Langford Station on Brantford and Hamilton Radial

OAK LODGE YORKSHIRE HOGS

We have a large selection of extra-good boars and sows of different ages. We are selling at prices that make it attractive for the purchaser. Write for what you want. J. E. BRETHOUR & NEPEWS, BURFORD, ONTARIO.

ENGLISH LARGE BLACK PIGS

We have for sale at present some young pigs of a breed new to Canada but standardized and very popular in England, from our pure-bred imported LARGE BLACKS. Stock excellent for crossing with other breeds. Their English reputation is that they grow large and fast. Also for sale, pure-bred English Berkshires. Lynnore Stock Farm, F. Wallace Cockshutt, Brantford, Ont.

BERKSHIRES

My Berkshires for many years have won the leading prizes at Toronto, London and Guelph. Highcleres and Sallys, the best strain of the breed, both sexes, any age. Adam Thompson R. R. No. 1, Stratford, Ont., Shakespeare Station, G.T.R.

When writing advertisers will you kindly mention The Farmer's Advocate.

Large Supply of Hog Feed Available

The farmers of Canada and the United States are asked to do their utmost to increase the production of hogs in order to relieve the critical situation in regard to the shortage of meat and fats in Great Britain, France and Italy, there being a shortage of 32,425,000 hogs in Europe.

Government Co-operation

The Dominion Government and the Provincial Governments are co-operating in every way possible to bring the gravity of the situation before the farmers of Canada and to safeguard the producers from loss in the undertaking.

Bran and Shorts

By licensing the Flour Mills, the Government allows a profit of but 25 cents a barrel on the flour only—the bran and the shorts are to be sold at cost, which ensures the farmer getting this feed at a moderate price.

Steps have also been taken to prevent the adulteration of bran and shorts.

United States Corn

The United States has the greatest corn crop in her history—more than 600,000,000 bushels in excess of 1916 and nearly 250,000,000 bushels more than the bumper crop of 1915. The United States will have a large surplus for export which will be available to Canadian producers.

Because of the shortage of the 1916 crop, and to prevent speculation, the United States has sold its corn under license.

The licensing system will not likely be used in connection with the 1917 crop which will be on the market about the middle of December, but the United States Government will exercise some form of control that will prevent speculation.

In the meantime, anyone in Canada can import American corn for any legitimate purpose, such as for feed, by obtaining a license. Application for license is made through the Canadian Food Controller.

World Shortage of Meat

The world shortage of meat indicates security as to the market. The depletion of the herds of animals in Europe is proceeding with increased rapidity, there now being 115,000,000 less animals in Europe than before the war.

Allies Killing Animals

On account of the scarcity of ocean tonnage the Allies are adopting the policy of slaughtering their animals to save the space on the ships occupied by the grain hitherto imported for feeding these animals. They prefer to import bacon rather than to produce it, because a given weight of bacon occupies very much less space on board ship than would be required to accommodate the grain it would be necessary to import for the production of hogs.

The Government of Canada is making arrangements to control the spread between the price received by the grower and the price paid by the consumer. The producer will be assured his fair share of the price paid by the consumer.

Bought Through One Channel

The buying of the meat for the Allies will all be done by the one Commission representing the Allies which will be an influence in stabilizing the market and preventing wide fluctuations in price.

The Allies are dependent upon Canada and the United States to save the meat situation in Europe. Many shops in Britain have no bacon at all for sale—and for some months past the rising price of bacon has been simultaneous with deterioration in quality, indicating an increasing and general scarcity of this commodity.

United States Committed

The United States has committed itself to increase its hog production by 25 per cent in 1918.

The determination and fighting spirit of the heroic Canadian troops in Flanders is one example of what Canadians can do when called upon. The appeal is to Canada as well as to the United States to provide the boys in the trenches with their daily ration of $\frac{1}{4}$ lb. bacon per man, and to supply the women and children of Great Britain, France and Italy with the food they so urgently need.

SAVE THE YOUNG SOWS

Their progeny will be a vital factor in winning the war. A young sow slaughtered now will only produce about 150 lbs. of meat. One litter will yield many times that quantity.

Dominion of Canada Department of Agriculture

**LIVE STOCK BRANCH
OTTAWA**

Make a close study of your Market

and marketing conditions. It may mean dollars to you to study these types in relation to market quotations

Brief description is given of the three outstanding types of beef cattle—steers, feeders and stockers—as shipped to market, and the detail that attends the receipt and sale of your stock at the yards.

When a car of cattle arrives at one of the central markets, the number of the car and the name of the party or firm you are shipping to is noted. The cattle are unloaded, weighed and distributed to the pens of the commission firm you have shipped to. They are then ready for the salesmen.

After sale, they are weighed to the buyer. The proceeds of

the sale, less the actual charges, are then remitted to the shipper. These charges are:

Unloading—\$1 per car.

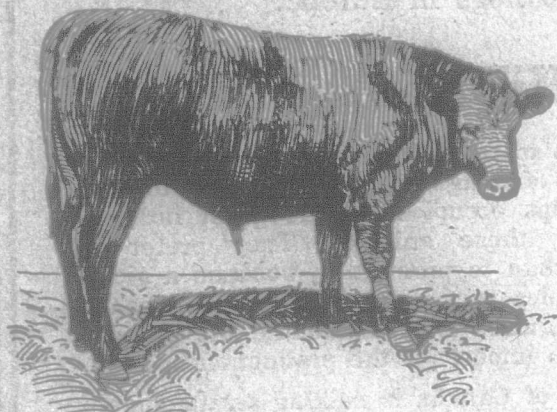
Yardage, or use of pens—25c. per bullock.

Commission for selling—\$13 per car.

Insurance—10c. per car.

Freight—If freight was prepaid there is no deduction.

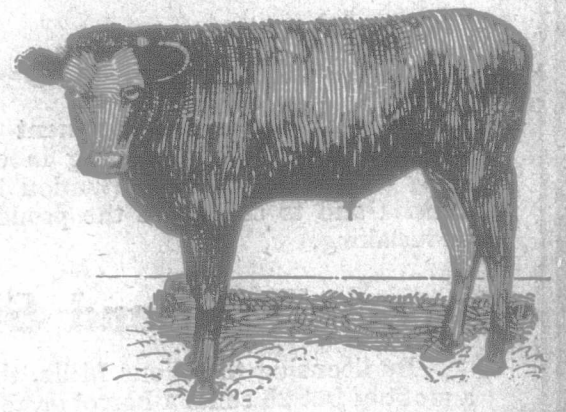
The ordinary stock car will easily hold 16 choice steers, or 20 feeders or 25 stockers.



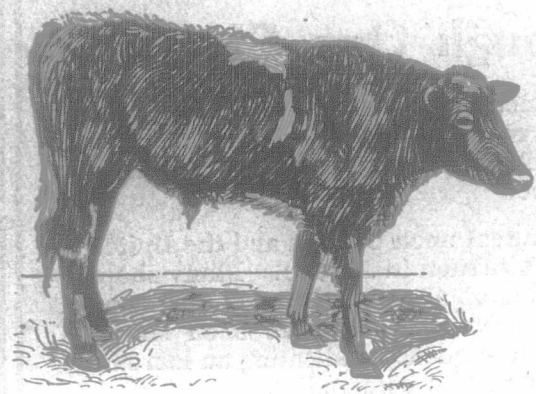
CHOICE STEER—Weighs not less than 1,200 lbs., well covered with good, firm flesh and of beef type.



GOOD STEER—May be of fair conformation, but lacking in either quality or finish. A great many steers fall into this class owing to the fact that, while of good weight and finish, they are inclined to be coarse.



COMMON STEER—Is likely to be of light weight, rough and coarse, and not capable of taking on the high, smooth finish of steers of good quality.



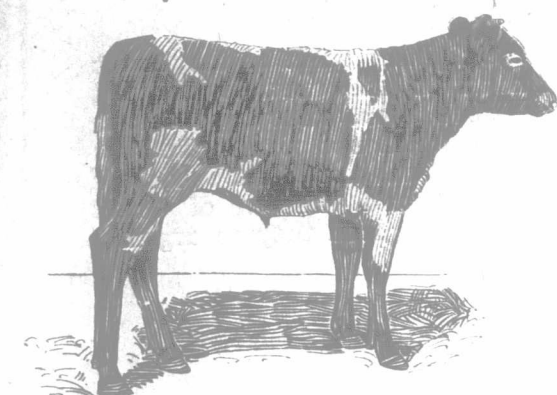
MEDIUM FEEDER—Of fair beef type, average quality and thrift. Usually lighter weight than the higher class feeders.



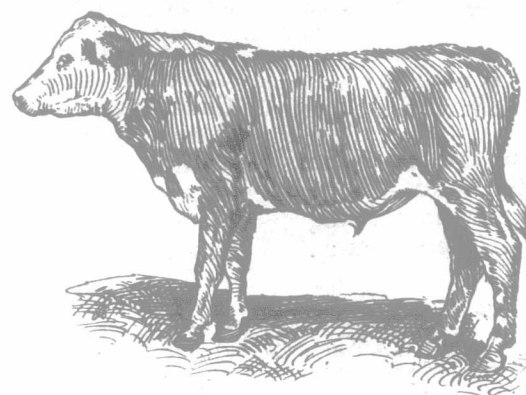
COMMON FEEDER—Lacking markedly in quality, conformation and flesh. The word "common" always means lacking in quality in speaking of beef cattle.



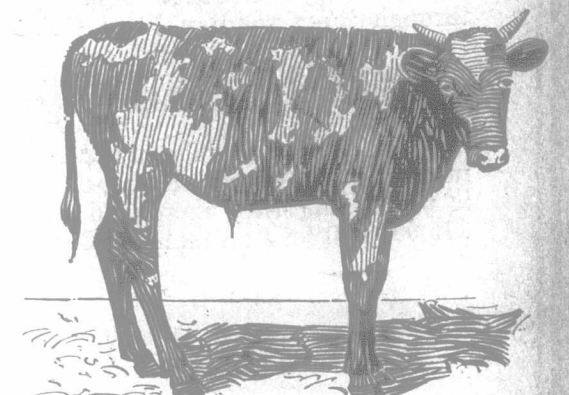
INFERIOR FEEDER—Rough, angular, devoid of natural flesh. Possesses the conformation of a dairy rather than a beef animal. Slow feeder, unprofitable in the feed lot.



GOOD STOCKER—Weighs from 450 to 800 lbs., of beef type, good quality, in fair flesh but not fat. A stocker steer is intended to be carried over for a considerable length of time, and therefore stockers are not found in a finished condition.



MEDIUM STOCKER—Weighs from 450 to 800 lbs., of fair conformation and quality, but lacking in condition or quality in comparison with good stockers.



COMMON STOCKER—Weighs from 450 to 800 lbs., of poor conformation and quality, also being sadly lacking in condition. Stockers bred from the dairy breeds usually furnish this class.

These pictures are used entirely as types, and do not reflect merit or demerit upon any breed. Each of the recognized beef breeds in Ontario, when properly finished, produces choice steers. There are many subdivisions of these classes, but the above are the outstanding types of market cattle.

For further information on any point in connection with feeding and marketing of cattle, write to:

ONTARIO DEPARTMENT OF AGRICULTURE

SER. WM. H. HEARST
Minister of Agriculture

Parliament Buildings, Toronto

DR. G. C. CREELMAN
Commissioner of Agriculture



ONTARIO