

PUBLISHED EVERY WEEK. \$1.50 PER YEAR.

# THE FARMER'S ADVOCATE

AND HOME MAGAZINE

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

ENTERED IN ACCORDANCE WITH THE COPYRIGHT ACT OF 1917.

Vol. LIII.

LONDON, ONTARIO, MAY 30, 1918.

No. 1340

## Unequaled Durability Features

WHEN you buy a cream separator, remember the old adage: "the best is the cheapest in the end." A man chose a separator for its low price, and during the first few months congratulated himself on his "bargain." In a short time things began to go wrong. Certain bearings had to be renewed. Upon closer examination he found his machine was worn already, and would stand not more than two or three years' use. The bowl wobbled; the gears rattled; it became hard to turn.

This man unnecessarily purchased his experience. Why not save this extra expense for experience by investigating, in the first place, the

### Renfrew

Its many special features of durability enable it to continue its good work longer than other machines.

All Renfrew Separator gears are abundantly strong enough to drive our largest machine; only one size of gear is made for all machines. This is one reason why the Renfrew runs so easily — always.

The best known wearing material for worm gears is phosphor bronze. The Renfrew gears are phosphor bronze.

For long life, a wide face on the main gear gives best results. The main gear of the Renfrew is of the helical type. Both main and worm gears have 2½-inch bearings. Both gears are as finely cut and adjusted as the mechanism of a watch.

Renfrew gears run in a continuous bath of oil. The film of oil on every tooth means little wear and smooth running. All gears are enclosed in dust-proof housing.

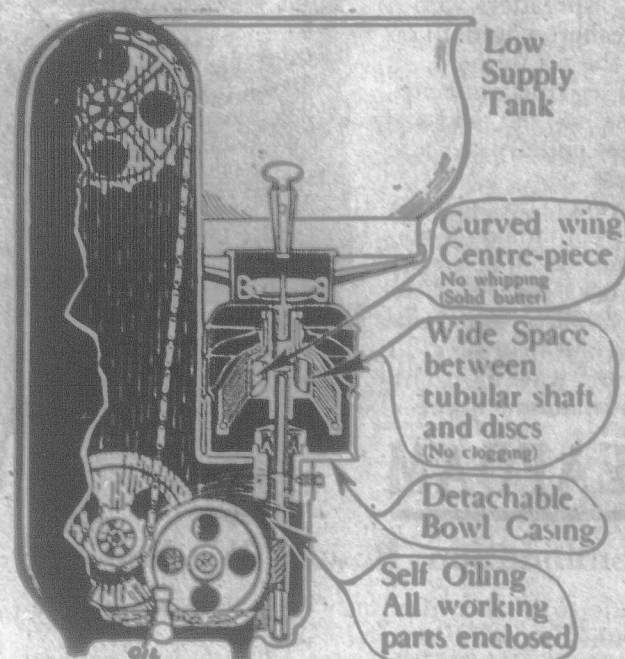
The gearing and spindle are set low in the machine. This means steady running. The bowl spindle is detached from the bowl. Thus there is no chance of it being bent or damaged. The Renfrew bowl is center balanced and its weight is carried on an interior bearing, which

is situated above the centre of gravity. Thus the bowl remains always in balance.

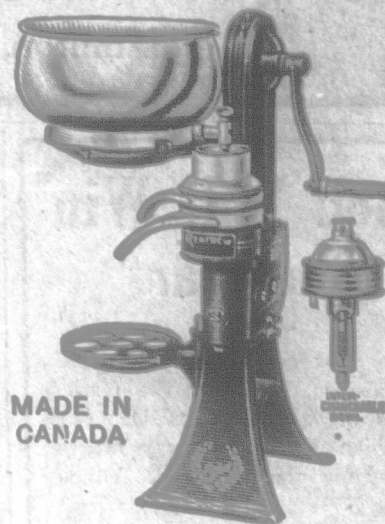
These and more Renfrew endurance features show why every machine we send out stands up without apparent wear under tests equal to 15 years' farm use.

Write for booklet, which illustrates and clearly explains these and many other important features that mean tip-top efficiency, including Government Dairy Schools' tests, showing Renfrew close skimming. It saves all but the last 1/100 of 1 per cent., and keeps on doing it.

**NOTICE:** The Renfrew Separator illustrated here was formerly sold under the name "Standard," which identified it as a high efficiency cream separator. The name "Renfrew" has been used on the same machine for several years for our United States and foreign trade, and under that name has become as popular in those markets as under the name "Standard" in Canada. Now the name "Renfrew" has been adopted for Canada, so as to link the name more closely with that of our company, and so that we can sell the machine under a uniform name throughout the world.



Note in above cut the Renfrew self-oiling system and enclosed, dust-proof working parts.



## The Renfrew Machinery Company, Limited

Eastern Branch, Sussex, N.B.

Head Office and Works, Renfrew, Ont.

Agencies almost everywhere in Canada

OTHER LINES: Happy Farmer Tractor, Renfrew Kerosene Engine, Farmer's 2,000-lb. Truck Scale, Wood Saws, Grain Grinders

# RENNIE'S CALF MEAL

## GIVES THE BEST RESULTS OBTAINABLE

ASK YOUR DEALER OR WRITE DIRECT TO:  
**THE WILLIAM RENNIE COMPANY LIMITED**  
 KING & MARKET STS., TORONTO

**GRAND TRUNK RAILWAY SYSTEM**

A Suggestion for  
**Your Summer Holiday  
 This Year**

**Algonquin Park  
 HIGHLANDS OF ONTARIO**

An ideal spot for your Summer Vacation midst wild and delightful scenery.

Excellent hotel service at the  
*"Highland Inn"*

Full information from any Grand Trunk Ticket Agent or C. E. Horning, District Passenger Agent, Toronto.


## Make the Machine Do It!

It's false economy to do work that a machine will do for you. If that were not so, binders, mowers, seeders, spreaders and threshers would all go on the scrap heap.

The rule that applies to the field applies equally to the house.

Never do a thing you can make a machine do for you. That's the way to make farm life happier and healthier.

For washing, the best machine is the



### SEAFOAM

**Combination Power Washer and Wringer**

Made to wear a lifetime. Can be operated by Gas, Gasoline, Steam Engine, Electric or Windmill Power.

Ask your dealer to show you a SEAFOAM, or write to us for particulars.

**Dowsell, Lees & Co., Ltd.**  
 Hamilton, Ontario



BRANTFORD RED BIRD

## Save Time! Save Effort!

and have a lot of enjoyment too, by riding a **Brantford Red Bird Bicycle**, a fine fifty dollar machine, with coaster brake, mud-guards, and every up-to-date improvement, which you can earn in your spare time by securing new subscribers to

**THE FARMER'S ADVOCATE AND HOME MAGAZINE**

This is not a contest in which only one bicycle is offered, but we will gladly send, free of any charge, a bicycle like that shown in the cut to any boy or girl or grown person too, man or woman, who is willing to help on the work of the Farmer's Advocate, by doing a certain amount of work.

### DO YOU WANT A BICYCLE?

If so, cut out the coupon at the bottom of this advertisement and we will tell you what to do.

**COUPON**

THE FARMER'S ADVOCATE AND HOME MAGAZINE, LONDON, ONTARIO

Gentlemen:—I want to earn a Brantford Red Bird Bicycle. Please send me full instructions as soon as possible.

Name.....Age.....

Address.....

Name of Subscriber.....

## Food Will Win the War

Serve your country and yourself by raising FOOD on the fertile plains of Western Canada. The Canadian Pacific Railway makes it easy for you to begin. Lands \$11 to \$30 an acre; irrigated land up to \$50; 20 years to pay. Loan to assist settlers on irrigated lands. Get full particulars and free illustrated literature from

**G. A. Muddiman,**  
 Land Agent, C.P.R.  
 Montreal, P.Q.

When writing please mention "Advocate"

## LIGHTNING RODS

In Ontario there are upwards of ninety insurance companies giving reductions in rate on farm buildings properly equipped with LIGHTNING RODS.

Write us for copy of booklet,  
*"How to Rod a Building."*

**THE UNIVERSAL LIGHTNING ROD COMPANY**  
 Hespeler, Ontario

## Cash for Old False Teeth

Don't matter if broken. We pay up to \$15.00 per set; we also buy Crowns, Bridgework and Platinum. Will send cash by return mail and hold goods 10 days for sender's approval of our price. Mail to

**MAZER'S TOOTH SPECIALTY**  
 2007 S. 5th St. Phila., Pa., U.S.A.

## DEAFNESS

ITS CAUSES AND TREATMENT

Write for Free Booklet and particulars of the free trial offer of the Mears Ear Phone.

**THE MEARS COMPANY OF CANADA**  
 Dept. A., 194a PEEL STREET, MONTREAL

## THE SELF-OILING WINDMILL

has become so popular in its first three years that thousands have been called for to replace, on their old towers, other makes of mills, and to replace, at small cost, the gearing of the earlier Aermotors, making them self-oiling. Its enclosed motor keeps in the oil and keeps out dust and rain. The Splash Oiling System constantly floods every bearing with oil, preventing wear and enabling the mill to pump in the lightest breeze. The oil supply is renewed once a year. Double Gears are used, each carrying half the load. We make Gasoline Engines, Pumps, Tanks, Water Supply Goods and Steel Frame Saws.

Write **AERMOTOR CO., 2528 Twelfth St., Chicago**



**LONDON CONCRETE MIXER No. 6**  
 Capacity, 60 cubic yards per day.  
 Price \$375.00, complete with gasoline engine. Pays for itself in 30 days' use. Built to last a lifetime. Send for catalogue No. 1 B.

**London Concrete Machinery Co.**  
 DEPT. B.  
 London, Ontario

World's Largest Mfrs. of Concrete Machinery

TO

# G

FOR


## Steel

for Reinforcement and Barn

CUT AN

JNO. J. C

58 Front Street

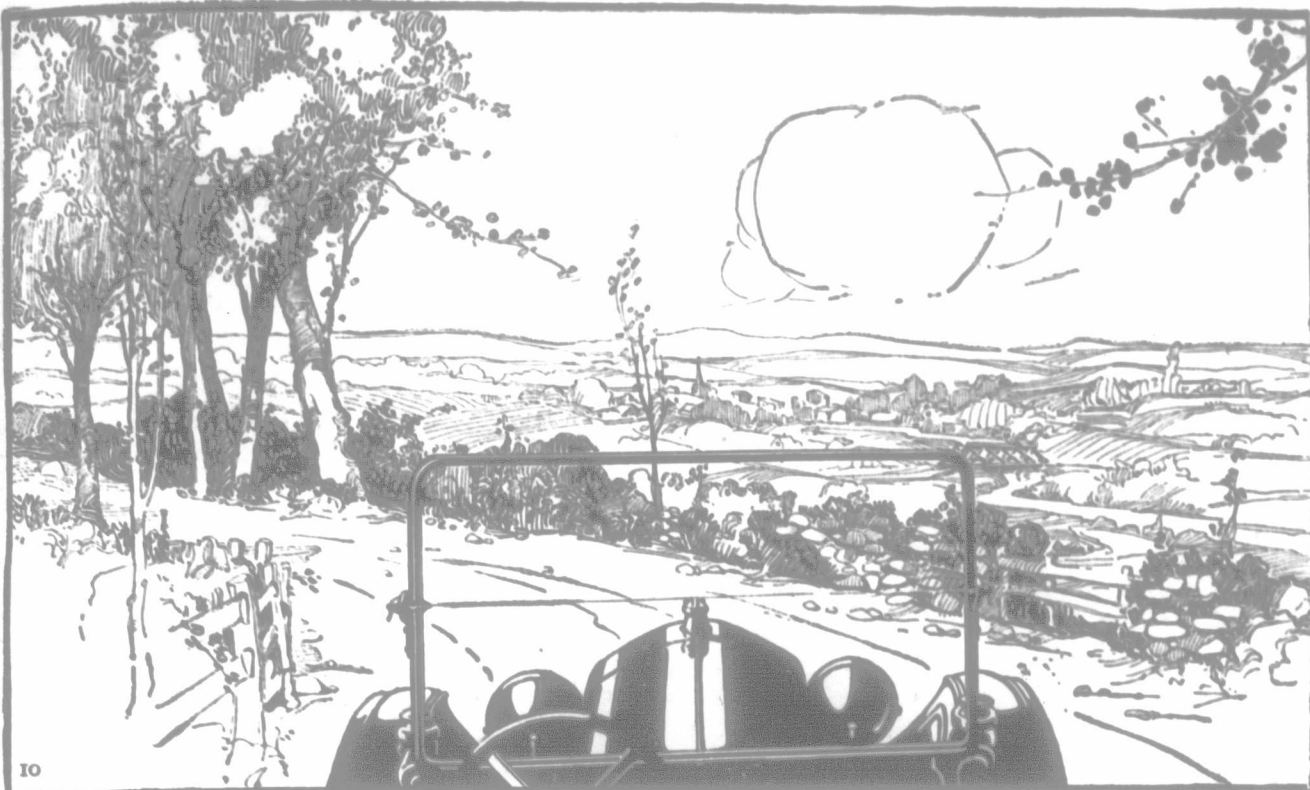


**BUILDING**

OUR CATALOGUE OF BUILDING YOU MONEY.

THE HALLIDAY COM

FACTORY DIST



## Get Behind the Wheel of a Ford and Drive

**T**RY it just once! Ask your friend to let you "pilot" his car on an open stretch. You'll like it, and will be surprised how easily the Ford is handled and driven.

If you have never felt the thrill of driving your own car, there is something good in store for you. It is vastly different from just riding—being a passenger. And especially so if you drive a Ford.

Young boys, girls, women and even grandfathers—thousands of them—are driving Ford cars and enjoying it. A Ford stops and starts in traffic with exceptional ease and smoothness, while on country roads and hills its strength and power show to advantage.

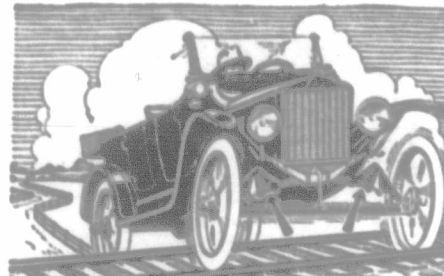
Buy a Ford and you will want to be behind "the wheel" constantly.

**Ford**  
THE UNIVERSAL CAR

|               |     |       |
|---------------|-----|-------|
| Touring       | - - | \$595 |
| Runabout      | - - | \$575 |
| Coupe         | - - | \$770 |
| Sedan         | - - | \$970 |
| Chassis       | - - | \$535 |
| One-ton Truck |     | \$750 |

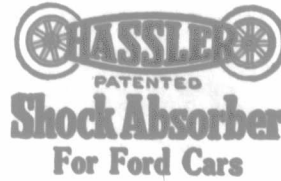
F. O. B. FORD, ONT.

**Ford Motor Company of Canada, Limited**  
Ford, Ontario



**Tires \$500 Apiece!**

**T**IRES are selling at fabulous figures in Europe. War conditions may make them go almost as high here. You owe it to the country and to yourself to make your present set give the greatest possible mileage.



Hassler Shock Absorbers save tires because they support the weight of the car. When the car strikes a rut, they gently compress and absorb the jolt instead of forcing the tires to lift the car. The increased mileage from one set of casings pays for them. Hassler Shock Absorbers make your Ford ride as easily as a \$2,000 limousine. They save gasoline, reduce up-keep cost one-third, and increase the resale value of your car. 300,000 Ford Owners recognize their economic necessity.

**10-Day Free Trial Offer**

Phone, write or call for FREE TRIAL BLANK and we will have a set of Hasslers put on your Ford without a cent of expense to you. Try them 10 days. Then, if you are willing to do without them, they will be taken off without charge. Don't ride without Hasslers simply because someone discourages you from trying them. Accept this offer and see for yourself. Over 300,000 sets in use. Do it now.



**ROBERT H. HASSLER, Limited**  
Lock Drawer HC27 HAMILTON, ONT., CAN.

### Steel Rails

for Reinforcing Bridges and Barn Driveways.

CUT ANY LENGTH

JNO. J. GARTSHORE  
58 Front Street West Toronto

**ARE YOU BUILDING OR REPAIRING?**  
OUR CATALOGUE OF BUILDING MATERIALS AND TOOLS WILL SAVE YOU MONEY. WRITE FOR FREE COPY.  
THE HALLIDAY COMPANY, LIMITED, HAMILTON CANADA  
FACTORY DISTRIBUTORS

**WHEN YOU GO WEST**

**WE HAVE THE Lowest Fare Modern Train and the Scenic Route Service, too**

Comfortable trains leave Toronto at 10 p.m. Mondays, Wednesdays and Fridays, connecting at Winnipeg for all points West

For information, descriptive literature, etc., apply to nearest C.N.R. Ticket Agent, or write General Passenger Department, 68 King Street E., Toronto, or 226 St. James Street, Montreal.

**CANADIAN NORTHERN RAILWAY**



**BOB LONG**  
UNION MADE  
**OVERALLS**  
SHIRTS & GLOVES  
*Known from Coast to Coast*  
**R.G. LONG & CO. LIMITED**  
TORONTO CANADA

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

# CASE

## Kerosene Tractors

The 9-18 Case Tractor is favored by farmers everywhere for seeding and other farm use where increased production, economy and labor saving are required.

It develops 9 horse power on the drawbar for ploughing, harrowing and hauling. For belt work it may be used successfully, delivering 18 horse power to the pulley for driving the thresher, the baler, husker, silo filler or operating other farm machinery.

Built into each tractor is the same perfect construction and design that has been char-

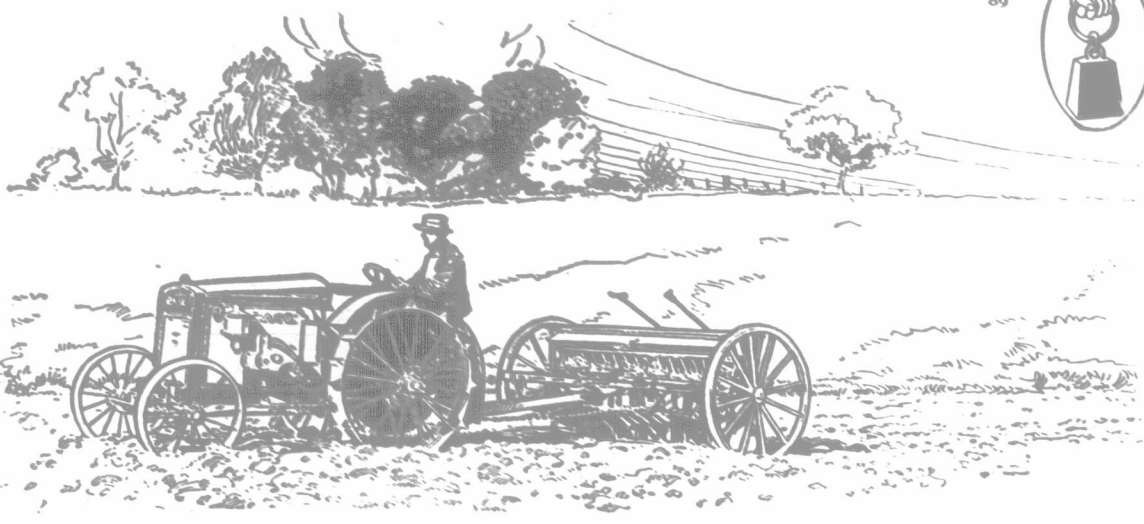
acteristic of Case farm machinery for three quarters of a century.

A Case 9-18 will do the majority of work on any farm—is always ready for use and gives maximum results.

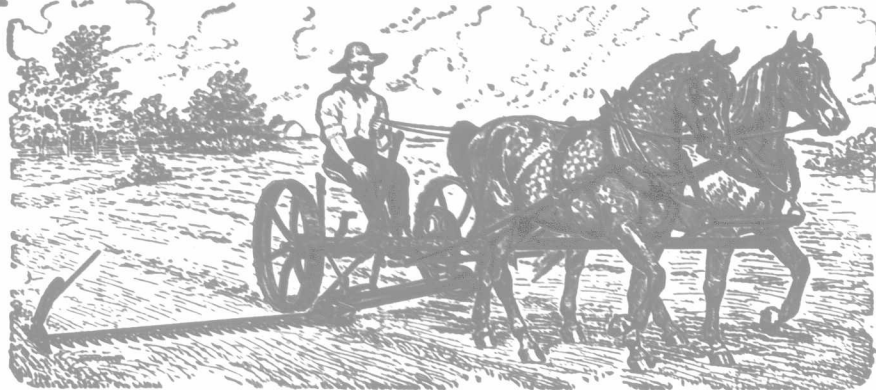
A farmer who requires a dependable tractor selects the Case. There is one adapted to your requirements. Write today. Ask our nearest branch to give you full details.

### The Canadian Fairbanks-Morse Co., Limited

St. John, Quebec, Montreal, Ottawa, Toronto, Hamilton, Windsor.



80 Years of Knowing How



Tried, Proven and Popular Everywhere

## THE FROST & WOOD MOWER CUTS ANY CROP

What you must have from your mower is dependable service—it must be ready to cut any kind of a crop, no matter how heavy or tangled—and it must be ready for work when the hay is ready to cut. Just use a little judgment in the selection of your mower—don't be afraid to be influenced by the example of thousands of successful farmers—make your choice a Frost & Wood and you will always have that comfortable feeling that your hay crop is safe, if a handy,

easy-to-drive, light draft, dependable mower has anything to do with it.

The superior mechanical features of the Frost & Wood mower, the "internal drive gear," the special cutter bar, the improved knife guards, the modern roller-bearings, the always-cutting knives, carbon-steel construction, etc., are too numerous to deal with here. Get our "Hay Making Equipment" circular.

### FROST & WOOD "TIGER" AUTOMATIC DUMP RAKE

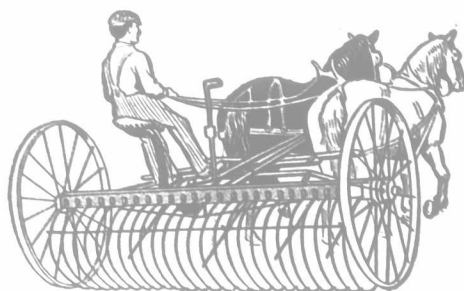
An all-steel implement, weather-proof and ready for the hardest kind of work year after year. The axle is immensely strong, is always revolving, so sagging in the centre is unknown with this Rake. The wheels are high, giving ample clearance; the teeth are the highest quality steel, carefully tempered and tested so they last for years. The Automatic Dump feature is worked by a small foot trip, the teeth coming up quickly and easily to dump the windrow. Light draft, good work and many years of it, are built into this Rake.

Ask the nearest Frost & Wood agent, or write our nearest branch for a copy of the Frost & Wood Folder, "Efficient Equipment Makes Hay-making a Pleasure."

The Frost & Wood Co. LIMITED MONTREAL, SMITH'S FALLS, ST. JOHN

Sold in Western Ontario and Western Canada by

Cockshutt Plow Co. LIMITED BRANTFORD, ONTARIO



## EASY FOR THE FARMER TO BUILD

Bishopric products protect the farmer against the higher cost of sheathing lumber, building papers and laths, save his time and reduce his labor expenses. He can apply it himself, in fact, if he so desires.

### BISHOPRIC STUCCO BOARD

is made of heavy well-sized sulphide fibre board, surfaced on one side with toughened asphalt mastic, reinforced with No. 1 kiln-dried lath.

It comes in sheets 4' wide and 4' to 10' long ready to be applied direct to the studding. As a background for plaster, there's nothing to equal Bishopric Stucco Board as it eliminates sheathing lumber, building paper, etc., and cuts the cost in half. Less plaster is required too, as it is impossible for plaster to fall down between the studs as when put on over ordinary lath.

### BISHOPRIC STUCCO BOARD

for stables, poultry houses and grain bins costs less than lumber and makes a warmer building—dry, rat and vermin proof.

Our Bishopric Book gives facts about this better and more economical way of building on the farm. It would interest you. Mailed free on request.

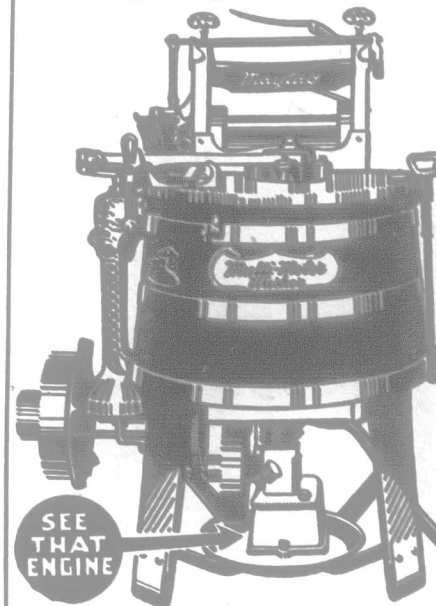
### BISHOPRIC WALL BOARD CO. LIMITED

529 P Bank Street, Ottawa, Ont. Manufacturers also of 'Permatite' and Farmers' Special Roofings.

## A NEW! MAYTAG DAY MONDAY

The old MONDAY with its washday worries becomes a NEW DAY of pleasant work for the woman who uses a

### Maytag Washer



For particulars, drop a card to:

WHITES LIMITED Collingwood, Ont.

## HAY

SHIPPERS! Consign your carloads to The E. L. RICHMOND CO. DETROIT

The Old Reliable Firm. In business a quarter of a century. Reference — Any Bank.

# The Empire WATER SUPPLY System

## Makes Farm Life Comfortable

Brings you the desirable labor-saving convenience you have envied the city folk.

Hot and cold water anywhere you want it in the house and outbuildings. And water—gallons of it—anywhere about the barn, stable, stockpens, lawn or garden.

The invention of the simple and efficient Empire Water Supply System makes all this possible at a cost well within reach of the average farmer or small-town dweller.

### WRITE FOR OUR FREE BOOKLET

We want to tell you about the many advantages of the Empire System. Our Free Booklet gives descriptions and illustrations. We will also send you an Information Blank which, when filled out, will enable us to send you full particulars and the cost of a system adapted to your particular needs.

Get posted—write us to-day.

## The EMPIRE MANUFACTURING CO., LIMITED

Head Office and Factory:  
London, Ontario

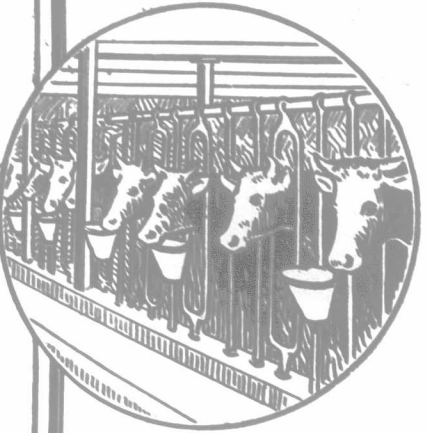
Branch Office and Warehouse:  
119 Adelaide Street, W.  
Toronto, Ontario



KITCHEN



BATH ROOM



BARN



# Making Work-Boots Comfortable

Every-day farm work is hard on boots.

Ordinary work boots are hard on the feet.

But NOW work-boots are made with Neolin Soles—to make them last longer—to make them easy and comfortable.

The hard day-after-day tramping over fields, behind the plow, through bush, on gravel, grinds down soles. Neolin will stand that awful wear far better than leather.

And this long-wearing Neolin makes a work-boot pliable, like an old Sunday shoe. For it "gives" as you walk. It is springy, comfortable, makes walking easy. Neolin not only saves your pocket-book, it saves your feet.

It keeps them dry.

You can't count the days men, women and children on the farm need wet-proof soles on their feet. Slushy days, heavy dew, rain, mucky yards. Water can't get into Neolin, to wet your feet. Neither will the wet harden and curl Neolin. There are several thicknesses of Neolin Soles.

Think of the comfort of Neolin Soles!

Think of the economy!

Whenever you buy, ask for Boots soled with Neolin.

But—look closely for the name "Neolin" on the soles.

For, that is the way to be sure of Neolin comfort and Neolin wear.

The Goodyear Tire & Rubber Company  
of Canada, Limited

# Neolin Soles

## Feed Ensilage Keep Your Livestock Sleek

Corn silage is not only the cheapest food, but it most nearly approaches the efficiency of pasture grass, and has the additional advantage of being available at all times, regardless of the season. Silage will increase milk production during the winter and during the dry spell in midsummer. It will keep your herd in first-class condition the year round. The

### Burlington Cable Band Silo

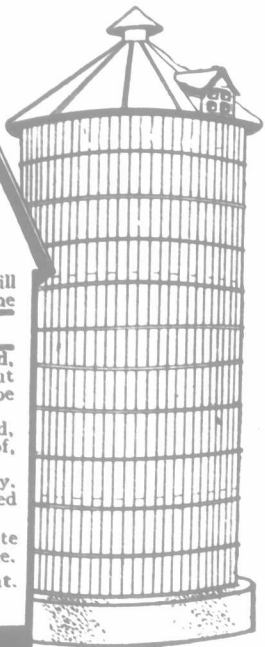
is the strongest-hooped silo on the market. The seven-strand, steel cables used are stronger than iron, twice as easy to put on, allow for expansion or contraction of the silo, and may be adjusted easily.

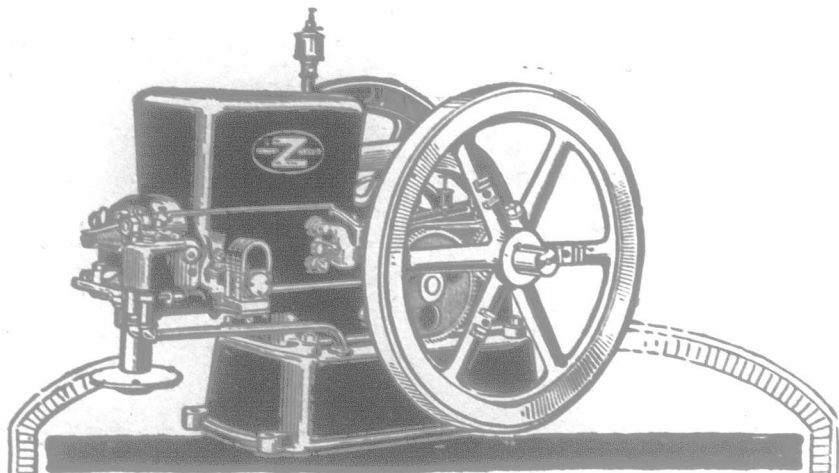
No. 1 Norway Pine Staves, 2"x6", side and end matched, used only. The Cable Band Silo is air-tight, frost-proof, water-tight and vermin-proof. It will last a lifetime.

The Burlington Silo can be erected very easily and quickly. You can do the work yourself with the help of your hired man in 10 to 15 hours. This means a big saving.

Our "Factory to Farm" plan saves you many dollars, write for full information and pricelist. It will pay you to act at once.

THE NICHOLSON LUMBER CO., Ltd., Burlington, Ont.





**Indispensable on the Farm**

The "Z" is an efficient power unit that saves money and in these days of labor shortage enables you to keep your farm work up to the minute.

**A Fairbanks-Morse "Z" Engine**

is the every purpose farm power plant and the work it performs is practically unlimited. It produces maximum power at minimum cost. 150,000 farmers are daily demonstrating that the "Z" is the greatest engine ever produced.

The 3 and 6 h.p. "Z" Engines burn coal oil, distillate or any of the cheaper fuels and develop more than rated horse power.

1 1/2 H.P. \$71.00 3 H.P. \$126.00 6 H.P. \$225.00

F. O. B. Montreal and Toronto

**The Canadian Fairbanks-Morse Company, Limited**

DEALER SERVICE: Your local dealer is a direct representative of the manufacturers. He shares their responsibility. He's at your service to see that you are satisfied.

St. John Quebec Montreal  
Ottawa Toronto  
Hamilton Windsor

63



**Ride a "C.C.M." Bicycle**

**Keep the Boy on the Farm**

GIVE him a Bicycle. He will get a lot of good, healthy fun out of it, and make himself mighty useful as well. You'll find it the

best investment you ever made. Saves gasoline. Costs nothing for upkeep.

Always ready for instant use.

Write to-day for Catalogue E

Canada Cycle & Motor Co., Limited, Weston, Ont.  
Montreal Toronto  
Winnipeg Vancouver

This Mark Is Your Protection  
Every "C.C.M." Bicycle bears this design on the rear upright bar.



Look for these Nameplates when choosing a Bicycle. All of these well-known lines are "C.C.M." Bicycles.

**Twice as easy as walking-Three times as fast**

**HOUSEHOLD EXPENSES**

If the head of your home were removed—would the household routine go on as before?

Life Insurance will answer the question.

Over 65,000 persons, desiring THE BEST available in Life Insurance, hold Policies in

**THE GREAT-WEST LIFE ASSURANCE COMPANY**

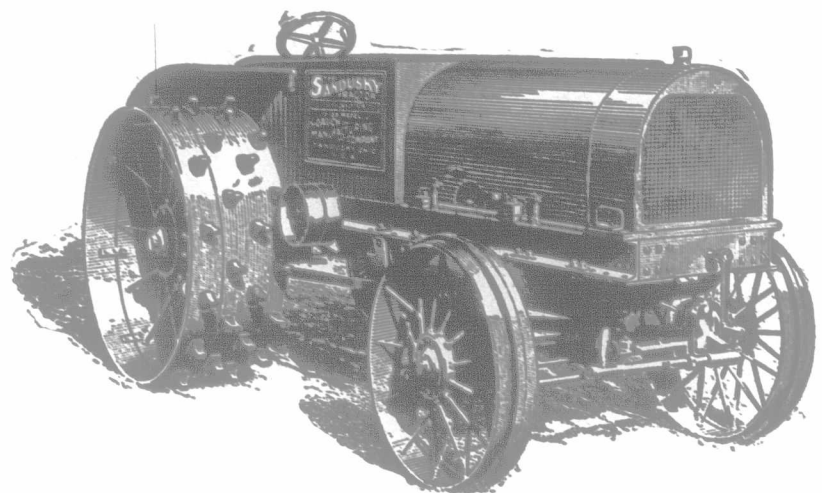
Department "Z" Head Office, Winnipeg

Over \$155,000,000 now in force.

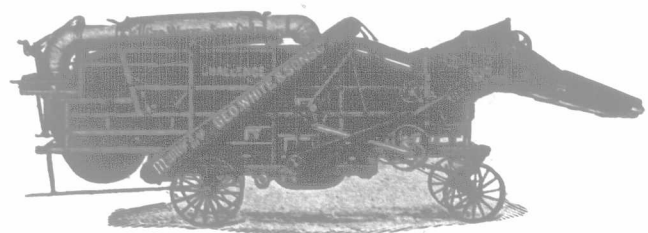
**Service**

Purchasers of WHITE MACHINERY buy *WHITE SERVICE*

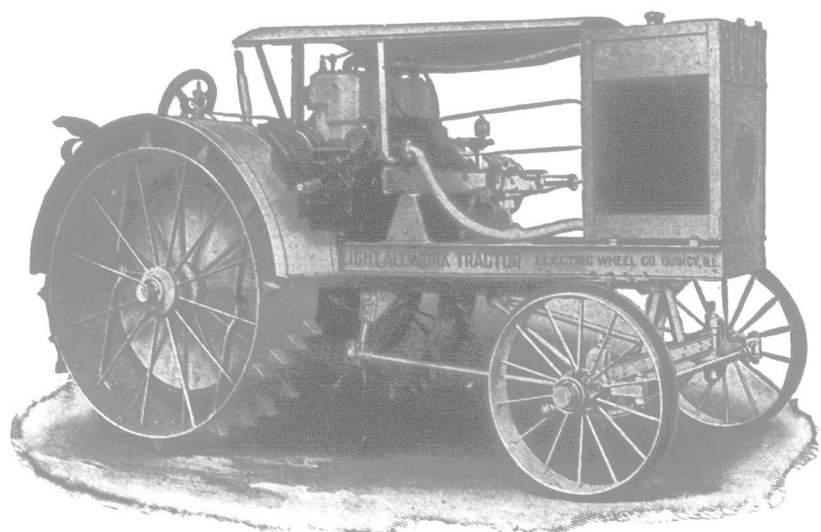
The success of our customers means success to ourselves. We are with you all the way.



Sandusky 10-20  
A 3-Plow Tractor



Separator



All-Work 13-28  
For Heavy Work

Mr. Purchaser:  
You require full information on these three.

**The Geo. White & Sons Co., Limited**

Brandon Man.

London, Ont.

Moosejaw, Sask.

Light in Weight

Simple, Strong, Durable, Economical

LIII.

EL

The cattle or

Land yet un  
Make every acre

The codling  
Wormy apples a

Now that th  
and keep it going

Under preser  
the extra spear  
grew before.

Scrub bulls r  
live-stock indust  
be observed.

Do not forget  
rather severe. I  
the sun goes sou

Canada is p  
handling the wo  
branch is all filed

At the preva  
for a heavy sum  
should be used e

The Ontario  
year. Even at \$  
will not get exorb

Something sh  
industries, even  
them through th  
Council.

Organization  
but promoters of  
sure that every s  
dustry to be fost

Unanimity an  
to defeat the Hu  
the civilized wo  
are secondary to

Contagious ab  
toll than is realiz  
as well as when  
the article conce  
fortify against it.

The time whe  
the country and r  
of lines and equ  
If patronage and  
control system th

Enquiries hav  
much Canada can  
rebuilding of the  
The live stock ind  
demand after the  
satisfactory level.

The efficiency  
will depend on t  
first few days. I  
at the beginning,  
none to rigid.  
urbanite first goe

# The Farmer's Advocate and Home Magazine

PERSEVERE  
AND  
SUCCEED

ESTABLISHED  
1866

REGISTERED IN ACCORDANCE WITH THE COPYRIGHT ACT OF 1875

LIII.

LONDON, ONTARIO, MAY 30, 1918.

1340

## EDITORIAL.

The cattle on pasture still require salt.

Land yet unplanted can be sown with buckwheat. Make every acre do its bit.

The codling-moth spray should not be neglected. Wormy apples are now "taboo".

Now that the corn is planted, oil up the cultivator and keep it going. Much depends on it.

Under present conditions there is a good market for the extra spear of grass, when two grow where only one grew before.

Scrub bulls running at pasture are a menace to the live-stock industry. The law in regard to them should be observed.

Do not forget that the Canadian winter is sometimes rather severe. Lay in a fuel supply for that period when the sun goes south.

Canada is pretty well organized this spring for handling the wool clip co-operatively. The Ontario branch is all filed and set.

At the prevailing prices of milk it will pay to feed for a heavy summer flow. Green feed and soiling crops should be used extensively.

The Ontario fall wheat crop will be very small this year. Even at \$2.21 per bushel farmers in this province will not get exorbitantly rich out of wheat.

Something should be done in regard to non-essential industries, even if the Government has to deal with them through that over-worked medium of Order-in-Council.

Organization is quite in keeping with the times, but promoters of the same should move slowly and be sure that every step will be in the interests of the industry to be fostered.

Unanimity and oneness of purpose are necessary to defeat the Huns and that is the foremost object of the civilized world to-day. All other considerations are secondary to the job in hand.

Contagious abortion in cattle exacts a much heavier toll than is realized, and it gets in its work in summer as well as when the stock is closely stabled. Read the article concerning the subject in this issue and fortify against it.

The time when the railroads will be taken over by the country and run without such a needless duplication of lines and equipment seems to be drawing nearer. If patronage and graft can be banished from the public control system this change will certainly be for the better.

Enquiries have already come from Serbia as to how much Canada can do in supplying cattle to assist in the rebuilding of the devastated herds of that country. The live stock industry should be secure, for the European demand after the war will surely maintain values at a satisfactory level.

The efficiency and usefulness of inexperienced help will depend on the treatment they receive during the first few days. Employers should not be too exacting at the beginning, for the work is new and the muscles none to rigid. There are many backaches when the urbanite first goes to work on the land.

## Dairy Councils.

Now that a dominion dairy council seems likely, it is quite in order that a few considerations relative to the formation of this organization and the provincial council, proposed at the meeting in Guelph early in April, should be enlarged upon somewhat. At the outset it might be well to state that according to our best information, negotiations looking forward to the formation of a national council were in progress previous to any steps being taken provincially. Furthermore, it would also seem that a realization of a national council should be the ultimate aim in the deliberations of dairy-men generally, owing to its greater economic significance. Past experience has shown, however, that efficient organizations are best built from the bottom up, which would necessitate the existence of timber for a national council from several provincial councils, or from provincial organizations fairly representing the various interests of the dairy industry. A national dairy council, if formed, could not be expected to concern itself with matters of purely provincial interest to the satisfaction of the provinces, while the work of either council must be to some extent determined by the complexion of the other. Will the national council be representative of all the dairy interests, as contemplated for the provincial council, or, will it be confined simply to the interests of the dairy farmer, who may, as in the Western Provinces, share also in the ownership of a co-operative factory? An answer to this question is obviously impossible until the matter has been discussed in conference by representatives from the various provinces. Our own opinion is that the national council will prove most effective from the standpoint of the dairy farmer if devoted solely to his interests, and should this view of the matter prevail finally, there will undoubtedly still remain a field for a provincial council representative of all dairy interests, one which should be occupied without delay. Many considerations commend the idea of such a provincial dairy council composed of strong, representative men. Neither council, however, can fairly be realized short of a year, since no action of the various representatives who might now be called together to consider the matter, could become binding upon the organizations they represent until it has been ratified at an annual meeting of the associations. Anyway, these matters are too important to be hastened unduly and, at the best, satisfactory working plans will take considerable time to mature.

Should a provincial council for Ontario be deemed advisable, after the various aspects of the case have been duly considered, there would seem to be three points deserving of special emphasis as we view the matter. In the first place the personnel of the council should be limited to a few strong men, no more than fifteen at the most, and fewer, if satisfactory representation can be secured; this also should be made to apply in the case of a national council. The producers also, should have a majority representation in the council. This is eminently fair by reason of the dependence of the dairy industry upon them and because of the great excess of capital invested in this branch of the industry and, by virtue also of the greater number of persons employed as producers. We do not anticipate that other dairy interests will question the fairness of this fundamental principle. In the third place we hold very strongly that, contrary to some opinions which have been expressed, the Department of Agriculture should not be represented in the council, since Department officials are but servants of the people, whose services can be called in at any time.

Proceeding further, however, the acceptance of these three fundamental principles merely aggravates the difficulty of organization rather than smooths the way. It is well known that neither the Eastern nor Western Ontario Dairymen's Associations are distinctively producers' organizations, although ostensibly it might appear so, since they are to a considerable extent fostered by the Department of Agriculture, receiving regular,

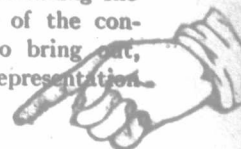
substantial grants from the Government as do most other provincial agricultural organizations and include in their roll of membership a small percentage of dairy farmers. These associations are, in reality, strongly dominated by cheese and butter manufacturers and cannot be rightly classed as producers' organizations. This may be due to a failure on the part of the producers to identify themselves with the organizations, but it will be seen, nevertheless, that the cheese-milk and creamery-milk producers in the Province have really no organization from which their representation in the council—and it must needs be very substantial—could be drawn. There is, in fact, only one simon-pure milk producers' association of a provincial nature in Ontario and this is composed, with few exceptions, of men who cater to the city milk trade. From whence, therefore, is a majority of the representatives of the producers to be recruited. The interests of the cheese or creamery milk, and the city milk producer, are to some extent, but by no means entirely, similar and therefore the latter could not in all fairness be given more than proportionate representation.

We have no criticism of the Eastern and Western Ontario Dairymen's Associations as organizations of cheese and butter manufacturers. While our sympathies have been, and will continue to be, identified in greater proportion with the welfare of the dairy farmer in all matters pertaining to the dairy industry, we recognize with due appreciation the important and essential part played by the cheese and butter manufacturers in the development of the dairy industry. We deplore only the general impression that the organizations above referred to are producers' organizations. Our purpose has been to protect the interests of the producer in urging caution, and while we favor the most complete organization, each link must serve an undoubted purpose and not minimize results by duplication of effort. It is to be hoped that those who are taking the initiative in the movement will, in view of the considerations which we have endeavored to bring out, consider carefully the sources from which representation in the council is drawn.

## Live Stock Needs in the Maritime Provinces.

There is no doubt that the lack of adequate marketing facilities for meat animals in the Maritime Provinces has delayed the proper development of the industry in that part of the Dominion. Pasturage is comparatively plentiful in the extreme East. The climate is particularly adapted to the growing of roots, and coarse grains can be produced satisfactorily. The dairy industry has gone ahead, of late years, by leaps and bounds, but beef cattle, sheep and swine have not increased as they should, for the simple reason that short of Montreal there is no dependable market for the product. Halifax, Sydney, and St. John are not sufficient in themselves to consume the output of an enlarged enterprise, so the producers have restrained themselves that the supply might correspond more or less with the demand. Prices, too, have not been encouraging, so development in the East has been retarded in live-stock lines other than dairying. We learn from Prof. J. H. Grisdale, Director of Experimental Farms, that only recently the best offer they could obtain for a bunch of good steers at one of the Branch Farms in Nova Scotia was 10 cents per pound on foot, while similar quality was commanding 13 and 14 cents at Toronto, and 16 cents was being bid for toppers. Eleven cents per pound was finally obtained for a bunch of steers at Amherst, N. S., when it was felt that they would have been worth easily 14 cents on the Toronto market at that time. Such disparity in values must be overcome before the Maritime Provinces can do their part in the production of meat animals.

Adequate abattoir and cold-storage facilities at Halifax would be a great boon to the live stock industry



## The Farmer's Advocate AND HOME MAGAZINE.

THE LEADING AGRICULTURAL JOURNAL IN THE  
DOMINION.

Published weekly by  
THE WILLIAM WELD COMPANY (Limited).

JOHN WELD, Manager.

Agents for "The Farmer's Advocate and Home Journal,"  
Winnipeg, Man.

1. THE FARMER'S ADVOCATE AND HOME MAGAZINE is published every Thursday. It is impartial and independent of all cliques and parties, handsomely illustrated with original engravings, and furnishes the most practical, reliable and profitable information for farmers, dairymen, gardeners, stockmen and home-makers of any publication in Canada.
2. TERMS OF SUBSCRIPTION.—In Canada, England, Ireland, Scotland, Newfoundland and New Zealand, \$1.50 per year in advance; \$2.00 per year when not paid in advance. United States, \$3.50 per year; all other countries, 12s., in advance.
3. ADVERTISING RATES.—Single insertion, 20 cents per line, *agate*. Flat rate.
4. THE FARMER'S ADVOCATE is sent to subscribers until an explicit order is received for its discontinuance. All payments of arrears must be made as required by law.
5. THE LAW IS, that all subscribers to newspapers are held responsible until all arrears are paid, and their paper ordered to be discontinued.
6. REMITTANCES should be made direct to us, either by Money Order, Postal Note, Express Order or Registered Letter, which will be at our risk. When made otherwise we will not be responsible.
7. THE DATE ON YOUR LABEL shows to what time your subscription is paid.
8. ANONYMOUS communications will receive no attention. In every case the "Full Name and Post office Address Must be Given."
9. WHEN A REPLY BY MAIL IS REQUIRED to Urgent Veterinary or Legal Enquiries, \$1.00 must be enclosed.
10. LETTERS intended for publication should be written on one side of the paper only.
11. CHANGE OF ADDRESS.—Subscribers when ordering a change of address should give the old as well as the new P. O. address.
12. WE INVITE FARMERS to write us on any agricultural, topic. We are always pleased to receive practical articles. For such as we consider valuable we will pay ten cents per inch printed matter. Criticisms of Articles, Suggestions How to Improve "The Farmer's Advocate and Home Magazine," Descriptions of New Grains, Roots and Vegetables not generally known, Particulars of Experiments Tried, or Improved Methods of Cultivation, are each and all welcome. Contributions sent us must not be furnished other papers until after they have appeared in our columns. Rejected matter will be returned on receipt of postage.
13. ADDRESSES OF CORRESPONDENTS ARE CONSIDERED AS CONFIDENTIAL and will not be forwarded.
14. ALL COMMUNICATIONS in reference to any matter connected with this paper should be addressed as below, and not to any individual connected with the paper.

Address—THE FARMER'S ADVOCATE, of  
THE WILLIAM WELD COMPANY (Limited),  
London, Canada

of Eastern Canada, and they would in no way detract from the usefulness or profits of those already established farther West. The abattoir could be fed very well from districts east of Montreal if the possibilities were realized by those engaged in animal husbandry, while the cold-storage facilities would serve the whole country as a terminal for the large volume of produce now being purchased by the Mother Country. Britain is constantly asking for more beef and bacon and there appears no reason why such trading should not continue and grow after the war is over. For the fiscal year ending March 31, 1918, the value of our animals and animal produce exported amounted to \$179,868,168. Of this, foreign produce re-exported amounted to \$7,125,087, leaving \$172,743,081 as the value of Canadian produce exported. A large part of this goes, of course, to the United States, but our overseas trade is of such significance as to justify some expenditure in order to place in on a good footing. Ample facilities at Halifax would serve a double purpose. They would encourage development of the live-stock industry in a part of the Dominion where progress has been slow, and serve the greater part of Canada as a connecting link between us and the Mother Country from whence, in the future, will come the demand for the product of our herds and flocks.

### How Sandy Would Treat the Hired Man.

BY SANDY FRASER.

Seems tae me that this question o' hired help on the farm is one that we will never get settled for guid. It has as many lives as a cat. Ye may think ye've pit it oot o' the way where it will no' be botherin' ye any mair but the next time ye tak' up a farm paper there it is starin' ye in the face again, as much alive as ever.

The auld proverb says that "man is born to trouble as the sparks are to fly upward" and judgin' from some letters I hae been readin' in "The Farmer's Advocate" lately, I'm thinkin' it must be the hired man they are referin' to. He's got a few sore spots onyway, that mak's it necessary tae be careful how ye handle him, ye can see that. Na doot he got these sore spots by rough usage and we'll hae to mak' allowance for them. One chap says in his letter that the hired man is "the mainstay of the whole business" and while we may hae had the idea that that honor belonged to the farmer himsel'

or, mair likely yet, to his wife, yet we must admit that there are times when it comes handy to have an extra hand on the place, and if we can manage to remain on good terms wi' this same farm hand, sae much the better for all concerned. They're no' sae plentiful that we can afford tae be kickin' about every little shortcoming we may see in their character, even if there wis no better reason than that for tryin' tae keep the peace.

I wis listenin' to a farmer tellin' his troubles along this line a few days back. He had hired a young chap for the summer but this lad wis gaein' to leave him noo, juist in the middle o' the rush o' seedin' an' all the chores an' everything tae be done ilka day as weel. "I'm givin' him guid wages," says he, "mair than he could earn. He wis aye on the lookout for sunset but he took guid care never to see the sun gettin' up again in the mornin'. He wis like some o' the slackers I used to hear my father tellin' about. He said all they were lookin' for wis pork an' sundown. The ither night there wis a cloud in the west an' as soon as the sun went behind that cloud he unhitched his horses an' made a bee-line for the barn. 'My boy,' says I to mysel', 'you'll make up for that in the mornin'.' And you may depend on it I pit him oot o' bed in time to hear the roosters crowin', for once. I'm givin' him mair to eat than he gets when he's at home, I'm sure o' that, but juist the same he tauld me last night that I'd better look for anither man. The same as though he thought he wis some sort o' an excuse for a man himsel'. I wish the hale tribe o' farm hands were in the trenches in France where they wad hae to work day an' night for a dollar ten, an' be shot if they didna obey orders."

I juist let the fellow talk along, as he seemed to be in need o' gettin' something oot o' his system, but finally I says, "Ye're no' exactly what they call 'a born leader o' men'. Ye ought to tak' Robinson Crusoe's plan and get wrecked on a desert island where ye wad hae nobody to fight wi'. With a few ither goats an' a cat an' a dog, ye'd probably ken for the first time what it wis tae experience peace o' mind. The problems o' co-operation an' partnership are too much for ye. How is it ye manage to get along wi' yer wife at all?" says I. "I suppose maybe she never kicks for higher wages or shorter hours, nor be wantin' every second Sunday off, when there's chores to be done, either."

He juist looked at me and kind o' laughed, for he doensna mind ower muckle what I will be sayin' to him. That's the trouble wi' bein' too guid-natured. Folks willna think ye're serious no matter how muckle in earnest ye may get.

However, an' at the same time, there's a few things I'd like to say on this subject before I will hae to be makin' room for the next speaker. In the first place about this payin' a man his wages at the end o' every month. If it isna convenient for the farmer to dae that, why canna he have an understanding wi' his man as to when he will pay him? Most men are reasonable when the matter is explained to them in a reasonable way and if pay-day is to come only once in three months or once in six months a man will be willin' to wait if he understands these conditions when he hires. If he is paid only at the end o' the year I'm thinkin' it wad be na mair than fair to allow him bank interest on his money. It wad be mair like business an' a square deal all round.

The way one man that I heard about kept on guid terms wi' his help was to tak' them into a sort o' partnership wi' him. He gave them two per cent. of whatever profit he made on the year's business, after allowin' for interest on his investment an' a' that. He found it paid him weel to do it, for his men took mair interest in their wark, as was naturally to be expected, an' what wi' the good-will that comes from fair dealing this man knew but little o' the troubles that come to sae many o' oor farmers that have to pay for gettin' their wark done. Like all the rest o' us this chap was in the game to make money and with as little trouble in connection wi' the operation as possible, an' it wis by the plan I hae mentioned that he accomplished his purpose.

Some day after this war is over and the thousand years of peace begin, this partnership business will be better worked out and understood than it is the noo, and we'll wonder how we managed tae live sae many years in a world where one man did the thinking an' anither man did the muscle-wark. It's no right and it's a lang way from right but it seems tae be the best we are able to do at present. That is, in the case o' the majority o' us. We haven't got into the way yet o' keepin' one eye open to the interests o' oor hired help or to the welfare o' oor neighbor, as weel as keepin' an eye on our ain interests. That wad be what ye might call co-operation, and it's only when we come tae put it into practice in that way that we'll mak' this auld world a decent place tae live in, because it will be a world where the object o' humanity will be the welfare o' the race an' no' juist the guid o' an individual here an' there, an' lettin' the rest gang tae the deil or wherever they like.

We farmers are goin' to have to put up wi' a lot o' second-rate help this summer an' we will juist hae to be careful in the way we handle it, if we dinna want bad results. We're not the only ones that circumstances hae put in a similar position. The Banks in this country are up against it as bad as anyone, an' they hae young chaps daein' their Ledger wark noo that should be in the High School. But there's naething else for it. They've got to tak' what they can get. They're trainin' them up an' daein' the best they can under the circumstances. An' it's up tae us tae follow their example. If we mak' up oor minds to it we can get along wi' the men an' boys frae the city in some kind o' a way, an' when they hae become accustomed tae the wark we may find them

o' considerable help after all. Gie them a fair shake onyway an' ye may hae the luck to mak' real men oot o' twa or three o' them.

### Nature's Diary.

A. B. KLUGH, M.A.

The last of the migrants are now passing through the southern portions of Canada on their way to their breeding-grounds in the north. The species which winds up the spring migration is the Black-poll Warbler, and when this species appears, the ornithologist knows that the northward movement of the birds is about at an end.

The Black-poll Warbler is about five and three-quarter inches in length, and it has a variety of plumages, its dress depending upon age, sex and season. The adult male in spring has the upper parts thickly streaked with black and greenish-gray, the whole crown black, the underparts white, the sides thickly streaked with black, two white wing-bars and white blotches on the outer tail-feathers. The adult female in spring has the upper-parts, including the crown, greenish-olive, thickly streaked with black, the under-parts white, shaded with pale olive posteriorly, and the sides streaked with olive-gray. The adult male in fall is olive-green above, streaked on the back and crown with black, with white under-parts tinged with yellow. The adult female in fall is much like the male at that season but is rather paler above and not so distinctly streaked. The young male in fall is olive-green above, obscurely streaked with very dark brown, the under-parts being pale canary-yellow shading to white on the abdomen, and the young female in fall is very similar but is a little greener above and a little yellower beneath. It will thus be seen that the Black-poll in fall is a very different looking bird to what it is in spring, and it is just such changes as this which make the Warblers a very hard, but at the same time a very fascinating group to study. In the case of every species the adult male in spring is easily recognized, but to be able to tell the females and the young of all the Warblers at a glance is an ornithological acquirement which comes only after some years of careful field work.

The Black-poll breeds in Labrador, Newfoundland, Nova Scotia, on the Magdalen Islands, in Northern Quebec, round Hudson Bay, in the Rockies, in the Mackenzie River country and in Alaska. The nest is placed in an evergreen, eight or ten feet from the ground, and is built of twigs, woven together with grass and moss and lined with fine grass. The eggs are four or five in number, white, spotted with purple and reddish-brown.

This species is fairly common as a spring migrant and common in fall throughout most of Canada. In the fall it is one of the first of the Warblers to arrive from the north, and the big Warbler waves which strike Central and Southern Ontario about the twenty-seventh of August contain a great many Black-polls. In its manner of feeding, when passing through on its migrations, it is rather quiet, gliding from branch to branch, and not dashing and darting about in the manner of many other Warblers. The Black-poll winters in the northern portions of South America. Among the late arrivals is the Wood Pewee. This species is one of the Flycatchers and has the flattened bill very slightly hooked at the tip, which is characteristic of this family. It is about six and a half inches in length, olive-brown above, rather darker on the head, whitish beneath with the sides and breast tinged with olive-brown, and the wings and tail are blackish, the former having one whitish bar. The sexes are similar.

The Wood Pewee breeds from Nova Scotia to Eastern Manitoba. The nest is placed either on a limb or in a fork of a branch ten feet or more from the ground. It is composed of rootlets, bark fibre and grass, and the exterior is trimmed with lichens. The nest is rather flat and is firm round the rim but rather loose at the bottom. The eggs are three or four in number and are creamy-white, blotched at the larger end with reddish-brown and lilac-gray.

The Wood Pewee does not belie its name of Flycatcher, as the largest single item on its bill-of-fare is flies, mostly those belonging to the Muscidae or House-fly Family. Other flies eaten are the horse flies, robber flies, tachina flies, and crane flies. The next largest item is insects belong to the Hymenoptera, the family to which the wasps, bees and ants belong. There are a number of insects belonging to this order which are highly beneficial because they parasitize other insects, and unfortunately the Wood Pewee does not differentiate between these beneficial forms and the harmful or neutral species but snaps a good many of these useful insects. It does not, however, do enough harm in this way to overshadow the good it does by destroying injurious insects. It eats a good many beetles, particularly those species whose larvæ are borers in the wood of trees, and several species of weevils. It also takes many moths and caterpillars, and some bugs, notably the tree hoppers, leaf hoppers and stink-bugs. This species derives but one per cent. of its food from vegetable matter, eating an occasional blueberry, elderberry and dogwood berry.

The note of the Wood Pewee is a melancholy, drawled "Pee-awee—pee-awee." This species leaves early in September and winters in Eastern Mexico and Central America.

The restriction upon the export of Jersey cattle from the Island of Jersey is noticeable in the number of imported animals registered in the Herd Books of the American Jersey Cattle Club for the year ending March 31, 1918, as compared with the year ending March 31, 1917. The numbers for 1918 are: Bulls 8, cows 190; for 1917, bulls 19, cows 333.

### Administ

The art of medicine without endan- simple a matt- case when the- the mouth. A- are not obtai- of medicine by- stand the art- medicines is v- ministering m- instruments, a- veterinarians, The hypoderm- in injecting a- drug or drugs- injection consi- the circulation- a vein and fo- tracheal injecti- the windpipe. as above are- established than- special instrum- complications- the instrumen- drug with disti- also sterilizing- should be prac- necessity of st- the actions of- dose given thi- given by the r- serious results- effect. Other- horses are in p- the introduction- syringe.

Powders are- water, placed v- or mixed with- convenient met- with damp foot- good, or the m- methods mus- given in small- safe and conve- catch the patie- assistant to hol- the right hand- and upset it. T- falls on the roo- tongue, is quick- solved and r- swallowed. Of- when the quan- large, or the dr- not readily d- this plan is no- factory, as the- will often dro- or less of it out- mouth. In suc- the powder m- placed in a cap- wrapped in p- paper and a- tered as a b- mixed with w- given as a c- The administra- medicine in th- of a bolus or- much practice- requires some- the part of the- thus are first- in a gelatin cap- glycerine, or o- a bolus about t- two to three in- When about to- assistant to hol- him holding it- oil or other lubri- tongue with hi- at the right side- fingers and thu- back in the cent- working of the- molar teeth,) an- into the pharyn- rare cases, give a- case another at- requires some p- a ball without c- teeth, in which- wasted. There- between the mol- teeth upon it; l- the left hand, h- as his own tong- In such a case- forcibly from th- but if he holds h- still holding the- relax pressure, l- hand with no in- tions made by th- instruments call-



## THE HORSE.

### Administering Medicines to Animals.

The art of administering medicines to animals without endangering the life of the patient is not as simple a matter as many think. This is especially the case when the medicine is in fluid state and given by the mouth. A very common reason why better results are not obtained from the attempted administration of medicine by those who are careless, or do not understand the art, is the fact that a large percentage of the medicines is wasted. There are many methods of administering medicines, some of which require special instruments, and are or should be practiced only by veterinarians, or others who have had special instructions. The *hypodermic injection* of medicines, which consists in injecting a solution of the active principal of the drug or drugs just under the skin; the *intravenous injection* consists in injecting the solution directly into the circulation by inserting the hypodermic needle into a vein and forcing the solution through it; the *intra-tracheal injection* consists in injecting the solution into the windpipe. The actions of medicines administered as above are more reliable, and are more quickly established than when given by the mouth. However, special instruments are required, and in order to avoid complications great care must be exercised in keeping the instruments thoroughly sterilized, diluting the drug with distilled water or absolutely pure water, and also sterilizing the seat of injection. Hence these methods should be practiced only by those who understand the necessity of sterilization, and are also conversant with the actions of the drugs they are administering, as the dose given this way is only about one-sixth of that given by the mouth, and an over dose would produce serious results, while an under dose would have little effect. Other methods of administering medicines to horses are in powders, balls or boluses, drenches, and the introduction of fluids into the mouth by the use of a syringe.

Powders are given in either damp food, in drinking water, placed well back on the tongue out of a spoon, or mixed with water and given as a drench. The most convenient method of giving powders is by mixing them with damp food, but, when the patient's appetite is not good, or the drugs have a disagreeable taste, other methods must be employed. When the drug is to be given in small quantities, and dissolves readily, a very safe and convenient method is to place it in a dry spoon, catch the patient's tongue with the left hand, get an assistant to hold the animal's head steady and with the right hand pass the spoon well back into the mouth and upset it. The drug falls on the roof of the tongue, is quickly dissolved and readily swallowed. Of course, when the quantity is large, or the drug does not readily dissolve, this plan is not satisfactory, as the patient will often drop more or less of it out of his mouth. In such cases the powder must be placed in a capsule or wrapped in tissue paper and administered as a ball, or mixed with water and given as a drench. The administration of medicine in the form of a bolus or ball is much practiced, but requires some skill on the part of the operator.

The drug or drugs to be given thus are first reduced to powder, then either placed in a gelatin capsule, or moistened with water, treacle, glycerine, or other moistening substance, rolled into a bolus about three-quarters of an inch in diameter and two to three inches long, and wrapped in tissue paper. When about to administer a ball it is well to get an assistant to hold the patient's head steady and prevent him holding it too high. The ball should be moistened with oil or other lubricant. The operator catches the patient's tongue with his left hand and holds it out of his mouth at the right side; he grasps the ball with the points of the fingers and thumb of the right hand, passes the hand back in the centre of the mouth (being careful that the working of the tongue does not carry it between the molar teeth,) and drops it beyond the root of the tongue into the pharynx. The horse will now swallow it, or, in rare cases, give a short, quick cough and expel it, in which case another attempt is made to administer it. It requires some practice to enable a man to administer a ball without danger of it getting between the molar teeth, in which case it will be chewed and most of it wasted. There is also danger of the hand being forced between the molars, when the patient usually closes the teeth upon it; but, if the tongue be held firmly with the left hand, he will not be able to grasp very firmly, as his own tongue is between the molars on that side. In such a case, should the operator draw his hand forcibly from the mouth he will receive painful wounds, but if he holds his hand steady, and with the left hand still holding the tongue, endeavors to get the horse to relax pressure, he will succeed in liberating the right hand with no injury except some temporary indentations made by the teeth. There are small and inexpensive instruments called balling guns made for the purpose

and it would probably be wise for an amateur to use one.

Drenches are medicines in fluid form, poured into the horse's mouth, out of a bottle or drenching horn. In order that any animal may be given a drench, it is necessary to keep his head elevated to such a degree that the mouth is on a considerably higher level than the throat, in order that the fluid may gravitate backwards and downwards into the pharynx (a cavity just behind the root of the tongue.) This is a very common method of administering medicines and a very satisfactory method when intelligently performed; but in order to avoid too great waste and danger of the animal's health, or possibly his life, it must be carefully and intelligently performed. As stated, there is a cavity or box called the pharynx behind the root of the tongue. On the posterior wall of this box are two openings; the lower one leads to the trachea or windpipe, and is guarded by a cartilagenous valve called the epiglottis; above this is the opening into the gullet. During the passage of fluids or solids from the pharynx to the gullet, this valve closes and prevents the entrance of anything into the trachea, but when air enters the trachea or is expelled from it the valve must open. When a patient's head is elevated for the purpose of administering a drench, and large quantities of fluid are poured into the mouth, it is not uncommon for a greater or less quantity to pass down the trachea to the bronchial tubes, and cause more or less serious trouble, according to the nature of the fluid and the quantity thereof. This unfortunate occurrence results from different causes. If from any cause the fluid is not swallowed promptly, the pharynx becomes filled, hence the epiglottis becomes covered, the patient is forced to expire, and the expulsion of air from the lungs forces the valve open, and a greater or less quantity of fluid passes into the trachea. Then again, there may be a soreness of the throat or paralysis of the muscles of the throat, or mere stubbornness on the part of the patient, or the fluid may be introduced in such large quantities that the animal cannot swallow it fast enough. From whatever cause the results are the same. If sufficient quantities pass down the windpipe to fill the bronchial tubes, the horse will suffer and perish for a few minutes and die of suffocation. If a smaller quantity pass, it will set up mechanical bronchitis, which usually proves fatal, notwithstanding treatment. If a very small quantity pass, it will cause some distress, but become absorbed and no serious results will follow. While drenching an animal the operator must be careful to observe whether the patient is swallowing readily, and if not he must introduce into the mouth very little fluid and wait until that is swallowed before introducing more. If he refuses to swallow, the roof of the mouth should be rubbed with the neck

of the right side of the mouth and worked against its roof until the patient commences to work his jaws, when the fluid can usually be allowed to run freely; but if the patient holds his jaws quietly, fluid must not be allowed to run, else the trouble already described will follow. When from any reason the patient cannot or will not swallow a gag should be placed in the mouth, a rubber hose five or six feet long passed down the gullet to the stomach, a funnel inserted into the exposed end and the liquid poured into it.

To sheep, medicines are given the same as to cattle, but greater care must be taken to avoid suffocation, as they do not usually swallow readily. They are more easily controlled than the larger animals, hence it is not so hard to observe precautions. When a rubber tube is used it must of course be a small one.

Pigs are the hardest of any domestic animals to drench. It is necessary to introduce a rope with a slip-knot into the mouth behind the tusks, to enable the operator to elevate the head. It is almost impossible to prevent squealing, and, of course, when the patient squeals the epiglottis must open, and if there be fluid in the pharynx some will pass into the trachea and cause the disastrous results noted. The most successful method of drenching pigs is to force one end of a rubber tube five or six inches long over the neck of a bottle, hold the patient's head at the required height, and introduce the tube into the side of the mouth. This attracts his attention and usually checks squealing, and he will chew and suck the hose, draw the liquid from the bottle and swallow it. When a rubber hose is not at hand, leather or canvas can be used instead, but it requires great patience and care to administer a drench safely by using a bottle without some attachment to serve the purpose noted. W.H.P.

## LIVE STOCK.

### Preparing to Handle the 1918 Clip.

Visitors to the Winter Fair, Guelph, would scarcely recognize the interior of the building at the present time as it is considerably changed to facilitate the handling of the co-operative shipments of wool and the grading of the same. R. W. Wade, Secretary of the Ontario Sheep Breeders' Association, who is looking after the wool grading for the province, is getting everything in readiness to receive and handle the three-quarters of a million or more pounds of wool which it is expected will be received this year.

A large number of applications for sacks and twine have been received which is an indication of the popularity of this method of handling wool. Last year the first grading was done in Ontario, and selling on grade netted the producer the maximum price for his wool. True, there were slight drawbacks as the work was new to those managing it. However, last year's discrepancies are being guarded against and almost a perfect system in being put into operation this year.

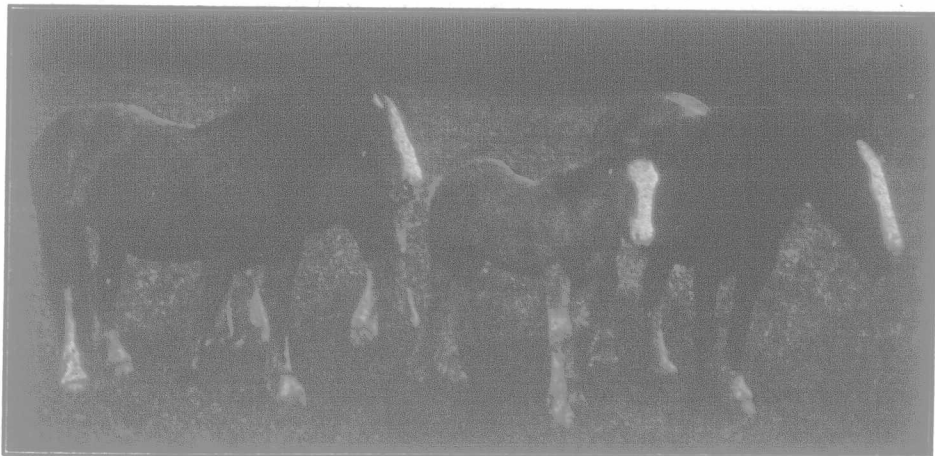
The wool grower has a part to play in aiding this co-operative handling of his products which enables him to get top prices. Instructions regarding shipping should be carefully followed. The shippers name, address, county, date of shipment, number of fleeces and number of sacks should be plainly written on the shipping tag. Last year a number failed to even put their name on their shipment and then complained at what they considered delay in receiving returns. If the name is not on the sack the secretary has no way of identifying the shipment, and failure to state the county complicates the system of bookkeeping followed. By stating the number of sacks shipped it makes it possible to trace up short deliveries at the most opportune time. The sacks should be protected from rain and the wool should reach Guelph between June 1 and July 15.

Arrangements are being made to keep a complete record of each shipper's wool from the time it enters the building until it is placed in the various grades. The men receiving the wool take the name of shipper, his address, county, number of sacks, charges, gross weight, etc., in triplicate. One of these sheets is passed on to the men in charge of opening the sacks and placing the fleeces on the grading table. Under the system contemplated there is no possible danger of two different lots of wool becoming mixed.

Large baskets are mounted on wheels and into these the different grades of wool are placed and run on to scales where the weights of the various grades are taken and checked with the weighing in sheets. The building is divided off into rooms so that the different grades may be kept separate. In these rooms the packing for shipment to market takes place. From two-hundred and fifty pounds of fine wool to four hundred pounds of coarse wool are put into a single sack. The sacks are sewed up and stamped with the grade.

The grades include fine medium combing, medium combing, medium clothing, low medium clothing, low combing, coarse, rejects, gray and black and tags. It is the intention of the secretary to let the shippers know the number of pounds of each grade in their lot and also the price received for each. Every sheep breeder should endeavor to care for his sheep and wool so that a large percentage of the clip will go into the highest priced grade. Care should also be exercised in tying the fleece and preparing it for market. The use of paper twine is advised and the same may be secured from the Secretary, R. W. Wade.

Practically every province in the Dominion have adopted the wool grading system, and the marketing of the clip through a central association. While each province marketed the wool separately last year, it is the intention to sell the entire clip through the Dominion Organization which was effected last winter with headquarters in Toronto. It is but reasonable to expect



Foals from Such Dams are in Demand.

that the highest price will be obtained when buyers can secure large quantities of a uniform grade wool at a central point. The larger the quantity the less the expense of handling and the higher the price. Those in charge of the work are doing everything in their power to handle the wool as efficiently as possible and they should receive the support of all wool growers. By marketing co-operatively the grower saves any middleman's profit and gets all that the manufacturers pay for the wool, less the actual expense of handling and grading it, which is but a mere trifle. It is your association, patronize it, but remember that failure on your part to follow instructions sent out by the secretary re preparing the fleece for shipment and the shipping of the same increases the work of handling the wool at the grading centre.

### Methods of Weaning Little Pigs.

Weaning time is the most critical period of the hog's life. The approved practice is to wean at about six weeks. Teach the litter to eat three weeks before weaning, using a crib or creep which excludes the sow, or a separate pen. Feed, in a trough, preferably, middlings with skim-milk. With middlings at present unobtain-

able, finely ground sifted oats is best. Feed only small quantities at first and avoid having decomposed or stale food left over. After weaning, add shorts gradually up to equal parts, and from the second to the third month add barley or corn as one-third the total meal ration. First and last, avoid overfeeding with its consequent train of evils.

Within the last year at the Central Experimental Farm, experiment and subsequent practice has indicated a system whereby weaning is simplified and the bad results of careless feeding practically eliminated. Instead of "hand-weaning" or feeding the weaning pigs milk and meal in a trough, a small self-feeder is substituted in the creep, skim-milk being fed in a separate trough. Finely ground oats and shorts, and later ground elevator screenings with a small proportion of ground corn, if available, are placed in the feeder. Thus, the little pig feeds himself when and as much as he sees fit, is able to eliminate from the meal eaten much fibrous material which he must consume willy-nilly where fed a slop, and incidentally accustoms himself gradually to skim-milk. Except in cases of early litters, the little pigs are given access to outdoor runs at all times from two to three weeks of age. Excellent growth is shown, the pigs developing clean, long, and thrifty, with no

evidence of thickness, pudginess or lack of energy. Absolutely no evidence of indigestion or scouring has been seen, and in one instance where a dozen litters were so fed at a central feeder the percentage of "culls" was remarkably low. When finally removed from the sow, pigs so weaned, particularly where they are to be self-fed subsequently, give minimum evidence of the check in growth, usually incidental to weaning in a greater or lesser degree. In short, while the experienced hogman can hand-wean his pigs with maximum results, the farmer lacking experience or depending upon ever-changing attendants, is likely to run into difficulties. The method described, besides reducing labor, apparently removes the danger of irregular and over-feeding. Both method and results might be described as automatic.

In the foregoing method, skim-milk plays an important part. Where this or other milk product is unobtainable, experimental evidence would show that good pigs may be raised by following this method and supplying tankage, blood-meal, fish meal or some similar animal product in a separate compartment of the feeder, not mixed with the regular meal. Pigs, so fed, have shown only slightly inferior quality to skim-milk fed lots, but the cost to produce would seem to be considerably increased.—Experimental Farms Note.

## Contagious Abortion—Cause, Prevention and Treatment.

Stockmen count on the natural increase in their herds and flocks to bring them a large proportion of the revenue from the farm, and it is certainly discouraging to have disease make its inroads and destroy the lives of the young, yet this is what happens when the germs of contagious abortion are present. Not only does it affect one year's operations but the cow very often fails to breed again, or, if she does, may abort a second time. The disease is no respecter of herds. It is found in the herd of pure-bred cattle as frequently as in the grade herd. It finds its way into the rich man's as well as the poor man's stable. The trouble is becoming quite prevalent and unless a united effort is made to check it, it will seriously affect the live-stock business. No breeder can afford to treat this disease lightly. He may not have infection in his herd, but he does not know what day the germs may find access to his stock. New stock being purchased and placed in the herd renders infection of the entire herd liable, consequently too great precaution cannot be taken. One diseased cow may spread the germs of abortion by contaminating bedding in the stable or the ground in the pasture; by coming in contact with other cattle in field or stable or the germs may be carried by attendants. As the bull is a carrier of the disease, care should be taken to ascertain whether or not cows from neighboring herds were infected or not before using the bull. If contagious abortion once gets into the herd it will take time and labor to remove it, and before infection is finally stamped out there is likely to be a considerable loss caused by dead calves and sterile cows. Medicinal treatment has not proved effective, but thoroughly disinfecting the stable and utensils, isolating diseased animals and irrigating the genital passages of cows and bull with a warm antiseptic solution, will have the effect of lessening the loss through abortion. The cause, diagnosis, prevention, control and treatment of this disease is dealt with by H. G. Frederick in Circular No. 28 of Utah Agricultural College as follows:

"Contagious abortion occurs most frequently where animals are closely housed, but is also found among the range cattle. Cows of all ages are more or less susceptible to the disease, although in their first or second pregnancy they are more apt to abort, if exposed, than at any other time. The specific cause of this infectious disease is a microscopic germ known as the *Bacillus abortus* of Bang. The best-known and main symptoms of this disease is the death of and the expulsion of the immature foetus. This is accomplished by the entrance of the germ into the pregnant uterus where infection of the foetus occurs. Through the continuous attacks of the germs which rapidly increase in numbers when once started, a separation from the mother of the attachment of the membranes in which the foetus is found, is accomplished. This shuts off the nourishment from the foetus, thus causing its death. The foetus acting as a foreign body is then expelled or aborted from the uterus of the mother. Therefore, abortion is only one of the symptoms and not the disease itself.

"The germ causing the disease is found in the uterus of cows which have aborted or those having a retained afterbirth or other symptoms. It is often found in the udders and milk of cows; also in the internal organs of aborted foetuses, in the lungs of living calves expelled before their time and in the joint cavities of calves born at full term. It sometimes happens that the disease-producing power of the germ is not great enough to kill the foetus, or the mother is strong enough to overcome it. In such cases the calf is born alive at full term. Sterility is often an after-effect of abortion due to the neglect of the infection or injury that has taken place in the mother. This may be only a temporary trouble owing to changes taking place in the organs. The germ causing this disease usually enters the body through the external genital organs, the udder, or through the mouth and digestive tract by contact with infected animals or contaminated materials. It has been shown that the ingestion of food and water that have been contaminated with the discharges of aborting cows is a common method of causing the infection.

"It is maintained by many investigators that the bull is one of the main carriers of abortion. Since cows aborting are often in heat the same day or just a few days later, the bull serving such cows can infect others

he may serve shortly after. Again, it is found that some bulls carry this infection in their genital organs.

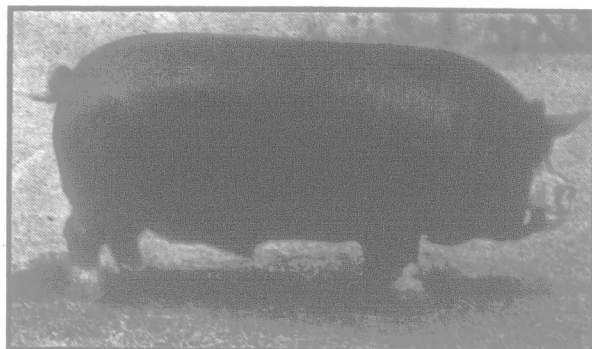
"Abortion is closely associated with granular venereal disease, sterility and mamitis in cows, and white scours and navel infection in calves. Where cows abort some of the above troubles often follow.

"It often happens that a cow becomes sterile either temporarily or permanently following an abortion. Calves are often born with very little vitality and may soon die, or they may develop swellings on different parts of the body—commonly the joints, or they may be affected with white scours, as these conditions often accompany abortion or may be a sequel to it.

### Symptoms in Cows.

"In cows the symptoms of contagious abortion seem to be more pronounced than in the mare. It most frequently occurs or is noticed during the fifth or sixth month of pregnancy, yet it may take place earlier or later in much the same way as in the mare.

"Abortion is usually preceded by a slight swelling of the udder and vulva (the external orifice) with symptoms of genital catarrh and a discharge from the vagina of a reddish grey or yellow color. If the cow is giving milk usually the secretion is somewhat diminished in quantity and greatly resembles the first milk of a fresh cow. Two or three days later slight pains are manifested and abortion takes place.



The Type of Berkshire Becoming Popular in U.S.A.

"After the abortion takes place there is often a discharge which may or may not have an odor. This discharge is of a reddish brown or grey color and contains the germs. This discharge may accumulate in the uterus and be expelled periodically by violent straining.

"The foetal membranes or afterbirth is often retained. The cow may come in heat shortly after or a number of days after abortion and in this way infect the bull. If abortion is not complicated by retained afterbirth or sterility, it does not greatly affect the health of the animal. The cow continues to eat and acts normally. Cows do not abort indefinitely. About fifty per cent. abort once, some twice, and a small percentage may slip their calves the third time.

"Cows may become immune after aborting from one to three times and bring normal calves, but some may still be able to infect other cows or the bull; hence, the difficulty in controlling the disease. If the cows become immune in a few years the abortion will occur only in heifers or in newly-purchased animals brought into the herd, and finally the disease may disappear from the herd entirely. This disease may persist for years in a herd if proper and strict sanitary measures are not employed.

### Diagnosis.

"Not all abortions are due to contagion, but if a number of cows in a herd abort during the year, showing a discharge and retained afterbirth, one may reasonably conclude for all practical purposes that they have contagious abortion—at least it should cause suspicion. There are no symptoms by which this disease can be determined with accuracy. Investigators make use of bacteriological and serological tests, blood tests where the blood serum is tested by laboratory methods known

as the agglutination test, also the complement-fixation test.

### Prevention, Control and Treatment.

"Contagious abortion in cows to be prevented, controlled or treated requires a careful and detailed study of each outbreak and of every case in the outbreak. The same general measures should be practiced with both mares and cows.

"Every precaution should be taken to prevent the disease from getting on the ranch or farm, the pasture or feed lot, or in the corrals or barns. Great care should be exercised in bringing new animals on the premises. Very often such animals are infected with abortion. It is becoming very difficult to purchase good breeding animals. In purchasing animals where it is not known whether or not they are free from abortion, one should keep them in separate quarters, where possible, until one is fairly sure they are free from disease (two or three weeks or a month).

"Many stock raisers sell off the aborting animals as fast as they abort, and very often such animals are bought for breeding purposes by some one not familiar with the disease, thus spreading the infection of new uninfected areas, animals and premises. It has been pointed out that many animals only abort once and will then carry the offspring to maturity; therefore, it would be much better to keep such an aborting animal unless she is otherwise unprofitable.

"When a man sells one of his breeding animals he usually replaces it with another. Abortion existing in his herd, he may bring in a new susceptible animal or buy one that is not better than the one disposed of and he is no better off than before. If aborting animals are not otherwise unprofitable, they should be kept and treated; however, if cows are sterile or otherwise unprofitable and will not yield to treatment they should be sold for beef and not for breeding purposes.

"If a male is not kept for breeding animals, great care should be exercised to know that the animal used for service is free from this disease. Otherwise the infection may be transmitted to the clean animals.

"Most stock raisers desire to improve their animals. This being true, the young are the most valuable ones, due to the improvement by selection and proper mating. Therefore, such animals should be kept, and where they are raised with animals having this disease they often become more or less immune, and a good bunch of breeding animals can be developed.

"When an animal aborts, isolation is of great importance. In case it occurs in the stable the aborting animal should be isolated from the other animals and moved to a place where she can be carefully looked after. The foetus and membranes should be immediately carried away and destroyed by burning. If this is impractical they should be deeply buried,—after covering with a good disinfectant consisting of lime or some good coal-tar product (a germ killer). All the aborted material and all discharges should be taken proper care of since germs are extremely numerous in this offscum. The vaginal discharges should be properly disinfected and the genital passages irrigated with a mild, warm antiseptic daily. This may consist of from one-half per cent. to one or two per cent. of carbolic acid (about one ounce or two tablespoonfuls to the gallon of water), a solution of creolin, lysol, or some other good germ destroyer. This can best be accomplished with a soft rubber tube about 4 or 5 feet long. The end of the tube is inserted into the genital passages, the other end fitted to a funnel where the liquid is poured and the funnel end raised up higher than the animal so the liquid will flow in by gravity. Two quarts to one gallon of the warm solution is injected into the uterus and repeated daily as long as a discharge appears, after which the intervals may be greater until the animal is to be bred. The external parts—vulva, tail, udder and thighs of aborting animals should be carefully washed with some antiseptic, but a stronger solution—from two to four per cent. Not only the aborting animals but the ones exposed that are pregnant should be treated in this way.

"Some use about a 1-500 solution of permanganate of potash or two per cent. Lugol's solution followed by a 1-per-cent. salt solution for this irrigation. This can be obtained at any drug store.

"An animal months after a charge from the

"In case the moved by a qua understands the If not removed, gallon or two of day. This prev of the poisons o to come away. as well as unsa animals with a great skill and fied and experie otherwise, the li or injured, thu which are respo pyrometra) and

"The *Bacilli* per cent. soluti minute; a 1 per stroyts it in the tion of boric ac Whenever water it should first be cooled to about

"Some invest often responsi commonly supp

safer to treat h terial used in cle to suppose if a r cially where su material, that b and transmit th bred to. If the the cow is sure well to first clip the sheath and the sheath, or u Lugol's solution cow a vaginal de before service, same kind of a sserting the rubb and holding the flow out while f up and down o disinfect all part

"A regular c secured. This o bottom to whic suspended from conveniently mani been treated a fo every service. stables suspens hind the female ber are to be tr or irritating dis in this way tha only use warm v

"Many differ mended, and so contagious abor often due to err disease than th this trouble. A are carbolic acid and serums, bes many farm pap with safety the known.

"Standard a reliable than a doubtedly there fected which wi

"Those havin mals must use t will have to be to be successful.

### Cleaning

"Where abor necessary to cl removing all th cannot have ac mangers, partici good antiseptic, The ceiling shou cobwebs and a lime and carbol daily for a shor plenty of sunlig The shoes, boot tendants shoul per cent. soluti

"The best m the premises is as orchardists us disinfectant int can also be spr to good advanta "Advantage e fectant—sunligh be provided in and fresh air to cumulations of r roundings in g trol this or any

"An animal should not be bred for from two to three months after abortion, and not even then if the discharge from the genital organs has not ceased.

"In case the afterbirth is retained it should be removed by a qualified individual who exercises care and understands the work, rather than by unskilled hands. If not removed, the uterus should be irrigated with a gallon or two of some good, warm disinfectant twice a day. This prevents the accumulation and absorption of the poisons emitted and also helps the membranes to come away. It often occurs that forcible and clumsy as well as unsanitary manipulations are practiced on animals with a retained afterbirth. This work requires great skill and sanitary precautions, which only qualified and experienced veterinarians can properly give; otherwise, the living membranes of the uterus are torn or injured, thus allowing a point of entry for germs which are responsible for grave infection (metritis or pyometra) and for blood poison.

"The Bacillus abortus equi is destroyed with a 1 per cent. solution of potassium permanganate in one minute; a 1 per cent. solution of carbolic acid also destroys it in the same length of time. A saturated solution of boric acid destroys this germ in three hours. Whenever water is used for irrigating the genital organs it should first be boiled, the chemicals added, and then cooled to about body temperature before injection.

Treatment of the Bull.

"Some investigators claim that the male is not as often responsible for transmitting this disease as is commonly supposed. However, to make sure, it is safer to treat him with some of the same kind of material used in cleaning the female. It is only reasonable to suppose if a male is bred to an aborting female, especially where such animal is still discharging virulent material, that he is very apt to become contaminated and transmit the infection to the next animals he is bred to. If the bull himself is infected the infection of the cow is sure to follow. In the case of the bull it is well to first clip off the long hair from the opening of the sheath and then inject some of the solution into the sheath, or use one-fourth to one-half per cent. of Lugol's solution before and after service. (Give the cow a vaginal douche of same solution one or two hours before service.) This can be accomplished with the same kind of apparatus described for the female, inserting the rubber tube into the opening of the sheath and holding the end of the sheath so the liquid cannot flow out while filling it. When it is full rub the hand up and down outside the sheath so as to thoroughly disinfect all parts of the sheath and penis.

"A regular container instead of the funnel can be secured. This container may have a faucet near the bottom to which the rubber tubing is fitted. This is suspended from the ceiling of the bull stall and can be conveniently manipulated, especially after the animal has been treated a few times. It should precede and follow every service. This same apparatus can be used in the stables suspended from the litter carrier or a wire behind the females and facilitate the work where a number are to be treated. One should never use too strong or irritating disinfectants as more harm can be done in this way than already exists. It may be better to only use warm water for the irrigation of the uterus.

Medicinal Treatment.

"Many different medicinal agents have been recommended, and some have been heralded as specifics for contagious abortion. These results if obtained are more often due to errors of diagnosis or to the nature of the disease than the drug used for seemingly overcoming this trouble. Among the things most commonly used are carbolic acid, methylene blue and different bacterines and serums, besides the patent remedies advertised in many farm papers. At the present time it may be said with safety that no reliable specific for abortion is known.

"Standard antiseptics are much cheaper and more reliable than any or all proprietary remedies. Undoubtedly there will be a time when a vaccine is perfected which will protect animals against this disease.

"Those having contagious abortion among their animals must use their best efforts to overcome it. They will have to be 'on the job' and stay with it in order to be successful.

Cleaning Up the Stables and Premises.

"Where abortion occurs in barns or stables, it is necessary to clean thoroughly such stables, first by removing all the litter to a place where the animals cannot have access, then scrubbing the walls, floors, mangers, partitions, and all things contaminated, with a good antiseptic, or with boiling water to kill all infection. The ceiling should be brushed and freed from all dust and cobwebs and a spray of some good disinfectant such as lime and carbolic acid, applied to the ceiling and walls daily for a short time. In addition to these precautions plenty of sunlight and fresh air should be supplied. The shoes, boots, clothing, and the hands of the attendants should be disinfected with a three or four per cent. solution of carbolic acid or creolin.

"The best means for applying the disinfectants on the premises is by means of a good spray pump (such as orchardists use for spraying trees.) This drives the disinfectant into all the cracks and corners. The yards can also be sprayed with some of the same disinfectant to good advantage.

"Advantage should be taken of nature's best disinfectant—sunlight. An ample number of windows should be provided in barns or stables to allow the sunlight and fresh air to enter. Muddy, undrained yards, accumulations of manure and litter, and unsanitary surroundings in general make it almost impossible to control this or any other contagious disease."

A Great Shorthorn Sale.

The third annual sale held by Messrs. Watt and Gardhouse, on Tuesday, May 21, will long be remembered by breeders of high-quality cattle. It was a red letter day in Canadian Shorthorn history. While the average price received has been exceeded, it is doubtful if as elite a lot of stock were ever before led into a Canadian sale ring. The sale was held in the Winter Fair building, Guelph, where ample accommodation was afforded the hundreds of people who were in attendance. There was a seat for everybody and all could see the animals in the ring. The offering was of choice breeding and was in the pink of condition. There were four imported cows with calves at foot which brought a total of \$4,525. All but one of these cows went to the States. They were large, deep, thick-bodied individuals of excellent quality, and, considering the breeding of both dams and calves, the purchasers secured bargains. The highest price was realized on Canadian-bred females. Orange Princess 2nd, an eight-year-old cow with heifer calf at foot topped the sale at \$2,275 and went to the bid of Ostreicher Bros. of Crediton. She is a beautiful type of Shorthorn, sired by "Village Duke" and out of "Orange Princess". Her roan calf is a show animal by "Right Sort" and she is bred again to "Lancaster Lord". Lady Madge 5th, a six-year-old cow, with a bull calf at foot was a good buy at \$1,625. The calf was sired by "Gainford Marquis" that show bull that has left a large number of show animals that have been a credit to the Shorthorn breed. The purchaser of this cow was Geo. Fletcher of Erin. "Lad's Missie", a seven-year-old cow and her eight-month-old bull calf were a bargain at \$2,000. This is a particularly large-framed, smooth, high-quality cow, sired by "Good Lad". J. J. McNiff made a good buy when he secured "Polly Lind" a two-year-old heifer of the English Lady family, for \$1,150. She is well advanced in calf to "Gainford Matchless"; not only that, she has the type and individuality of a show animal. One of the choice things in the sale was "Thelma 3rd, a three-year-old heifer in calf to "Gainford Supreme". This heifer is by "Gainford Marquis" and her quality is indicated by the fact that she was a winner at all the big shows where she has been exhibited.

There were only three bulls catalogued and they sold well. "Gainford Mark", a January calf by "Gainford Marquis" went to the \$1,725 bid of A. Armstrong of Fergus. This calf is a full brother to "Gainford Matchless" which was sold at the Messrs. Watt-Gardhouse sale last year, and that was the undefeated calf at the leading Canadian shows in 1917. Great things are expected of both these calves. The value of a great sire was plainly shown at this sale. Breeders recognize the high quality of "Gainford Marquis" and his get, consequently were ready to pay the price for his progeny. Many of the young things were by this bull and a number of the mature females were again in calf to him.

American breeders secured a number of choice individuals but the highest priced and best animals remained in Ontario. Canadian breeders are awake to the folly of permitting the good things to leave the country, considering they are worth as much to them as to anyone else. This policy is going to greatly strengthen our live stock industry. A total of twenty-three head went across the line for a total of \$18,125. The thirty-six lots remaining in Canada brought \$29,825 or an average of \$828.50. The average for the entire sale was \$812.75. Fifteen, 1917 heifers made an average of \$575. The sale was well managed and the fifty-nine head were sold in about three hours by auctioneers. Col. Carey M. Jones, Chicago; Capt. T. E. Robson, London and "Scotty Milne". The following is a list of the animals sold, together with the prices and names of purchasers:

Females.

Table listing various female animals (cows and heifers) and their prices, including Braelangwell Dairymaid (imp.), J. J. McNiff, Lavarne, Minn., Maria 19th (imp.), O. C. Lower, Alanta, Ind., Monikilin Bellona (imp.), O. C. Lower, Jilt 46th (imp.), A. G. Auld, Guelph, Lady Madge 5th, Geo. Fletcher, Erin, Ont., Orange Princess 2nd, Ostreicher Bros., Crediton, Ontario, Lad's Missie, W. C. Sutherland, Galt, Ont., Lad's Missie's 8 months bull calf, Miss Wilks, Galt, Ontario, Mina Mildred 2nd, E. R. Croton, Angola, Ind., Broadhooks Rose 4th, Zobel Bros., Dysart, Ia., Broadhooks Jilt, A. Heaslip, Brussels, Ont., Miss Lovelace 3rd, D. E. McMooney, Huron, S. D., Nonpareil of Hillside 2nd, W. C. Sutherland, Tango, G. W. McLaughlin, Oshawa, Ont., Strawberry Lass, D. E. McMooney, Bloom of Wexford, D. E. McMooney, Snowdrop, C. Bolser, Kitchener, Ont., Rosemary Queen, W. W. Stein, Streetsville, Ont., Ruby of Oak Bluff 2nd, Carpenter & Ross, Mansfield, Io., Grace, D. E. McMooney, Glenview Blossom, G. W. McLaughlin, Lavender Emma, O. C. Lower, Violet, Geo. Bell, Deloraine, Man., Queen of Struan, Robt. Miller, Stouffville, Lady Castremont, H. McGee, Islington, Ont., Elmdale Lily, H. McGee, Celia Gem, Jas. Fallis, Brampton, Ont., Lady Burnhead, W. A. Dryden, Brooklin, Ont., Lady Broadhooks, E. Patterson, Milton, Ont., Polly Lind, J. McNiff, Burnbrae Butterfly 4th, H. McGee, Thelma 3rd, J. E. Crosby, Tulso, Okl., Sultan's Princess, A. Watt, Elora, Ont., Roan Beauty, D. E. McMooney, Gainford Belle, A. Watt.

Table listing various female animals (cows and heifers) and their prices, including Diamond Maid 30th, O. C. Lower, Gainford Silver, Wm. Kay, Guelph, Ont., Gainford Mina, Zobel Bros., Lady Gainford, A. Watt, Crimson Beauty, A. Watt, Miss Strathallan, J. J. McNiff, Gainford Princess, Wm. Kay, Lady Gainford, J. J. McNiff, Augusta of Langbank, J. J. Elliott, Guelph, Daisy B, J. J. McNiff, Carrie B, J. J. McNiff, Scotch Lady, McKinnon Bros., Rockwood, Roan Queen, J. J. McNiff, Scotch Heather 4th, S. E. Smith, Acton, Goodwood Beauty, J. C. Andrews, West Point, Ind, Golden Primrose 2nd, O. C. Lower, Duchess of Gloster, Hastings Bros., Guelph, Crimson Fuchsia 3rd, H. McGee, Lovely 20th, M. Doherty, Malton, Strathallan B. 5th, Robt. Miller, Lavender Gem 3rd, M. Doherty, Riverview Jilt 5th, Wm. Kay, Roan Claret, J. J. Merner, Seaforth.

Bulls.

Table listing bulls and their prices: Gainford Conqueror, Wm. Burnett, Alma, \$1,050; Gainford Mark, A. Armstrong, Fergus, 1,725.

THE FARM.

The Soldier Settlement Scheme in Western Canada.

While in Ottawa we had the opportunity of looking into the big work that has been started in the settling of returned soldiers on the land and the part this plan is playing in increased production. That the same spirit and unity of purpose that inspired our Canadian men to make the sacrifice they did in the early stages of the war is in evidence in their assisting greater production to help win the war as shown by an interview with Charles F. Roland, one of the commissioners, who with Major Ashton had just returned from the West. Mr. Roland stated that at least 10,000 additional acres will be put under cultivation by returned soldier settlers in the four Western Provinces this year. On their recent trip through the West the Commission reinstated 272 soldiers on farms. Statistics compiled by the Board and presented to the Minister of the Interior show that in Alberta 206 applicants for loans under the Act were considered; in Saskatchewan, 151; in Manitoba, 47; and in British Columbia, 3. Of this 272 were provided with total loans amounting to \$341,558. The amount loaned in each of the four Western Provinces was: Alberta, \$191,300 which was loaned to 146 applicants; in Saskatchewan, \$120,378 to 96 applicants; in Manitoba, \$27,380 to 27 applicants and in British Columbia \$2,500 to 3 applicants, all returned men who had farmed previously to their going overseas. The average loan to each soldier settler was: in Manitoba, \$1,014; in Saskatchewan, \$1,254; in Alberta, \$1,310, and in British Columbia \$833, and the total acreage of all the farms commencing operations was 53,440 acres.

Mr. Roland further stated that the land regulations under the Soldier Settlement Act allow the soldier to make entry for a homestead of 160 acres on reserved lands, providing he has not already exhausted his homestead rights, and in addition a soldier can select an adjoining quarter section of Dominion Lands as his Military right. In fact, any available Dominion Lands, no matter where located, may be applied for by a soldier settler under the Act and if the soldier does not want to enter upon free Dominion Lands he can participate in the benefits of the loan on land at present owned by him or to be acquired.

Asked what conditions there were in connection with the Government loans to returned men going on the farm, the Commissioner stated that the Board under the Act could make loans up to \$2,500 for the acquiring and improvement of land, the erection of farm buildings and for the purchase of stock, machinery and farm equipment. The conditions, as regards security, were that the amount loaned must be secured by first mortgage on land and that no loans are made unless the soldier has the ability to make, from the land, a fair living for himself and family and repay the loan, which is extended over twenty annual payments at five per cent. All loans shall be expended under the supervision of the Soldier Settlement Board. It is necessary that the inexperienced applicant for loan must first become qualified, either by taking a course at farm training stations for returned soldiers or by actual employment on farms, and that there are certain cultivation and residence duties to perform. During the recent trip to the Western Provinces, District Offices were opened at Winnipeg, Regina and Edmonton. Honorary Advisory Boards, consisting of representative men, well qualified to give helpful advice to soldier settlers, have been appointed in each district. While Dominion Lands, located in the West, are being used for settlement purposes. There is now, however, under way negotiations for provincial co-operation for settlement in other Provinces. Representatives from Prince Edward Island, New Brunswick and British Columbia have already visited Ottawa and a uniform policy will, no doubt, be worked out by which Crown Lands and unoccupied lands in the Eastern Provinces will be made available through such provincial co-operation.

### Prospects in New Ontario.

At a time when the National cry and necessity is, "Produce", and the ever rising cost of living is forcing the practice of the most rigid economy, it is natural that many should for reasons both patriotic and economic seek to effect an entrance into an agricultural sphere of activity, it is also natural that among this number some should be considering the possibilities of the much advertised Northland of Ontario, and it is with a view of assisting those so minded, of relieving some of the many doubts and difficulties which naturally exist, and for the purpose of discussing some of the advantages and disadvantages of the country that this article is written.

The change from urban to rural life, though extreme in character is not so difficult of accomplishment as might be thought upon early consideration of that change; in agriculture, as in all else, experience favors success; but in the Northland the start is often on a small scale, and operations can be extended as experience and proficiency increase. Among the essential requisites of a farming district are: good soil, sufficiently long growing season to enable crops to mature, reasonable proximity to markets, suitable transportation facilities, and good roads.

Northern Ontario, when examined in the light of the foregoing essentials, will compare so favorably as to warrant the serious consideration of the would-be agriculturist.

The soil of the clay Belt is fertile; of that there can be no doubt. The opinions of the many agricultural experts who have from time to time reported on this matter are unanimous. Here are millions of acres of land as good as the best in Old Ontario, ranging in character from sand to clay with all the intermediate

graduations, capable of producing much of the food-stuff now in world-wide demand. An examination of the crops grown here will produce incontrovertible evidence of soil fertility: barley, oats, wheat, peas, hay and roots may all be found producing yields that will compare favorably with the average for these crops. Oats invariably yield grain heavier than the seed purchased from the South; barley, both spring and fall wheat all give fair average yields; clover grows as a weed on the roadsides, and produces phenomenal crops when cultivated. Roots, mangels, turnips, etc., grow to an immense size. Dealing with hoed crops, however, the country is pre-eminently suited to the production of potatoes, particularly seed potatoes. The climate is such as to favor the production of immature seed, such seed having proved to be possessed of the greatest vitality, and conducive to the heaviest yields. Northern grown seed will be in big demand in the potato growing districts of Old Ontario, and arrangements are being made to ensure an adequate supply.

The growing season here is shorter than in the southern part of the province, and crops such as corn are liable to damage from the early fall frosts; fruits and vegetables susceptible to frost must be protected at night to eliminate risk of injury. The country generally is liable to summer frost, and for this reason care must be exercised in selecting the hardiest and earliest varieties of grain, etc. There is good reason to believe that as land clearing progresses, as the cultivated area becomes more extensive, the frost risk will become materially reduced. However, to compensate for the somewhat short season, the long hours of sunshine are productive of the most rapid growth, the short time required for grain to reach maturity occasions considerable surprise to the farmer unfamiliar with northern weather conditions.

Fortunate indeed is the farmer in New Ontario with regard to markets for his produce. The Northland

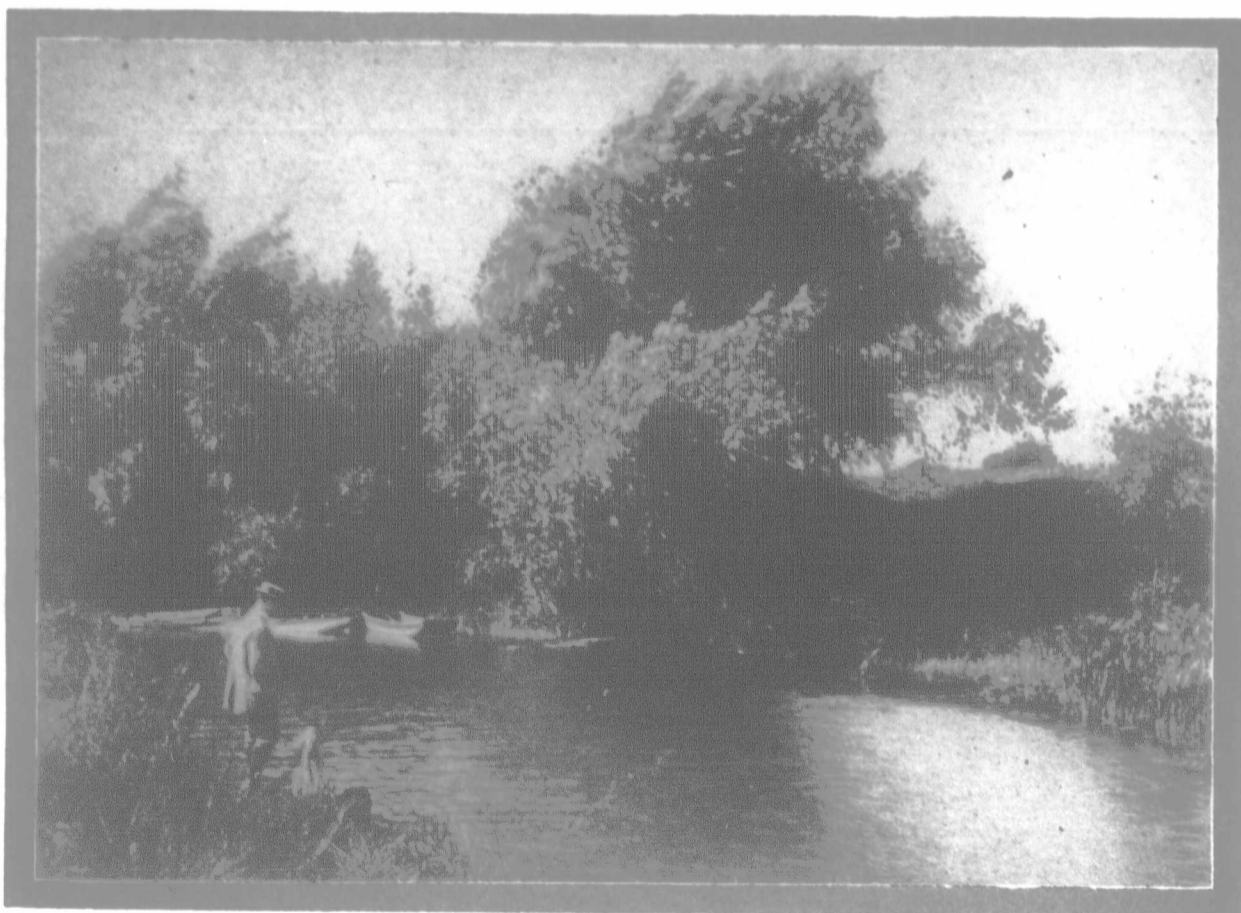
including, as it does, the richest and most productive mining areas, containing large tracts of mineralized rock, possessing untold possibilities, enjoys the undoubted asset of a readily accessible market, and a market capable of infinite extension. Large producing mines, and lumber camps employing many men are ready buyers of much produce; local markets at Haileybury and Cobalt absorb considerable foodstuff produced in the surrounding country, and Toronto with its connections to numerous market centres is but a day's journey from the heart of the Clay Belt. A government operated railroad extending North throughout the more settled area ensures for the farmer economical transportation and provides quick and easy access to the Northern markets. The Northland is probably as favorably situated with regard to markets as any part of the Dominion, and as the vast mining areas are developed, resulting in the accumulation of an extensive consuming population, which from an agricultural point of view is non-producing, must necessarily result in a market for all classes of farm produce, and the Northern farmers by reason of their proximity to these markets should successfully compete with producers at a greater distance.

The various sidelines which often prove a valuable adjunct to a farmer's income without adding unduly to his labor, may be as profitably followed in the North as elsewhere, and the following figures should tend to prove that poultry could reasonably occupy a more prominent position on many a Northern farm than a mere sideline.

During the year 1917 eggs sold to a local store-keeper realised from 35 cents to 50 cents per dozen, the lower price ruling for one week only, and from January to March 1918, 60 cents per dozen was readily obtainable, whilst at Christmas and New Year's holiday, eggs sold briskly on the Cobalt market at 75 cents per dozen. There is a good demand for live fowl, the Jewish element buying considerable at certain seasons. Potatoes and all garden produce can invariably be disposed of at prices often in excess of those quoted at Toronto and Southern markets. Strawberries are, in a favorable season, a good crop in many parts, and those growing them state that they can in no measure satisfy the local demand, it is rarely necessary to ship berries any distance. To the farmer desirous of engaging in dairying the country offers considerable inducements; and the splendid pasture, with abundance of good water and the essential shade trees, offers untold possibilities for extensive beef raising.

The roads of the Northland are, generally speaking, in fairly good condition; as might reasonably be expected there is room for considerable improvement, a good country road cannot be constructed all at once, time and traffic are necessary before a good bottom and a wear resisting surface are obtainable. The Government have annually spent a large sum of money on road development and improvement, and as the country opens up the road system will naturally enlarge and improve. After due consideration of the foregoing, and when it is remembered that there is usually ample opportunity to obtain employment during the winter months if necessary Northern Ontario certainly deserves the serious consideration of the would-be settler. In many cases the timber sold from the land will pay for preparing it for cultivation. The stumps of the prevailing trees, spruce and balsam, readily decay, and a year or so after timbering and following a fire, a team of horses can usually pull sufficient stumps to permit of using almost any implement; in fact, the difficulty of land clearing cannot be compared with the troubles that beset the path of the pioneer in Old Ontario. In conclusion it may be said that the country offers in addition to the material benefits of wild meat, fish, and wild fruit, a bracing and invigorating climate, dry and cold in winter but conducive to the best of health; it offers scenery sufficient to satisfy the most exacting, it satisfies the call of the wild present in many breasts, and is providing a living for an ever increasing population.

NORTHERN SCRIBE.



A Secluded Nook.

## Canada's Young Farmers and Future Leaders.

### Essentials in Successful Farming.

Columella, a Spanish-Roman writer of the first century A.D., once said that three things are necessary for successful farming: knowledge, capital and love of calling. So true is this statement to-day that it is frequently repeated. No two out of the three essentials will produce a successful farmer; all three must be present. Sometimes it seems as though exceptions could be found, but upon closer examination they will show a close relationship to this old axiom. Sometimes men believe that capital will do everything, and, because they have more capital than the average farmer in the neighborhood, undertake to show him how to farm. These men, however, very frequently lack in knowledge and often, too, in a real liking for farming. The farmer with less capital, but who possesses knowledge and experience, will very often progress slowly, but no less surely, and in the end win out over his richer neighbor. Could we find out how much money has been sunk in over-expenditure on the farms of Ontario alone, and could we determine how many heritages have been lost through lack of knowledge in farming, how many of us would even grasp the enormous advantage of knowledge and experience in the battle of the farmer against the vagaries of weather and the ravages of pest and disease. How priceless in time of strife and possible privation is the man whose experience is such as to enable him to draw from the soil the last

bushel of grain, and who can carry the parched corn through a time of drought and hardship until the rain shall come? The power of knowledge is everywhere recognized, and nowhere is it more to be revered than in the tillage of the soil, or in the feeding and care of domesticated animals, especially when knowledge is reinforced by experience. Knowledge unattended may give rise to vanity; experience is knowledge but of a different tempering, and bespeaks for its possessor the respect of all who meet him.

Capital of itself is of tremendous importance in agriculture. It is becoming increasingly important as the years go by, and our methods undergo a gradual change toward larger machinery and labor-saving appliances. Moreover—and here is an essential factor for all prospective young farmers—our standard of living is being elevated. If we dare predict, the standard of living on farms will be elevated from now on far faster than has been the case between our time and the time of our forefathers. All honor to those hardy pioneers who with axe and saw and patient oxen hewed their way through the virgin forest of the new world and made for us a place of freedom. They planted among the red man's country and among the rivers and woods of Canada the spirit of democracy, for which we even now are fighting in recognition of their far-seeing wisdom.

But times have changed. No longer do our mothers and sisters sit at the spinning wheel and weave for us our suits of homespun; no longer is the tallow candle

with its flickering light the only means of thrusting daylight into darkness. Our fathers no longer trudge wearily, mile upon mile, under the burden of a bag of cornmeal to get it ground at the only mill for forty miles. Towns and cities have sprung up everywhere, factories have arisen and manufactures of unimaginable variety supply our every want. Great railway systems pierce the rugged face of the land from ocean to ocean, and towns are brought into daily touch with each other although hundreds of miles apart. Electricity and the telephone have solved our heat problem and have made us independent of distance. The initiation of the steam engine revolutionized our industries, and the utilization of gasoline has made possible the automobile.

We have passed from the old days of barter to the days of capital. Money is the medium of trade. In the days of our great grandfathers labor was cheap and reliance was placed upon it entirely by the sturdy settlers—but it is possible no longer. Every added comfort, every new factory and every new pleasure which time has brought us has made our civilization more complex and raised our standard of living. For many of these additions to the simple civilization of yesterday we have paid, and will continue to pay, the penalty, but we will go on. We must; it is the history of civilization itself.

But to our subject. The change from barter to coin and currency as a medium of exchange has had a

vast influence in the method of value with the agriculturist. Now the labor must share the potency of Money lying idle too frequent, to return doubt use on the farm clearly or with the need for capital that our farmer's small incomes, so by virtue of co-operation a better system of young men and city also bears statement. Machinery, greater

### The

A prominent manufacturing for use in his business not only did not but that he never knew. He him and it was machine. We to be the purpose of mobile as much labor at the garage could be utilized. In the case of is being given there is some reason about a car and in an instance must be made. should know how of knowledge is loss of time. artillery type known as demom meet in the center of the steel hub brake drums for car. There is wooden rim of the demountable. The only attention under the head you possibly can the brake upon or have a tendency easy matter to occasion requires with your car the indicated.

The value of fact that in taking deflation. Of course

The world's by Doede Binn 1,257.07 pounds

The thirty-f risen from the ra Holstein-Friesian

It is usually calves indoors du them seriously an vent their most

Ayrshire Adv in the United S herds in 26 State ficates issued dur

While good a dairy roughage account of its ve and abundant sup

Canary Palac record as a twel She has to her cr milk in seven day milk in thirty da

Jno. D. Rock dairying we hear pay from the star

vast influence not to be measured by a mere difference in the method of trade. Labor formerly was of equal value with land itself in the calculations of the agriculturist. Now the new factor, capital, has entered in and labor must share its place with capital. Too few farmers of great knowledge and venerable experience realize the potency of capital as a factor in successful farming. Money lying idle in the bank at low rates of interest is too frequent, when at the same time it could be made to return double the interest if made productive by use on the farm. No single factor stands out more clearly or with more startling significance in regard to the need for capital in successful farming than the fact that our farmers as a whole are men of small capital and small incomes. This is appreciated and becoming more so by virtue of the greater interest and development of co-operation and a steadily increased agitation for a better system of rural credits. The steady stream of young men and women leading from the farms to the city also bears eloquent testimony to the truth of this statement. Capital means larger farms, larger machinery, greater scope for managerial ability, and with

almost invariable truth (equal knowledge being granted), a corresponding increase in labor income—the indicator of agricultural success as measured in business terms.

Many of our farms are mortgaged, and mortgages disappear so slowly. It is so much like advancing two steps and slipping back one. Warren has said, after the most extensive investigation among thousands of farmers in the United States, that if a man has less than five thousand dollars in cash when he starts farming he can make more money if he rents than if he buys. Why? The answer is simple. His capital is all productive. It is not tied up in buildings and useless machinery. It can all be used. Think it over. How many successful men in your neighborhood who have not inherited their farms (most of them have, no doubt, and that is both the curse and the blessing of farming) have rented and then bought as their capital grew.

But we must hurry on for a word or two about "love of calling." Does John D. Rockefeller love money for what it can buy or does he love the making of it; the struggle of the world of big business and the chance to

pit his keen and fertile brain against those of his competitors? Money itself can no longer mean anything to him. Would it mean anything to you if you had to pay an enormous sum yearly to someone to help you spend it? Money is not the reward of his labor if we judge rightly; it is but the symbol. And so with many "big business" men, we believe. Some struggle for power, some for preferment, (hereditary titles possibly) and doubtless many also for money itself, with its fascination and glittering possibilities. Many there are, and among them the most successful, who work because they love their work and, because they do love it, is due in large measure, their success.

And so with farming. Farming is hard manual work, and farming is, for most men, poorly paid work. But it is nice work and has attracted with strong bonds some of the world's greatest men. The successful farmer must love his work or his success will be limited. Knowledge, Capital, and Love of Calling, these three. "And the greatest of these?"—It depends upon your viewpoint.

## Automobiles, Farm Machinery and Farm Motors.

### The Care of the Wheels.

A prominent business man who is engaged in the manufacturing of food, purchased a car the other day for use in his business. He stated very plainly that he not only did not know anything about an automobile, but that he never intended to gain even the slightest knowledge. He wished to have the machine work for him and it was certainly not his idea to work for the machine. We told you in a recent article that it should be the purpose of every motorist to look after his automobile as much as possible, in order to save mechanical labor at the garages. Any surplus thus made available could be utilized for the necessities of the fighting front. In the case of this manufacturer, however, his time is being given wholly to the production of food and so there is some reason why he should not know anything about a car and depend entirely upon garage labor. Even in an instance of this kind, nevertheless, an exception must be made. Anyone who goes out on the road should know how to look after the wheels, because lack of knowledge in this particular often means a great loss of time. Practically everyone uses wheels of artillery type and the vast majority employ what is known as demountable rims. The spokes of the wheels meet in the centre and are bolted between the flanges of the steel hub. Upon the rear wheels are mounted brake drums for the control of the momentum of the car. There is a steel band or felloe upon the outer wooden rim of the wheel and it is upon this felloe that the demountable rim containing the tire is carried. The only attention the spokes and hubs require comes under the head of cleanliness. Get as much freedom as you possibly can from mud and oil. If the bands of the brake upon the drums of the rear wheels are squeaky or have a tendency to become very hot, it is an extremely easy matter to mend, loosen or tighten them as the occasion requires. In the instruction book that goes with your car the nuts for adjustment are always clearly indicated.

The value of the demountable rim comes from the fact that in taking it off you can remove the tire without deflation. Of course it follows that you can put on a

new tire and rim without inflation. This rim is in most cases a split steel band, held in position by five or six bolts and tapered wedges placed at equal intervals about the circumference. Taking it for granted that you carry an extra rim with tire and tube attached, let us suppose you meet with a puncture upon the road. Get out your demountable rim wrench from the tool kit and loosen all the bolts except one on either side of the valve stem. Do not stop loosening the bolts until the wedges can be swung out between the felloe band and the demountable rim. We advised you to first loosen these bolts, because while the wheel is firm on the ground it is easier to operate upon it than when it is jacked up and movable in the air. Having loosened all the bolts, except the two mentioned, put a jack under the axle and raise the punctured tire off the ground. You can now loosen the two remaining bolts, one on either side of the valve stem. Your next operation will be to unscrew the valve stem cap and the small nut on the base. This allows the valve stem to come through the hole of the wooden rim and the felloe band. Your next move is to insert the point of your tire tool between the rim and the felloe band opposite the valve stem. Having carried out this movement, you are now able to pry the rim off. You will next find it necessary to take the spare rim or tire from its position on the rear or side of your car and put in its place the one that has just been removed. Following this step turn the wheel round until the valve stem hole is on top. Now you can very easily put the valve stem of the spare tire through the hole and slip the spare demountable rim upon the wheel. Sometimes it may be necessary to kick the rim into place but this action cannot do any damage.

Having put all the wedges back into position, partially tightening the bolts, you can remove the jack and allow the wheel to rest on the ground. Then go over all the bolts again, tightening them until they are absolutely and firmly in place. It is a good idea to use the emergency brake to keep your machine steady while changing tires, and should your puncture take place upon sandy or muddy ground you will find it very

advantageous to use a plank on which to place the jack with which you raise your axle.

Should you have an occasion to put a tire and tube upon a rim, you will not experience as much trouble as you may imagine, because there is a very handy steel tool which shortens the circumference of the rim. This allows the tire and tube to go on very easily. After they have been placed in position the rim is allowed to assume its normal circumference. Sometimes it may be necessary to exert a little force to have the points of the rim come together, but this should not occasion any serious inconvenience.

If you want to take a rim out of the tire put the rim and tire flat on the floor. Remove the anchor plate and insert the sharp end of the tire tool under the bead of the tire at the point where the rim is split. You can now gradually pry the rim away from the tire.

You should at least know how to handle the wheels of a motor car or otherwise the most simple operation may keep you from enjoying the greatest possibilities of automobiling.

### Storage and Wet Battery.

1. What metals are used for plates in a storage battery?
  2. Could a satisfactory storage battery be made at home?
  3. What plates would be suited, using sulphate of copper as an acid in a wet battery?
  4. What acid would have to be used for plates made of zinc and carbon?
  5. Could a wet battery be used to start a twelve h.-p. gasoline engine?
- Que. J. R.
- Ans.—1. Both plates in a storage battery are of lead or composition of lead.
2. No.
  3. Copper and zinc.
  4. Salammoniac, or to give it the common name, ammonium chloride.
  5. Yes. W. D. HAY.

## THE DAIRY.

The world's record for eleven-year-old cows is held by Doede Binnema Flora, with 28,857 pounds milk, 1,257.07 pounds butter in one year.

The thirty-first black-and-white forty-pounder has risen from the ranks, according to the Secretary of the Holstein-Friesian Association of America.

It is usually more satisfactory to keep the young calves indoors during the summer months. Flies annoy them seriously and the hot weather in addition will prevent their most favorable development.

Ayrshire Advanced Registry testing during 1917, in the United States, was carried on in 105 different herds in 26 States in 1916. The increase in A. R. certificates issued during the year was 10 per cent.

While good alfalfa hay is beyond doubt the best dairy roughage for milk production, red clover, on account of its very general use, is the most important, and abundant supplies should be assured for next winter.

Canary Paladin Vale has just made a new world's record as a twelve-year-old both for milk and butter. She has to her credit 35.22 pounds butter, 810.3 pounds milk in seven days; 131.31 pounds butter, 3100.2 pounds milk in thirty days.

John D. Rockefeller has made his first venture into dairying we hear. He is evidently going to make it pay from the start, since he only bought 3 pure-breds to

start with, thereby emulating the example of successful milk producers who find it wise to build up gradually.

There are great possibilities for profitable milk production from the thousands of grade dairy herds throughout the country. Careful grading up, however, is necessary to secure best results. A grade cow in the United States is recently reported to have produced 660 pounds of milk containing 25.959 pounds of fat under official test in seven days. Hitch your wagon to a star.

The American Ayrshire Association have raised the Advanced Registry requirements for production and the new requirements went into effect on March 1, 1918. The following summary of 90 records completed just prior to the enforcement of the new regulations, in comparison with the new standards for each class, show the relation between what Ayrshire A. R. cows have been doing and what they must do to qualify.

| Completed Records |        |        | New Requirements |       |       |
|-------------------|--------|--------|------------------|-------|-------|
| Class             | Milk   | Fat    | Class            | Milk  | Fat   |
| Mature            | 11,488 | 452.25 | Mature           | 9,000 | 360.0 |
| 6 Sen. 4-yr.      | 10,788 | 439.58 | Sen. 4           | 8,500 | 341.8 |
| 6 Jun. 4-yr.      | 10,188 | 447.75 | Jun. 4           | 8,000 | 323.5 |
| 10 Sen. 3-yr.     | 9,020  | 357.01 | Sen. 3           | 7,500 | 305.3 |
| 9 Jun. 3-yr.      | 9,352  | 383.88 | Jun. 3           | 7,000 | 287.0 |
| 13 Sen. 2-yr.     | 8,198  | 340.17 | Sen. 2           | 6,500 | 268.8 |
| 11 Jun. 2-yr.     | 7,951  | 322.30 | Jun. 2           | 6,000 | 250.5 |
| 90 Total          | 9,959  | 401.61 |                  |       |       |

Average per cent. of fat, 4.03%.

An illuminating example of the wonderful capacity of dairy cows and their extraordinary ability to turn coarse roughages into valuable human food, is the performance of a pure-bred kept under test by the Uni-

versity of California, for experimental purposes. This cow, Bess Fayne Concordia, has been fed nothing but alfalfa hay for several years, and of this feed she is stated to have consumed an average of 60 pounds per day and produced 50 lbs. of milk daily for seven days.

### National Dairy Conference at Chicago.

The importance of dairy products as food generally, and the very critical situation which has developed in every industry as a result of the war, led up to a conference of all the allied associations and industries of dairying in the United States, which was held in Chicago, on April 12 and 13. Representatives of the National Dairy Council, the National Milk Producers' Association, the National Dairy Union, the American Association of Creamery Buttermakers, the National Creamery Buttermakers' Association, and the International Milk Dealers' Association, were all present at this conference and the dairy industry was gone over very thoroughly with a view to bringing about as nearly as possible a correct understanding of all matters pertaining to the industry and its relation to the all-important question of food economy.

The president of the Holstein-Friesian Association of America was chairman of the conference, and the producers, represented by Mr. Campbell, President of the National Milk Producers' Federation, discussed the situation from the standpoint of the milk producer, it being stated at this time that milk producers should pay much more attention to questions of publicity than they have been in the habit of doing in the past. The possibilities of the dairy industry can never be fully realized until the consuming public are made acquainted with the food value of pure dairy products. It was suggested that the milk producer can well afford to pay a revenue of one cent, or thereabout, for each 100 pounds of milk he produces, in order to raise a sufficiently large sum of money to put before the public in a con-

vincing manner, the fact that there are no substitutes for dairy products.

The President of the National Creamery Butter Makers' Association urged the closest co-operation between all phases of the dairy industry. Every branch of the industry must support the campaign against the use of substitutes. One speaker referred to a publicity campaign in connection with the ice cream industry, bringing out the fact that \$11,000 expended in a campaign had the effect of increasing the sales of ice cream in the City of Chicago alone, by twenty-five to thirty per cent. It was also quite forcibly stated that the people of America are not using as much milk, cheese or butter as they should, and one delegate insisted that the nation could easily make milk constitute at least twenty-five per cent. of the human diet, instancing the fact that a case of leprosy has never been known where milk was abundantly used.

It was stated at the conference by Dean Russell, representing the United States Food Administration, that in January 1917, about 600,000 pounds of nut margarines were sold, while in January, 1918, sales increased to 9,600,000 pounds. With regard to oleomargarine, the increase in the same period, while not so great, was still an increase from 41,500,000 pounds to about 70,000,000 pounds. Mr. Russell stated that Mr. Hoover has asked Italy, France and England to estimate the amount of condensed milk, cheese and butter that will be needed during the coming months. When these estimates are available the United States Food Administration will be in a position to recommend the amount of dairy products for consumption in the United States.

The importance of keeping dairy herds up to a high degree of efficiency was stressed at the conference, it being stated that in European countries the situation is pitiful. This is particularly true in France, where it is stated that families cannot get any milk unless there is a child to be fed. The people of England are reduced to four ounces of fat per week and death by starvation in many of the European countries was said to be appalling. It was believed by the conference that as soon as the war is over European countries will be flocking to America, meaning both Canada and the United States, to secure foundation stock with which to replenish generally their depleted herds. This prospect, therefore, points the way to the use of the very best sires and the development of cow-testing associations, calf clubs, and every other business agency that will assist in putting the dairy industry upon the best possible basis.

## POULTRY.

See that the flock gets an abundance of free range, shade and green feed.

The time to wean chicks, whether from hen or brooder, depends upon both breed and season.

Crows, skunks, weasels, etc., are waiting for the young chicks on the range. Traps and a trusty shotgun are most reliable.

Don't forget to watch the health of the young chickens. Contagious white diarrhoea is undoubtedly the greatest scourge of the poultryman. Sour milk for a few days after hatching assists in destroying the bacteria.

### New Export Egg Regulations.

For some time now there has been some agitation relative to the grading and weight of eggs. Recently, the former has been given considerable attention by the Department of Agriculture, at Ottawa, while the Department of Trade and Commerce had under consideration regulations relative to the weight of eggs. The question is of importance at this time because it is closely bound up with the possibilities of our export trade after the war. The two pieces of legislation referred to above were not exactly in agreement, and as a result, the recent enactment, the provisions of which are herewith given and have already gone into effect, was made upon the recommendation of the Minister of Agriculture.

The regulations are made effective by virtue of subsection (c) of Section 9 of "The Live Stock and Live Stock Products Act, 1917". As approved by the Governor-General in Council, the regulations were to become effective May 1, so far as they affect inter-provincial trade, but owing to the unpreparedness of the trade in some sections of the Western Provinces, and in order to avoid congestion and subsequent loss, the enforcement was postponed until May 28.

It will readily be seen that the aim of these regulations is to secure a greater degree of quality in the eggs exported, and to force dealers to buy on a basis of paying for quality only, while, at the same time, inter-provincial trade in cartons of eggs is stabilized by the protection afforded the shipper in this trade. We understand that the bulk of this legislation was discussed at the last annual meeting of the Canadian Produce Dealers' Association. It will be noticed that trade within the provinces is not affected. The following are the regulations:

1. Canadian eggs for export out of Canada and eggs for domestic consumption intended for shipment from one province to another, but not including eggs intended for incubation, shall be classified and graded as follows:

CLASS (1).—Fresh eggs which have not been held under refrigeration at a temperature of 40 degrees or

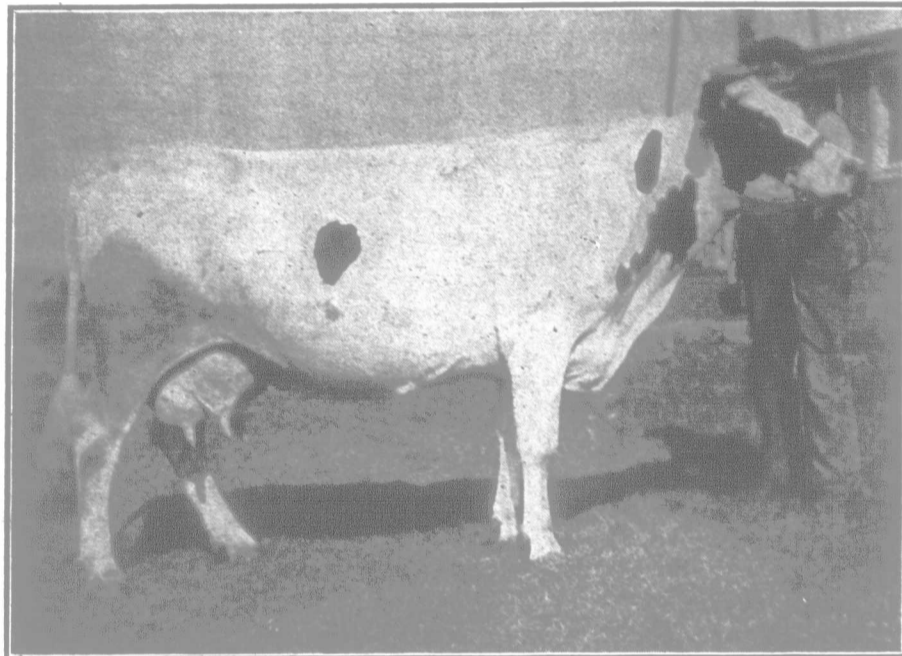
less except when in transit or subjected to artificial preservation.

**Grade (a) Specials.**—Eggs of uniform size, weighing 25 ozs. to the dozen or over, or 47 lbs. net to the 30 dozen case; clean and free from stain, strong and sound in shell; air cell small, not over three-sixteenths of an inch in depth; white of egg to be firm and clear and yolk dimly visible.

**Grade (b) Extras.**—Eggs of good size, weighing at least 24 ozs. to the dozen or 45 lbs. net to the 30-dozen case; clean; sound in shell; air cell less than  $\frac{3}{8}$  inch in depth; white of egg to be firm and yolk slightly visible; maximum allowance at time of inspection not to exceed 2 per cent. variation from the grade stated.

**Sub-grade (1) Pullet Extras.**—Eggs which have the quality of extras but which fall short in weight shall be known as pullet extras, providing they weigh at least 20 ozs. to the dozen or 37½ lbs. net to the 30-dozen case.

**Grade (c) No. 1's or Firsts.**—Eggs weighing at least 23 ozs. to the dozen or 43 lbs. net to the 30-dozen case; reasonably clean; sound in shell; air cell less than  $\frac{1}{2}$  inch in depth; white of egg to be firm; yolk may be distinctly visible but mobile; air cell stationary; maxi-



Manor P. H. Flower.

Five-year-old cow with a record of 603.4 pounds milk and 30.59 pounds butter in 7 days. Owned by Gordon S. Gooderham, Manor Farm, Clarkson.

mum allowance at time of inspection not to exceed 2 per cent. variation from the grade stated.

**Grade (d) No. 2's or Seconds.**—Eggs sound in shell; may contain weak watery eggs and eggs with heavy yolks, and all other eggs sound in shell and fit for food.

CLASS (2).—Storage eggs which have been "held" under artificial refrigeration at a temperature of 40 degrees or less.

CLASS (2a).—Preserved eggs which have been subjected to any process, liquid or otherwise, intended to preserve their quality.

**Grade (a).**—Extra eggs of good size, weighing at least 24 ozs. to the dozen, or 45 lbs. net to the 30-dozen case; clean; sound in shell; air cell not less than  $\frac{3}{8}$  inch in depth; white of egg to be firm and yolk slightly visible; maximum allowance at time of inspection not to exceed 2 per cent. variation from the grade stated.

**Grade (b) Extra Firsts.**—Eggs weighing at least 23½ ozs. to the dozen, or 44 lbs. net to the 30-dozen case; clean; sound in shell; air cell less than  $\frac{3}{8}$  inch in depth; white of egg to be firm; yolk may be moderately visible but mobile; air cell stationary; maximum allowance at time of inspection not to exceed 2 per cent. variation from the grade stated.

**Grade (c) No. 1's or Firsts.**—Eggs weighing at least 23 ozs. to the dozen, or 43 lbs. net to the 30-dozen case; reasonably clean; sound in shell; air cell less than  $\frac{1}{2}$  inch in depth; white of egg to be firm; yolk may be distinctly visible but mobile; air cell stationary; maximum allowance at time of inspection not to exceed 2 per cent. variation from the grade stated.

**Grade (d) No. 2's or Seconds.**—Eggs sound in shell, may contain weak watery eggs and eggs with heavy yolks, and all other eggs sound in shell and fit for food.

CLASS (3) Cracked and Dirty.—Eggs, shells which have been checked or broken, smeared, soiled, or damaged in shell, but fit for food.

2. Every case containing Canadian eggs intended for export out of Canada shall be marked on both ends in a legible hand and indelible manner, with the class and grade of eggs contained therein, and the words "Canadian Eggs", and every case containing eggs that are to be shipped from one province to any other province in shipments of 100 cases or more, shall be marked on both ends with the class and grade of the eggs contained therein, and with the name of the country of origin when other than domestic product. The Minister may from time to time prescribe the form and the size of the letters that are to be used in such markings. Such marks may be accompanied by other trade designations or brands, providing such designations or brands are not, in the opinion of the Minister, inconsistent with or marked more conspicuously than the marks prescribed in these regulations.

3.—Canadian eggs for export out of Canada shall be tightly packed in Canadian standard cases in new fillers and flats, with kiln-dried excelsior or corrugated cushions at top and bottom, or one-third fillers on bottom with flats over top and under bottom fillers.

4.—Canadian standard cases shall be made to contain thirty dozen eggs. They shall be made of clean, dry and odorless wood. The ends and centre partition shall be not less than five-eighths of an inch thick, the sides, top and bottom not less than three-eighths of an inch thick.

5.—Cases containing Canadian eggs in lots of twenty-five cases or more intended for export out of Canada, and eggs intended for shipment from one province to another province in shipments of 100 cases or more, shall not be shipped until they have been inspected and marked by an inspector.

6.—The mark of approval to be placed on each case, hereinafter called the "Government Mark", shall include the Maple Leaf and the words "Canadian Eggs," and the Inspector's number, the device to be in such form as the Minister may approve.

7. Before the Government mark is placed upon any case, the Inspector shall draw samples of at least five per cent. of the cases to be marked and shall examine at least one-half of the eggs in each case. The Inspector shall satisfy himself that the samples taken are representative and shall take any further samples and make any further examination that he deems necessary.

8.—No cases containing eggs shall be marked with the Government mark unless the warehouse or rooms in which the eggs are held are in a clean and sanitary condition, and further, no cases shall be marked unless suitable accommodation is provided for inspectors to make the necessary examination, such accommodation to include a dark room, facilities for candling, and such fittings as may be required to insure a proper examination.

9.—No person other than a duly appointed Inspector shall apply any Government mark to any cases containing eggs.

10.—After the contents of any case bearing the Government mark have been removed, such mark shall be obliterated. This shall be done by the person or persons removing the eggs from the case.

11.—Collectors of Customs throughout Canada shall not allow any Canadian eggs to be shipped for export out of Canada that are not marked in accordance with these regulations.

## HORTICULTURE.

### Controlling the Codling Moth.

Every fruit grower is entirely familiar with the codling moth and the enormous amount of damage which this pest creates yearly. Every farmer too, is familiar with the fact that wormy apples occur yearly and that very often whole crops may be seriously lowered in grade because of worminess. Not all cases of worminess may be placed against the credit of the codling moth and its larvæ the codling worm, but it is safe to say that the codling moth larvæ is by far the commonest of all insects producing worminess. This insect pest is therefore, especially in districts where San José scale is not abundant, the most troublesome and injurious of all insects attacking the apple and pear.

It is for this reason principally, that the third spray for apples and pears is very important. In fact, so closely is this spray allied with the control of the codling moth, that it is commonly spoken of as the "codling moth" spray. It is also true that this spray is very effective in the control of other biting insects and apple scab, although the second or "pink" spray is commonly called the scab spray since this important fungous disease can probably be most effectively prevented just as the blossom buds are shading pink. This second spray is sometimes omitted, although rarely by the man who pays careful attention to his orchard and endeavors to produce the cleanest possible fruit, but even at such a serious time as the present when labor conditions are most acute, those who depend on the apple orchard for a cash crop strain every effort to apply the third spray.

#### When and How to Spray.

This spray is applied just after the blossoms have fallen, or, perhaps, when about 90 per cent. have fallen, since it is at this time that the calyx of the young apple (the end opposite the stem) remains open for a few days and affords an opportunity for the spray material and especially the poison, to enter the calyx cavity and lodge there in readiness for the hungry worms or

larvæ, which are apple.

The important time cannot be too early, as this is the best time upon study of the history has shown cocoons soon after begin to lay eggs, the twigs and young hatch and the young so as to get some.

Here we come in the control of by careful watch per cent. of them young apples through the best way to number is to way the apple and, inside at one place to be put without important to the cavity of the young this cavity closes after the bloom has.

To do this and poison enters the or pressure is necessary many owners of men seem to think the spray on the may be dripping. Getting the spray difference between codling larvæ, if controlling 40 or of the necessity power sprayers or sprayers or spray hand pumps. T power machines pounds pressure c in a given time. men to maintain day in and day spray and an out factory work can more difficult than latter it is necessary blossom clusters the spray really effective.

An What are called the sprayer, will a The angle nozzles a more efficient work sary where the tr angle nozzles are r from the end of the plating of the r be properly distributed possible without a and spraying do since many of the on their stems at tower gives the sp in company with angle of about 45 to reach every tier every side of the

A word about its strength. S determined by its compared with the The specific gravity called an hydrometer in a so that when it is reading at the surface gravity of the liquid.

As the leaves of the lime and sulphur cause of a danger ing the same spray the dormant spray about one-quarter of lime sulphur 1.008 instead of 1 water added to or will give the proper sulphur is homometer is necessary.

The lime sulphur to kill the larvæ, control apple and as a poison for th about two pounds or one pound in most common lime sulphur to go. No more is necessary, expensive, no more effective work if th

Fruit growers codling moth if and chickadees als the orchard during any trouble will b the codling moth a help in controlling will practically wipe

In order to mo

larvæ, which are killed as they eat their way inside the apple.

The importance of applying this spray at the proper time cannot be overestimated since the known fact that this is the best time to control codling moth, is based upon study of the life-history of the insect. This life-history has shown that the moths emerge from their cocoons soon after the blossoms fall and a few days later begin to lay eggs on the young leaves and sometimes on the twigs and young fruit. In a week or so the eggs hatch and the young larvæ hurry away to the fruit so as to get something to eat.

Here we come to the point of greatest importance in the control of this insect. It has been determined by careful watching and investigation that about 75 per cent. of them or three out of every four, enter the young apples through the calyx end. Naturally, then, the best way to make sure of killing the greatest possible number is to waylay them with poison on their way into the apple and, since 75 per cent. of them all travel inside at one place, that place is where the poison ought to be put without fail. Hence it is, that it is very important to make absolutely sure that the calyx cavity of the young fruit is filled with poison before this cavity closes up, as it does in from five to ten days after the bloom has fallen.

To do this and to make sure that sufficient of the poison enters the calyx of the apple, considerable force or pressure is necessary in spraying; and it is here that many owners of orchards fall down oftenest. Many men seem to think that all that is necessary is to put the spray on the tree until the tree is dripping. Trees may be dripping with spray and not be well sprayed. Getting the spray well into the calyxes may mean the difference between controlling 90 or 95 per cent. of the codling larvæ, if the orchard is not too bad, and only controlling 40 or 50 per cent. It is largely on account of the necessity for plenty of pressure therefore, that power sprayers do better work as a rule than barrel sprayers or sprayers where pressure is generated from hand pumps. This is quite aside from the fact that power machines with a pressure of from 175 to 300 pounds pressure can cover a much larger area of orchard in a given time. It is very difficult for one or even two men to maintain a steady pressure from a hand pump, day in and day out. It needs men who know how to spray and an outfit that is in good condition. Satisfactory work can be done with a small outfit but it is more difficult than with a larger one; even with the latter it is necessary to get as close to the individual blossom clusters as possible in order to make sure that the spray really enters the calyx cavity.

#### Angle Nozzles Advisable

What are called "angle" nozzles, and a tower on the sprayer, will aid very materially in spraying properly. The angle nozzles are always a convenience and make for more efficient work, while the tower is especially necessary where the trees to be sprayed are large. Where angle nozzles are not used the spray shoots out straight from the end of the rod and a lot of twisting and manipulating of the rod is necessary before the spray can be properly distributed. Even so it is practically impossible without a very high tower, to spray downward; and spraying downward is a necessity at this time since many of the young fruits are standing upright on their stems at the time the spray is put on. The tower gives the sprayer greater reach and when used in company with nozzles that force the spray out at an angle of about 45 degrees from the rod, makes it possible to reach every twig and fruit and, also, practically every side of them.

A word about the material used for this spray and its strength. Strength in lime sulphur sprays is determined by its specific gravity (weight of liquid as compared with the weight of an equal volume of water). The specific gravity of liquids is determined by what is called an hydrometer, an instrument much like a thermometer in appearance and which is graduated so that when it is floating vertically in a liquid the reading at the surface level of the liquid gives the specific gravity of the liquid.

As the leaves come out on the trees the strength of the lime and sulphur solution must be weakened because of a danger of burning, so that instead of applying the same spray that would be put on for scale or the dormant spray, it must be diluted until it is only about one-quarter as strong. Hence the specific gravity of lime sulphur for the third spray should only be 1.008 instead of 1.035. As a usual thing 35 gallons of water added to one gallon of commercial lime sulphur will give the proper degree of strength but where the sulphur is homemade, its strength varies and a hydrometer is necessary.

The lime sulphur, however, is not depended on to kill the larvæ, it is really a fungicide and put on to control apple and pear scab. Arsenate of lead is used as a poison for the codling moth larvæ and it requires about two pounds of the arsenate of lead in paste form, or one pound in the powder form (the former being in most common use) to every 40 gallons of the 1.008 lime sulphur to get sufficient poison into the mixture. No more is necessary and, since arsenate of lead is rather expensive, no more is desirable in order to do the most effective work if the spraying is carefully done.

Fruit growers would be troubled much less with codling moth if woodpeckers were more abundant, and chickadees also. A few meat bones hung out in the orchard during the winter will encourage them and any trouble will be more than repaid. Diseases attack the codling moth and very wet springs or summers will help in controlling them, while a complete crop failure will practically wipe out this pest from an orchard.

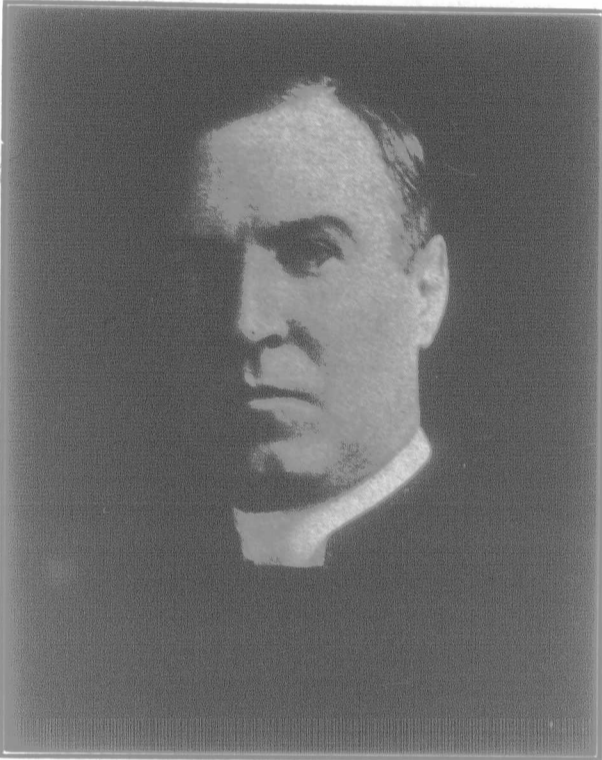
#### Life History.

In order to more completely explain the necessity

for careful spraying for this pest, its life-history is almost necessary and is, therefore, given here with the important points, some of which were mentioned previously, repeated again for emphasis:

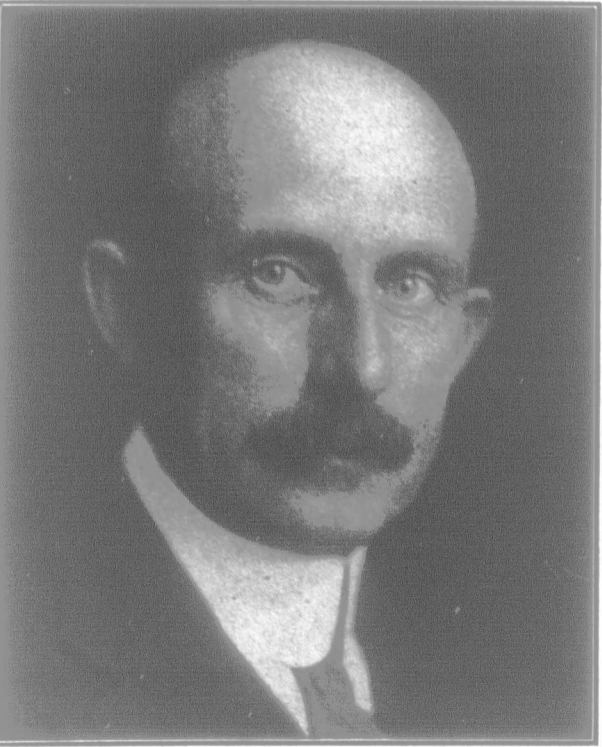
The winter is passed in the full grown larval stage, in a little nest or cocoon under the shelter of the loose bark, or in crevices or holes on the trunks or main branches of the trees, or in any other dry, good hiding place near the apples from which the larvæ emerged. In spring the larvæ change to pupæ in their cocoons and the earliest moths begin to emerge soon after the blossoms fall. Emergence continues for a month or more, so that the earliest larvæ of this first brood may be more than a month older than the latest. A few days after their appearance the moths lay their eggs, placing most of them on the leaves and the rest on the fruit and twigs. The eggs hatch in a little over a week and the young larvæ almost at once seek the fruit.

On finding it, about 75 per cent. of them work their way into the interior through the calyx end, this being



Hon. Dr. H. J. Cody.

Who succeeds Dr. Pyne as Minister of Education for Ontario.



Hon. George Henry.

The newly appointed Minister of Agriculture in the Ontario cabinet.

the easiest place of entrance at this stage of the fruit. Here they feed for a few days and then proceed to the core and feed on the seeds and pulp. In about 25 days the larvæ are full grown and make their way out of the fruit either by the same place as they entered or at some other point. The apples usually, but not always, fall before the larvæ leave them. After emergence the larvæ seek the sort of places mentioned above and make their cocoons.

In the warmer parts of Ontario many of these earliest first brood larvæ soon pupate and transform into moths which lay eggs for a second brood. The larvæ of this brood do not all appear at the same time but continue to hatch out for several weeks. As a large percentage of the new brood enter the fruit by the side instead of by the calyx they often cause great loss. When these larvæ are full grown, they, along with the larvæ of the first brood that did not pupate, remain over winter in the larval stage in their cocoons.

## FARM BULLETIN.

### The 1918 Graduating Class at O.A.C.

The seniors of the Ontario Agricultural College to the number of thirty-five have completed their course and have qualified for the degree of Bachelor of Scientific Agriculture. This is a somewhat smaller graduating class than what usually goes out from the Ontario Agricultural College. The call for men at the front has reduced the attendance at the Guelph College, as it has that of every college in the country. Nine of this year's graduating class contemplate returning to the farm where they will have an opportunity of putting into practice the scientific knowledge which they have gained in the four years spent at Guelph. Several of the boys have enlisted, a few have not yet decided as to what work they will undertake, but a large percentage of the class have accepted important positions as lecturers and instructors at the colleges, or as supervisors of drainage work. Following are the names of those graduating, together with their home addresses and present positions: W. F. Geddes, of Kinburn, Ont., who took the Chemistry and Physics option, has secured a position as chemist with The British Chemical Co., of Trenton, Ont.; L. A. Flock, of Burlington, will have charge of investigation work in economic entomology with the Fruit Branch, of the Ontario Department of Agriculture; A. V. Mitchener, Port Rowan, is going to the Agricultural College, in Winnipeg, as lecturer in horticulture and entomology; W. Robinson, 984 Ossington Ave., Toronto, and H. L. Davis, of Forbes Ave., Guelph, had not at time of writing decided on what work they would follow; N. James, of Dublin, will be lecturer in dairying at the Manitoba Agricultural College; E. H. Parfitt, Brooklyn, N. Y., has accepted the position of demonstrator in dairying at the O. A. C. There were two who took in the bacteriology option: Lieut. S. M. Lord, Toronto, who is on leave of absence, and J. B. McCurry, of Hurdman's Bridge, who has joined the Botanical Department of the Experimental Farm, Ottawa. In the horticultural option, the graduates are: Lieut. W. M. Jones, of London, who is on leave of absence; C. F. Patterson, of Watford, who purposes returning to the farm; A. H. Tomlinson, of Guelph, who has accepted the position of lecturer on landscape gardening at the O. A. C.; A. J. Mann, Colquitz, B. C., has enlisted, and H. H. Selwyn, of Ottawa, purposes managing his own apiary. A large percentage of the students took the Agricultural option, there being twenty-one out of thirty-five. T. Cooper, of Wallenstein; F. L. Ferguson, of Parkhill, and L. G. Heimel, of Guelph, have been engaged as district supervisors of drainage for different sections of the Province. G. E. DeLong, of Rossmore; R. C. Elder, of Canfield; H. W. Graham, of Britannia Bay; G. W. Michael, of Sherkston; A. D. Munro, of North Lancaster; O. D. McCulloch, of Port Perry; R. G. Newton, of Tavistock; P. M. Overholt, of Marshville, and A. A. Scales, of P. E. I., purpose returning to their farms. R. W. Maxwell, of Watford; J. M. Timms, Chatham; and C. R. Wilson, Merrickville, have enlisted. J. C. McBeath, Woodstock and E. S. Snyder, of Kitchener, purpose working on the Poultry Department at the O. A. C. L. E. O'Neill, of Bradford, goes with the Live Stock Branch of the Ontario Department of Agriculture; J. M. Waterman, of Fraserville, becomes Associate Editor of the "Canadian Countryman"; G. J. Arnold, of England, and E. W. Westman, of Sarnia, had not secured positions at time of writing.

### Changes in the Ontario Cabinet.

Two important changes in the Ontario Cabinet have been announced by the Prime Minister, Sir Wm. Hearst. Hon. Dr. R. A. Pyne is to be succeeded by Ven. Archdeacon H. J. Cody, D.D., Rector of St. Paul's Anglican Church, as Minister of Education, while George Henry, M.P.P. for East York, is given charge of the Department of Agriculture. The latter portfolio has been held by Sir Wm. Hearst since the death of the former Minister, the late Hon. James Duff. Dr. Pyne has been appointed to succeed the late John Shaw as Clerk of the County Court of York.

Dr. H. J. Cody is well known as a prominent churchman and a forceful speaker. He was born at Embro, Ont., in 1868, and received his High School training at the Galt Collegiate Institute. After graduating from Toronto University he taught theology for a time, and then as a member of the Royal Commission on the reorganization of the University of Toronto he gained a knowledge of the higher educational problems in the State Universities of the Middle West, as well as in the East. He has always followed closely the Ontario Educational Association's work. Since 1894, Dr. Cody has been connected with St. Paul's Church, Toronto, first as curate, then as acting rector, and finally as rector. From time to time he has held responsible positions in the Church.

Outside of his duties in the Legislature, George Henry has been known as a dairy farmer in the Don Valley, York Township, and for his efforts on highway commissions for the acquisition of better roads. Mr. Henry was educated at the University of Toronto, graduating with the degrees of B.A. and LL.D. Subsequent to this he spent one year at the Ontario Agricultural College and returned to his 300-acre farm in the Don Valley. For fifteen years he was a member of the municipal councils of York County, and was finally Warden in 1909. He is a member of the York Highway Commission, and an officer of the Ontario Good Roads' Association. Mr. Henry has announced that he believes the future of Ontario farming will be closely allied with the live-stock industry.

# Toronto, Montreal, Buffalo, and Other Leading Markets

Week Ending May 22nd.  
May 17th to May 22nd Inclusive.

## Receipts and Market Tops.

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

|                             | CATTLE                   |                      |  |                          |                      |                          | CALVES                   |                      |                          |                          |                      |                          |
|-----------------------------|--------------------------|----------------------|--|--------------------------|----------------------|--------------------------|--------------------------|----------------------|--------------------------|--------------------------|----------------------|--------------------------|
|                             | Receipts                 |                      | Top Price Good Steers<br>(1,000-1,200) |                          |                      |                          | Receipts                 |                      | Top Price Good Calves    |                          |                      |                          |
|                             | Week<br>Ending<br>May 22 | Same<br>Week<br>1917 | Week<br>Ending<br>May 16               | Week<br>Ending<br>May 22 | Same<br>Week<br>1917 | Week<br>Ending<br>May 16 | Week<br>Ending<br>May 22 | Same<br>Week<br>1917 | Week<br>Ending<br>May 16 | Week<br>Ending<br>May 22 | Same<br>Week<br>1917 | Week<br>Ending<br>May 16 |
| Toronto (Union Stock Yards) | 5,465                    | 5,627                | 6,520                                  | \$16.00                  | \$12.25              | \$16.00                  | 1,651                    | 1,670                | 2,064                    | \$16.00                  | \$14.00              | \$16.00                  |
| Montreal (Pt. St. Charles)  | 657                      | 626                  | 893                                    | 13.50                    | 12.75                | 15.75                    | 2,556                    | 2,222                | 2,557                    | 13.50                    | 12.00                | 14.00                    |
| Montreal (East End)         | 594                      | 699                  | 648                                    | 13.50                    | 12.75                | 15.75                    | 2,062                    | 1,950                | 2,123                    | 13.50                    | 12.00                | 14.00                    |
| Winnipeg                    | 1,906                    | 1,670                | 2,845                                  | 15.00                    | 10.50                | 15.50                    | 101                      | 92                   | 174                      | 16.00                    | 13.00                | 16.50                    |
| Calgary                     | 1,132                    | 898                  | 2,905                                  | 15.15                    | 10.00                | 15.35                    |                          |                      |                          |                          |                      |                          |
| Edmonton                    |                          | 266                  | 285                                    |                          | 9.80                 | 13.50                    |                          | 93                   |                          | 62                       |                      |                          |

|                             | HOGS                     |                      |                          |                          |                      |                          | SHEEP                    |                      |                          |                          |                      |                          |
|-----------------------------|--------------------------|----------------------|--------------------------|--------------------------|----------------------|--------------------------|--------------------------|----------------------|--------------------------|--------------------------|----------------------|--------------------------|
|                             | Receipts                 |                      | Top Price Selects        |                          |                      |                          | Receipts                 |                      | Top Price Good Lambs     |                          |                      |                          |
|                             | Week<br>Ending<br>May 22 | Same<br>Week<br>1917 | Week<br>Ending<br>May 16 | Week<br>Ending<br>May 22 | Same<br>Week<br>1917 | Week<br>Ending<br>May 16 | Week<br>Ending<br>May 22 | Same<br>Week<br>1917 | Week<br>Ending<br>May 16 | Week<br>Ending<br>May 22 | Same<br>Week<br>1917 | Week<br>Ending<br>May 16 |
| Toronto (Union Stock Yards) | 5,530                    | 9,059                | 10,327                   | \$21.00                  | \$17.50              | \$21.00                  | 131                      | 374                  | 230                      | \$22.00                  | \$17.00              | \$22.00                  |
| Montreal (Pt. St. Charles)  | 1,608                    | 1,421                | 1,139                    | 21.25                    | 17.75                | 22.00                    | 62                       | 140                  | 32                       |                          | 15.50                |                          |
| Montreal (East End)         | 880                      | 919                  | 817                      | 21.25                    | 17.75                | 22.00                    | 101                      | 149                  | 80                       |                          | 15.50                |                          |
| Winnipeg                    | 4,975                    | 4,814                | 7,119                    | 20.00                    | 16.25                | 20.00                    | 9                        | 2                    | 55                       |                          |                      | 17.00                    |
| Calgary                     | 2,500                    | 2,468                | 3,964                    | 19.60                    | 16.25                | 19.60                    | 6                        |                      | 29                       |                          | 13.50                |                          |
| Edmonton                    |                          | 194                  | 967                      |                          | 15.75                | 19.75                    |                          | 83                   |                          | 51                       |                      |                          |

### Market Comments.

**Toronto (Union Stock Yards)**  
Cattle receipts for the week totalled fifty-seven hundred, being fewer by eight hundred than those of the previous week. The quality of the run on the whole was good, many choice cattle being on sale, including a fair number of steers of twelve hundred pounds weight and over. There was, however, an unusually large number of light butcher yearlings received, and many of the animals might well have been retained on the farms for further development. Little change in quotations occurred during the week, although new high levels were reached in one or two instances. The market on Monday was about steady with the close of the previous week, and most of the four thousand cattle on sale were weighed up before the close of the market. On Tuesday and Wednesday, trading was inclined to be quiet and had there been liberal offerings, prices would probably have weakened. With only seven hundred head on sale on the latter day, however, the market held about steady. There is a feeling among some of the dealers that the high figure of the season for butcher cattle has been about reached. However, stall-fed cattle will undoubtedly continue to command high values for the balance of the season. Five choice steers averaging twelve hundred and seventy pounds were weighed up on Monday at \$16.35 per hundred, an extra good load of steers averaging fifteen hundred pounds per animal, sold at \$16.00, at least two loads at \$15.85, and one load of thirteen hundred and eighty pounds at \$15.75. Of steers between the weights of ten hundred and twelve hundred pounds, several loads averaging about eleven hundred pounds sold at \$15.50, and quite a number of sales were made from \$14.50 to \$15.25. For handy butcher steers and heifers under ten hundred pounds, a new record was made when a choice yearling heifer of eight hundred pounds, from the barn of James Leask, of Seagrave, Ontario, topped the market at \$18.50; nine head of nine hundred pounds, sold at \$15.50, a number around one thousand pounds, sold at \$15, several loads at \$14.50 to \$14.75, while the bulk of the choice cattle in these weights sold from \$13.50 to \$14.50, and those of common quality from \$10.50 to \$11.75 per hundred. Cows and bulls were in good demand. Really choice cows sold from \$12 to \$13.50, two head realizing the latter price, most of the good ones from \$11.50 to \$12.50; medium quality cows from \$10 to \$10.75, and common and grade cows from \$8.75 to \$9.75. One choice bull realized \$14 per hundred, another sold at \$13, while quite a number of choice animals, weighing from twelve to sixteen hundred pounds, sold from \$12 to \$12.50 per hundred. Medium bulls were weighed up from \$10.50 to \$11.50, and common bulls from \$8.50 to \$9.50. Stockers and feeders were about steady in price and demand, with the close of the previous week. Heavy feeders sold from \$12.75 to \$13 per hundred, and steers of eight hundred to nine hundred pounds, from \$12 to \$12.75. Choice stockers sold from \$11.50 to \$12, and medium from \$10.50 to \$11.25. Canners and cutters sold from \$7 to \$7.50 per hundred. Calf receipts were lighter than those of

| CLASSIFICATION           | No.   | TORONTO<br>(Union Stock Yards) |                 |           |       | MONTREAL<br>(Pt. St. Charles) |                 |           |  |
|--------------------------|-------|--------------------------------|-----------------|-----------|-------|-------------------------------|-----------------|-----------|--|
|                          |       | Avg. Price                     | Price Range     | Top Price | No.   | Avg. Price                    | Price Range     | Top Price |  |
| STEERS                   |       |                                |                 |           |       |                               |                 |           |  |
| heavy finished           | 407   | \$15.50                        | \$14.75-\$15.75 | \$16.35   |       |                               |                 |           |  |
| STEERS                   |       |                                |                 |           |       |                               |                 |           |  |
| good                     | 739   | 15.04                          | 14.50-15.50     | 16.00     | 33    | \$13.40                       | \$13.00-\$13.50 | \$13.50   |  |
| 1,000-1,200 common       | 57    | 13.53                          | 13.00-14.00     | 14.25     |       |                               |                 |           |  |
| STEERS                   |       |                                |                 |           |       |                               |                 |           |  |
| good                     | 1,530 | 14.72                          | 14.00-15.25     | 15.50     | 86    | 13.15                         | 13.00-13.50     | 13.50     |  |
| 700-1,000 common         | 313   | 12.96                          | 12.00-13.50     | 13.50     | 136   | 11.60                         | 11.50-11.85     | 12.50     |  |
| HEIFERS                  |       |                                |                 |           |       |                               |                 |           |  |
| good                     | 495   | 14.93                          | 14.00-15.50     | 16.00     | 16    | 13.00                         | 12.50-13.50     | 13.50     |  |
| fair                     | 171   | 13.21                          | 12.50-13.50     | 14.50     | 19    | 11.25                         | 11.00-12.00     | 12.00     |  |
| common                   | 16    | 11.27                          | 10.50-12.00     | 12.00     | 27    | 9.25                          | 8.50-10.00      | 10.00     |  |
| COWS                     |       |                                |                 |           |       |                               |                 |           |  |
| good                     | 376   | 11.30                          | 11.00-12.00     | 13.00     | 14    | 11.50                         | 11.00-12.00     | 12.00     |  |
| common                   | 443   | 9.72                           | 9.00-10.25      | 10.50     | 105   | 9.35                          | 8.50-10.25      | 10.75     |  |
| BULLS                    |       |                                |                 |           |       |                               |                 |           |  |
| good                     | 143   | 11.43                          | 11.00-12.00     | 13.00     | 15    | 11.25                         | 11.00-11.50     | 11.50     |  |
| common                   | 69    | 9.80                           | 9.00-10.50      | 11.00     | 151   | 9.10                          | 8.75-10.00      | 10.50     |  |
| CANNERS & CUTTERS        | 139   | 7.25                           | 7.00-7.50       | 7.50      | 23    | 6.75                          | 6.00-7.00       | 7.00      |  |
| OXEN                     |       |                                |                 |           | 20    | 11.75                         | 11.00-12.00     | 12.00     |  |
| CALVES                   |       |                                |                 |           |       |                               |                 |           |  |
| veal                     | 1,649 | 13.07                          | 12.00-14.25     | 16.00     | 2,556 | 12.25                         | 11.00-13.50     | 13.50     |  |
| grass                    | 2     | 8.00                           | 7.00-9.00       | 9.00      |       |                               |                 |           |  |
| STOCKERS                 |       |                                |                 |           |       |                               |                 |           |  |
| good                     | 187   | 11.68                          | 10.50-12.00     | 12.00     |       |                               |                 |           |  |
| fair                     | 110   | 10.61                          | 9.75-10.75      | 11.25     |       |                               |                 |           |  |
| FEEDERS                  |       |                                |                 |           |       |                               |                 |           |  |
| good                     | 218   | 12.75                          | 12.50-13.00     | 13.25     |       |                               |                 |           |  |
| fair                     | 52    | 12.25                          | 11.75-12.50     | 12.50     |       |                               |                 |           |  |
| HOGS                     |       |                                |                 |           |       |                               |                 |           |  |
| selects                  | 5,226 | 20.84                          | 20.50-21.00     | 21.00     | 1,519 | 21.15                         | 21.00-21.25     | 21.25     |  |
| heavies                  | 22    | 20.82                          | 20.50-21.00     | 21.00     |       |                               |                 |           |  |
| (fed and watered) lights | 78    | 19.76                          | 18.50-21.00     | 21.00     | 37    |                               |                 |           |  |
| sows                     | 200   | 18.76                          | 18.00-20.00     | 20.00     | 46    | 19.15                         | 19.00-19.25     | 19.25     |  |
| stags                    | 4     |                                |                 | 18.00     | 6     | 17.35                         | 16.50-17.50     | 17.50     |  |
| LAMBS                    |       |                                |                 |           |       |                               |                 |           |  |
| good                     | 58    | 21.00                          | 20.00-22.00     | 22.00     | 2     |                               |                 |           |  |
| common                   | 8     | 17.00                          | 16.00-18.00     | 18.00     |       |                               |                 |           |  |
| SHEEP                    |       |                                |                 |           |       |                               |                 |           |  |
| heavy                    | 28    | 13.04                          | 12.00-14.00     | 14.00     |       |                               |                 |           |  |
| light                    | 16    | 15.00                          | 14.00-16.00     | 16.00     | 60    | 14.00                         | 14.00-          | 15.00     |  |
| common                   | 21    | 8.00                           | 7.00-9.35       | 10.00     |       |                               |                 |           |  |

the previous week, and trading a trifle brisker, although little change in prices occurred.  
Only a small number of lambs and sheep were on sale, and prices were unchanged from the close of the previous week.  
Following the intimation by the buyers that hog prices were to be cut, receipts during the week were only about six thousand head, being several thousand fewer than those of the previous week. On Monday, selects sold at \$21 per hundred, fed and watered declined fifty cents per hundred the following day, and closed on Wednesday at \$20.50.  
Of the disposition for the week ending May 16, Canadian packing houses bought 1,078 calves, 76 bulls, 130 heavy steers, 25 feeders, 4,610 butcher cattle, 130 stockers, 11,680 hogs and 5 sheep and 111 lambs. Local butchers purchased 934 calves, 356 butcher cattle, 10 sheep and 40 lambs. Canadian shipments consisted of 39 calves, 117 milk cows, 1 bull, 22 butcher cattle, 402 stockers, 320 feeders, and 136 hogs. Shipments to the United States points were made up of 40 butcher cattle.  
The total receipts from January 1 to May 16, were 97,745 cattle, 25,136 calves, 153,671 hogs and 11,011 sheep; compared to 86,671 cattle, 21,460 calves,

200,646 hogs and 12,048 sheep, received during the corresponding period of 1917.  
**Montreal.**  
Receipts of butcher cattle were fewer by three hundred head than those on hand during the previous week, and were almost entirely made up of common bulls, dry dairy cows and light, unfinished steers. No outside demand exists at this time for stock of inferior quality, and as the amount on hand was in excess of local requirements, trading was slow and the prices offered, especially on bulls, were, in many instances, from \$1 to \$1.25 per hundred below those of the previous week. Drivers were not inclined to accept the lower figures, having bought in the country on the basis of the previous two weeks' market quotations, and a considerable number of cattle were unsold at the close on Wednesday. The actual sales of stock do not show a decrease of more than 25 cents per hundred on cattle equal in quality to that of the previous week. The top price of the week was \$13.50 per hundred, at which figure about thirty head of steers were weighed up; these steers were of little better than medium quality. In addition, thirteen steers averaging eight hundred and eighty-five pounds sold at \$11.75, twenty-three of similar weights sold at \$11.85, and three of the best steers offered, weighing only

nine hundred and twenty-five pounds each, sold at \$13.50. Butcher cows sold up to \$12, and bulls up to \$11.50. Of the latter, those of common quality suffered the heaviest decline, the average price being around \$9 per hundred, compared with \$9.50 and \$10 paid during the previous week.  
Few sheep and lambs were on sale. Those offered sold at higher figures than prevailed during the previous week. Good sheep sold from \$13.50 to \$15, most of the sales being made at \$14.  
Hog receipts, which have been fairly liberal in volume during the past few weeks, were increased by five hundred. Prices declined 75 cents to \$1 per hundred for selects, practically all sales being made at from \$21.25 to \$21.50 per hundred, off cars, during the week. As a consequence of the lower prices, receipts fell off sharply towards the close of the week. Owing to the sudden and extreme heat of the past few days an exceptionally large number of animals arrived at the Yards, either dead or in a crippled condition.  
PT. ST. CHARLES.—Of the disposition for the week ending March 16, Canadian packing houses and local butchers bought 2,357 calves, 20 cannans and cutters, 218 bulls, 635 butcher cattle, 11 milkers, 1,139 hogs and 32 lambs. Local butchers purchased 9 milkers. There were no

shipments to U...  
The total rec...  
May 16, inclus...  
24,986 calves...  
sheep; compare...  
calves, 35,831 h...  
ceived during th...  
1917.  
EAST END.—Of...  
week ending M...  
houses and loca...  
calves, 648 but...  
80 lambs. The...  
United States pe...  
The total rec...  
May 16, inclus...  
22,115 calves...  
sheep; compare...  
calves, 19,076 h...  
ceived during th...  
1917.  
Cattle.—A rec...  
grades of cattle...  
week. Shipping...  
from a quarter t...  
thing in the har...  
was fully a quar...  
Canadians made...  
the history of th...  
while native sh...  
highest price eve...  
\$17.75. Deman...  
on anything in...  
were taken rea...  
forty-five cars...  
On the medium...  
of cattle, trade...  
and feeders sol...  
were higher, wh...  
milk cows and...  
other kinds stron...  
for the week.  
totalled 3,300 hea...  
the previous we...  
head for the cor...  
ago. Quotations...  
Shipping Stee...  
prime, \$17 to \$1...  
to \$16.75; plain...  
\$15.50; coarse a...  
\$14.



## You May Dream Dreams

and see Visions, but to make your Dreams come true—and your Visions materialize—generally means having a little capital to start with.

The way to get capital is to save a part of what you now earn.

Decide, now, to let us help you to save. Interest paid every six months.

Paid-up Capital \$ 6,500,000  
Reserve Fund 12,000,000  
Resources 130,000,000

## THE BANK OF NOVA SCOTIA

We invite your account. Special facilities for banking by mail. One hundred and ninety branches. General Office, Toronto.



shipments to United States points during the week.

The total receipts from January 1 to May 16, inclusive, were 12,698 cattle, 24,986 calves, 24,480 hogs and 5,250 sheep; compared to 13,891 cattle, 26,298 calves, 35,831 hogs and 5,000 sheep, received during the corresponding period of 1917.

**EAST END.**—Of the disposition for the week ending May 16, Canadian packing houses and local butchers bought 2,123 calves, 648 butcher cattle, 817 hogs and 80 lambs. There were no shipments to United States points during the week.

The total receipts from January 1 to May 16, inclusive, were 11,081 cattle, 22,115 calves, 14,625 hogs and 5,102 sheep; compared to 14,800 cattle, 21,489 calves, 19,076 hogs and 6,397 sheep, received during the corresponding period of 1917.

### Buffalo.

**Cattle.**—A red-hot market on the better grades of cattle was had at Buffalo last week. Shipping steers were advanced from a quarter to a half dollar, and anything in the handy butchering steer line was fully a quarter to forty cents higher. Canadians made the highest price within the history of the trade, selling up to \$17, while native shipping steers scored the highest price ever made on the market—\$17.75.

Demand was unusually strong on anything in the steer line and these were taken readily, there being about forty-five cars offered during the week. On the medium and less desirable grades of cattle, trade ruled strong. Stockers and feeders sold at firm prices, bulls were higher, while the better grades of milk cows and springers ruled higher, other kinds strong. Market closed strong for the week. Offerings for the week totaled 3,300 head, as against 4,325 for the previous week, and as against 4,425 head for the corresponding week a year ago. Quotations:

Shipping Steers.—Natives, choice to prime, \$17 to \$17.65; fair to good, \$16.25 to \$16.75; plain and medium, \$14.75 to \$15.50; coarse and common, \$13.50 to \$14.

## The Road to Independence



Trouble comes to all of us at one time or another.

The man with a snug bank account, is fortified against the "slings and arrows of outrageous fortune".

It is the duty of every man to lay aside something for the inevitable rainy day.

Open a Savings Account today—and take your first step along the road to Independence.

## THE MERCHANTS BANK

Head Office: Montreal OF CANADA Established 1864.

with its 102 Branches in Ontario, 32 Branches in Quebec, 19 Branches in Manitoba, 21 Branches in Saskatchewan, 53 Branches in Alberta, and 8 Branches in British Columbia serves Rural Canada most effectively.

WRITE OR CALL AT NEAREST BRANCH.

Shipping Steers.—Canadians, best, \$16.50 to \$17; fair to good, \$15.50 to \$16; common and plain, \$12 to \$12.75.

Butchering Steers.—Choice heavy, \$16.50 to \$16.85; fair to good, \$16 to \$16.25; best handy, \$15.50 to \$16.50; fair to good, \$14.50 to \$15.00; fair to good, \$14 to \$14.75; light and common, \$12 to \$13; yearlings, choice to prime, \$16.25 to \$16.75; fair to good, \$13.50 to \$14.75.

Cows and Heifers.—Best heavy heifers, \$14 to \$14.50; good butchering heifers, \$13.75 to \$14.25; fair butchering heifers, \$11.50 to \$12; common, \$8 to \$9; very fancy fat cows, \$12.50 to \$13.50; best heavy fat cows, \$11.50 to \$12; good butchering cows, \$9.50 to \$10.50; medium to fair, \$8.50 to \$9; cutters, \$7.25 to \$8; canners, \$6.55 to \$7.25.

Bulls.—Best heavy, \$11.50 to \$12.50; good butchering, \$10.50 to \$11.50; sausage, \$9.50 to \$10.50; light bulls, \$7.50 to \$8.50; oxen, \$10 to \$12.

Stockers and Feeders.—Best feeders, \$10.50 to \$11; common to fair, \$9 to \$9.75; best stockers, \$9.50 to \$10; fair to good, \$8.75 to \$9.25; common, \$7.50 to \$8.

Milchers and Springers.—Good to best, small lots, \$100 to \$140; in carloads, \$80 to \$100; medium to fair, small lots, \$75 to \$85; in carloads, \$65 to \$80; common, \$45 to \$50.

Hogs.—Prices were on the jump the fore part of last week. Monday the supply was only 45 cars, and values were up a dime to twenty-five cents, compared with the previous week's close. Heavy hogs sold mostly at \$18.10, mixed grades brought from \$18.25 to \$18.40, bulk \$18.35, Yorkers ranged from \$18.35 to \$18.50, and pigs were on top, these selling up to \$18.75. Tuesday values showed a further gain of 25 to 50 cents, and Wednesday, which was the high day of the week, top was \$19.10, general range was from \$18.75 to \$19, and nothing fell below \$18.50. Thursday pigs landed at \$18.75, and Yorkers and handy mixed grades brought from \$18.75 to \$18.90. Friday, values on pigs were held steady, bulk of these going at \$18.75 and other grades were declined 25 to 50 cents. Top for Yorkers was \$18.50, most of the good handy hogs moved at \$18.40, and heavies ranged on down to \$18.25. Roughs, \$16 to \$16.25, and stags \$13 down. Receipts for the past week were 15,000 head, being against 23,986 head for the week before and 17,600 head for the same week a year ago.

Sheep and Lambs.—Lamb market was very erratic last week. Monday, when values were declined 50 cents from the previous week's close, two loads brought \$17.40 and \$17.50, and the general range on tops was from \$17 to \$17.25, and culls went from \$15 down. Tuesday the majority of the tops moved at \$17.50; Wednesday's top was \$17.60; Thursday choice lots sold from \$17.25 to \$17.50. Heavy lambs, kinds weighing around 100 pounds, brought from \$15 to \$15.50. Sheep were steady all week. Top for wethers was \$14.50, and ewes sold downward from \$13.50. Receipts for the past week totaled 24,300 head, as compared with 18,632 head for the previous week and 10,900 head for the same week a year ago.

Calves.—Market was somewhat improved last week. Monday top veals sold at \$15.25; Tuesday the bulk moved at \$15.50; Wednesday's top was \$15.75, and \$15.50; Wednesday's top was \$15.75, and the next two days the majority landed

at \$16. Cull grades ranged downward from \$14. For the past week receipts were 6,000 head, as against 5,849 head for the week previous, and 5,100 head for the same week a year ago.

### Toronto Produce.

Live stock receipts at the Union Stock Yards, West Toronto, on Monday, May 27, consisted of 156 cars, 2,703 cattle, 505 calves, 931 hogs, 228 sheep and lambs. Cattle trade very slow; less than five hundred sold at noon. Heavy steers steady to 25 cents lower; all other cattle 50 cents to 75 cents lower. Sheep, lambs and calves, steady. Hogs \$20.50 fed and watered.

#### Breadstuffs.

Wheat—Ontario (basis in store Montreal). No. 2 winter, per car lot, \$2.22. 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—Manitoba (in store, Fort William) No. 2 C.W., 85¾c.; No. 3 C.W., 82¾c.; extra No. 1 feed, 82¾c.; No. 1 feed, 79¾c.

Oats—Ontario, No. 2 white, 80c. to 81c., nominal; No. 3 white, 79c. to 80c., nominal (according to freights outside).

Peas (according to freights outside)—No. 2, nominal.

Barley (according to freights outside)—malt, \$1.49 to \$1.50.

Buckwheat (according to freights outside)—\$1.80.

Rye (according to freights outside)—No. 2, \$2.15, nominal.

American corn (track, Toronto)—No. 3 yellow, kiln dried, nominal; No. 4 yellow, kiln dried, nominal.

Flour.—Ontario (Montreal prompt shipment, new bags). War quality, \$10.65, Montreal; \$10.65, Toronto. Manitoba flour, (Toronto, new bags) war quality, \$10.95.

#### Hay and Millfeed.

Hay.—No. 1, per ton, car lots, \$16 to \$17; mixed, \$14 to \$15.

Straw.—Car lots, per ton, \$8.50 to \$9. Bran.—Per ton, \$35; shorts, per ton, \$40.

#### Hides and Wool.

Prices delivered, Toronto:  
City Hides.—City butcher hides, green, flat, 13½c.; calf skins, green, flat, 30c.; veal kip, 22c.; horse hides, city take off, \$6 to \$7; sheep, \$3.50 to \$5.50.

Country Markets.—Beef hides, flat, cured, 15c. to 17c.; green, 12c. to 13c.; deacon or bob calf, \$2.25 to \$2.75; horse hides, country take off, No. 1, \$6 to \$7; No. 2, \$5 to \$6; No. 1 sheep skins, \$2.50 to \$5. Horse hair, farmers' stock, \$25.

Tallow.—City rendered, solids, in barrels, 16c. to 17c.; country solid, in barrels, No. 1, 15c. to 16c.; cakes, No. 1, 18c. to 19c.

Wool.—Unwashed fleece wool, as to quality, fine, 60c. to 65c.; washed wool, fine, 80c. to 90c.

#### Country Produce.

Butter.—The butter market kept practically stationary in price, selling as follows on the wholesales: Creamery, fresh-made pound squares, 45c. to 47c. per lb.; creamery solids, 42c. to 44c. per lb.; dairy, 38c. to 40c. per lb.

Oleomargarine, 32c. to 33c. per lb.

Eggs—New-laid eggs also kept stationary in price, selling as follows, whole-

INCORPORATED 1885

## The Molsons Bank

invites farmers to discuss their financial requirements at any of their many branches.

If reasonable accommodation will enable them to increase production, they should apply to the local manager for it.

Savings Department at every Branch

Interest at Highest Current Rate

sale: new-laid No. 1, 40c. to 41c. per dozen; selects, 43c. to 44c. per dozen.

Cheese.—Old, 24c. to 25c. per lb.; new, 24c. to 25c. per lb.

Poultry.—Receipts kept exceptionally light, and prices firm during the past week. Chickens, milk-fed, 30c. per lb.; chickens, ordinary fed, 27c. per lb.; fowl, 3½ lbs. and under, 25c. per lb.; fowl 3½ lbs. to 5 lbs., 30c. per lb.; fowl, 5 lbs. and over, 30c. per lb.; ducklings, 30c. per lb.; turkeys, young, 30c. per lb.; turkeys, old, 25c. per lb.

Potatoes.—Old potatoes showed a weakening tendency; Ontarios selling at \$1.65 to \$1.70 per bag; and New Brunswick Delawares, at \$1.80 per bag.

### Montreal.

Horses.—Dealers reported very little improvement in demand. Practically the only purchasers on the market were farmers, and these were not very eager, though a number of light horses were purchased. Prices showed no change, being as follows: Heavy draft, weighing 1,500 to 1,700 lbs., \$250 to \$300 each; light draft, horses, weighing 1,400 to 1,500 lbs., \$200 to \$250 each; light horses, \$125 to \$175 each; culls, \$50 to \$75 each; fine saddle and carriage horses, \$175 to \$250 each.

Dressed Hogs.—Abattoir, fresh-killed hogs were showing practically no change in price, notwithstanding the rather easier tone in the market for live hogs. Demand continued good and prices were 30c. per lb.

Potatoes.—During the week no change of consequence took place in the market for potatoes. The stock is now deteriorating somewhat in quality, and quite a few new potatoes are being imported. Meantime, Green Mountains were selling freely in car lots at \$1.55 to \$1.60 per 90 lbs., reds being \$1.45 to \$1.50, including bags; and McIntyres \$1.35 to \$1.40, extra track. In bags of 90 lbs., in a smaller way, prices were about 20c. higher than those mentioned.

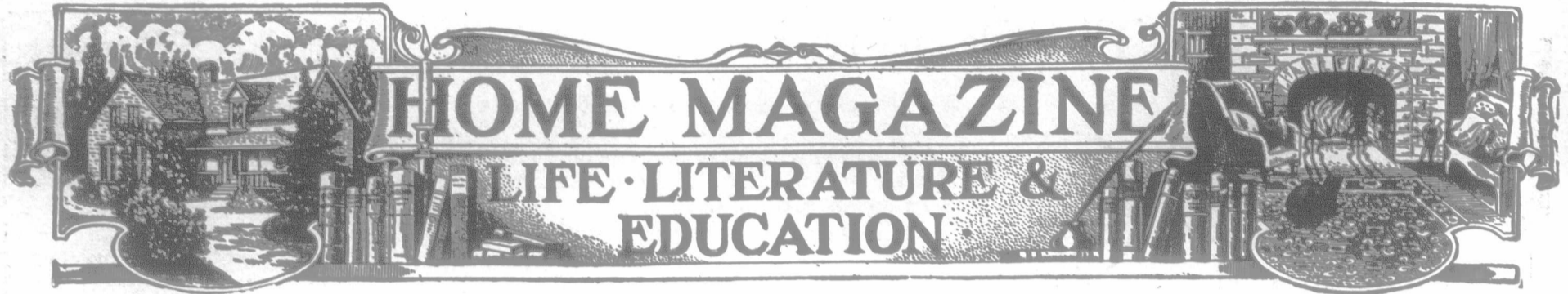
Maple Syrup and Sugar.—Demand for maple syrup and sugar was very fair, and quite a little changed hands. Maple sugar sold at \$1.80 per gallon in 15 to 20-gallon barrels, and at \$1.85 in 5-gallon tins, and \$2 to \$2.10 in 1 gallon tins. Tins of 8½ lbs. sold at \$1.50. Maple sugar was 22c. to 23c. per lb.

Eggs.—The upward tendency in the market for eggs in no way subsided, but prices did not change particularly, as compared with a week ago. Selected eggs were 44c. to 45c. per dozen; No. 1 stock being 42c. and No. 2 stock 38c. to 39c. Many merchants have decided not to put away any more eggs at a cost of 36c., f.o.b. country points. The warmer weather is having its effect on the quality.

Butter.—With good weather, and a plentiful supply of grass, the make of fresh butter is quite large, and in consequence a somewhat easier tone is observable. Finest creamery was about 1c. below the price of a week ago, being 43½c. to 44c., with fine stock 1c. under these prices. Dairies ranged from 37c. to 39c., according to quality.

Cheese.—Official prices are: 23c. for No. 1; 22½c. for No. 2, and 22c. for No. 3 cheese. The Peterboro Board was cleared at 22 7/16c.

Grain.—Prices of oats were very strong during the week, but fell back slightly, and are still high. No. 2 Canadian Western, 97½c.; No. 3 and extra No. 1 feed, 94c.; tough extra No. 1 feed and No. 1 feed, Continued on page 948.



**When the War's at an End**

BY SUB-LIEUT. ERIC P. DAWSON.  
(Brother of Coningsby Dawson, author of *Carry On* and other volumes.)

At length when the war's at an end  
And we're just ourselves,—you and I,  
And we gather our lives up to mend,  
We, who've learned how to live and to die:

Shall we think of the old ambition  
For riches, or how to grow wise,  
When, like Lazarus freshly arisen,  
We've the presence of Death in our eyes?

Shall we dream of our old life's passion,—  
To toil for our heart's desire,  
Whose souls war has taken to fashion  
With molten death and with fire?

I think we shall crave the laughter  
Of the wind through trees gold with the sun,  
When our strife is all finished,—after  
The carnage of War is done.

Just these things will then seem worth  
while:—  
How to make Life more wondrously  
sweet;  
How to live with a song and a smile,  
How to lay our lives at Love's feet.

**The First Class of Farmerettes at the O. A. C.**

Even City Women Can Do Farm Work.

CAN a woman do outside work on a farm? This question has been debated in the minds of many Canadians during recent months. Some have looked upon the idea of woman labor for the farms with favor; others have scoffed at the idea. Some have held that farm-reared girls and women could do considerable to help their fathers, husbands or brothers out-of-doors. We know they can for they have been doing it; but few of those on the land could be

persuaded, without an actual demonstration, that city girls and women could "make good" at farm work. A few city folks have held a slightly different viewpoint, and so the Labor Bureau called for girls from the cities to go out at farm work. Thirty responded to the call and were given a short course of three weeks' duration at the Ontario Agricultural College, Guelph. All but one or two of the girls and women (for there were a few in the class who signed themselves "Mrs.") came from cities and towns, the greater number from Toronto, but some from Ottawa and as far east as Montreal, and others from smaller towns and cities. The "Farmerettes," as they were called and will be known throughout Ontario this year, made good at Guelph. The spirit of willingness and the ability to learn and do the work assigned to them pleased their instructors immensely, and more than one expression of surprise and satisfaction was heard as the various girls took hold of work heretofore entirely foreign to their make-up.

The girls were given practical instruction in the various classes of farm work, such as feeding, cleaning, harnessing and driving horses; feeding beef and dairy cows and calves, feeding pigs and sheep, milking cows, gardening, feeding and caring for poultry, cleaning cattle and horse stables, growing field crops, hoeing, pruning, plowing, harrowing, cultivating and general farm work. They were out at 5.30 in the morning, milking, feeding cattle, etc., and cleaning out stables, and they were always on the job and willing to do more. On Sundays they could be found in the stables doing extra work for the experience. Some of them cared for the biggest teams on the College Farm, feeding, cleaning, harnessing and driving them under the supervision of the regular teamsters and farm foreman. A few learned to plow, most to harrow and cultivate, and all had a chance to learn to feed and to milk. The latter work came rather difficult to the girls, but some were beginning to master it when they left the college for their summer's work on the land. The girls will make good if they get into the proper environment.

They will make mistakes, of course, but with a little sympathetic oversight for a time they should prove valuable, particularly on the larger farms where two or more could go together and where there is enough milking, hoeing or team work to keep them busy. They should be able to cultivate corn and roots, scuffle, hoe, drive the horses on the hay rake and horse fork, and possibly on the mower, a few will be able to plow in a pinch, and all should eventually be able to milk. They could be used also in bringing cows, feeding calves, pigs, etc., and at any work not too heavy for them. They are all willing and anxious to do what they can to help the farmer and the Allies in the strenuous times through which we are passing.

The uniforms worn and the work tried at the O. A. C. are illustrated herewith and require no further comment. For the farm with the right kind of work in plenty to keep two of the girls busy, "Farmerette" labor may help solve the biggest problem with which the farmer is face to face.

Can city women do farm work? Yes, to a limited degree, but also to a helpful degree. The Farmerette has our best wishes in her work. Given the right opportunity she will make good. She must be given work in reason and not overdone. She should, this summer, make a good start toward more women labor on the land. Some there are, however, who maintain that the farmer's wife needs help in the house in many instances more urgently than the farmer himself does outside. These girls are averse to doing housework. Something should be done to get help in the house as well as on the land. Why do girls object to doing housework? One thing, however, the girls must be complimented for—enthusiasm and willingness. They are of a good class, and their numbers add just so many more to the war workers of Canada. May their tribe increase.

"'Eat Potatoes,' is from now on as important as to mix flour and save butter."—The Independent.

**Through the Eyes of a Canadian Woman in England.**

THIS year I fear I cannot agree with the poet, "O to be in England now that April's here," unless he enjoys biting winds, and chilly, penetrating showers. We are in fear and trembling that the tender blossoms on the fruit trees and the young vegetables may be affected by it. It would be too cruel if the coveted jam, for which we have been saving most of our scanty ration of sugar, should be denied us, as well as the garden stuff which we rely upon to so greatly augment our menus the coming summer. However, in spite of it all, I notice the delicate anemones in the fields are holding up their heads, so must hope that the hardier plants may weather the storm. A soldier in France has written, "We have had some days of rain, and pray that they may continue." He was content to march in moisture and mud to the knees if it kept the German guns quiet. Later he wrote: "The sun has only been showing its face an hour, and the guns are banging away again."

Our chief study at present is a war-map of France on which the line keeps continually changing—one day to our disappointment and the next to our joy, but the morale of our men continues so good, and their minds so bent on final victory that we too must be of good courage and strive to see only the silver lining of the war-cloud.

I was questioning one of the wounded men as I was arranging his bed this morning, as to what he thought of the situation, but all he would say was: "Just wait till we get at 'em! There'll be something doing!" When one looks upon the cruelly torn and shattered limbs of these brave lads, it is hard to be calm and to "love our enemies."

All reports point to the fact that in Germany these are very lean days. A prisoner who was exchanged, and got back here last week, said the people were extremely thin, some emaciated. They have been led to believe that this is the final push, and will be very rebellious if it does not prove to be the case. Now we think the tables may be turned and the Hun brought to his knees by hunger, instead of the "English swine" as they planned. It is not so with us. True, many things are lacking, but there is yet plenty food for all, and abstinence from luxuries for a time is surely good for the soul. I overheard some gentlemen opposite me in a railway carriage discussing, of course, the food question, and they were congratulating themselves that they no longer suffered from rheumatism, because they got so little meat to eat. One slips readily into the habit of only two meat meals a week—the most successful cook cannot accomplish more than that with the half pound a week allowance. I confess that the flesh-pots of Egypt still linger in our minds, but we are growing more able day by day to renounce them.

We have given up one thing after another, and it has done us no harm. The latest to come to our notice is an order that the hairpin must go. This time the male sex are not touched, unless by way of losing a pipe-cleaner. There is a shortage of wire. I suspect it is all needed for "entanglements." What can some wise woman invent to take its place? Shall we all be obliged to "bob" our hair, to wear it in hanging plaits, or au naturel? It will be interesting to watch developments. Already many W. A. A. C. S. nurses and other war workers have cut their tresses to save time in the morning rush, but not the married workers as a rule, for in a man's eyes his wife's hair is her greatest glory.



Farmerette Class at O. A. C., Guelph.

Front Row, from left to right: Miss Long, Orono; Miss S. Parsons, Toronto; Miss F. Wacksteed, Toronto; Miss F. Weston, Toronto; Miss C. Pulmage, Toronto; Miss K. Gerrard, Toronto; Miss F. Tucker, Clarence; Miss R. MacLachlin, Toronto; Mrs. F. Wallace, Ottawa; Miss H. Busby, Tweed.  
Second Row: Miss S. Brady, Toronto; Miss E. Courtney, Toronto; Miss J. Sheppard, Montreal; Miss L. West, Toronto; Miss M. Robinson, Toronto; Miss M. Jormot, London; Miss I. Jones, Toronto; Mrs. C. Elson, Cobourg; Miss G. Shaw, Toronto; Mrs. M. A. Tummonds, Toronto; Miss J. Sleight, Montreal; Miss C. Stanton, Toronto.  
Third Row: Miss L. Jordan, L'Orignal, Ont.; Miss K. Cooke, Montreal; Miss J. Monk, Montreal; Mrs. M. Lohead, Montreal.  
Fourth Row: Miss M. Taylor, New Liskeard; Miss L. McCombe, Montreal; Mrs. W. Walsh, Montreal; Miss E. Rue, Montreal.

THE past we heated dis...  
Governme...  
clergy shall be e...  
We tremble for...  
of military age a...  
homé to care for...  
and children (a...  
cake at the tea...  
come back from...  
the courage to...  
the way of salva...  
offered his life f...  
who knows mor...  
death, than anyo...  
possibly can? I...  
short-lived? Th...  
over—and playe...  
they will listen t...  
different kind...  
question recalls...  
lings in his won...  
our brave trawle...  
he calls the "Fri...  
played in the wa...

"In Lowestoft a...  
Mark well what...  
And she was bu...  
But she has...  
a-rovin'."  
The Lord know...

"Her skipper wa...  
Which always l...  
So he is used to...  
The Lord know...

"Her mate was...  
Wales  
And so he fights i...  
Religi-ous tho' ro...  
The Lord knows...

When the curta...  
secrets can be t...  
thrilling tales of...  
our silent traw...  
"Fringes of the I...

MY horizon...  
past w...  
lived, m...  
in the hospital.  
several Canadian...  
one is so happy...  
very own, thoug...  
dear to our hear...  
the rest is a mine...  
humanity. One...  
batch. Next day...  
quainted, I asked...  
illustrated paper...  
in broad Lancash...  
appeared distrai...  
I tried in various...  
welcome among...  
there ahead of hi...  
on their little env...  
I tempted him v...  
which I received...  
big eyes seemed...  
I wondered if he...  
spirit and pleasur...  
As his wound w...  
able in a day or...  
about, and at la...  
melt. Yesterda...  
in the lunch tray...  
he came forward...  
paas the coops"  
and later he prod...  
wife to show m...  
when I admired...  
sitting on the e...  
bed, comparing r...  
ment on the Son...  
usually turns out...  
as soon as he is...  
to help us in...  
happier when bu...  
teach them gam...  
needlework wher...  
ment. They all...  
when they get t...  
stead of a real...  
adamant rules a...  
staff. I am sorry...  
days will soon be...  
Pleasant as it is...  
on one's nerves...  
am taking up an...  
work, and shall l...  
when I next writ...

MY only dri...  
the drink...  
that ch...  
tea-room on the...  
very tame, but t...  
there is full of hu...  
it was crowded w...  
as it happened...  
holiday. This li...

THE past week has been very full of heated discussion in regard to the Government decision that the clergy shall be exempt from conscription. We tremble for the future of the parson of military age and fitness who stayed at home to care for the souls of the women and children (and incidentally pass the cake at the tea hour), when our men come back from the war. Will he have the courage to stand up and point out the way of salvation to the man who has offered his life for his country, the man who knows more of real life and—alas! death, than anyone away from the struggle possibly can? I fear his ministry will be short-lived. The Padres who have gone over—and played the game—are the ones they will listen to, and they will preach a different kind of sermon too. This question recalls a verse or two of Kipling's in his wonderful story of the part our brave trawlers and fishermen, whom he calls the "Fringes of the Fleet," have played in the war:

"In Lowestoft a boat was laid,  
Mark well what I do say!  
And she was built for the herring trade,  
But she has gone a-rovin', a-rovin',  
a-rovin'.  
The Lord knows where!

"Her skipper was mate of a bucko ship  
Which always killed one man per trip,  
So he is used to rovin', a-rovin', a-rovin',  
The Lord knows where!

"Her mate was skipper of a chapel in  
Wales  
And so he fights in topper and tails—  
Religious tho' rovin', a-rovin', a-rovin',  
The Lord knows where!"

When the curtain is finally raised and secrets can be told, I am sure the most thrilling tales of all will be the exploits of our silent trawlers and fishermen, the "Fringes of the Fleet."

MY horizon has been very limited the past week. I seem to have lived, moved and had my being in the hospital. A recent convoy brought several Canadians among the others, and one is so happy in waiting upon one's very own, though the English Tommy is dear to our hearts. Occasionally among the rest is a miner of the toughest type of humanity. One came with the latest batch. Next day, by way of getting acquainted, I asked him if he would like an illustrated paper, and he replied gruffly in broad Lancashire that he would. He appeared distraught and uncomfortable, and I tried in various ways to make him feel welcome among the men who had been there ahead of him, and already looked upon their little environment as home. Later I tempted him with a cup of cocoa, for which I received "no thank you." His big eyes seemed studying everything, and I wondered if he would profit by the good spirit and pleasing manners of the others. As his wound was in the hand, he was able in a day or two to get up and move about, and at last his reserve began to melt. Yesterday morning when I took in the lunch trays, to my intense surprise he came forward and said: "I'll help to pass the coops" (help to pass the cups), and later he produced a photograph of his wife to show me, and actually smiled when I admired it. When I left he was sitting on the end of another patient's bed, comparing notes on a recent engagement on the Somme. This kind of man usually turns out to be a good sort, and as soon as he is able, tries to do his bit to help us in our work. They seem happier when busy; we talk to them and teach them games and start them on needlework when we have a spare moment. They all say they are so glad when they get to a V. A. D. hospital instead of a real military one with its adamant rules and entirely professional staff. I am sorry to say that my hospital days will soon be over, for a time at least. Pleasant as it is, the strain begins to tell on one's nerves if kept up too long. I am taking up another department of war-work, and shall hope to tell you about it when I next write.

MY only dissipation this week was the drinking of the afternoon cup that cheers, in a quaint little tea-room on the High Street. It sounds very tame, but to me half an hour spent there is full of human interest. Yesterday it was crowded with men from the camps, as it happened to be the weekly half-holiday. This little "olde tea-shoppe" is

very well known to all our men who have been stationed at Witley, and I predict that the afternoon-tea habit which has never been general in Canada will become an established after-the-war custom. One gets a good cup of tea here, and a slice of toast or a wedge of war-time cake, eggless, butterless and fruitless, but nevertheless cake. Whole families come in, parents and little tots, all to drink the beloved beverage. It is a great pleasure to watch the pretty English girls with their matchless complexions saunter in, and the tiny boys, dressed like little old men, always carrying canes and accompanied by the family dog. Nowhere does this dear animal enter into the family life as in England.

In spite of what is going on beyond, the scene was a gay one, and carried one out of oneself. Pretty spring hats and gowns—noticeably tighter in the skirt now—were much in evidence, and everywhere was a profusion of flowers, on tables and mantels, in charming harmony with the mellow browns of the beamed ceiling and mantels. Saccharine tablets were purchased for the tea at a penny each, extra, and I saw one lucky lady produce a good lump of sugar from some secret pocket and drop it surreptitiously into her cup.

PEOPLE over here are deeply interested in Canadian Indians, numbers of whom came over in our army, and fine soldiers they have proved themselves to be. I think they were dis-

## Hope's Quiet Hour.

### The Privilege of Giving

David said . . . Who am I, and what is my people, that we should be able to offer so willingly after this sort? for all things come of Thee, and of Thine own have we given Thee.—I Chron. 29 : 14.

"Strength for to-day, what a precious boon,

For earnest souls who labor—  
For the willing hands that minister  
To the needy friend and neighbor."

I had a birthday the other day and, as I woke from a refreshing sleep that morning, God whispered a birthday message to me. Before I was quite awake the words which stamped themselves in my mind were:

"Redeeming the time, because the days are evil."

How did those words apply to me? Why, having reached the age of fifty-five, I must remember that my remaining time—my opportunity for service in this room of God's house—will probably be short. I must not waste the splendid

thorists of this utilitarian age murmur "to what purpose is this waste?" It might seem to many kindly and generous people as if the costly ointment, poured out like water on the feet of Christ, might better have been "sold for much and given to the poor." They understand the practical value of gifts when they evidently help somebody; but, when they are the outpourings of love and gratitude, given with whole-hearted lavishness, they seem like extravagant waste.

David's mighty men loved him so dearly that they gladly risked their lives in order to procure for him a drink of water from the well of Bethlehem. He did not drink the water, feeling it was too sacred and precious for his use, but he poured it out before the Lord.

A real gift of love brings joy to the giver and, if it is offered gladly it also brings joy to God. Mary's gift was not wasted, for it was the natural and joyful expression of her affection for her Lord; and far more refreshing to him than the fragrant ointment was the fragrance of her grateful love.

I know that many of our readers have found out that giving—the giving of money or service—is a high privilege instead of a disagreeable duty. During the past week two donations of five dollars each have reached me "for the needy." One came from Mrs. A. M., Parkhill, Ont., and the other from Mrs. Wm. J., Perth, Ont. Several packages of S. S. papers for the "shut-in" have also arrived. I passed on most of these before moving to 6



British Tommies in a Rest Room in Paris.

Kadel & Herbert, N. Y.

appointed to find that they were not decked out in feathers and beads, and the many trappings of romance. I heard a story from a nurse the other day which I must pass on to you. She affirms it is true; you may decide for yourselves, but I took it *cum grano salis*. An Indian patient on arrival at the hospital, from France, refused absolutely to relinquish a parcel he brought with him, to the kitchen where all such belongings are taken care of. After some dispute, he overcame all objections and was allowed to keep it in the locker at his bedside. The other patients had their curiosity appeased by the Indian's explanation that it was a German helmet. Soon a disagreeable odor was noticed in the ward, which kept getting worse as days went by, and suspicion fastened itself on the mysterious parcel. The nurses could do nothing so asked the doctor to wrestle with the patient. After many threats he succeeded in getting it into his hands. He opened it, and found it was a German helmet—with the head inside! The Big Brave wanted to take proudly home the scalp to hang on his belt, after the custom of his forefathers. SIBYL.

■ A recent issue of The Independent bears upon its cover a very suggestive reminder. It is "While someone gives his life—what are you giving?"

opportunity of life in selfishness, but must "buy up" the time.

When David made his great offering of gold, silver and other things needed for the building of the Temple, he "prepared with all his might;" and—though he was not permitted to build the Temple himself—he "rejoiced with great joy" because he was allowed to contribute vast sums for that great work.

Nowadays we seem to have almost lost the idea of giving as a *privilege*, or even as a duty. Of course, there are endless demands for money and service, and everybody is expected to give something, in these strenuous times, to help the millions who are in such desperate need.

But giving is not only a thing required in days of special need, it is a necessity of our nature. Even if there were no poor people we should still want to give, because we are children of God—the Giver of all good gifts—and the Spirit of our Father is within us.

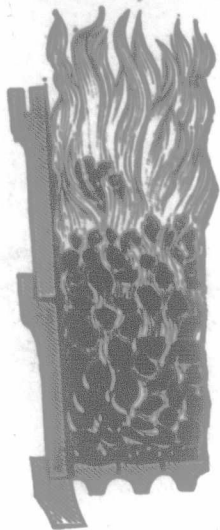
When Noah came out of the ark there were no poor to help; yet he felt that he owed a debt of gratitude to God and could not rest until he had presented a costly offering. Think how valuable each animal was when there were so few left alive; still he did not hesitate, but "took of every clean beast, and of every clean fowl, and offered burnt offerings on the altar."

Would not many practical philan-

West Ave., and another parcel arrived since. I feel sure that those who have so willingly offered their gifts to God, through His needy children, have discovered that it is a privilege for which they should thank Him. As for the \$10.00, sent early in May by A. C. H., that was poured out—like the alabaster box of ointment—on one person. She is a very good woman, whom I have known for years (a member of my Bible Class). Though she is over sixty, and crippled so that she can't get down on her knees to scrub, she has supported herself by sweeping and dusting a large building every day. Last Wednesday she fell and broke her wrist. Instead of going to bed she went to the doctor and had it set, and then (very pluckily) went to the place where she works, which is about two miles away, and asked to have the job kept open for her until she is able to sweep again. This request was willingly granted; but, in the meantime, she needs a real lift. So—for the first time, I think—a ten-dollar bill went straight from the Q. H. P. into the hands of one poor and suffering woman. I wish the giver could have seen her face.

One reason it is a privilege to have the opportunity of service is that it will endure. What we spend on ourselves lasts only for a time, what we put into the hand of God, in real consecration will last eternally.

# Sunshine Furnace Efficiency



McClary straight walled firepot—no ashes to absorb heat.

The Sunshine semi-steel firepot is built with straight walls—not sloping to form and hold a non-conducting deposit of ashes. A very important point in furnace efficiency.

The grates of the Sunshine furnace are equal in area to the firepot, so that fresh oxygen—without which proper combustion is impossible—flows to every part of the fire all the time.

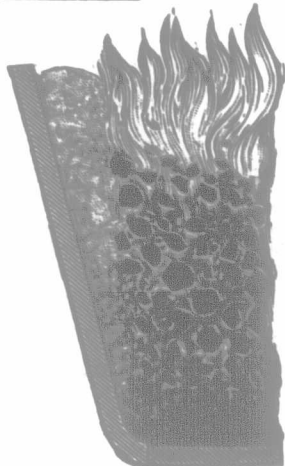
All air passages are exactly proportioned so that neither too much nor too little air passes over the radiator—there can be no superheated air, nor any under heated air, sent to the rooms above.

The doors, drafts and dampers are machined to fit snugly and to exclude heat-wasting air currents from the outside.

The test of furnace efficiency is the volume of heat it conserves for actual use, from the heat generated in burning your fuel.

There is a fixed volume of heat in every kind of fuel, whether it is wood, soft coal or anthracite.

The business of your furnace is to extract all the heat, which all furnaces do—and to conserve the maximum of it for use—which the Sunshine furnace does.



Usual sloping wall firepot. Blanket of ashes absorbing heat.

### Engineering Service Free.

McClary's own heating engineers are at your service when you buy a Sunshine Furnace, to give you free expert advice on your home-heating requirements. Write to the nearest McClary Branch and ask for particulars about this service. A booklet, "Comfort in the Home," makes clear all the things you want to know about furnaces and it is sent free on request.

# McClary's Sunshine Furnace

London Toronto Montreal Winnipeg Vancouver  
Calgary St. John, N.B. Hamilton Edmonton Saskatoon

61

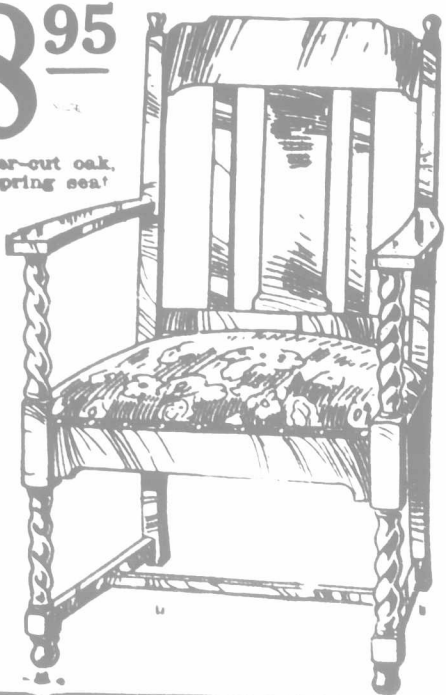
## Chair or \$8.95 Rocker \$8

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

### Photo-Illustrated Catalogue No. 7

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



When writing advertisers will you be kind enough to mention The Farmer's Advocate

"We lose what on ourselves we spend,  
We have as treasure without end  
Whatever, Lord, to Thee we lend,  
Who givest all."

That doesn't mean a request for donations to the Q. H. P.—far from it. You already send me so much money that the responsibility of passing it on wisely is a heavy one. But there are plenty of ways of exercising the high privilege of giving to God—and perhaps those who have little money and time to spare may find, in the Great Day, that they have (like a poor widow long ago) given more than the rich. Everything done for God—every act, word, and thought of prayer—will be treasured by Him. You may forget but He will remember.

"The work you do, the words you speak  
Have space on some eternal page,  
Whereon one time your eyes shall seek  
To sum your profit or your wage.  
Aye, he whose hands bear score and mark

Of toil's long stress or battle scars,  
Sends something out into the dark  
As lasting as the time-old stars."

The son of an Irish clergyman once asked his father for money to give to a miserable, ragged child who was begging at the door. The father explained that he couldn't do anything, as he had already so many in his own parish to help. "However," he said, "if you like to go without your own dinner and give it to the child, you may." The boy did this, and received—as he said himself—the best lesson about charity that he ever had in his life.

I am sure, also, that he got more solid satisfaction out of that dinner which he didn't eat than the grandest banquet could have given him. The taste of that dinner flavored his whole life afterwards. It helped him far more than it helped the beggar, and gave him more happiness, too. The very name of "miser" means much the same as "miserable"—one who hoards up life's advantages instead of using them, is really wasting them, and is missing all the joy of life, too.

"All worldly joys go less  
To the one joy of doing kindnesses."  
DORA FARNCOMB.  
6 West Ave., Toronto.

## 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 Orient.

THE other day—or, at least, the other day from time of writing—the Women's Canadian Club of this city had the privilege of hearing a most interesting lecture. The lecturer was Dr. C. J. L. Bates, recently returned from Japan, where he has spent 16 years, hence a man well qualified to speak on his subject.

The burden of his message was that the East is awake!

The East—China, Japan, India—seething with a vast horde of intelligent, clever, thinking people, after many centuries of slumber, is awake, and henceforth the question with the white populace of the world, all decimated as it is by the war, will be, not how to maintain its supremacy but how to maintain its place.

In China alone there are over 400,000,000 people, and in Japan 54,000,000 but it is little Japan that is assuming the leadership of the greater Orient. Very largely this is possible because of her system of education. Forty-seven years ago the Mikado issued an edict declaring that thenceforth there must be no illiterate village in all Japan, nor a single illiterate child in any village, and as a consequence Japan to-day stands higher than any other country, in this respect. Nor is higher education overlooked. To-day, in Japan, there are four splendid Universities whose degrees are equal to those conferred by any University in the world. When walking through the halls of these temples of learning, Dr. Bates said, he had been astounded at the perfection of equipment,—equipment such as might be expected in old institutions such as Oxford. In these schools, in addition to the Japanese

students, there are at present about 3,000 Chinese students, although the number has been as high as 13,000. But the Orientals, determined to escape being provincial and to find every advantage wherever supplied, do not confine themselves to their own colleges, but send numbers of their young men, every year, to the Universities of America, even as, before the war, numbers of them were sent to the Universities of Europe.

In commerce, too, the Oriental—and especially the Japanese—is alert to his opportunity. Although chairs are not used in Japan, or but very little, Japan sends out vast shipments of chairs to other countries; pianos also, and organs; chinaware; all sorts of things for which a ready market can be found. A few years ago butter was not made in Japan, and the quantities needed for Europeans and other Occidentals living in the country were imported, chiefly from Canada, and distributed by a firm in Yokohama. Upon one occasion, however, a shipment of bad butter was received, and the firm promptly transferred its orders to Australia. Now the butter is made right in the country and sent by mail, sealed in tin boxes, to anyone who wants it.

"We thought we were badly used", said Dr. Bates, "when we had to pay 42½ cents a pound—until we came to America and found that it sold for more."

In her navy, too, Japan has made vast strides. At the time of the coronation of the present Mikado, Dr. Bates sat at his house above Osaka Bay and watched a line-up of ships and a naval demonstration such as any country in the world might be proud of. "Did you know?" he asked the audience, that after the beginning of the war, Japanese ships stood between you and the enemy?" At that time, he said, German warships were in the Pacific, and British Columbia had good reason to fear attack; then one day, the welcome news came that a Japanese fleet was in the offing, and those who read the signs of the times were enabled to breathe freely again.

Japan, he thinks, will stand by Great Britain, and continue to fill every obligation of her alliance. Nor does he dread a "yellow peril", a term made in Germany, he says, by the Kaiser, to suit ends of his own.—But these Eastern peoples must be given a fair deal. They are proud and intelligent peoples, who deserve their place in the consideration of the world. It was regrettable that, a few years ago, necessity existed for turning back a shipload of so-called "Hindus"—really Sikhs from India—from the shores of British Columbia. (It will be remembered that they were not permitted to land and that a rather disgraceful demonstration was made by some of the whites on the docks). These Sikhs were subjects of the British Empire. They had always been loyal, and some of them wore upon their breasts medals conferred by Queen Victoria for their valor in suppressing mutiny in India. Their return to their own land after such usage had created, it was said, "a hundred centers of sedition" in India.

I should like to go on further but space will not permit. The whole matter amounts to this, does it not?—as we have before striven to set forth in these columns—that we Western people must get away from the idea that we are "It" with a capital "I"—to use a very expressive bit of slang; that we must recognize that there are other peoples under the sun who are just as clever, just as worthy as we; that we must be ready to give the square deal everywhere, for our safety, yet much more for our own souls' sake.

And does the story told by Dr. Bates not suggest, too, that we must keep up in education, if we are to stay on equal footing with these teeming millions of clever Orientals? They are awakened. May it not be time that we also should be awakened—to our own limitations? The world is no longer made up of an aggregation of separate countries each independent of the others. No longer can we live what we have called "our own" lives, doing as we liked with utter disregard of everyone else, content to amass a few "things" and then slip out of the world. As the separate units of a nation are, so is the nation.—And each one of us is a unit.

And yet I make no plea for nationalism as an end, but rather for a great humanitarianism,—such a humanitarianism as

must tend to that will bring uplift, and do good forever.

### Saving O

Last year a city who derided some method of cooking found them very wise in many things was to be canned by the war, perhaps that, since no H. W. Hill of Health had summer that day" could ordinary kitchen vegetables as squash.

By the middle of the woman I heard the woman I heard cans spoiling they were, to instructions lovely," said when we opened to eat".—Ve jars had all been

I could not I asked a woman about it. Her men lecturers own experiments in some sort of where sterilization comparatively one-day method he said, it was women whose had neglected importance."

Next I went had been using by Dr. Hill.

"I haven't said, "in two up beans, peas and greens, a—all by the young beets less liable to method."—"So long as Farmer's Advocate any other."—a reporter-like approved method.

Boiled down for a pun!) asparagus, green carrots, squash, marrow:

1. Wash a little washing plenty of soap water, then let come to a minutes. She altogether for if the screw-top the glass top be boiled. All be new and of that they must when putting five per cent. said, was due on just before thus will not be

2. Have Asparagus shells and tied into put in the preferred. B and strings scraped from into bits; squ cut into pieces down as for very solidly slightly salted fill up the cre

3. Put the basket and 3 to 15 minutes acids or other

4. Remove once into coldness to the water into hot then "blanching."

5. Drain pack into the as possible.

salt on top with boiling water penetra

must tend towards an internationalism that will bind all peoples together in uplift, and do away with war and dissensions forever. —JUNIA.

**Saving Our Food by Canning.**

Last year some lecturers came to this city who demonstrated the one-boiling method of canning vegetables. I attended some of the demonstrations and found them very interesting and instructive in many particulars. The next thing was to watch how the women who canned by this method got along.—I was, perhaps, unusually interested in that, since no less a scientist than Dr. H. W. Hill of the Institute of Public Health had told me in the preceding summer that no method but the "three-day" could be depended upon, under ordinary kitchen conditions, for such vegetables as peas, beans, corn and squash.

By the middle of the winter every woman I heard of who had followed the woman lecturers' plan, found her cans spoiling,—good intelligent women they were, too, capable of following out instructions in detail. "They look lovely," said one of them to me, "but when we open them they are not fit to eat".—Vegetables, time, fuel and jars had all been wasted.

I could not understand this, and so I asked a scientist what he thought about it. He said he thought the women lecturers had probably done their own experimenting, in the first place, in some sort of domestic science laboratory where sterilization facilities had been comparatively easy, and had found the one-day method satisfactory. "Of course," he said, it was, "just possible that the women whose vegetables had spoiled had neglected some small item of scientific importance."

Next I went to a woman who, I knew had been using the method recommended by Dr. Hill.

"I haven't had a thing spoil", she said, "in two years time. I've done up up beans, peas, corn, squash, asparagus and greens, and they've been splendid,—all by the three-day method. For the young beets and tomatoes, which are less liable to spoil, I use the one-day method."—"Here's my plan!" thought I. "So long as I am on the staff of the Farmer's Advocate I shall never print any other."—And so I proceeded to don a reporter-like air and quiz my friend in the approved manner.

Boiled down (please, I didn't mean that for a pun!) here are her directions for asparagus, greens, peas, beans, young carrots, squash, corn, cauliflower, and marrow:

1. Wash the jars very clean, using a little washing powder of some kind or plenty of soap. Rinse them well in clear water, then put them in cold water and let come to a boil and boil for 10 to 20 minutes. She uses the spring-top sealers altogether for vegetables, but says that if the screw-topped ones have to be used the glass tops and tin rims should also be boiled. Always the rubber rings should be new and of good quality, of such a size that they must be stretched just a little when putting them on the jars. Thirty-five per cent. of last year's spoilage, it is said, was due to bad rubbers. Put them on just before filling the jars. Boiling this will not hurt them.

2. Have the vegetables prepared. Asparagus should be cut the same length and tied into bunches large enough to put in the jars—wide-mouthed jars preferred. Beans should have the ends and strings removed; corn, cut and scraped from the cob; cauliflower broken into bits; squash and marrow pared and cut into pieces. Greens should be boiled down as for the table, then packed in very solidly into the jars, just enough slightly salted water being poured in to fill up the crevices and to overflowing.

3. Put the vegetable into a wire basket and dip into boiling water for 3 to 15 minutes. This removes excess acids or other undesirables.

4. Remove the basket and plunge at once into cold water to restore the crispness to the vegetables. This plunge first into hot then into cold water is called "blanching."

5. Drain the vegetables well, then pack into the clean warm jars, as tightly as possible. Put a level teaspoonful of salt on top of each jar and fill slowly with boiling water, being sure that the water penetrates to every part of the jar.



**"Silver Gloss" STARCH**

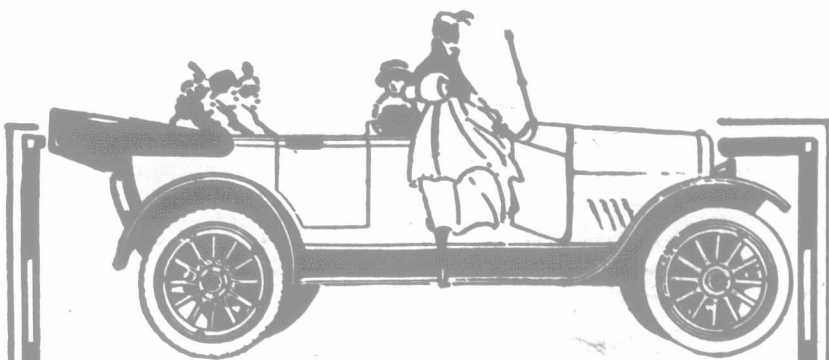
for all Home Starching

The starch you can depend upon for fine work on fine fabrics.



Manufactured by

THE CANADA STARCH CO. LIMITED MONTREAL



**The Utility Car— therefore the Farmer's Car**

HERE is a car at a most attractive price with which you can travel fast, climb hills and cover lots of ground—all without undue upkeep expense.

You will do well to look over the Briscoe thoroughly and challenge its performance before deciding what car you should buy.

Where can you get so much for so little? Observe Briscoe roominess, comfort qualities, fine finish, and smart appearance.

Above all, note the famous more-miles-to-the-gallon motor—an exclusive Briscoe feature assuring 25 to 30 miles per gallon.

Its price, \$1,095, is less than that of any car of equal sturdiness and good looks.

THE CANADIAN BRISCOE MOTOR CO., LIMITED  
Factory: BROCKVILLE. Head Office: TORONTO.

There's sure to be a Briscoe Agent not far from where you live

**BRISCOE**  
THE CAR WITH THE HALF MILLION DOLLAR MOTOR



**THE MARTIN DITCHER AND GRADER**  
DIGS YOUR DITCHES GRADES YOUR ROADS  
EASILY QUICKLY CHEAPLY  
REVERSIBLE ADJUSTABLE  
PAYS ITSELF IN ONE DAY  
DOES THE WORK OF 50 MEN  
SEND FOR FREE BOOKLET  
THE PRESTON CAR & COACH CO LIMITED  
97 DOVER ST. PRESTON CANADA



**The little Gun that Kills Potato Bugs**

With Poison Dust it will do 2 rows at a time as fast as a man can walk. Write for Agency contract. Sells on sight. Manfd. by

Iillsley & Harvey Co., Ltd.  
Port Williams, Nova Scotia

6. Fit on the rubbers (dipped in boiling water) and put on the tops loosely. If the spring-top sealers are used put up the bail but do not fasten the spring. If the screw top jars are used screw the top on partially but not tight. This gives steam a chance to escape and prevents breaking the jars.

7. Put the jars on the wooden or wire rack and set in the boiler (a wash-boiler will do), having the water in the boiler to within an inch of the top of the jars. Never put the jars right on the bottom of the boiler, as that will crack them. Also they must not be permitted to knock against one another. Always a rack with separate compartments for each jar, and raised off the bottom of the boiler so the water can boil below, should be used. This may be of wood, but the very best kind is of wire, very stoutly built, with a handle, so that the jars may be lifted out at once. Such a rack is exactly like the "carriers" used by city milkmen, except that they have feet or some contrivance to raise them off the bottom of the boiler.

8. Put on the lid of the boiler, let come to a boil and boil an hour, then take out the rack, fasten the tops down tight, and let cool in a place where drafts of wind will not strike.

9. Next day put on the boiler again, loosen the tops, and return the rack to the boiler. Boil an hour as before, then remove and tighten the tops. Invert the jars when they are removed from the boiler, and if any of them leak a little pour melted paraffine (not too hot) over the lid and let it run over the jar. It will form a coat which has to be cut off when the jar is opened, but may save the jar. Always save paraffine. It can be melted and used over and over.

10. On the third day repeat. Let the jars cool and store in a cool, dark place where they will not be jarred or moved until used. If they must be stored in a light place each should be wrapped in brown paper, as light injures the color of the contents.

**Fruit, Young Beets and Tomatoes.**

Fruit may be canned exactly as above, only that one boiling is sufficient and blanching is not required. The jars may be filled up with water without any sugar at all, or they may be filled with syrup. This method keeps the shape of the fruit nicely. . . Another method is to boil the fruit in a kettle and then pour into hot jars which have been boiled for 20 minutes in water. Pour to overflowing, using a sterilized cup or spoon for filling, and fasten down at once. Hot jars should never be stood on a bare table, but on several thicknesses of clean white cotton, wrung out of boiling water.

Tomatoes may be peeled and put in the sterilized jars in halves, quarters, or even whole if they are small. Pack as tightly as possible, put in a teaspoon of salt, fill up with hot water, and cook in the boiler as above, only one boiling being necessary. . . Another method is to peel them, cut them in pieces, then cook them about 25 minutes and fill to overflowing in sterilized jars, sealing down at once. A little salt and paprika may be added to season.

Young beets are delicious when done

KEITH'S

THE FARMER'S SEEDSMAN SEEDS FIFTY-TWO YEARS SERVICE

1866 1918

Seed Stocks Going Fast

How long the seed supply will last is the question, for available stocks are fast disappearing.

Don't wait. Order now.

WE PAY RAILWAY FREIGHT TO ALL POINTS IN ONTARIO AND QUEBEC ON ORDERS OF \$25 OR MORE.

CORN

White Cap Yellow Dent ON COB

|  |        |
|--|--------|
| 70 lbs to bushel.....  | \$6.00 |
| We have a good supply of this corn now on hand—in excellent condition and a splendid sample. |        |

Special Price While the Supply Below Lasts

|  |        |
|--|--------|
| <b>EARLY PRINCE CHARLES</b><br>(Would do as a substitute for Wisconsin No 7) |        |
| Guaranteed 90% Germination.....  | \$4.60 |
| Shelled  |        |
| <b>EARLY IMPROVED LEAMING</b>  |        |
| Guaranteed 90% Germination.....  | \$4.60 |
| Shelled  |        |
| Silverhull Buckwheat.....  | \$2.40 |
| Rye Buckwheat.....   | 2.60   |

| MILLETS                |        |
|------------------------|--------|
| Siberian.....          | \$3.50 |
| Hungarian.....         | 4.00   |
| Golden.....            | 3.00   |
| Common.....            | 2.75   |
| lb.                    |        |
| Japanese Barnyard..... | .07    |
| Amber Sugar Cane.....  | .11    |
| Dwarf Essex Rape.....  | .15    |

| GARDEN CORN                |        |
|----------------------------|--------|
| Kendall's Early Giant..... | \$6.30 |
| Stowell's Evergreen.....   | .40    |
| Sweet Turnips.....         | 1.50   |

| POTATOES            |                |
|---------------------|----------------|
| Irish Cobblers..... | Per Bag \$3.00 |
| Green Mountain..... | 2.75           |
| Davies Warrior..... | 3.00           |

GEO. KEITH & SONS SEEDS 124 KING ST. E TORONTO

as follows. Wash them and boil until almost tender. Rub off the skins and pack in sterilized jars. Fill up with boiling water to which just a little vinegar has been added, and finish cooking in the boiler as above. When done in this way they may be served as a vegetable, hot and dressed with butter, pepper and salt; they may be chopped fine, mixed with salad dressing and served as a salad; or they may be used as a pickle by adding more vinegar.

The reason that fruit and tomatoes require only one boiling while the vegetables given above need three, is that there is not likely to be found in them certain spores which are nearly sure to exist in the vegetables. One boiling will not likely kill all of these spores; a few will be left, and will reproduce. The second boiling will finish most of these, while the third will be almost sure to leave the product entirely free from them.

**Utensils Needed for Canning.**

For home canning one can get along nicely with good jars and new rubbers of good quality, a granite colander to help when draining, a cup for filling, sharp knife for paring, a wire basket for blanching, a wash-boiler and the rack for it, which may be made at home of wooden slats. It should be very strong, and as has been noted above, provided with a handle by which the jars may be lifted out all at once. Smaller utensils which will be found very useful are a cherry stoner, strawberry huller, a sieve for rubbing the "blossoms" off gooseberries, a pineapple eye remover, measuring cup marked on the inside, granite preserving spoon with a hook to keep it from slipping into the kettle, and a jar-lifter or "duplex fork". One should also have deep kettles for blanching and pans for washing vegetables, etc.

**Need for Scrupulous Care.**

The careless woman will never have success with canning—until she gets over her carelessness. Perfect cleanliness is one of the requirements for success; the bacteria and spores that cause "spoilage" are invisible, but they float in the air, are present in dust-motes, cling to everything that is not sterilized by boiling. For this reason—that they may be lessened in number as much as possible—the room in which the work is done should be as clean and dustless as it can be made, and the clothes and hands of the worker also. Everything that touches the fruit or vegetables in the last stages should be sterilized—jars, tops, spoons and fillers. Some people, for the "cold-pack" (boiling in the boiler, after the contents of the jars have been packed when cold) method do not first sterilize the jars, depending on the long boiling to kill all the germs. Probably this is all right, but my friend who never fails says she always makes surety sure by sterilizing hers first.

**Cold Water Canning.**

Rhubarb, gooseberries and cranberries may be put up in cold water. Fill the perfectly clean jars then immerse beneath cold water until the jars fill. Fasten the tops under. Keep in a cool, dark place and do not move the jars until they are used.

**PROVIDED** one has a good cellar a great many of our garden products may be kept, with less trouble than canning, by packing them in sand. In this way carrots, parsnips, beets, winter radish, artichokes, celery and salsify may be kept quite until spring. Also cabbage, turnips and pumpkins will keep, in a cool, frost-proof place, for a considerable length of time, while kale and Brussels sprouts may be left in the garden even after snow-fall. All this will afford, with ripe beans and peas, a good variety for the table in winter. But it is exceedingly nice to have, in addition, some cans of green peas, green beans, corn and cauliflower, while very young beets, canned, are certainly much more delicious than the older, coarser-grained ones taken from the cellar.

One word more: *Please* save this article if you intend to make use of it in any way. It may not be repeated this season. —JUNIA.

Upon Lieut.-Col. G. G. Nasmith, Toronto, author of "On the Fringe of the Great Fight", has been conferred the degree of Doctor of Public Health.

**The Cookery Column.**

**Jam Pancakes.**— Prepare cornmeal pancakes as large as a saucer, making them in the usual way, but with just enough flour added to the cornmeal to hold it together. While hot spread lightly with a little butter and jam, and serve as dessert.

**War-time Bread Pudding.**— One cup fine breadcrumbs (may be stale bread dried and ground),  $\frac{3}{4}$  cup corn syrup, maple syrup, honey or brown sugar, grated rind of half an orange or lemon;  $\frac{1}{2}$  teaspoon salt, 1 cup boiling water,  $\frac{1}{2}$  cup raisins, one-third cup shredded dates, 3 cups milk. Pour the boiling water over the crumbs. Add other ingredients and bake in a buttered dish in a moderate oven.

**Quaker Muffins.**—One cup rolled oats, 1 cup flour, 3 tablespoons sugar, 4 level teaspoons baking powder,  $\frac{1}{2}$  teaspoon salt, 1 cup milk, 1 egg, 1 tablespoon butter or fat. Scald the milk, pour it on the rolled oats and let stand half an hour before mixing. Mix and sift the dry ingredients, add the oats and milk, then the beaten egg, and, lastly, the melted butter. Pour in muffin rings, or deep patty-pans and bake half an hour in a moderately hot oven.

**Potato Puffs.**— Two cups left-over mashed potatoes, 1 beaten egg, seasoning of salt and pepper, a very little cream if the potatoes are very dry. Mix into balls, put a little melted butter over each or roll in cracker crumbs, then in egg and cracker crumbs again. Bake until brown.

**Banana Salad.**— Peel firm but quite ripe bananas, cut into strips and arrange on lettuce leaves. Moisten with lemon juice, cover with chopped nut meats, add a little salad dressing and serve at once.

**Prune Custard Pie.**— One cup stoned prunes, 3 tablespoons sugar, 1 tablespoon cornstarch, pinch soda, 2 eggs, 1 cup sour milk, pinch salt. Stir the sugar and salt into the beaten yolks. Add the milk to the cornstarch with which the soda has been well mixed. Add in the two mixtures together and stir in the prunes which have been finely chopped. Fill the pies with this and bake. Make a meringue of the whites to put over the top, flavored with lemon juice.

**Prune Whip.**—Boil the prunes until very soft in as little water as possible. Take out the stones and rub the pulp through a colander. To each cupful of the pulp allow the white of an egg (less egg will do). Fold in the whites carefully and bake until set. Serve with whipped cream or with a custard made with the yolks.

**Current Events**

Ven. Archdeacon H. J. Cody has been appointed Minister of Education for Ontario in succession to Dr. R. A. Pyne, who becomes Clerk of the County Court of York. Mr. George S. Henry, M.P.P. for East York, has been made Minister of Agriculture.

A number of London (Eng.) men who are too old to fight have offered themselves to be inoculated with trench fever so that the scientists may have a chance to trace the disease to its source.

The British armed steamer "Moldavia," carrying American troops, was torpedoed and sunk. Fifty-six of the soldiers lost their lives.

Premier Lloyd-George, speaking in Edinburgh last week, said that the Allies are now building ships faster than the enemy can sink them, and sinking submarines faster than the enemy can build them.

The Germans are said to be cutting away portions of the docks at Zeebrugge to give exit to the under-sea boats bottled in by the cement-filled vessels sunk by the British at the entrance to the harbor.

It is reported that ex-Czar Nicholas may be exiled to Switzerland on condition that he makes no attempt to regain the Russian throne.

France is now using the largest gun in the world. It is reported that it was this gun that has silenced the long-range guns that bombarded Paris.



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.

**WANTED**— **THOROUGHLY COMPETENT** man and wife, as working foreman and house-keeper, respectively, for large farm, having 150 acres clearance, located near river bank; good buildings, with running water; all necessary machinery for proper operation. Also a competent cattle-man to look after herd of milking Shorthorns on this farm. Apply, stating previous experience, qualifications, references and other necessary particulars, to Box B, Farmer's Advocate, London, Ontario.

The most economical system of life insurance is the **MUTUAL**.

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" Write Dept. 18 for Catalogue "T" THE SHERLOCK-MANNING PIANO CO. London (No street address necessary) Canada

**Great Lakes Steamship Service.** Canadian Pacific Steamship "Manitoba" now leaves Owen Sound 10.30 p.m. each Thursday for Sault Ste. Marie, Port Arthur and Fort William. Steamships "Keewatin" and "Assiniboia" will sail from Port McNicoll Wednesdays and Saturdays, commencing June 1st.—Advt.

**Summer Resorts in Ontario.** The Muskoka Lakes, Point au Baril and Georgian Bay Resorts; French and Pickerel Rivers; Rideau Lakes; Severn Rivers, Lake Mazinaw District and Kuartha Lakes are conveniently reached via the Canadian Pacific Railway. Particulars from Canadian Pacific Ticket Agents or W. B. Howard.—Advt.

**Resorts in the Canadian Pacific Rockies.** Banff, Lake Louise, Field and Glacier are in the heart of the Canadian Pacific Rockies, and on the main line of the Canadian Pacific Railway.—Advt.

**The Dollar Chain**

For our soldiers and all who are suffering because of the war.

|  |            |
|--|------------|
| Contributions from May 17 to May 24:     |            |
| A Subscriber, R. 2, Markdale, Ont., \$1; |            |
| "C," \$1.75.                             |            |
| Previously acknowledged.....             | \$5,517.50 |
| Total to May 24.....                     | \$5,520.25 |

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

CREAM

We buy cream every day in the year except Sundays and Xmas. We have been engaged in Creamery work twenty-five years and have established extensive business connections. Our trade is growing. We simply must have cream and are prepared to PAY THE PRICE and in addition guarantee a satisfactory service.

One of our regular shippers east of Toronto milked 12 Ayrshires last year and received from the TORONTO CREAMERY CO. LTD. \$1,922.00 for his cream. Another regular shipper west of Toronto milked 11 Holsteins, 6 of which were heifers freshened for the first time, and his receipts from The Toronto Creamery Co. Ltd. were \$1,505.54. In addition, he sold some milk locally and vealed some calves on whole milk for which he received \$235.00, making a total herd cash receipt of \$1,740.54. The skim milk is not included in either case. **Think it over!** Neither of these men are new shippers. They have shipped to us for years. If these figures interest you, write for particulars of our service. The Toronto Creamery Company, Ltd., Church Street, Toronto.

Hides—Wool

No shipment too small to receive our best attention.

Highest prices always paid.

Prompt returns made.

Ask for tags and list.

William Stone Sons Limited Woodstock, Ont.

The Fa



The Dutch to German de sailing of all D ports.

Serbia is saic

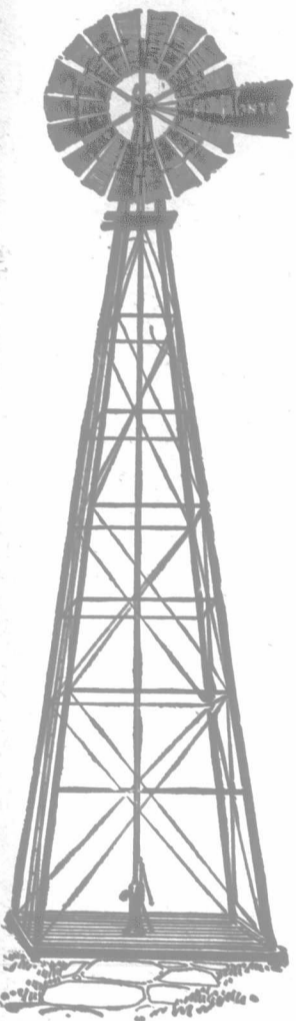
At the Co University, the of Laws was co England, and United States received their returned from graduates, also

Corp Brick returned soldie been awarded of the Ontar the gold medal ship, both for p

The past we tense aerial act May 21st, dur the London brought down after a fight people, by an the same day a enemy planes beaten off by airmen who wo one German pl American avia had a sharp in collision with c winged battle by the enemy. ing American California, was avenged next c succeeded in b plane, which c 2 men besides had brought de wore nearly al military had to (airplanes) are United States . On M execrable carele a British hosp France was bo hours, by Gerr dreds of pec

# The Solution to the Farm Labor Problem

The labor problem on the farm is serious, but not vital. Hired men are scarce, almost impossible to get, yet the work on the farm may still be carried out with speed, ease and economy by the employing of Toronto Labor-Saving Mechanical Assistants.



## TORONTO Pumping Windmills

Consider the time and energy spent in pumping and carrying water around the farm. It runs into hundreds of hours each year. Save this time, which is of more value now than ever before, by having a "TORONTO" Windmill do your work.

With a "TORONTO" you can have a continuous supply of fresh water in home, barns, stable or pasture at all times.

A "TORONTO" Windmill works without noise, rattle, or grinding. It requires little attention, save oiling occasionally. Write for particulars and special information.



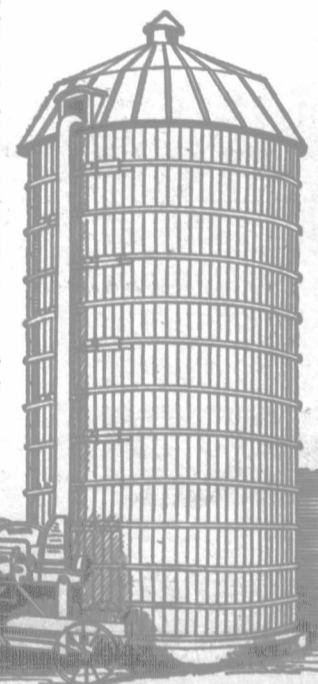
### Running Water on the Farm

Why should the convenience of running water be confined to city homes? Every farmer can have running water in his home at small cost. Toronto Water Systems are controlled by windmill or electric pump. Write for fuller details and information.

## TORONTO Hip Roof Silos

Toronto Hip Roof Silos have two great advantages. First, the Hip Roof allows a man four or five feet more to tramp, thus adding tons to the capacity of the Silo. Second, it is absolutely air-tight, being double-tongued and grooved throughout. The wood is thoroughly soaked with pine tar and creosote.

Booklets and special information free on request.



**Ontario Wind Engine & Pump Co., Limited**  
Atlantic Avenue, TORONTO  
MONTREAL WINNIPEG TORONTO

The Dutch Government, in obedience to German demands, has prohibited the sailing of all Dutch steamers from Dutch ports.

Serbia is said to be starving.

At the Convocation of Toronto University, the honorary degree of Doctor of Laws was conferred upon Lord Reading, England, and Hon. Elihu Root of the United States. Sixteen students who received their degrees were recently returned from the front, and about 80 graduates, also veterans, were present.

Corp Bricker of Listowel, Ont. a returned soldier now in the hospital has been awarded the two highest awards of the Ontario College of Pharmacy, the gold medal and John Roberts scholarship, both for general proficiency.

The past week has been marked by intense aerial activity in many places. On May 21st, during a German air-raid on the London area, the first "Gotha" brought down in that district was bagged, after a fight watched by thousands of people, by an English airman. On the same day a raid on Paris, in which 30 enemy planes took part, was successfully beaten off by a barrage and 54 French airmen who went up to do battle. Only one German plane reached the city. American aviators in France also have had a sharp initiation, having come into collision with one of the new giant steel-winged battle planes now being sent out by the enemy. In the combat the leading American "Ace," Major Lufberry, of California, was killed, but his death was avenged next day by French airmen who succeeded in bringing down the battle-plane, which carried 6 machine guns and 2 men besides the pilot. Major Lufberry had brought down 16 German planes, and wore nearly all the decorations the French military had to bestow. Liberty motors (airplanes) are now being made in the United States at the rate of 100 a week. On May 19th, either through execrable carelessness or deliberate malice, a British hospital behind the lines in France was bombarded by night, for 2 hours, by German airships, some hundreds of people, including patients,


**YOUR MONEY CAN EARN 5 1/2%**  
**WITH ABSOLUTE SAFETY**

\$100 invested at 5 1/2% doubles itself in less than 13 years.  
\$100 saved at 3% takes 23 1/2 years to do the same thing.

It would be foolish to invest your money at only 3% when you can secure 5 1/2% with equal safety and convenience. It would also be equally foolish to endanger your savings in order to secure a slightly higher rate of interest. But your money CAN earn 5 1/2%, without risk of loss, by investing it in

**STANDARD RELIANCE**  
**5 1/2% MORTGAGE CORPORATION DEBENTURES**

Thousands of people have invested their savings in these debentures without the loss of a dollar invested.  
The debentures are issued in sums of \$100 and upwards, and the interest is paid by your local bank in cash on the day it is due.  
Write for our booklet entitled "Profits from Savings." It explains what these Debentures are and why they are so good a security.  
Paid up Capital and Surplus Funds . . . \$3,362,378.63



**STANDARD RELIANCE**  
**MORTGAGE CORPORATION**  
Head Office 82 88 King St. E. Toronto

Branch Offices: **CHATHAM**  
**BROCKVILLE** **WOODSTOCK**  
**ELMIRA** **NEW HAMBURG**

nurses, religious sisters, orderlies and medical officers, being killed. At the hospital area is a well-known one, and was well marked by red cross flags, the attack, even though by night, finds little excuse, and is one more event to the disgrace of Germany in this war.

American soldiers, with machine guns and artillery, will soon be aiding the

Italians in their struggle against the Austrians.

The first "cruiser" submarine sent out by Germany has been sunk off Portugal by a British Atlantic escort submarine.

Just at time of going to press, on May 27th, the word has come that the great German drive has begun at two points,

between Locre and Voormezele (south west of Ypres) and against the French and British lines in the vicinity of Rheims. Before this reaches its readers great events may have taken place. The Allies are optimistic. Everywhere preparations have been rapidly in progress, and the hands of the Allies are being greatly strengthened by the rapid arrival of fresh men from the United States. "Americans are out here on the roads of France," writes Philip Gibbs, "thousands of them, and we feel safer because they are here." For four years the Allies have fought against unequal odds, especially in machinery; now the power is evening up. Even Russia is not proving herself utterly to the advantage of the Germans. "The masses in Russia," writes correspondent Arthur Ransome, are becoming more anti-German, while the privileged classes are looking more and more eagerly to Germany to save them from the masses and restore their property." But the privileged classes are greatly in the minority. In the Ukraine, which at first seemed utterly submissive to the Teutons, the peasants are rebellious against the high-handed measures adopted by their German overlords, and the Germans have been obliged to disarm the troops. As a sample of the German methods, even to this province which went over almost voluntarily, it is told that even the hens have been registered. For every hen the owner is obliged to produce 3 eggs weekly, or the dead body of the hen, to show that she is no longer capable of producing eggs. News travels, and Russia may yet come back. . . . On May 20th French troops advanced over 2 miles, capturing 400 prisoners, and on the same day British troops gained control of an important salient northwest of Merville. Canadians celebrated the 24th of May by making two successful raids, in which they took 14 prisoners and a machine gun, while simultaneously the Americans made a raid from the Picardy front west of Montdidier.

Forty-two paintings were recently sold in Berlin for \$760,000. It is said that the Kaiser ordered the sale of them to raise money for the war.

**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.

**ANNESSE'S INDIAN RUNNERS LAY MORE** eggs, eat less, and are more profitable than chickens. John Annesser, Tilbury, Ont.

**BABy CHICKS, WHITE LEGHORNS;** 100 strong chicks delivered safe \$15.00, 20 cents in smaller lots. A few yearling hens for sale to make room. Bradley Linscott, Brantford.

**BARRED ROCK EGGS, WE HAVE BRED** for large size and egg production and we think we have succeeded. John Annesser, Tilbury, Ont.

**BARRED ROCK EGGS FOR HATCHING** from wonderful producers, trapnested, \$1.50 per setting. B. Linscott, Brantford.

**BABy CHICKS FOR SALE—I AM A** specialist in baby chicks, and I have at all times thousands of chicks for sale. My chicks will fill the egg basket at a time when others fail, because they are bred along scientific lines of egg production. June prices: Single-comb White Leghorns, Wyckoff strain, 20 cents each; Barron strain, 23 cents each, \$22 per hundred; White Wyandottes, 28 cents each, \$25 per hundred; Barred Rocks and Rhode Island Reds, 25 cents each, \$23 per hundred. Fred. J. Hind, 364 Broadview Ave., Toronto.

**CANADIAN RINGLET BARRED ROCKS;** Bred-to-lay strain, 241-egg kind. Trapnested; heavy winter layers. Eggs, \$2.00 setting, guaranteed. F. Coldham, Box 12, Kingston, Ont.

**CLARK'S ORPINGTONS, BUFF, WHITE** and College Rocks. Eggs, \$1 and \$2 per 15. One good hen and 12 chicks, \$5; safe arrival guaranteed. Free mating list. Eighteen years a breeder. J. W. Clark, Cainsville, Ont.

**EGGS AND CHICKS FROM THE BEST** laying strains of white and brown Leghorns. Chicks, twelve dollars per hundred; eggs, five dollars per hundred. M. Shantz, Ayr, Ont.

**"FAIRVIEW" S.-C. BROWN LEGHORNS** Eggs \$1 per 15. Wm. Bunn, Denfield, Ont.

**FOR BALANCE OF SEASON—BRED-TO-LAY** Single-comb White Leghorn eggs, \$1.25 per 15, \$3.25 per 45, \$6.00 per 100; carefully packed, broken eggs replaced. Addison H. Baird, R.R. 1, New Hamburg, Ont.

**HATCHING EGGS—BABy CHICKS—**utility laying strains. Eggs, \$1.50 per setting. Barred Rocks, Rhode Island Reds, White Leghorns, White Wyandottes, Golden Wyandottes, White Rocks, Non-Bearded Golden Polish. Write for price list. Satisfaction guaranteed. Tay Poultry Farm, Perth, Ont.

**INDIAN RUNNER AND MUSCOVY DUCKS,** Barred Rocks, Rhode Island Reds, Black Spanish, Guinea, Campines, Hamburgs. Eggs only. John Annesser, Tilbury, Ont.

**LARGE PEKIN DUCKS—BALANCE OF SEASON.** Eggs, dollar fifty per fifteen. Wainwright and Woodcock, Seagrave, Ont.

**TURKEY EGGS—WE HAVE 50 HEALTHY** Bronze Turkey Hens, mated to strong, husky, young and old toms; eggs ready in season at \$4.50 per 10 eggs; few toms left. Send in your order; we have the eggs ready for you. Everything in pure-bred poultry—write us first. We want your surplus of eggs and baby chicks. Stamps highly appreciated. Yamaska Poultry Farms, St. Hyacinthe, Quebec.

**TWENTY-FIVE YEARS A BREEDER OF** Barred Rocks that are barred and bred right, and from first-class laying hens. Eggs \$2 for 15, \$3.50 for 30, \$5 for 50, \$9 per 100. Order direct from this advt. Satisfaction guaranteed. Walter Bennett, R.R. 1, Cottam, Ont.

**WANTED**

Live Fowl

Waller's, 704 Spadina Ave., Toronto

WRITE FOR PRICE LIST

**WANTED FEATHERS OF ALL KINDS**

Write for our new price list. Remittance made upon receipt of feathers. Let us know your quantities. The Canadian Carpet & Comfort Mfg. Co., Limited, 340 Dufferin Street, Toronto, Ont.

**Choice Eggs** for hatching, from free range flocks—S.-C. White Leghorns (Barron's 282-egg strain), Bred-to-lay S.-C. Brown Leghorns, (O. A. C. and Guild strains), Barred Rocks—\$2 per 15, \$10 per 100. Fawn I. R. Duck eggs, \$3 per 10; Mammoth Bronze Turkey eggs, \$5 per 9 (show stock). Also choice Yorkshire Hogs, all ages. T. A. KING, Milton, Ontario

**Rose-Comb Rhode Island Reds** and Barred Rock eggs for hatching, \$1.50 per 15. Rose-Comb Rhode Island Red cockerels \$3 each. Alex. McKinney, R. R. 1, Erin, Ont.

**STAMMERING AND STUTTERING PERMANENTLY REMOVED**

Our method marks a new advance. Write for folder. References given.

REV. CHAS. P. WELLS, B.A., B.D. 86 Elmwood Ave. (Phone 6109) London, Ont

**Markets**

Continued from page 941.

91c.; tough No. 1 feed and No. 2 feed, 88c.; Ontario No. 3 white oats, 89½c. per bushel, ex-store; Manitoba feed, or rejected barley, \$1.27 per bushel, ex-store. Car lots of No. 3 yellow corn, \$1.77, and No. 4 yellow, \$1.70 per bushel, ex-store.

Flour.—Barley flour was \$13.50; rye flour, \$16.50; corn flour, \$12, and grain flour, \$11.10 per barrel, in bags. Government standard Manitoba spring wheat flour, \$10.95 f.o.b. cars; \$11.05 delivered. Ontario winter wheat flour, \$11.40 to \$11.50, in new cotton bags.

Millfeed.—Sales of bran took place at \$35 per ton, and shorts at \$40, including bags.

Baled Hay.—No. 2 hay sold at \$17 per ton; No. 3, \$15.50, ex-track; clover mixture, \$8 to \$10.

Hides.—The market was steady, with cow hides 18c.; bulls, 16c.; steers, 22c. per lb., flat; 20c., 19c. and 18c. per lb., Montreal inspection. Calf skins, 45c. and 48c. per lb. Spring lambs, 75c. each; sheep skins, \$4.50 to \$4.75 each; horse hides, \$5 to \$6.50 each; tallow, 3¼c. per lb. for scrap fat; 8c. for abattoir fat; and 16c. to 16½c. for rendered.

**Chicago.**

Cattle.—Beeves, \$10.40 to \$17.50; stockers and feeders, \$9.25 to \$13.50; cows and heifers, \$7.25 to \$14.85; calves, \$8 to \$14.60.

Hogs.—Light, \$17 to \$17.50; mixed, \$16.85 to \$17.50; heavy, \$16 to \$17.30; rough, \$16 to \$16.50; pigs, \$15 to \$17.50.

Sheep.—Sheep, \$9.75 to \$14.85. Lambs, native, \$13.25 to \$17.

**Cheese Markets.**

St. Hyacinthe, Que., 22¼c.; Belleville, 22 7/16c.; Napanee, 22¼c., bid, no sales; Vankleek Hill, 22¼c.; Campbellford, 22¼c.; Montreal, finest easterns, 22¼c. to 23c.; New York, specials, 23c.; average run, 22c.; Watertown, N.Y., 21¼c.

**Gossip.**

**American Holstein-Friesian Herd Book.**

There has just come to the office a copy of Volume 37 of the Herd Book published by the Holstein-Friesian Association of America. This Volume is quite extensive, and besides containing the report of the thirty-second annual meeting of the Association, the constitution, by-laws, indexed matter and full list of names and addresses of breeders, shows a total number of entries of 40,040. The entries included in Volume 37 cover the period from March 1, 1917, to September 1, 1917. Bull registrations cover 14,060 entries and cow registrations 25,980. We are informed by Secretary F. L. Houghton, of Brattleboro, Vt., that the price of this Volume is \$2.75.

**Change in Prize List.**

A letter from Frank Hens, Secretary of the Dairymen's Association of Western Ontario, announces a change in the prize list of the Winter Dairy Exhibition to be held in January, 1919, by the Association, at the time of the annual convention. This change relates to the section which has formerly been provided for a 56-lb. box of October butter. It has been decided to substitute in place of this class and section, a class and section for one 14-lb. box of June butter. It is stipulated that the June butter for entry must be packed any time between the 15th and 29th of June, and immediately after packing, shipped by express to the Municipal Abattoir Cold Storage, Tecumseh Street, Toronto, where it will be held in cold storage, free of charge, until the time of the convention. Entry forms are being forwarded by the Secretary, and when filled out by applicants, the box, entry ticket, shipping tag, shipping instructions, post card, etc., will be forwarded immediately. Mr. Hens is confident that this feature will be of considerable educational value at the dairy convention and exhibition. It is also announced that the regular prize list will be mailed in September as usual.

**ACCO SPRAY**  
"The King of Bug Killers"  
Now is the time!  
**SURE DEATH to the Potato Bugs!**  
**Potato Bugs!**  
**Potato Bugs!**  
Acco Spray [is half the price of Paris Green  
Save food by saving the potato crops. Spray with Acco and do not let the potato bugs thrive on your potato plants.  
Sold by all Dealers.

Harold F. Ritchie & Co., Sole Agents, Toronto, Ont.

**WAR TIME PRICES**

Direct from Factory "CLAY" ADJUSTABLE GATE to Farmer Our  
Bull strong. Guaranteed. Send for descriptive price list.  
CANADIAN GATE CO., GUELPH, ONTARIO

**LIVE POULTRY**  
We are open to handle large quantities of live spring chickens or live poultry of any kind; highest market prices paid according to quality. Write us for quotations; Prompt returns.  
Henry Gatehouse & Son, 348 Dorchester St. W., Montreal

**Barron's English Leghorns**  
Large, vigorous, pedigreed birds, great winter layers, best blood lines in America. Hatching eggs, \$2.00 per 15. Bouncing, lusty chicks, for May, 20c. each, June, 15c. Modern incubation methods. Order from this ad. or send for mating list.  
GILLETT FARM AYLMER, ONTARIO



# CANADA'S GREATEST HOLSTEIN DISPERSAL



FAIRVIEW QUEEN KORNDYKE.—Butter, seven days, 26.12 lbs.; milk, 726.5 lbs. Sire, Pontiac Korndyke. Dam, Pontiac Queen Korndyke—Butter, 31.01 lbs.; milk, 552.3 lbs.

The entire herd of DR. A. A. FAREWELL,  
selling at the farm, near Oshawa, Ont., on

**Tuesday, June 11th, 1918**

FIFTY HIGH-CLASS FEMALES  
TEN YOUNG BULLS

The strongest herd of 4% Holsteins ever offered in the Dominion

## Four Thirty-pound Cows AND THEIR OFFSPRING

Pietje Pauline Hengerveld, 32.7 lbs. of butter, 552.3 lbs. of milk in 7 days.

Pieters Lelia De Kol, 31.43 lbs. of butter, 487.5 lbs. of milk in 7 days.

Pietertje Mechthilde Korndyke, 30.02 lbs. of butter, 595.5 lbs. of milk in 7 days.

Segis Mechthilde Korndyke, 29.76 lbs. of butter, 553.8 lbs. of milk in 7 days. (With second calf.)

Including a daughter of Prince Hengerveld Pietje, a daughter of King Pieter, a daughter and a granddaughter of the great Pontiac Korndyke.

## Five Thirty-pound Bulls

Of the ten bulls catalogued, including the two herd sires, five are from dams with records above 30 lbs. Three of these are youngsters, and all are sired by the senior sire, King Segis Walker, whose entire list of daughters average at two and a half years of age 400 lbs. of milk and 20 lbs. of butter in 7 days, with an average test of over 4%.

## Twenty-four Daughters of King Segis Walker

His daughters average 20 lbs. of butter and 400 lbs. of milk in 7 days at an average age of 2½ years.

There is no sire in Canada to-day, who, through the records of his daughters, holds a higher place among the breed's greatest producing sires than does this great senior sire, King Segis Walker. Although, as yet, he is comparatively a young sire, but, to-day, Holstein breeders who are at all conversant with the "breed's best" know that the high average attained by his daughters is equal to that of any other sire of this great dairy breed. In noting the splendid average production for his daughters, readers will bear in mind that the averages given above include every individual daughter who is as yet of milking age, and without one exception, all are listed with their sire for sale on June 11th. There is much 30-pound material here, and all are bred to the junior sire, Pontiac Sir Korndyke Wayne, who is also selling.

### BREEDING

Just sum up the pedigrees in the catalogue listing this offering, and then ask yourself what Canadian sale has ever equalled this one. Leave out the individual records of the 30-lb. cows, leave out the high averages of the daughters of King Segis Walker, and dwell for a moment only on the breeding of the older foundation cows, the popularity and value of which breeding is best shown by the prices paid for bulls of the self-same families.

|                                  |             |
|----------------------------------|-------------|
| King Segis Pontiac Alcartra..... | \$50,000.00 |
| King Ormsby Jane Rag Apple.....  | 53,200.00   |
| King Segis Pontiac Koningen..... | 35,000.00   |
| Rag Apple Korndyke 8th.....      | 25,000.00   |
| Johanna McKinley Segis.....      | 25,000.00   |
| King Segis Pontiac.....          | 25,000.00   |
| King Segis Pontiac Chicago.....  | 20,000.00   |
| King Champion Rag Apple.....     | 20,000.00   |

No one will question such breeding as this, and when combined with the records given throughout the catalogue, who is there but what will say that this great dispersal has every promise of being

A  
FOUR  
%  
HERD

### INDIVIDUALITY

In my small circular sent out some weeks ago, I was quite content to dwell almost wholly on the breeding of this offering, leaving the individuality of the animals in the herd to be studied by the prospective purchasers at his or her convenience, and as yet I feel there is no need for change. I believe you will find that they compare favorably, with not only their pedigrees, which are unexcelled, but also with those of the best that has ever passed through an American or Canadian sale ring, and to me this seems sufficient.



PIETERS LELIA DE KOL—Another 30-lb. matron. She is a daughter of King Pieter, with a 31.43-lb. 7-day butter record, and sells with her yearling heifer and her 1918 bull calf. Both are sired by King Segis Walker.

## Canada's Greatest Auction

Auctioneers: KELLY & HAEGER

Sales Manager: T. S. WOOD

C. P. R. G. T. R. C. N. R.

Conveyances will meet all trains.

FOR CATALOGUES, ADDRESS:

**DR. A. A. FAREWELL**

**OSHAWA, ONTARIO**

Mention the Advocate when writing. Watch the columns for further particulars.

# IMPERIAL BANK OF CANADA

Proceedings of the Forty-Third Annual Meeting of the Shareholders.

Held at the Banking House of the Institution, in Toronto, on Wednesday, 22nd May, 1918, at 12 Noon.

The Forty-third Annual General Meeting of the Imperial Bank of Canada was held in pursuance of the terms of the Charter at the Banking House of the Institution, 22nd May, 1918.

## The Report

The Directors have pleasure in submitting to the Shareholders the Forty-third Annual Report and Balance sheet of the affairs of the Bank, as on 30th April, 1918, accompanied by statement of Profit and Loss Account, showing the result of the operations for the fiscal year:

|   |                       |
|---|-----------------------|
| The balance at credit of Profit and Loss Account carried forward from last year was.....  | \$1,164,876.20        |
| The net profits for the year, after deducting the cost of management, paying of Auditors' fees, the interest due to depositors and after making provision for bad and doubtful debts and for rebate on bills under discount, amounted to..... | 1,185,066.71          |
| <b>Making a total at credit of Profit and Loss of.....</b>  | <b>\$2,349,942.91</b> |
| This amount has been applied as follows:  |                       |
| Dividends at the rate of 12 per cent. per annum.....  | \$ 840,000.00         |
| Annual Contribution to Officers' Pension and Guarantee Funds.....   | 7,500.00              |
| Contributions to Patriotic and other War Funds.....   | 27,500.00             |
| War Tax on Bank Note Circulation.....   | 70,000.00             |
| Contingent Appropriation to cover Depreciation in Bonds and Debentures.....   | 200,000.00            |
| Balance of Account carried forward.....   | 1,204,942.91          |

During the year a Branch of the Bank at Ferintosh, Alta., has been opened a sub-Branch to New Norway. The following Branches have been closed: In the Province of Ontario—Marshville, Port Robinson and Niagara Falls Upper Bridge Branch; in the Province of British Columbia—Arrowhead and Athalmer; in the Province of Saskatchewan—Pilot Butte.

The Head Office and Branches of the Bank, now numbering 126, were inspected during the year. The Auditors appointed by the Shareholders have also made their examinations as required by the Bank Act, and their report and certificate is attached to the Balance Sheet.

A further subscription of \$25,000 (being the fourth for a similar amount) has been made to the Canadian Patriotic Fund, the payment of which will be made during the course of the coming year.

It is with deep regret that your Directors have to report the loss of their co-Director, Honorable Richard Turner, of Quebec, whose death occurred on December 22nd, 1917. He occupied a seat on the Board since May, 1906. His place has been filled by the election of Mr. E. Hay.

The Directors testify with pleasure to the loyalty, zeal and faithfulness of the staff, which under the present conditions is laboring under a heavy strain. It is the intention to ask your authority to contribute substantial sums to the Pension Fund of the Staff.

All of which is respectfully submitted.

PELEG HOWLAND,  
President.

| LIABILITIES.   |                         |
|--|-------------------------|
| Notes of the Bank in circulation.....  | \$ 9,908,544.00         |
| Deposits not bearing interest.....   | \$19,916,368.98         |
| Deposits bearing interest, including interest accrued to date of statement.....            | 55,478,283.68           |
| <b>Balances due to other Banks in Canada.....</b>  | <b>\$ 270,932.81</b>    |
| <b>Due to Banks and Banking Correspondents in the United Kingdom.....</b>                  | <b>1,109.92</b>         |
| Deposits by and Balances due to Banks elsewhere than in Canada and the United Kingdom..... | 746,126.75              |
| Acceptances under Letters of Credit (as per contra).....                                   | 81,600.00               |
|  | 1,099,769.48            |
| <b>Total Liabilities to the public.....</b>  | <b>\$ 86,402,966.14</b> |

## Gossip.

### The Farewell Dispersal.

It has been some time now since Dr. Farewell, of Oshawa, Ont., first announced June 11th as the date for the dispersal of his noted herd of four-per-cent. Holsteins. For weeks past those who are interested in this popular dairy breed have been anxiously waiting for this announcement, giving particulars regarding a herd which has figured so prominently in the official reports for milk and butter production during the past few years. On another page in this issue may be seen a synopsis of the breeding contained in many of the animals which make up the foundation of the offering in question. It will be noted that the Doctor, in his advertisement, has been content to stick chiefly to a review of the record breeding of the animals in the herd, but from a recent visit to the farm the Advocate representative can vouch for the individuality of the entire offering throughout. The highly illustrated catalogue issued for the sale, which gives all pedigrees in detail, makes it quite unnecessary to go further into details of the breeding here, but those who receive the catalogue should note the splendid breeding extending throughout every pedigree, and may also rest assured that the individuality of ninety-six per

|  |                         |
|--|-------------------------|
| Brought forward.....   | \$ 86,402,966.14        |
| Capital Stock paid in.....   | 7,000,000.00            |
| Reserve Fund Account.....  | \$ 7,000,000.00         |
| Dividend No. 111 (payable 1st May, 1918) for three months, at the rate of 12% per annum..... | 210,000.00              |
| Balance of Profit and Loss Account carried forward.....                                      | 1,204,942.91            |
|  | 8,414,942.91            |
|  | <b>\$101,817,909.05</b> |

## ASSETS.

|  |                  |
|--|------------------|
| Current Coin held by the Bank.....   | \$ 2,580,284.78  |
| Dominion Government Notes.....   | 10,446,486.00    |
| Deposit in the Central Gold Reserves.....  | \$ 13,026,770.78 |
| Deposit with the Minister for the purposes of the Circulation Fund.....                                      | 3,500,000.00     |
| Notes of other Banks.....  | 375,126.86       |
| Cheques on other Banks.....  | 805,649.00       |
| Balance due by other Banks in Canada.....  | 3,175,845.24     |
| Due from Banks and Banking Correspondents in the United Kingdom.....   | 506,759.55       |
| Due from Banks and Banking Correspondents, elsewhere than in Canada and the United Kingdom.....              | 364,342.79       |
|  | 6,768,003.65     |
|  | \$ 28,522,497.87 |
| Dominion and Provincial Government Securities, not exceeding market value.....                               | \$ 5,361,758.99  |
| Canadian Municipal Securities, and British, foreign, and Colonial Public Securities other than Canadian..... | 13,781,872.46    |
| Railway and other Bonds, Debentures and Stocks, not exceeding market value.....                              | 799,441.82       |
| Loans to Provincial Governments.....   | \$ 500,000.00    |
| Loans to Cities, Towns, Municipalities and School Districts.....   | 5,684,013.31     |
| Call and Short Loans (not exceeding thirty days) in Canada on Bonds, Debentures and Stocks.....              | 2,470,097.07     |
|  | 8,654,110.38     |
|  | \$ 57,119,681.52 |
| Other Current Loans and Discounts in Canada (less rebate of interest).....                                   | 40,302,958.38    |
| Liabilities of Customers under Letters of Credit (as per contra).....  | 81,600.00        |
| Overdue Debts (estimated loss provided for).....   | 243,486.07       |
| Real Estate (other than Bank premises).....  | 456,092.00       |
| Mortgages on Real Estate sold by the Bank.....   | 513,963.58       |
| Bank Premises, at not more than cost, less amounts written off.....  | 3,064,996.03     |
| Other Assets, not included in the foregoing.....   | 35,131.47        |
|  | \$101,817,909.05 |

## AUDITORS' REPORT TO SHAREHOLDERS.

We have compared the above Balance Sheet with the books and accounts at the Chief Office of Imperial Bank of Canada and with the certified returns received from its Branches, and after checking the cash and verifying the securities at the Chief Office and certain of the principal Branches on 30th April, 1918, we certify that in our opinion such Balance Sheet exhibits a true and correct view of the Bank's affairs according to the best of our information, the explanations given to us and as shown by the books of the Bank.

In addition to the examinations mentioned, the cash and securities at the Chief Office and certain of the principal Branches were checked and verified by us during the year and found to be in accord with the books of the Bank.

All information and explanations required have been given to us and all transactions of the Bank which have come under our notice, have, in our opinion, been within the powers of the Bank.

G. T. CLARKSON, F.C.A.  
R. J. DILWORTH, F.C.A.  
of Clarkson, Gordon and Dilworth.

The number of shareholders in the Bank has been increased during the year from 1,879 to 1,921.

The customary motions were made and carried unanimously. Mr. G. T. Clarkson, F.C.A., Toronto, and Mr. R. J. Dilworth, F.C.A., Toronto, were appointed auditors of the Bank for the ensuing year.

The scrutineers appointed at the meeting reported the following Shareholders duly elected Directors for the ensuing year: Messrs. Peleg Howland, Elias Rogers, William Ramsay (of Bowland, Stow, Scotland), Cawthra Mulock, William Hamilton Merritt, M.D. (St. Catharines), Sir William Gage, Sir James Aikins, K.C., (Winnipeg), Hon. W. J. Hanna, M.P.P., John Northway, J. F. Michie, J. W. Woods, E. Hay.

At a subsequent meeting of the Directors, Mr. Peleg Howland was re-elected President, and Mr. Elias Rogers Vice-President for the ensuing year.

PELEG HOWLAND,  
Advt. President.

E. HAY,  
General Manager.

Since 1914 the price of Hogs, of Cattle, of Wheat has more than doubled. The price of

# MILTON BRICK

has advanced VERY LITTLE. NOW is the time to improve your farm by building an attractive, warm, substantial Milton Brick house.

MILTON PRESSED BRICK CO., LIMITED  
Head Office: Milton, Ont. Toronto Office: 50 Adelaide St., West

## Cabbage Plants

Of all leading early and late varieties, 45c. per hundred, mail prepaid; \$2.50 per thousand, express collect. Also cauliflower, brussels sprouts, celery, onion and tomato plants. Ask for price list.

HEROLD'S FARMS  
Dept. E., Fruitland, Ontario. Niagara District

## TRY A PACKAGE OF CRISP

# McCormick's JERSEY CREAM Sodas

Sold Fresh Everywhere

When writing advertisers will you kindly mention "The Farmer's Advocate."

cent. of all animals contained therein is quite on a par with their pedigrees, and quite equal to the best that has ever been offered in a Canadian sale-ring. They have type, breeding and production to commend them to all; and to make them all the more attractive, present indications would denote that every one will come into the sale-ring in excellent condition. In looking over the catalogue those who are more familiar with the breed will see much to hold their attention. King Segis Walker, the 31.24-lb. son of King Walker and senior sire which has 2 daughters and several sons selling, perhaps comes first. He holds a high place among Canada's greatest sires, and both he and his get are certain of being well received. Pontiac Korndyke Wayne, the junior sire, and to which most of the daughters of the older sire are bred, will also play a prominent part as will each of the several 30-lb. cows that sell with bull calves at foot. Breeders are asked to make their requests for catalogues early as just at present the demand promises to be greater than the number ordered. You are also requested to bring the one mailed, along with you to the sale. The sale will be under the management of T. S. Wood, with auctioneers Kelly and Haeger selling. Further particulars regarding this offering will be given in our next issue.

Not o  
in th  
field  
"last"  
const

No f  
puzzle y  
materials  
You  
gasoline  
your eng  
run. Yo  
running a  
things yo  
of Alph  
cannot d

If yo  
when yo

Write  
how

The  
LARG  
IN CA  
famous  
Feed :  
Butter

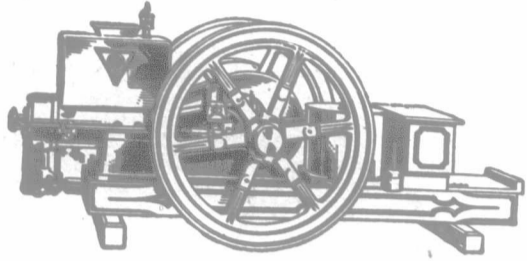
MONTRE  
50,000 B

## Democr

EDITOR "THE  
I sometim  
nearly four ye  
in the world's  
blood has be  
and the supre  
by so many o  
righteousnes  
force, we hav  
spirit of sac  
without whic  
civise victory  
gained financi  
moral strengt  
as have the n  
and dying for  
of France? I  
posted on the  
more about th  
enjoy, we wor  
even more th  
world's freedo  
greatest peri  
passing thro  
some years ag  
ancient block  
the heads of  
patriots. The  
land fight her  
or know what  
of responsible  
line of patriot  
to Gladstone  
many of us W  
"Our hearts g  
We lightly h  
A right whic  
The stake, th  
The axe, the  
Grim nurses  
It is fitting  
strongest dem  
together in a  
the brunt of  
autocracy. T  
France has do  
think of the  
of how brave  
are fighting, v  
"Who would r

# ALPHA

Not only "first" in the engine field but the "last" in engine construction.



**Nothing complicated about this engine**

No fragile electric batteries, no attachments that puzzle you. Every part is sturdy—built of the best materials—and will stand up under hard work.

You simply oil the Alpha, turn on the fuel—either gasoline or kerosene—give the flywheel a turn, and your engine has started chugging away on an all-day run. You can go away and leave it—pumping water, running a feed-cutter or doing any of the many other things you want it to do. Any one of the thousands of Alpha owners in Canada will tell you that you cannot do better than to use this engine.

If you want an engine that will always RUN when you need it, buy an ALPHA.

Write today for complete information as to how you can save time, labor and fuel with an Alpha Gas Engine.

**The De Laval Company, Ltd.**

LARGEST MANUFACTURERS OF DAIRY SUPPLIES IN CANADA. Sole manufacturers in Canada of the famous De Laval Cream Separators and Ideal Green Feed Silos. Alpha Gas Engines, Alpha Churns and Butter-Workers. Catalogues of any of our lines mailed upon request.

MONTREAL PETERBORO WINNIPEG VANCOUVER  
50,000 Branches and Local Agencies the World Over

**12 SIZES**  
1½ to 28 H. P.

Each size furnished in stationary, semi-portable or portable style, with hopper or tank-cooled cylinder.

## You can have a UNION JACK

sent to you, free of any charge, in return for sending in the name of a new subscriber to *The Farmer's Advocate & Home Magazine* with \$1.50 to pay his subscription for one year.

*The Farmer's Advocate* has always fought for the interests of the farmers.

Are you willing to back it up by getting your neighbor or a friend to subscribe regularly? If you are, use the coupon at the bottom, and as soon as we receive the new name we will send you a *Union Jack*, 47 ins. long by 33 ins. wide, as a recompense for your assistance. It is a flag that you will be glad to hang up outside your house on public holidays and patriotic occasions.

These flags are going quickly and when the supply is exhausted we shall be unable to get more, so don't delay.

THE FARMER'S ADVOCATE and HOME MAGAZINE, LONDON, ONT.

Gentlemen: Enclosed is money order for \$1.50, and the name of a new subscriber. Please send me flag you are advertising.

Coupon

NAME OF SENDER.....  
ADDRESS.....  
NAME OF NEW SUBSCRIBER.....  
ADDRESS.....

### Democracy Fighting For Her Life.

EDITOR "THE FARMER'S ADVOCATE":  
I sometimes wonder whether, after nearly four years of the greatest struggle in the world's history, a struggle in which blood has been poured out like water and the supreme sacrifice has been made by so many of our boys that justice and righteousness should triumph over brute force, we have shown very much of the spirit of sacrifice and generous giving, without which we may not expect a decisive victory over our foes. Some have gained financially, but have we gained in moral strength and nobility of character as have the men who have been fighting and dying for us on the shell-torn fields of France? If as a class we were better posted on the rise of democracy and knew more about the cost of the rights we now enjoy, we would perhaps be willing to do even more than we are doing for the world's freedom in this the hour of its greatest peril. When the writer was passing through the Tower of London some years ago, he placed his hands on the ancient block of wood from whence fell the heads of some of England's truest patriots. The men who say "Let England fight her own battles" do not realize or know what we owe to her as the mother of responsible government, or to the long line of patriots from Pym and Chatham to Gladstone and Lloyd-George. Of too many of us Whittier's words are true:

"Our hearts grow cold,  
We lightly hold  
A right which brave men died to gain;  
The stake, the cord,  
The axe, the sword,  
Grim nurses at its birth of pain."

It is fitting, indeed, that the three strongest democracies of earth are welded together in a common bond, and bearing the brunt of this titanic struggle against autocracy. Think for a moment of what France has done and is doing. When we think of the wrong she has suffered and of how bravely and heroically her sons are fighting, we would say with Begbie, "Who would not succor France?" True,

## A KITCHEN ENCYCLOPÆDIA THE PURITY FLOUR COOK BOOK

containing 180 pages of tried and tested information on food preparation reviewed and approved by the DOMESTIC SCIENCE DEPARTMENT of the McDONALD INSTITUTE

Mailed post paid for 20 cents  
Western Canada Flour Mills Co. Limited  
TORONTO.

### 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 particulars as to terms, regulations and settlers' rates, write to:

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

her great revolution was stained by excesses, but:

"Out of the whirlwind Truth that came on France,  
Rose the young Titaness, Democracy,  
Superb of gesture, with the God-like glance,  
Now still, now stirred with dreams of things to be.

"She drew men to her as a lighted tower,  
Strong mother of men, molded of iron race,  
Till all men's hearts were shaken by her power,  
The strange disturbing beauty of her face."

France, Britain and America have at one time or another had as their chief executives men who have risen from the ranks. The German system could never produce a Lincoln, Lloyd-George, or Gambetta. Our King himself is a democrat of the finest type, as witness some recent incidents in his life. His signing Lloyd-George's Bill curtailing the power of the House of Lords proved him to be a friend of the people. What German soldier would dare be as familiar to the War-Lord as was the wounded Canadian lying on the cot, who, stretching out his only hand to the King said: "I have often heard of you—put it there." And the King, like the good fellow that he was, "put it there."

The story of the rise of Democracy in our own land and that of our sister nations is a thrilling tale, and every man should be thankful that our Governments have "broadened down from precedent to precedent" till even women, long classed with idiots and Indians, have come to their own.

But with all we have gained, it must be clear to all right thinking citizens that there are still reforms needed, and battles to be fought and won not alone in Europe but in this our home-land, the land of our birth or the land of our adoption. Because of our system of holding elections and the lack of legislation whereby we could make known our will to the nominees of the two political leaders who are supposed to represent us, we have too often yet the form of representative government without the substance. Why, for instance, should we tolerate a Senate which is to-day, and

# Cream Wanted

For good service and better prices, ship your cream to us. We guarantee the test, and pay 50 cents a pound butterfat. We remit daily and pay express charges.

**The Mutual Dairy & Creamery Co.**

743-745 King St. W., Toronto

# Cedar Posts

For Sale

4-inch, eight feet long, f.o.b., Moffat, Ontario, (near Guelph) C. P. R. \$20 per hundred, sold only in car-load lots.

**THOMAS FOLEY  
PUSLINCH, ONTARIO**

# FEEDS

Linseed Oil Cake Meal, Corn Oil Cake Meal, Gluten Feed Meal, Bran, Shorts, Feeding Corn Meal.

Also a full line of the reliable Good Luck Brands of Poultry Feeds.

Write or 'phone for prices.

**CRAMPSEY & KELLY**  
Dovercourt Road, Toronto, Ontario

# 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.**

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.

**Kennelworth Farm ABERDEEN-ANGUS**

Young bulls of serviceable age, got by Victor of Glencairn Imp.

**PETER A. THOMSON, HILLSBURG, ONT.**

**ABERDEEN-ANGUS**

Alonso Matthews, Manager, Forest, Ontario  
H. Fraleigh, Proprietor, Meadowdale Farm, Forest, Ont.

**Tweedhill Aberdeen-Angus**

Bulls of serviceable age; cows in calf and with calf at foot; heifers. Write for prices.

**James Sharp, R.R. 1, Terra Cotta, Ontario**  
Cheltenham, C.P.R. and G.T.R. L.-D. Phone, Erin

**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, Ontario**

**Newcastle Herd of Shorthorns and Tamworths**  
For Sale:—2 boars, 8 and 12 months old, several boars and sows, 2 to 6 months old. Young sows, bred, and 2 show sows, 2 years old, safe in farrow. All descendants of Colwill's Choice, champions at Toronto Industrial, 3 years in succession, and Imp. Cholderton Golden Secret. Long-distance Phone, A. A. Colwill, Prop., R.R.No.2, Newcastle, Ont.

has so often been, a mere echo of the voice of the Commons. We are urged to avoid waste and to economize in these strenuous days; yet here, in this rich men's club and politicians' rest, is a waste of public money that runs into thousands yearly. We have got along very well in Ontario without a Senate. Why do we need it for the whole Dominion? It exists as a reward for party service and nothing else. A truly democratic government is one in which all classes have a fair and just representation. This is not the case to-day in Canada, and as a result we have class rule with all the evils that follow in its train. The farmers, for instance, are not represented by those of their own calling as they should be, and for that we ourselves are largely to blame. True, men of other professions sometimes represent us faithfully and well, but it is all uncalled for, this getting outsiders to represent us. We have in every constituency men capable and qualified for the work. Let us not be so narrow, however, as to work for our own interests alone, especially in times like these when here in Canada, as well as in the world arena, Democracy is fighting for her life. Let our motto be, "Each for all and all for each." If we are not mindful of our liberties, the evils that have cursed Germany will fasten upon us here. We must forego selfish interests and be alert and vigilant, if "government of the people, by the people and for the people" is to be not a farce but a reality.

MORLEY L. SWART.  
Middlesex Co., Ont.

## Gossip.

F. Martindale & Son, of Caledonia, are offering two dual-purpose Shorthorn bulls for sale. One is a roan, eleven months old, sired by Farnew King, and belongs to the Pansy family which has produced many heavy milkers. This calf is a large, thick, smooth individual. The other calf is red in color and is sired by Maple Hill Choice, and is of excellent type and quality. Messrs. Martindale are pricing these right for quick sale. The dams of these calves have proven their worth at the pail but at the same time have retained the conformation and beefing qualities for which Shorthorns are noted.

## Highland Lake Holsteins.

A recent visit to Highland Lake Farm, Jefferson, Ont., has inspired the following comments regarding R. W. E. Burnaby and his very extensive Holstein breeding operations. Mr. Burnaby is one of the most extensive farmers in the Province, having under cultivation and pasturage over 900 acres of York County land. On this large acreage he maintains at the present time a herd of 120 head of high-testing, pure-bred Holstein cattle, and, in addition to looking after his large farm and first-class herd, carries on the arduous duties which fall to him as President of the United Farmers' Co-Operative Company of Ontario. Mr. Burnaby's herd is not more than four years old, but he has, nevertheless, five cows of thirty pounds or over, besides almost a score of others ranging from twenty-five to twenty-eight pounds. Among the younger things in the herd are seven daughters of 30-lb. cows, some of which are of breeding age and these, together with all the mature cows, are being bred to the present herd sire, Avondale Pontiac Echo, a son of the world's champion milk producer, May Echo Sylvia. Among the younger bulls in the herd, only two are of breeding age, one of which is an eleven-months youngster from Nannet Topsy Clothilde, the first 30-lb. cow in Canada, so that the average for both dam and sire of this young bull is over 35 lbs. of butter for seven days. The two nearest dams of the other young bull averaged 34.17 lbs. in seven days. Eleven other bulls by Avondale Pontiac Echo are all younger, and quite a number are from daughters of a 33-lb. son of the great King Segis.

Among recent sales Mr. Burnaby reports a six-months son of Avondale Pontiac Echo, from a 25-lb. junior two-year-old, to Sherrick Bros., of Bethesda. Another eleven-months son of the same sire, from an 18,050-lb. daughter of King Walker, to R. W. Walker & Sons, of Port Perry. Still another son of the herd sire, from a 112-lb.-a-day cow, went to P. S. Short, of Downsview, while his full brother went to Smith Bros., of Gormley.



## How You Can Get More Money For Your WOOL

When I discovered many years ago the great difference between the amount of money the Farmer usually received from the peddler or small dealer for his wool, and the price at which the peddler or dealer sold the wool to us; I was amazed.



John Hallam, President John Hallam, Ltd., the man who will deal direct with you.

Of course nearly all the wool eventually comes to ourselves and a few large dealers—but the greater number of hands thro' which it has to travel the smaller the price the farmer receives as each one has to have a profit.

Consequently it seemed to me good business to deal directly with the farmer and pay him the much higher prices which we used to pay to the peddlers and middlemen—thus eliminating the peddler and middleman to a great degree.

By shipping direct to us the Farmer secures a very much higher price for his wool which in a good many cases means a profit instead of a loss to him.

The satisfaction expressed by the many Farmers who shipped their wool direct to us for many years is so great that I am encouraged to continue the same policy to a greater extent this year.

For over 30 years I have been buying wool and know the market from A to Z.

Before selling your wool this season don't fail to write me first for prices, stating the number and breed of sheep you have.

The Farmers who ship to me receive their cash in full by return mail—at highest Toronto prices—with no deductions except transportation costs.

I have published a book on "Sheep-raising" and preparing wool for market—that is very useful to all sheepmen. Send me your name and address and I shall be glad to send you a copy free. Write for it to-day sure—address me personally, using Desk number as follows—

Desk 92  
**John Hallam Limited** Hallam Building, TORONTO

WOOL FURS HIDES "The largest in our line in Canada"



### SUNNYSIDE HEREFORDS

We are offering special values in heifers, and bulls with size, quality and breeding; will promise not to disappoint you if you want good cattle.

Arthur F. O'Neill & Sons, R. No. 2, Denfield, Ont.

### STAMMERING

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

**THE ARNOTT INSTITUTE**  
KITCHENER, CANADA

**IMPORTED AND CANADIAN BRED CLYDESDALES**  
Columbus Stables. We have on hand at present one of the strongest selections of imported and Canadian bred stallions we have had in the stables in years. A strong combination of size, quality and breeding. We also have 15 in-foal mares, all to the service of horses we are offering.  
**SMITH AND RICHARDSON, Myrtle, C.P.R., Oshawa, C.N.R., Oshawa, G.T.R., Columbus, Ont.**

**Clydesdales and Shorthorns**  
I still have some Shorthorn bulls—two and thirteen months old. Two grandsons of Old Sort, and dam gave 13,500 at the head.

**BROOKDALE FARM HEREFORDS**

Having purchased the old-established herd of Mr. Thos. Skippon, I can offer some good values in females, cows with calves by side and bred again. A few good open heifers left.

**W. READHEAD MILTON, ONT**

Here at Present—TEN IMPORTED BULLS

Sired by Beau Gaston, grandson of old Beau Brummel. These are all herd headers and good enough to head any herd. Write or phone.

**SHORTHORN BULLS** Will. A. Dryden  
of my own breeding, around a year old; best families and good colors, are for sale. Also a few young, imported bulls.

**FLETCHER'S SHORTHORNS**  
Our herd of Scotch Shorthorns represents Orange Blossoms, Kiblean Beauties, Matchless, Mysies, Missies, Clementinas, etc., and is headed by the Watt-Stamford bull, Victor Stamford—95950—, a Toronto winner. Present offering—two young (show animals); also several heifers and cows.

**GEO. D. FLETCHER, ERIN, R. R. 1, ONT.** - - Erin Station, C. P. R., L.-D. Phone

**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**

**HIGH-CLASS SHORTHORN BULLS**

We have a number of choice young bulls on hand, ready for service. Some are straight Scotch and others are bred for milk production. Also offering the four-year-old Duchess-bred bull, Duchess Hur  
**GEO. MORDEN & SON, OAKVILLE, ONT.**

**PINE TREE BRAND**



**Pine Tree Brand**  
**TIMOTHY**  
**SEED**

GRADE NO. 2  
PURITY NO. 1 AND EXTRA NO. 1

If your dealer cannot supply you, write  
**The Albert Dickinson Co.**  
SEED MERCHANTS  
CHICAGO, U.S.A. Established 1855

**DOES BETTER WORK**  
**COSTS YOU LESS**

MADE of the finest grades of iron and tool steel in the largest separator factory in the world. Costs you less, gives more.

**VIKING**  
**CREAM**  
**SEPARATOR**

Easy running, has greater capacity, close skimming, easy to clean, strong and durable. Write us now for the Free Viking Separator Book and learn why the Viking is used all over the world.

Swedish Separator Company  
Dept. 9  
515 E. Wabash St., Chicago, Ill., U.S.A.  
WAREHOUSES  
Calgary, Alberta  
Winnipeg, Manitoba  
Regina, Saskatchewan



**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, Ontario

**Evergreen Hill R.O.P. Shorthorns**

Herd headed by the R.O.P. bull, St. Clare. Nothing for sale at present.  
S. W. Jackson, R.R. No. 4, Woodstock, Ont.

**Bulls** all sold. One extra good roan bull calf by an R.O.P. dam with an average test of 4.5; he would work by July. Also a few females bred to the herd sire, Royal Choice 79864. Leicester rams and Yorkshire sows. C.P.R., G.T.R. **ALLAN B. MANN**, "The Hawthornes," Peterboro, R.R. 4.

**Plaster Hill Herd Dual-Purpose Shorthorns.** Six young bulls from four to thirteen months. Size, quality and good milking strains.  
**F. Martindale & Son, R.R. 3, Caledonia, Ont.**

**Spruce Lodge Shorthorns and Leicesters**  
Herd headed by the Butterfly-bred bull, Roan Chief Imp. = 60865 =. Young bulls, cows, and heifers of all ages, of good breeding and quality.  
**W. A. DOUGLAS, CALEDONIA, ONTARIO**

**GLENFOYLE SHORTHORNS**  
College Duke 4th in service—a high record son of Rothschild and Taylor's noted stock. Am offering young cows and heifers, bred to this great bull. Have a few bulls of breeding age on hand.  
**Stewart M. Graham, Lindsay, Ontario**

Please Mention Farmer's Advocate

**A Good Water Filter.**

EDITOR "THE FARMER'S ADVOCATE":

When water is to be filtered, the chief problem is how to construct the most efficient filter. A properly constructed sand filter will remove practically all of the disease-producing bacteria. In order to construct an efficient filter, it is necessary to understand something of the theory on which it operates. Since bacteria are so small, that several billions could be placed in one cubic inch, it is ridiculous to suppose that they are held mechanically in the pores of the sand, or any other material that will allow the flow of water.

The explanation of the removal of the bacteria by a filter lies in the fact that there are certain classes of harmless bacteria, which destroy the harmful ones that produce disease.

These helpful water bacteria propagate rapidly in the filter, especially in the upper layers, collecting in the form of a slimy deposit on the surface. The dangerous bacteria are attacked as they enter this part of the filter, and are rapidly destroyed. The function of the lower layers of the filter is chiefly to remove these slimy, surface bacteria from the water, and so make it more palatable.

Particles of soil and other suspended matter may be removed in the upper layers of the filter, but it is better to let the greater part of such material settle out in a separate basin, because it soon clogs the filter. The vegetable matter, which causes bad tastes and odors, is usually fairly well-removed in a sand filter through oxidation.

**Sand Important in Filtering.**

In the construction of a filter the sand is the most important element, since it regulates the rate of flow. The rate of flow-determines the thoroughness of the bacterial action, and this fixes the efficiency of the filter. The rate of filtration increases with an increase in the size of the sand, and vice versa. It has been found that a sand of which about ten per cent. is three-tenths to four-tenths of a millimeter, or one-sixtieth to one-ninetieth of an inch in size gives the best results. The sand should be very clean and free from any large or very small particles, although it is not absolutely necessary that it be uniform in size.

Another important feature is the depth or distance through which the water filters. Of course, the depth also influences the rate of filtration, and a small depth does not hold the water long enough for efficient bacterial action. The depth of the sand should be, at least, three feet, and preferably four or five feet. There is no danger of having too much sand, except as it lowers the rate of filtration, and, therefore, filters are sometimes made so that water will run through them horizontally for a distance of ten or twelve feet.

The remaining factor affecting the flow is the head, or the depth of water above the sand. As the head increases the rate of flow increases, although not proportionally. The large filter plants for city water supplies usually operate under heads of from four to six feet, but a small plant would operate as efficiently under much less head. For a filter of three feet depth two feet of head should be ample and less might be used, if only a slow rate of filtration is desirable. It is a good rule to make the head at least as great as the depth of sand. If this is impracticable, a smaller head may be used, but the rate of filtration will be greatly lowered.

**Area of Filter Bed.**

The size of the filter, aside from the depth, depends upon the amount of water to be filtered. For a given quantity of water passing through a filter with a given size of sand, with a fixed depth operating under a certain head, the amount of area for the bed is easily determined. Under high heads, as much as eight million gallons per acre of sand is filtered per day, but if under heads of from four to six feet, ordinarily used, three million gallons per acre per day is considered a safe rate. This latter is equivalent to about 65 gallons per day equivalent foot of area. Knowing the amount of water required to be filtered per day the area of filter required is easily determined by dividing the quantity to be filtered by the quantity filtered by one square foot, and knowing the area required the length and breadth can be arranged. For smaller heads than those

**"Empire" Barn Plans**

**FREE** Barns - Implement Sheds - Store Houses etc. **FREE** No Obligation Our Service is free

**We Will Help Build Your Barn**

—help in a real and practical way— help you to build a modern Barn, a roomy Barn, and an economical, fire-proof Barn. And our help is free. We cannot tell you all about it here. Drop us a card asking for our

**Barn Plan Service Folder**

and you will get it—free—by next mail. It explains our system—shows how we can save you time, money, and worry in building a new Barn, also

**Implement or Drive-Sheds, Stables, etc.**

Send for our Folder today. It is crammed full of interest to any farmer who has buildings to put up—it is absolutely free,—it explains fully the most complete service ever offered free to Canadian Farmers. Ask for extra copies for your friends if you wish them.

**The Metallic Roofing Co. Limited**  
TORONTO and WINNIPEG

182 *Manufacturers of the famous Eastlake Shingles, Empire Corrugated Iron, Ventilators, Roof-Lights, Hog Troughs, Stock Tanks, etc., etc.*

**BLAIRGOWRIE SHORTHORNS**

I have females all ages and bulls of serviceable age. Worth while to come and see or write  
**JOHN MILLER** Myrtle Station, C.P.R., G.T.R. **ASHBURN, ONTARIO**

**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, Ontario**

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 for a low price, considering the quality, and the freight will be paid.  
Write for anything in Shorthorns. One hour from Toronto

**SEVENTY-THREE HEAD OF SHORTHORNS**  
Four good young bulls of serviceable age; Nonpareil Ramsden = 101081 = and Royal Red Blood = 77521 =, at the head of the herd. These young bulls range in age from 8 to 15 months, and are for immediate sale. They are out of good dams, which will bear inspection. Our cows and heifers will please, and you'll like the bulls. Also three extra-good grade heifers, from heavy milk-producing dams.  
**James McPherson & Sons, Dundalk, Ontario**

**SPRING VALLEY SHORTHORNS**

Herd of seventy head, straight Scotch, good individuals. Headed by the great show and breeding bull, Sea Gem's Pride 96365, and Nonpareil Ramsden 83422. We have for sale four as good young bulls as we ever had, and a few females.  
**KYLE BROS., Drumbo, Ont. (Phone and telegraph via Ayr.)**

**FAIRVIEW SHORTHORNS AND CLYDESDALES**  
In Shorthorns we can offer you a choice from 60 head, including both bulls and females, of Lavender, Missie, Augusta Duchess of Gloster, Village Girl, Miss Ramsden and Clara breeding—the best of cattle and the best of pedigrees. In Clydesdales, write for our list of winners at Toronto, London and Guelph 1917 shows, Canadian-bred classes. We also have a nice offering in Shropshires.  
**ROBERT DUFF & SONS** Myrtle Station, C. P. R. and G. T. R. **MYRTLE, ONT.**

**SHORTHORNS**—T. L. MERCER, Markdale, Ontario — **ROSEWOOD CHAMPION**, by Nonpareil Archer, Imp., at the head of the herd. I have almost 100 Shorthorns in my stables at present. Marr Missies, Campbell-bred Clarets, Nonpareils, Minas, Rosemarys, etc.—the best of breeding and the best of cattle; bulls or females; also have a few Herefords.

**Dual-Purpose Shorthorns**—**CROWN JEWEL** still heads the herd. Present offering is 5 bulls, from 13 to 18 months. Prices from \$200 to \$250. Also some good breeding females, either bred or with calf at foot. All registered and priced to sell.  
**JNO. ELDER, Hensall, Ontario**

**MAPLE HALL SHORTHORNS**

Present offering, 7 yearling bulls:  
One Cruickshank Duchess of Gloster Five Cruickshank Butterflies One Shepherd Rosemary  
All pure Scotch, and extra good; also a few young cows with calves, and yearling heifers.  
**D. BIRRELL & SON, CLAREMONT, ONT.**

**PLEASANT VALLEY FARMS**

Present offering—A number of good young Scotch cows with calves at foot and rebred to (Imp.) Newton Grand Champion; also a number of 2-year-old heifers bred to same sire. Suitable for good herd foundations; priced to move them. Inspection invited.  
**GEO. AMOS & SONS, Farm 11 miles east of Guelph, C.P.R. MOFFAT 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.**

**ESCANA FARM SHORTHORNS**

Five Bulls for Sale. One roan senior yearling; one choice twelve months white calf, by Right Sort (Imp.); one select, dark roan, ten months calf; one roan yearling, by Raphael (Imp.); one red roan yearling, for grade herd. Farm ¼ mile from Burlington Jct., G.T.R.  
**J. F. MITCHELL, Limited BURLINGTON, ONTARIO**

**FIFTY IMPORTED SHORTHORNS**

I have fifty head of newly imported Shorthorns (42 females, 8 bulls) which are acknowledged to be one of the strongest lots that have left Britain this season. You should see these if you are wanting some thing choice.  
**GEORGE ISAAC, (All Railroads: Bell Phone) COBOURG, ONTARIO**

**PALMER-McLELLAN FARM BOOTS**



[Mailed to You Post Paid]

Light in weight—wear like iron. More comfortable than those who don't wear them can imagine. Made in the general shape of a moccasin, they afford ease of movement that is delightful. Built on right and left lasts, with counters and soles they fit the foot, hold their shape, and give the greatest measure of neatness and support. All leather used is from selected hides tanned by the famous Palmer-McLellan Chrome-Oil Process which makes it soft and very durable and prevents it from shrivelling, hardening or cracking. The sole and heel are nailed on by a method which prevents ripping or parting with the uppers. Will outwear and give greater comfort than any other farm boot on the market. Men's 8-inch high, \$4.75. 9-inch high, \$5.25. Boy's 6-inch high, \$3.75. 8-inch high, \$4.00. Women's 8-inch high, \$4.25. 9-inch high, \$4.50. Fitted with top soles, men's 70c. extra, boy's 60c. extra, women's, 60c. extra. State size and height desired. Address your order to Dept. 2. PALMER McLELLAN SHOEPACK CO. Limited, Fredericton, N.B.

**WOOL**

Farmers who ship their wool direct to us get better prices than farmers who sell to the general store. ASK ANY FARMER! who has sold his wool both ways, and note what he says—or, better still, write us for our prices; they will show you how much you lose by selling to the General Store. We pay the highest prices of any firm in the country and are the largest wool dealers in Canada. Payment is remitted the same day wool is received. Ship us your wool to-day—you will be more than pleased if you do, and are assured of a square deal from us. 2

H. V. ANDREWS  
13 CHURCH ST., TORONTO

**Flintstone Farm**

Breeders of—  
Milking Shorthorn Cattle  
Belgian Draft Horses  
Berkshire Swine  
OTHER RECORDS  
Employees of Flintstone Farm have subscribed for \$5,200 worth of Liberty Bonds, besides contributing to the Red Cross, Red Triangle and other war funds. Eight of our men are in the service. Two of them are already in France. Those still with us are carrying on the extra load placed on them willingly and cheerfully.

Dalton  
Massachusetts

**BULLS**

am offering, for immediate sale, three good bulls. One roan, imported, 13 months, and two others, extra well bred. Anyone wanting a bull of the better sort should see these.

A. G. FARROW, OAKVILLE  
(Half Way Between Toronto and Hamilton)

**Shorthorns for Sale**

Right Sort Son =96282= (guaranteed) \$500. A choice lot of young heifers and bulls. Special price for next 30 days. Sound Shire mare, registered, 4 years old. Radial every hour from Hamilton.

C. N. Blanshard, R. 2, Freeman, Ont.

mentioned, the rate of filtration is lowered and the area must be increased.

Aside from these general principles of construction, there are many details. Cleats should be provided on the sides of a small filter to prevent the water from working around the sand. At the bottom of the filter some means of collecting the purified water must be provided. The best and simplest way of accomplishing this is by a layer of gravel at the bottom of the tank. Coarse gravel or broken stone should be placed at the bottom of the tank with finer gravel between it and the sand. Six inches is usually thick enough for such a collecting layer. In a large filter, tile drains are necessary to convey the water to the outlet, but in a small filter it is sufficient to slope the floor to the side where the outlet is located.

**Keep Filter Full of Water.**

As has been explained before, in order for a filter to operate efficiently, it is necessary that the slimy bacterial growth in the upper layers be maintained. To do this effectively, requires that the filter be kept full of flowing water, as air interferes with these water bacteria. For this purpose the outlet provided should be small enough to make the flow steady and keep it steady. If a large outlet is used the water, travelling faster through the lower layers than through the upper layers, will take in air, which greatly hinders the action of the filter. If the filter is operated continuously, some automatic device must be provided at the intake to regulate the head by means of a float. There are several such devices on the market, and they usually consist of a float attached to a valve by a lever.

When the filter is first put in operation, the water is not purified efficiently until after the gelatinous mass forms on top of the filter. Because of this fact, the water should not be used for the first week, if better water is obtainable. After a filter has been in operation for some time this mass becomes so thick as to greatly retard the flow. This condition can be greatly remedied by removing about a quarter of an inch of sand from the top, or by allowing the air to circulate through the sand. If the former method is used, the operation of the filter can be immediately resumed. But if the latter is used, it is best not to use the water for several days.—H. A. Sewell.

**Rural Leadership Conference.**

A summer school for rural leadership will be held at the Ontario Agricultural College from Monday, July 22, to Saturday, August 3. An effort has been made to have a particularly strong program. Prof. E. R. Groves, Professor of Rural Sociology, of New Hampshire State College, will deliver a course of ten lectures on Rural Sociology, and another course will be on a program of community work. There will be a course of five lectures by L. L. Driver, of Indiana, a promoter of consolidation of rural schools in the United States. There will also be a series of seminars on various country problems, including social hygiene, rural community life movement, the church, and war problems. The program for the afternoons will include a study of types and breeds of live stock, judging standing field crops, soil chemistry, bacteriology and bee keeping.

The 1918 National Dairy Show is to be held at Columbus, Ohio, from October 10 to 19. An effort is being made to have this year's show excel all previous ones. As in the past, it is expected that representatives from the best dairy herds in the country will be present and enter in competition for the honors. Manufacturers of dairy supplies will be present with their wares. There will also be many features of a special, educative nature put on by the various State Colleges and Experimental Stations. In the past Canadian breeders have not been very well represented; neither as exhibitors nor visitors. The show is held at a time of year when there is a good deal of work on the Canadian farm. However, we believe that a few days at the National Dairy Show would be time well spent.

Fifteen cents a pound has been fixed as the price of Government fish under the "cash-and-carry" system.

**"Harnessing the Air" to Save Butterfat**

The air is a great wizard. Properly employed, (as in a Sharples Suction-feed Separator) it will save North America more than eighty million pounds of butter which fixed-feed separators waste because 95% of them are turned below speed much of the time.

The Sharples Suction-feed principle really harnesses the air and makes it work for you. By means of the suction-feed, just enough milk enters the tubular bowl as can be perfectly separated. As your speed varies so does the suction-feed. Thus, Sharples saves the cream waste that results when fixed-feed separators are turned under speed.

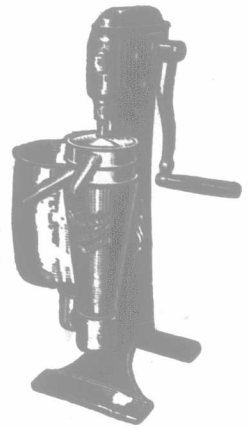
**SHARPLES SUCTION-FEED CREAM SEPARATOR**

**Skims Clean at Any Speed**

While air is free to everybody, yet the suction-feed principle is exclusive with Sharples and fully protected. Bear that in mind when you investigate a separator and insist on knowing if it will skim clean at any speed. Get proof.

There are no discs in a Sharples tubular bowl which adds further to its superiority. The one-piece bowl is easy to clean, easy to turn—even for a boy. Write nearest office for catalog, addressing Dept. 78

The Sharples Separator Co.  
Toronto, Ont. Regina, Sask.



**WELDWOOD SHORTHORNS**

We have a choice offering of bulls ranging in age from 7 months to 1 year. They are bred for milk and have excellent quality and individuality. They are sired by Dominator, 10624, whose grandam on his sire's side has an R. O. P. record of 13,535 lbs. of milk, testing 3.99, and whose dam has an R. O. P. record of 10,609 lbs. milk, testing 3.88. Their dams have records ranging from 8,000 to 11,000 lbs. milk in one lactation.

Weldwood Farm, Farmer's Advocate, London, Ontario

**THE MANOR STOCK FARM---SHORTHORNS**

Bulls all sold. Have Wimples, Rosemarys, Minas, Roan Ladys, etc., for inspection. JOHN T. GIBSON DENFIELD, ONTARIO.

**BURNFOOT STOCK FARM**

Breeders of high record, dual-purpose Shorthorns with splendid conformation for beef. Have a number of bulls calved last fall and early in winter. S. A. MOORE, PROP. (Farm one mile north of Caledonia) CALEDONIA, ONTARIO

**WELLAND DISTRICT SHORTHORN BREEDERS' CLUB**

New sales list out: cows, heifers bred, young bulls, also stock bull Morriston Pride =102330=. Chas. Gainer, Secretary, Box 607, Welland, Ontario. A. E. Howell, President, Fenwick, Ont.

**Sprucedale Dual-Purpose Shorthorns**

I am offering my herd sire, Braebar Prince; dam, Bessie of Low Banks 2nd, 11,636 lbs. of milk in R.O.P. Good individual, sure and right. Also a few calves by him as well as some nice young litters in Berkshire. Frank Teasdale, (Concord G.T.R. Station 100 Yards) Concord, Ontario.

**GERRIE BROS.' SHORTHORNS**

Herd headed by Gainford Matchless, one of the very best sons of the great Gainford Marquis. Our breeding cows are Missies, English Ladys, Duchess of Glosters, etc. Present offering of young bulls are by our former herd sire, Master Missie, Junior Champion at Brandon last summer.

GERRIE BROS., ELORA, ONT.

When writing advertisers will you kindly mention The Farmer's Advocate.

**Black**

**Black**

The and E for Pro from

Cutter's B tively p leg. Cutter's made di sues, aff tention for Pure Neither th gressin Blackleg ceptible are germ Both have whereve

Prices— 10 dose 50 " 100 " 10 dose

N. B.—C tural prod 5 cc. to 1 that small centrated tention. Write for germ fi where in gressin Aggressi tissues.

While the cines" I should stockrah for a q by stock satisfact use of

**CU BLAC**

"Califo for n

Year in an given be any oth as far lence o concerne advanta

Prices: 10 dose 50 " 10 dose 50 "

Cutter's Insist on obtainab pay ship

The Cutter I

"The Lab

The Cutter

The Cutter

The Cutter

The Cutter

The Cutter

The Cutter

The Cutter

The Cutter

The Cutter

The Cutter

The Cutter

The Cutter

The Cutter

The Cutter

The Cutter

The Cutter

The Cutter

The Cutter

The Cutter

The Cutter

The Cutter

The Cutter

**Cutter's**  
*Germ Free*  
**Blackleg Filtrate**  
and  
**Blackleg Tissue Aggressin**

**The New, Safe and Efficient Agents for Protecting Calves from Blackleg.**

Cutter's Blackleg Filtrate positively protects against Blackleg.  
Cutter's Blackleg Aggressin, made directly from animal tissues, affords even greater protection and is recommended for Pure Breds.  
Neither the Filtrate nor the Aggressin can possibly produce Blackleg in even the most susceptible animals since both are germ free.  
Both have given 100% protection wherever used.

|                                      |        |
|--------------------------------------|--------|
| 10 dose pkge. Filtrate....           | \$2.00 |
| 50 " " " .....                       | 8.00   |
| 100 " " " .....                      | 15.00  |
| 10 dose pkge. Tissue Aggressin ..... | 4.00   |

**N. B.—Cutter's Filtrate** (a "cultural product" aggressin) is full 5 cc. to the dose, as we believe that smaller doses, whether concentrated or not, afford less protection.

Write for booklet telling what germ free vaccines are and wherein "cultural product" Aggressins differ from Cutter's Aggressin made from animal tissues.

While these new "germ free vaccines" have advantages that should be known to every stockraiser, we see no reason for a quick change to them by stockraisers who have had satisfactory results from the use of

**CUTTER'S BLACKLEG PILLS**  
"California's Favorite" for nearly 20 years

Year in and Year Out they have given better satisfaction than any other vaccine made, and as far as price and convenience of administration are concerned, they have all the advantage.

|                            |        |
|----------------------------|--------|
| 10 dose pkge. Single pills | \$1.00 |
| 50 " " " .....             | 4.00   |
| 10 dose pkge. Double Pills | 1.50   |
| 50 " " " .....             | 6.00   |

Cutter's Pill Injector.... 1.50

Insist on Cutter products. If unobtainable, order direct. We pay shipping charges.

The Cutter Laboratory, Berkeley, Calif. (U. S. LICENSED)  
"The Laboratory That Knows How"  
The Cutter Laboratory of Illinois, Chicago Eastern Agent

**The Silo an Economic Necessity.**  
The cheapest and best ration for live stock must contain a reasonable amount of succulent feed. An abundance of suitable pasture is unexcelled, and a substitute for this feed in winter or during a drought in summer is essential for greatest production and profits.

In view of the scarcity and high prices of grains and meals the silo takes on an increased value. For example.—100 pounds total digestible nutrients in corn silage has a net cost of 54 cents, in bran \$2.31, corn \$4.02, oats \$4.29, etc., when silage costs \$3.00 per ton to raise and store and other feeds are valued at present wholesale market prices. Even in these times of expensive labor, seed, horse labor and machinery, corn may be placed in the silo at the above cost. Surely this is sufficient reason why every live stock farmer should consider the increase in silage production.

The adaptability of the silo to various parts of Canada depends on the location, varieties of crops which may be grown, and, to a lesser extent, on the class of stock maintained. No farmer with two or three cows should think of building a silo, but for a herd containing ten cows or more, or the equivalent, a silo may advantageously be erected. Silage is in feed pre-eminently suited to the feeding of dairy cattle. It, however, is a very excellent and cheap feed for beef cattle, sheep and horses. In the majority of the best live stock districts in Ontario and Western Quebec, silos should be on every stock farm. In the Maritime Provinces, Eastern Quebec and British Columbia, all large stock farms, particularly of dairy cattle, can use a silo to excellent advantage. If any particular district is not suited to corn growing, peas and oats, peas, oats and vetches, clover, alfalfa, etc., may be substituted for that crop. In the Maritime Provinces, silos on many farms, particularly on large stock farms, are operated satisfactorily.

Silage at \$3.50 per ton is cheaper cattle feed than mixed hay at \$12 per ton. Corn silage is 30 per cent. better than shocked corn from field. The same holds equally true of unthreshed oats or peas and peas saved for winter feed. Silage from peas and oats produced milk 20 per cent. cheaper than oat sheaves, 30 per cent. cheaper than straw and turnips, and 40 per cent. cheaper than hay. At the same cost per ton, silage is better feed than roots for beef or dairy cattle. Moreover, considering present labor conditions as well as cost of harvesting, keeping qualities and cost of storage, silage, where grown successfully, is more economical than roots. Silage needs no pulping or other preparation for feeding. Silage for winter use is in itself the cheapest feed, and it also makes all other roughages and grains more palatable, wholesome and profitable.

Good pasture, if available, is the cheapest summer feed. Where permanent pastures fail, an annually sown pasture of rye or oats and barley may, under present labor conditions, be the cheapest substitute. However, the use of soiling crops or summer silage may be the only available means of providing succulents. As a rule, silage is more profitable and more cheaply grown than are soiling crops and is more cheaply harvested and fed during the busy season. Milk produced on corn silage and green cut alfalfa cost in feed 66 per cent. per cwt.; produced on corn silage and mixed hay may cost 70 per cent. per cwt.; produced on soiling crop (peas and oats) cost \$1.04 per cwt. With all lots, the heavy milkers received some grain. Where suitable pastures are not available the summer silo provides the cheapest feed and greatest profits.

Finally, the farmer with a silo need never fear losing a crop of clover, alfalfa or late-sown grain. Silage making does not depend on the dryness of the weather. The silo is the cheapest storage building on the farm in proportion to the tonnage capacity. The silo allows the carrying of more stock per acre on the farm and is a labor saver, a money maker and a soil enricher. This is the season of the year to build more and better silos. Experimental Farms Note.

The total loans to the Allies from the United States now amount to over \$5,000,000,000

NINTH ANNUAL  
**Live Stock Show**  
of the Live Stock Breeders' Association of the district of Beauharnois Ltd., will be held at  
**Ormstown, Quebec, June 4, 5, 6, 7th**  
Prize List for 1918 is increased to  
**\$15,000 IN PRIZE MONEY**  
Show will open at 8 p.m., June 4th, in the large Stadium, with judging of driving horses, and continue daily at 10 a.m., 2 p.m., and 8 p.m.  
Horse racing on June 5, 6, 7th.  
Plan to visit this show this year and see one of the best live stock shows in Canada. Admission, adults 25c., children 15c.  
**Neil Sangster, President, W. G. McGerrigle, Sec.-Treas.**

**Manor Farm Holstein-Friesians**  
If it's a herd sire you want, write me. I have sons of both my senior and junior sires, King Segis Pontiac Posch and King Korndyke Sadie Keyes. All are from good record dams.  
Choice bull calves at present to offer — average for two nearest dams, up to 34.71 lbs. butter in seven days. Correspondence solicited, visitors welcome.  
**Gordon S. Gooderham** Stations: Clarkson and Oakville Farm on Toronto and Hamilton Highway **Clarkson, Ont.**

**Hospital for Insane, Hamilton**  
We offer bulls only for sale, but they are from some of the choicest cows to be seen in any herd, and bulls equal to the best.  
—Apply to Superintendent

**CHOICE BULLS—Ready for Service**  
No. 1—By a son of MAY ECHO SYLVIA His two nearest dams (both Canadian champions) average 35.62 lbs. butter in seven days. Price \$1,000.  
No. 2—By a son of MAY ECHO SYLVIA. His two nearest dams (one a four-year-old) average 34.17 lbs. butter in seven days. Price \$600.  
Some extra choice young bull calves, from \$300 to \$1,000. We have sold 37 bulls this winter.  
**HIGHLAND LAKE FARMS**  
R. W. E. Burnaby - Farm at Stop 55, Yonge St. Radial - Jefferson, Ont.

**"GOING TO SELL 'EM"**  
We have 5 thirteen-months bulls and are going to let them go. Three are by Pontiac Korndyke of Het Loo and brothers to Het Loo Pieterje (the world's champion heifer) while the other two are by King Segis Alcartra Spofford and Dutchland Colantha Sir Mona. Act quick if you want them.  
**W. L. SHAW.** (Electric cars from Toronto) **Roycroft Farm, Newmarket, Ontario**

**SUMMERHILL HOLSTEINS**  
Present offering: Two bulls fit for service, both show animals, with excellent breeding, will be sold. Cheap if taken at once.  
**D. C. FLATT & SON** Long-distance phone **R. R. 2, Hamilton, Ont.**

**DUMFRIES FARM HOLSTEINS**  
Present Offering—A few bull calves.  
**S. G. & ERLE KITCHEN** **ST. GEORGE, ONT.**

**SILVER STREAM HOLSTEINS**  
Present Offering—six extra well bred bull calves, sired by bulls with 34-lb. backing, and from tested dams, individually as good as their breeding. For fuller particulars and prices, write, or better come and see them.  
**J. MOGK & SON, R. R. 1, TAVISTOCK, ONTARIO**

**Cloverlea Farm Holstein-Friesians**  
Offers for sale a choice young bull three months old, out of a 20.3-lb. dam. For price and extended pedigree write to  
**GRIESBACH BROS., COLLINGWOOD, ONTARIO**

**Choice Grandson of Queen Butter Baroness**  
I am offering a choice 14-months bull from a 21-lb. junior two-year-old daughter of Louis Prilly Rouble Hartog, and sired by Baron Colantha Fayne, a son of Queen Butter Baroness, the former 33-lb. Canadian champion cow. Also have others younger. **T. W. McQUEEN (Oxford Co.) TILLSONBURG, ONT.**

**WALNUT GROVE HOLSTEINS**  
I am offering a choice lot of bull calves, all sired by May Echo Champion, who is a full brother to the world's champion, May Echo Sylvia. All are from R.O.M. dams and good individuals. Also have the usual offering in Tamworth swine.  
**C. R. JAMES.** (Take Radial Cars from North Toronto) **RICHMOND HILL, ONTARIO**


**SOVEREIGN STOCK FARM**  
The home of Baroness Madoline; 34.48 lbs. butter in 7 days, 1,043.75 lbs. in 335 days, over 87,200 lbs. milk in 47 months. We are offering a few of her grandsons up to 6 months old.  
**WM. STOCK & SON.** Phone Innerkip 3, on line 25. **R. R. No. 1, TAVISTOCK, ONTARIO**

**RIDGEDALE STOCK FARM**  
offers for sale young bulls from high-testing dams, such as Lakeview Dutchland Wayne Rose, the highest producing cow of her age in the world. It will pay you to inspect these before buying.  
**DR. F. A. HESLOP, Prop., R. R. No. 1, FREEMAN, ONTARIO. CHAS. HESLOP, Manager**  
When writing advertisers will you kindly mention The Farmer's Advocate

**HOLSTEINS**  
1 bull 2 years old; 1 bull 18 mos. old, from a 23½ lb. 3-year-old dam. One bull 13 mos.; others younger.  
**R. M. Holthy, Port Perry, Ont.**

**KING SEGIS PONTIAC DUPLICATE**  
A \$4 brother to the \$50,000 bull is the sire of our young bulls offered at present. Two of these are ready for service. Write us also for females.  
**R. W. Walker & Sons, Manchester Station, G.T.R., Port Perry, Ontario**

**BONANZA STOCK FARM**  
I am offering a few Holstein bulls, calves, and year olds, from a heavy milking strain. Priced right for quick sale. Herd headed for years by the best sires. Write for prices.  
**W. W. Scott, Moorefield, Ontario**



**You can tell in a second**

How much did those people quote you on that binder? What's the name of the firm that sent you the Seed Catalog?

How many times have you thrown away letters and papers containing information that you needed later on? An "Office Specialty"

**VERTILEX FILE**

will hold the average man's correspondence for a year or so; his accounts, tax receipts and any other kind of papers with information that is likely to be useful at some future time. And it enables you to get what you want in a second.

Fits in any spare corner or on your book shelf; easily moved to table or desk when writing; gives you an easy and simple way to keep track of your papers and records.

Send in this ad with your name and address in the margin for descriptive folder and prices.

The Office Specialty Mfg. Co., Limited  
Filing Equipment Stores at:  
Toronto Montreal Ottawa Halifax Hamilton  
Winnipeg Regina Edmonton Vancouver  
Home Office Newmarket Canada

912  
**OFFICE SPECIALTY**  
FILING SYSTEMS

**Cream Wanted**

Ship your cream to us. We pay all express charges. We supply cans. We remit daily. We guarantee highest market price.

**Ontario Creameries, Limited**  
London, Ontario

**Lump Jaw**

The only reliable treatment for Lump Jaw in Cattle.

**Fleming's Lump Jaw Cure**  
Price \$2.50 a bottle. Sold under a positive guarantee since 1896. Your money back if it fails. Write for Fleming's Vest-Pocket Veterinary Advisor 96 pages and illustrated. It is Free.

**Fleming's Chemical Horn Stop**  
A small quantity applied when calves are young will prevent growth of Horns. A 50¢ tube sent postpaid is enough for 25 calves.

**FLEMING BROS., Chemists,**  
78 Church St., Toronto, Ont.

**Jersey Bull for Sale**

To avoid inbreeding, we offer for sale our herd bull, Merdale Major, 141856, A. J. C. C. register, 7148, C. J. C. C. register.

While none of his daughters are yet in milk, they show good dairy type and teat development. He is a son of the great Register of Merit bull, Sayda's Heir 3rd, 74817a, who has 47 daughters in Register of Merit, and more coming. His dam is also in Register of Merit, Class A.A., and has tested as high as 6.71%; has milked as high as 1,014 lbs. in 30 days. This bull is richly bred in every line, his maternal grandsire being Interested Prince (Imp.) 58224a, who has 149 daughters and granddaughters in Register of Merit. He is offered at less than he is worth, with option of re-purchase at end of 2 years.

For price and further particulars, address:  
**J. A. MACPHERSON, R. R. No. 1, Port Stanley, Ont.**

**Twenty-Five Years Breeding REGISTERED JERSEYS and BERKSHIRES**

We have bred over one half the world's Jersey champions for large yearly production at the pail. We breed, 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.**

**Questions and Answers. Miscellaneous.**

**Chickens Going Blind.**

1. I have chicks a week old and within the past few days their eyes have been gradually going shut and some of them are totally blind. They appear healthy every other way, but are very hungry and cannot see to eat. E. C.

Ans.—1. The trouble with the chickens is very rare. I have heard of one other case this spring where I think we could trace the trouble to excessive use of insect powder on the hens. It is not stated whether these are hen-hatched or incubator-hatched chickens or whether they are hen brooded or in brooders. If they are hen hatched chickens I am inclined to think if there was excessive use of lice powders that the trouble would be due to that, otherwise I am at a loss to venture a statement as I can see no reason why such should occur. W. R. G.

**Hens Dying.**

1. My hens are dying but I cannot understand the disease. They appear healthy one day, but take sick and die the next. Their crops stay full for a long time. The droppings are of a greenish color. They are fed entirely on oats. What is the trouble? J. D.

Ans.—1. From the symptoms given we are not in a position to definitely diagnose the case. The greenish color of the droppings is common with several ailments. The crop remaining full might indicate trouble known as "crop bound". This is quite a common disease of poultry and may be caused by the opening in the lower portion of the esophagus becoming clogged with straw, feathers, or other substance, so that the crop fails to empty itself. Low vitality, due to improper feeding or indigestion, may also cause the trouble. The symptoms which you give, other than the fullness of the crop, do not correspond with those of crop bound. Greenish droppings sometimes occur when the birds are suffering from tuberculosis, but in this case other symptoms would probably be lameness, anaemic condition, and loss in weight. Changing the diet might give good results. Birds like a variety—in fact, they need it. If no other grain is available feed a mash occasionally. This may be made of chop, shorts and bran, mixed with skim-milk or butter-milk. When skim-milk is not available, meat meal should be added to the mash. If a one-sided ration is fed it very often results in impaired health of the flock.

**How Does It Go?**

EDITOR "THE FARMER'S ADVOCATE":

Next to a city lot harboring for two years the charred ruins of a boarding house, stands a large empty warehouse untenanted for three years; two valuable properties but not paying one cent interest to the unfortunate owner, not a particle of profit on the huge investment.

Have you a stall in your stable untenanted, have you a cow that pays no profit?

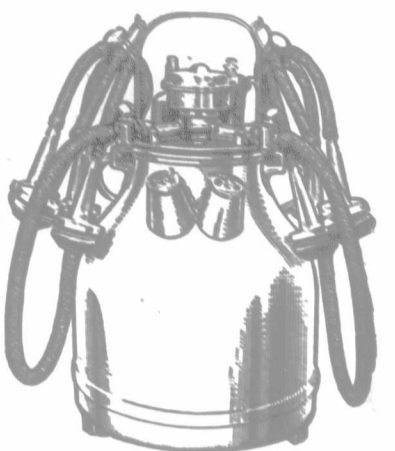
The owner of a dairy herd has one cow that gave seventy-five dollars clear profit last year above the feed cost, but with milk at the same price another mature cow made only \$2.29 profit.

And so it goes in many herds, over thirty times as much profit made by some cows as by others. It goes worse in some herds, because there has not been much effort to find out how much milk each cow gives.

It is very easy to find out; a request to the Dairy Branch, Ottawa, will bring record forms free of cost so that any owner can soon determine whether each cow pays. See that you get good interest, see that each cow is a profitable investment. How does it go in your herd? C. F. W.

Volume 28, of the Canadian Swine Breeders' Record is off the press. Through the courtesy of the Secretary a copy has been received at this office. It is a large volume of 770 pages, containing the constitution and by-laws of the Association, a list of the members, and giving the pedigrees of Yorkshires numbering from 53634 to 57417; of Berkshires, from 43594 to 46961; of Chester Whites, 14585 to 16177; Tamworths, 10852 to 11631; Hampshires, 1357 to 1484; Poland Chinas, 5338 to 6189, and Duroc Jerseys, 6561 to 8601.

**One man does the work of three men**



ONE man with two 2-cow Burrell Milkers does the milking of three men and is contented; the three hand-milkers may leave at any time, especially rush time.

With the Burrell, uniformly good milking is assured. The three hand-milkers are often rushed to carelessness. The

**BURRELL (B-L-K) MILKERS**

are air-tight and dust-proof, yet the parts are easily sterilized. There is less likelihood of teat and udder trouble than in hand-milking.

A rough plan of your stable, with the number of cows in your herd and a description of your problems, will enable us to give you valuable information for your special case. We have experience from increasing milking profits for thousands of dairymen. We will give this experience and our book to you free of charge.

Send for new, illustrated book, free, describing the simplicity of

**D. DERBYSHIRE CO., LIMITED**  
Brockville - - - - - Ontario

**JERSEYS**

"The Lord might have made a better butter cow than the Jersey, but he didn't."—[Ex. Pres. Green]

According to the R.O.P. records, a four-year-old and a mature Jersey cow have each produced more butter in one year than any other cow, of any breed, in Canada. For information, apply to:

**CANADIAN JERSEY CATTLE CLUB**  
B. A. BULL, Secretary, Brampton, Ontario

**BRAMPTON JERSEYS**

We bred and owned the dam, and imported the sire of the champion R.O.P. butter cow of Canada. We own the champion four-year-old R.O.P. butter cow of Canada. To make room for 1918 importation, expected to arrive in May, we are making special offerings of females and bulls, all ages.

**B. H. BULL & SON** BRAMPTON, ONTARIO

**JERSEY COWS**

An opportunity for dairymen or those wishing an ideal family cow! We have a choice lot of young, registered cows and heifers in calf. Make your own selection from a large herd. PRICES REASONABLE

**Larkin Farms, (Please Mention Farmer's Advocate) Queenston, Ont.**

**THE DON JERSEY HERD—**

OFFERS:—Several young bulls, all of serviceable age, and all from R. O. P. dams. These are priced right. Interested parties should write or see these at once. We also have females of breeding age.

**D. DUNCAN & SON, Todmorden P.O., Duncan Station, C.N.O.**

**I HAVE FOR SALE: JERSEY COWS AND BULLS**

Six cows at \$200.00 each. Bulls from \$50 to \$100 each, from Island Blood sires. Strictly guaranteed as represented. **T. J. HETHERINGTON, c.o. 481 AYLMEY STREET, PETERBORO, ONTARIO**

**THE WOODVIEW FARM JERSEYS**

**CANADA'S MOST BEAUTIFUL JERSEY HERD**  
Imported Champion Rowler at its head.

This bull, with his get, won first prize on the island of Jersey, 1914, second in 1916, and again first in 1917. Present offering—A few yearling heifers in calf to our great young bull, Woodview Bright Prince (7788), and bred from imported sires and dams. We show our work cows and work our show cows.

**LONDON, ONTARIO Jno. Pringle, Prop.**

**THE EDGELEY CHAMPION HERD OF JERSEYS**

Write us about your next herd sire. We now have sons of our present herd sire, Edgeley's Bright Prince, who is a son of Canada's champion butter cow, Sunbeam of Edgeley. Pay us a visit. Sunbeam of Edgeley is not the only high-record cow we have. We are pleased to show our herd at all times.

**JAMES BAGG & SONS (Woodbridge, C.P.R., Concord, G.T.R.) EDGELEY, ONTARIO**

**RECORD OF PERFORMANCE JERSEYS**

CHOICE BULLS AND FEMALES. We have six young bulls of serviceable age, all from R.O.P. dams. Three are by our senior sire, Brampton Dairy Farmer, and three are by our junior sire, Brampton Bright Togo. Write for records. We also have females.

**R. & A. H. BAIRD (G.T.R. Stations—New Hamburg, Bright) NEW HAMBURG, ONT.**

**When writing please mention Farmer's Advocate**

**11 A**

This is

J. W. Cl... of Milk

John She... Hill Top

A. Henr... coln, M

C. B. S... Vermo

John H...

R. R. Ne

Absolut

TH

Sale M... BAXTER

**PEE PER**

W... will... hilly... Le... An...

**HILLHOUS**

Headed by Burnside Masterpiece and Lu Ninety head to sek

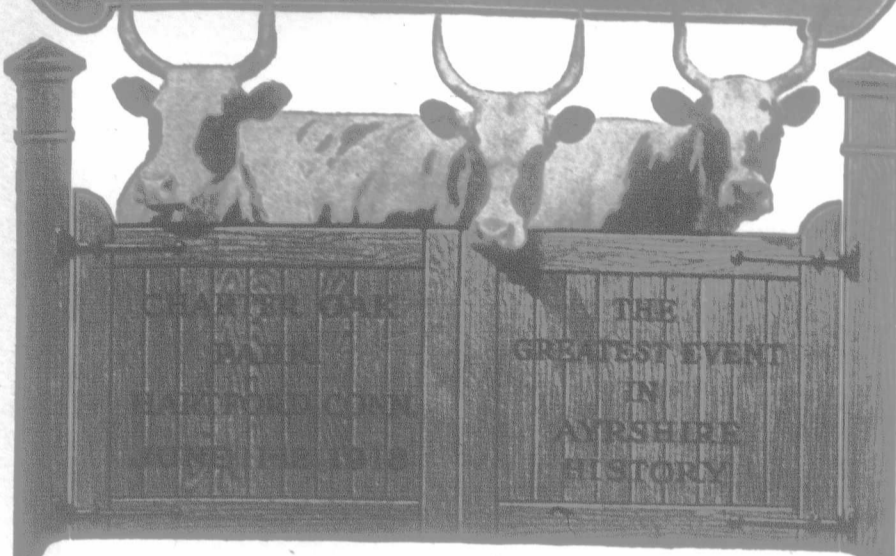
**GLAD**

Herd headed by Fair senior calf at Toronto stallions from Imp.

**JAS. B. ROSS, M**  
for high-producing Herd headed by SN two-year bull at Toronto anything in Yorksh Meadow



**NEW ENGLAND AYRSHIRE CLUB  
CONSIGNMENT SALE**



**150 HEAD 150 HEAD  
OF TOP NOTCH  
AYRSHIRES**

**OF THE REAL TYPE**

This is going to be the Greatest, Busiest and Best  
Consignment Sale of Ayrshire Cattle  
ever held in America.

—CONSIGNORS:—

|  |                                       |
|--|---------------------------------------|
| J. W. Clise, Willowmoor Farm, Redmond, Washington, (70 head of Milk Record Ayrshires; sons and daughters of Buchan Peter Pan, Robin Hood 31st, and Ben Hur). | Hunter Bros., Freeman, Ontario        |
| John Sherwin, Willoughby, Ohio   | W. P. Schanck, Avon, N.Y.             |
| Hill Top Farm, Wheeling, W. Va.  | Adam Seitz, Waukesha, Wis.            |
| A. Henry Higginson, So. Lincoln, Mass.   | Wendover Farm, Bernardsville, N. J.   |
| C. B. Stevens, St. Johnsbury, Vermont.   | Branford Farms, Groton, Conn.         |
| John H. Baker, Buffalo, N.Y.   | D. T. Ness, Howick, Quebec.           |
| R. R. Ness, Howick, Quebec.  | Gilbert McMillan, Huntingdon, Quebec. |

Absolutely the greatest array of Ayrshire Cattle ever offered.

**NOTHING BUT THE BEST**  
The catalogue tells the story, mailed only on request.

**ARTHUR H. SAGENDORPH**  
Sale Manager, Box A., Spencer, Massachusetts

BAXTER & LAWRENCE Auctioneers J. G. WATSON in the box

**Questions and Answers.  
Miscellaneous.**

**Growing Peanuts.**

1. Will peanuts grow in this part of the country, or is a warmer climate required? What time of the year should they be planted? If planted early in May, would they be ready to harvest before the frost? What kind of soil do they do the best in? W. A. Y.

Ans.—1. According to "The Farmer's Bulletin No. 1, on "Peanut Culture," by A. M. Teneyck, the peanut requires a long season without frost, and a comparatively light rainfall with an abundance of sunshine and high temperature during the growing period. Under favorable conditions the peanut will mature in about ninety days, but from one hundred and ten to one hundred and twenty days should be allowed. The crop prefers a well-drained soil, of a mellow, sandy or loamy nature. Hard or compact soil is not adapted to peanut growing. In order to ensure the proper filling and ripening of the pod the soil should contain an abundance of lime. Deep plowing and thorough cultivation of the seed bed are essential factors. Planting should not take place until the soil is warm, as the seed is inclined to sprout slowly and there is no gain by planting in a cold soil. As a rule planting should take place a little later than corn, although in the South the Spanish peanuts are planted anywhere from the middle of June to the middle of July and produce a fair crop.

**Abortion.**

1. We have difficulty in getting some of our cows in calf. They come in heat and are bred every three weeks. Is this contagious abortion? Would it be safe to use the same bull again? Is it possible for the bull to contract the disease? T. T.

Ans.—1. It is possible that abortion has infected your herd. However, there may be some other cause for your cows not conceiving. If cows are not aborting, try the yeast treatment. Mix an ordinary yeast cake to a paste with a little warm water and allow to stand for 12 hours in a moderately warm place, then stir in one pint of freshly-boiled, luke-warm water and allow to stand for another eight or ten hours. The mixture will then be ready for use and the entire quantity should be injected into the vagina of the animal to be bred. Use the mixture when period of heat is first noticed and breed when period is about ended. In case of abortion some disinfectant as a one per cent. solution of carbolic acid should be used for flushing the internal parts and washing the external parts as thighs, tail, etc. Abortion is a particularly bad disease to get into the herd and once infection is there it is difficult to get rid of. If the cows had abortion they would infect the bull. Before using him it is advisable to disinfect his sheath. It is also a good plan to use the disinfectant on the cow a few hours before breeding and regularly after breeding for two or three weeks.

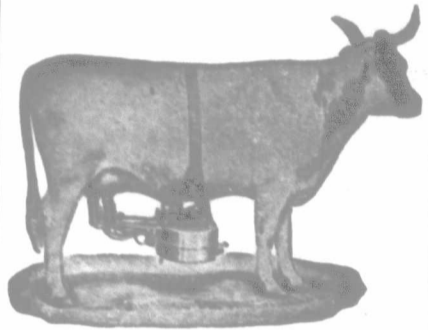
**New England Ayrshire Sale.**

The New England Ayrshire Club will hold its Annual Sale at Charter Oak Park, Hartford, Conn., June 11-12, 1918. Owing to the large number of animals consigned it will be necessary to hold a two-day sale. Chief interest centers in the consignment of Willowmoor Farms, Redmond, Wash., who are offering 70 head of Ayrshires of splendid type and breeding. Many of the animals consigned are by Beuchan Peter Pan, Imp., the World's Champion Ayrshire Bull in 1911 and one of the ten leading A. R. sires. Included in the consignment are such notable cows as: Willowmoor Happy Girl C, record 16,478 pounds milk, 650.45 pounds fat, and Willowmoor Moss Rose, record 17,005 pounds milk, 714.32 pounds fat.

Other notable consignors are: C. B. Stevens, St. Johnsbury, Vt.; A. Henry Higginson, So. Lincoln, Mass.; Hill Top Farm, Wheeling, W. Va.; Wendover Farm, Bernardsville, N. J.; John Sherwin, Willoughby, O.; Hunter Bros., Burlington, Ont.; W. P. Schanck, Avon, N. Y.; Branford Farms, Groton, Conn.; Adam Seitz, Waukesha, Wis.; J. H. Baker, Buffalo, N. Y.

One hundred and fifty head of top notch Ayrshires of real type and breeding will be offered in this sale. Catalogues can be obtained by writing to Arthur H. Sagendorph, Spencer, Mass.

**OMEGA  
Milking Machines**



**Care of Milking Machines**

Excerpt from an article in the "Implement News":—"One of the most important needs of users of milking machines is that of quick cleaning. It should be done properly at the proper time. The machines should never be allowed to stand until the casein hardens on the rubber tubes or cups."

**Omega Has No Rubber Tubes**

Short, transparent, celluloid tubes take the place of long rubber ones. They do not decay or harbor germs, and are easily and quickly cleaned. This is an exclusive OMEGA feature; another is that the pail and milking parts are suspended from the cows back and the test-cups cannot fall to the floor and suck up filth.

**WRITE TO-DAY**

for illustrated booklet, describing the many exclusive features of the OMEGA.

**C. RICHARDSON & CO.**  
St. Mary's, Ontario

**Ring-Bone**

There is no case so old or bad that we will not guarantee Fleming's Spavin and Ringbone Paste to remove the lameness and make the horse go sound. Money refunded if it ever fails. Easy to use and only a three to five-minute application cures. Works just as well on Sibilans and Bone Spavin. Before ordering or buying any kind of a remedy for any kind of a lameness, write for a free copy of Fleming's Vest Pocket Veterinary Adviser. Ninety-six pages of veterinary information, with special attention to the treatment of lameness. Durable bound, indexed and illustrated. Make a right beginning by sending for this book.

**FLEMING BROS., Chemists**  
78 Church St. Toronto, Ont.

**MESSRS. A. J. HICKMAN & CO.,** (Late Hickman & Scruby,) Court Lodge, Egerton, Kent, England. Exporters of **PEDIGREED LIVE STOCK** of all descriptions. Speciality 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.

**Fernbrook Ayrshires**

Young bulls for sale (out of R. O. P. dams) from one to fifteen months old; tracing closely to the world's champions, Garclough May Mischief and Jean Armour.

**COLLIER BROS., Beachville, Ontario**  
(OXFORD COUNTY)

**Every Farm**

Should have an Ayrshire.  
They are profitable cattle.

WRITE W.F. STEPHEN, Secretary  
**CANADIAN AYRSHIRE BREEDERS' ASSN.**  
Box 513 Huntingdon, Que.

**LAKESIDE AYRSHIRES**

A choice selection of young bulls for sale from Record of Performance dams imported and Canadian bred.

**SIRE:** Auchenbrain Sea Foam (Imp) 35758 many times grand champion.  
Fairfield Mains Triumph (Imp.) 51137 a son of the noted Hobland Perfect Piece.

Write for catalogue.  
**Geo. H. Montgomery, Proprietor, Dominion Express Building, Montreal. D. McArthur, Manager, Phillipsburg, Que.**

**SUNNYSIDE AYRSHIRES**

We have, at present, the strongest lot of young bulls we ever offered—1 by Hobland Masterpiece, 1 by Sunnyside Matchless—and the others by our present herd sire, Sunnyside Masterpiece.

**JOHN W. LOGAN, HOWICK STATION, QUE.**

**PEERLESS PERFECTION**

**The Fence For Real Protection**

gives life time service. Is made of the best Open Hearth steel fence wire, all impurities burned out, all the strength and toughness left in. Makes the fence elastic and springy. Will not snap or break under sudden shocks or quick atmospheric changes. Galvanized to prevent rust and the coating will not flake, peel or chip off. Can be erected over the most hilly and uneven ground, without buckling, snapping or kinking. Every joint is locked together with the well-known "Peerless Lock." The heavy stay wires we use prevent sagging and require only about half as many posts as other fences.

Send for catalogue. It also describes our farm gates, poultry fencing and ornamental fencing. Agents nearly everywhere. Agents wanted in unassigned territory.

**THE BANWELL-HOXIE WIRE FENCE CO., Ltd.**  
Winnipeg, Manitoba Hamilton, Ontario

**HILLHOUSE AYRSHIRES—F. H. Harris, Mt. Elgin, Ont.**

Headed by Burnside Lucky Master Swell, a combination of blood so hard to equal, being of the Masterpiece and Lucky Girl families, a combination which means quality, production and constitution. Ninety head to select from. Special offering—20 yearling heifers and 3 bulls. Inspection invited.

**GLADDEN HILL AYRSHIRES**


Herd headed by Fairvue Milkman. Have one choice bull of serviceable age for sale—a 3rd-prize senior calf at Toronto, 1917—17 months old. Also a few females. Two Canadian-bred Clydesdale stallions from Imp. stock. **LAURIE BROS., AGINCOURT, ONT. C. N. R., G. T. R., C. P. R.**

**JAS. B. ROSS, MEADOWVALE, ONTARIO,** for high-producing, show-yard AYRSHIRES. Herd headed by SNOW KING 47376, first-prize two-year bull at Toronto, 1917. Write me also for anything in Yorkshires.

**Meadowvale P.O., Streetsville Station**

**D. M. WATT**

For imported or Canadian-bred Ayrshires, bulls or females, get my prices. My importations win wherever shown. Write me for one animal or a curload. **St. Louis Station, Que.**



**SILAGE MEANS SUCCESS**

For years BISSSELL SILOS have been giving good service. They are built of the best selected Wood and thoroughly treated with wood preservative oils that prevent decay.

**You Can Have A Bissell Silo**

It saves the whole crop, preventing Waste. You can keep more Stock, utilize more roughage. You can have excellent feed for your stock Summer and Winter, tides you over the drowth period—and the Bissell Silo won't decay. It has strong, rigid walls, air tight. It's your Silent Money Maker. Write us for information as to your particular requirements, or ask the Bissell Agent.

**T. E. Bissell Co. Limited**  
Dept. W Elera, Ont. 6

**Kent or Romney Marsh Sheep**

The hardest and best grazing mutton and wool sheep of Great Britain. Successfully acclimated wherever grazing sheep are required. Annual Ram Show and Sale, 300 head, Ashford, Kent, on Thursday and Friday, September 26th and 27th, 1918.

Descriptive pamphlet, list of breeders, and all information from A. J. Burrows, 41 Bank St., Ashford, Kent, England.

**Shropshires and Clydesdales**

Besides my regular offering of ram and ewe shearlings, I have the three-year Clydesdale stallion, Cairnbrogie Heir 18299. Write quick, don't wait. W. H. PUGH, Myrtle Station, R. R., Ontario.

**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.

**Yorkshires**

We still have a few boar pigs left from spring litters. These are from sows of excellent bacon type which have always given us large litters.

**WELWOOD FARM**  
Farmer's Advocate, London, Ont.

**Beaver Medi Chester Whites**

Young stock for sale, both sexes, from prizewinners.

WM. ROBERTS & SONS,  
Beaver Mead Farm, Peterboro, Ont.

**Sunnyside Chester Whites and Dorsets.** In Chester Whites we have both sexes, any age, bred from our champions of many years. In Dorsets we have ram and ewe lambs by our Toronto and Ottawa champion, and out of Toronto, London, and Guelph winners. W. E. Wright & Son, Glanworth, Ont.

**Meadowbrook Yorkshires**

Six large litters of young pigs, about ready to wean; pairs supplied, not akin. Write your wants to G. W. Miners, Exeter, Ont. R. R. No. 3.

**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.

**TAMWORTHS**

Young sows bred for spring farrow and a nice lot of young boars for sale. Write:

John W. Todd, R. R. No. 1, Corinth, Ontario

**BIG TYPE CHESTER WHITES**

Three importations in 1918. From the leading prizewinning herds in the U. S. Over 100 April and May pigs, by imported sires.

JOHN G. ANNESSER, Tilbury, Ont.

**Chester Whites**

From high quality stock; both sexes, ready to wean.

Kendry & Colman, Port Dover, Ont.

**POLAND CHINA**

Boar 18 months; sows due in June and July. Also young pigs. Pedigrees furnished and express prepaid. Victor Vance, Box 13, Forest, Ontario

**Questions and Answers.**  
Miscellaneous.

**Cropping a Gravel Knoll.**

1. I have a gravel knoll which does not seem to give a good yield of grain. How would beans do on it? Would you advise sowing or planting them? A. S.

Ans.—1. We doubt very much whether or not beans would prove satisfactory. While they do well on comparatively light, well-drained land, they also require land that contains a fair amount of plant food. It very often happens that these gravel knolls are lacking in fertility. The application of farmyard manure would tend to add humus as well as plant food and make these knolls more productive. Beans are usually sown in drills about twenty-eight inches apart when grown on a commercial scale. However, for a small plot they might be planted in hills. There are a number of varieties which give very good satisfaction. Pierce's Improved Tree bean is possibly the best yielder; Schofield Pea bean is also recommended, as is also the Marrow Fat and the common white pea bean. Planting should take place early in June when the soil becomes warm and danger from frost is past.

**Unthrifty Horse.**

1. I have a three-year-old horse whose legs swell at night. What remedy do you advise? He is well fed but does not appear to thrive.

2. I have a four-year-old mare, in good condition, but recently she has contracted a cough. What is the cause and treatment for same? R. G.

Ans.—1. This trouble sometimes comes from over-feeding and is indicative of lymphangitis. Administer a purgative and give one dram of iodide of potassium twice daily. Rubbing and bandaging the legs may help to keep down the swelling. When the horse is not working he should be exercised.

2. A chronic cough is rather hard to treat and it may develop into heaves. Give her one dram of powdered opium, two drams solid extract of belladonna, one dram of gum camphor and 30 grains of digitalis every morning. This material may be moistened with oil of tar, wrapped in tissue paper and administered as a ball; or it can be mixed with a pint of cold water and given as a drench. Feed lightly on hay of first-class quality. Moisten the feed with lime water.

**Cows Fail to Breed.**

1. My cattle are thriving and appear to be healthy. Why is it that I cannot get any of them in calf? Some cows and heifers come around regularly, and some cows and some heifers come every few days or perhaps 4 or 5 weeks. My cattle never were on the road with any others and I have never had abortion in my herd and have bred them to different bulls. Several of my neighbors are having the same trouble with irregularity, but none have abortion. The veterinarian said he would open a cow before she was bred, but not the heifers. They would have to go for beef. We are seriously alarmed as our stock is not to be laughed at. They are splendid type of both pure-breds and grades. I thought it no harm to write the Advocate for advice. A. S.

Ans.—1. Your cows show some of the symptoms of abortion. However, some cows and heifers fail to conceive and come in heat irregularly without being infected with this dread disease. It is possible that the bull used in the neighborhood is infected and has carried the disease. You might try the yeast treatment which consists of injecting a dissolved yeast cake into the vagina of the animal to be bred. Mix an ordinary cake of yeast to a paste with a little warm water and allow to stand for 12 hours in a moderately warm place, then stir in a pint of freshly-boiled, luke-warm water and allow to stand for another eight or ten hours. The mixture will then be ready for use and the entire quantity should be injected into the vagina of the animal to be bred. Use the mixture when period of heat is first noticed and breed when period is about ended. This will not be effective in getting an animal to breed if the abortion germs are present. Thoroughly disinfecting the animals and stables is necessary in case of abortion. Even with the best care there will be trouble in stamping out the disease and getting the females to conceive and carry the fetus the required length of time.

**You can have green feed for your cows next winter just as well as now**



**IDEAL GREEN FEED SILOS**

**YOUR** cows are giving more and richer milk now than they did three or four months ago.

Why?

Principally because they have green pasture.

But that's not all.

It's costing you less to keep them now than it did last winter, when you had only dry feed to give them.

Why not get 25 per cent more milk next winter than you did last, and in the bargain save 20 per cent, or even more, on feed by providing your cows with rich, juicy silage?

**Plan NOW to Install an IDEAL GREEN FEED SILO**

It will keep the milk flowing from October to April.

If you will clip off the coupon below and mail it to our nearest sales headquarters, we'll send you our book which not only shows why the Ideal is the most economical and satisfactory silo you can install, but gives much valuable information about silos and silage.

**THE DE LAVAL COMPANY, Ltd.**

LARGEST MANUFACTURERS OF DAIRY SUPPLIES IN CANADA. Sole manufacturers in Canada of the famous De Laval Cream Separators and Ideal Green Feed Silos. Alpha Gas Engines, Alpha Churns and Butter-Workers. Catalogues of any of our lines mailed upon request.

MONTREAL PETERBORO WINNIPEG VANCOUVER  
50,000 BRANCHES AND LOCAL AGENCIES THE WORLD OVER

THE DE LAVAL COMPANY, Ltd., Peterboro, Ont.  
I should like to have you mail me, free, your book about silos.

Name \_\_\_\_\_ Address \_\_\_\_\_

**Sydney Basic Slag**

MR. CHARLES W. THOMPSON, R.R. No. 3, Blenheim, Kent County, Ontario, writes on 21st January, 1918:

"Judging from increased sales, your BASIC SLAG is good stuff, as I sold over six times as much for the Fall of 1917 as I did for the Fall of 1916. One man bought three tons (who had never used it before) because, he told me, his neighbor got thirty bushels of wheat per acre by using your BASIC SLAG, while he only got eighteen bushels per acre by using a heavy application of barnyard manure on the same kind of soil. It has given me wonderful returns on Wheat, Pasture, Clover, Tomatoes, Strawberries, Cabbage and Sugar Beets. I have not tested it on other crops myself."

Write us for our new pamphlet and let our representative call on you.

**The Cross Fertilizer Co., Limited**  
Sydney, Nova Scotia

**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, ONTARIO.  
Langford Station on Brantford and Hamilton Radial

When writing Advertisers please mention Advocate



## MILITARY SERVICE ACT, 1917

**PUBLIC NOTICE** is hereby given that by the effect of the regulations of the Governor General of Canada in Council of the 20th of April, 1918, and the Proclamation of 4th May, 1918, recently published, every male British subject resident in Canada, born on or since the 13th of October, 1897, who has attained or shall attain the age of 19 years, and who is unmarried or a widower without children, must, (unless he is within one of the classes of persons mentioned in the schedule of Exceptions to the Military Service Act) report as hereinafter directed on or before the 1st day of June, 1918, or within ten days after his 19th birthday, whichever date shall be the later.

Such report must be in writing, and must give his name in full, the date of his birth and his place of residence, and also his usual post office address.

The report must be addressed to the Registrar or Deputy Registrar under the Military Service Act

of the Registration District in which he resides (see below) and shall be sent by registered post, for which no Canada postage is required.

Young men so reporting will not be placed on active service till further notice. They must, however, notify the appropriate Registrar or Deputy Registrar of any change of residence or address.

On receipt of the report, an identification card will be forwarded by the Registrar which will protect the bearer from arrest.

Punctual compliance with these requirements is of great importance to those affected. Failure to report within the time limited will expose the delinquent to severe penalties, and will in addition render him liable to immediate apprehension for Military Service.

ISSUED BY THE DEPARTMENT OF JUSTICE, MILITARY SERVICE BRANCH, this 15th day of May, 1918.

### NOTE: The men required to report should address their reports as follows:

**ONTARIO**—To the Deputy Registrar under the Military Service Act, 1917, London, if they reside in the County of Essex, Kent, Lambton, Elgin, Middlesex, Oxford, Waterloo, Wellington, Perth, Huron, or Bruce.

To the Registrar under the Military Service Act, 1917, Toronto, if they reside in the County of Lincoln, Welland, Haldimand, Norfolk, Brant, Wentworth, Halton, Peel, York, Ontario, Grey, Dufferin, Simcoe, or in the Districts of Muskoka, Parry Sound, Algoma, and Nipissing north of the Mattawa and French rivers (including the Townships of Ferris and Bonfield).

To the Deputy Registrar under the Military Service Act, 1917, Kingston, if they reside in the County of Durham, Northumberland, Victoria, Peterborough, Hastings, Prince Edward, Lennox, Addington, Frontenac, Haliburton, Carleton, Dundas, Glengarry, Renfrew, Russell, Stormont, Grenville, Lanark, Leeds, Prescott, or the District of Nipissing south of Mattawa river (exclusive of the Townships of Ferris and Bonfield).

To the Registrar under the Military Service Act, 1917, Winnipeg, if they reside in the Districts of Kenora, Rainy River, or Thunder Bay.

**QUEBEC**—To the Registrar under the Military Service Act, 1917, Montreal, if they reside in the County of Jacques Cartier, Hochelaga, Laval, Vaudreuil, Soulanges, Napierville, Beauharnois, Chateaugay, Huntington, Laprairie, Argenteuil, Terrebonne, Two Mountains, Montcalm, L'Assomption, Joliette, Berthier, Maskinonge, St. Maurice, Three Rivers, St. Johns, Iberville, Missisquoi, Brome, Shefford, Rouville, Chambly, Vercheres, St. Hyacinthe, Bagot, Drummond, Richelieu, Yamaska, Nicolet, Arthabaska, Sherbrooke, and Stanstead.

**QUEBEC**—Continued

To the Deputy Registrar under the Military Service Act, 1917, Quebec, if they reside in the County of Wolfe, Richmond, Compton, Beauce, Bellechasse, Bonaventure, Dorchester, Gaspé, Kamouraska, Levis, L'Islet, Champlain, Charlevoix, Chicoutimi, Montmorency, Quebec, Portneuf, Saguenay, Lotbinière, Montmagny, Matane, Megantic, Rimouski and Temiscouata.

To the Deputy Registrar under the Military Service Act, 1917, Hull, if they reside in the County of Timiskaming, Pontiac, Ottawa and Labelle.

**NOVA SCOTIA**—To the Registrar under the Military Service Act, 1917, Halifax, if they reside in the Province of Nova Scotia.

**NEW BRUNSWICK**—To the Registrar under the Military Service Act, 1917, St. John, if they reside in the Province of New Brunswick.

**PRINCE EDWARD ISLAND**—To the Registrar under the Military Service Act, 1917, Charlottetown, if they reside in the Province of Prince Edward Island.

**BRITISH COLUMBIA**—To the Registrar under the Military Service Act, 1917, Vancouver, if they reside in the Province of British Columbia.

**SASKATCHEWAN**—To the Registrar under the Military Service Act, 1917, Regina, if they reside in the Province of Saskatchewan.

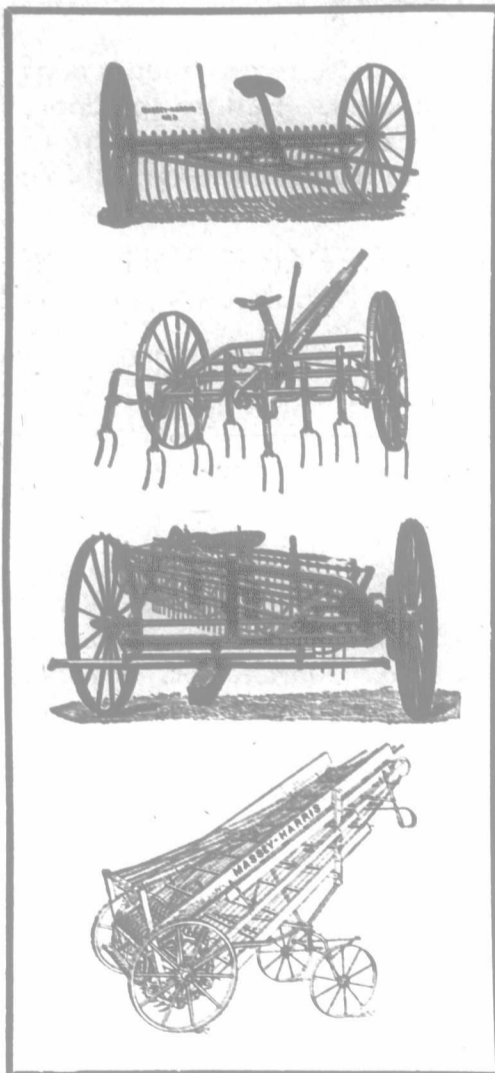
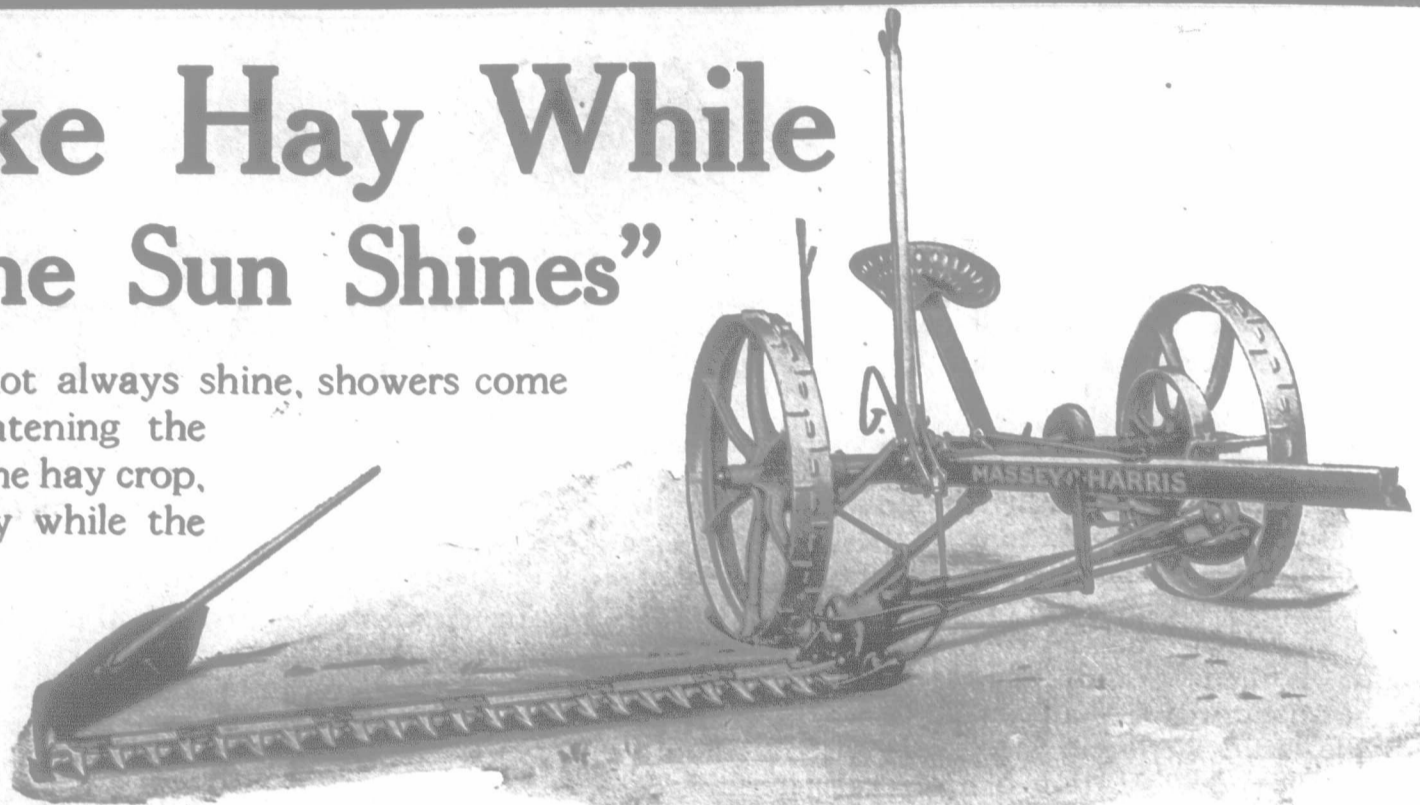
**ALBERTA**—To the Registrar under the Military Service Act, 1917, Calgary, if they reside in the Province of Alberta.

**MANITOBA**—To the Registrar under the Military Service Act, 1917, Winnipeg, if they reside in the Province of Manitoba.

**YUKON**—To the Registrar under the Military Service Act, 1917, Dawson, if they reside in the Yukon Territory.

## "Make Hay While The Sun Shines"

The sun does not always shine, showers come suddenly, threatening the destruction of the hay crop, so to "make hay while the sun shines" time and labor-saving implements must be used.



Massey-Harris Mowers, Dump Rakes, Tedders, Side Rakes and Tedders, and Hay Loaders are recognized as the very best it is possible to buy, on account of their effective work, convenience of operation and durability.

### Massey-Harris Mowers

The Massey-Harris Mowers have ample power for cutting the heaviest hay; the cutter-bar is free to follow uneven ground. Raised ledger-plates, given extra long cutting edges, and the edges are serrated. No "flying start" is required, the knives begin to cut the instant the horses start. The easily-operated foot-lift enables the driver to quickly raise the bar for passing obstructions.

### Massey-Harris Tedder

If your hay crop is heavy, the Massey-Harris Tedder will enable you to thoroughly stir every blade of grass, cause it to dry quickly, and without being scorched by long exposure to the sun.

### Massey-Harris Side-Rake and Tedder

One of the most practical and satisfactory combined implements ever designed is the Massey-Harris Side-Rake and Tedder. It is thoroughly practical as a tedder for loosening up the hay so as to dry quickly, and can be instantly changed to a side-rake, which gathers the hay into convenient windrows for loading.

### Massey-Harris Hay Loader

For loading the hay on to a wagon, the Massey-Harris Hay Loader will be found most efficient. It handles the crop without beating or threshing it, delivering it well forward on the load, and in as good shape as if handled by hand. Will save many a load which would otherwise be caught by a sudden shower.

## Speed's the Thing

Too much emphasis cannot be placed on speed in handling the hay crop. Better quality of hay, less chance of being caught by a passing shower, saving of time, labor and money. All these follow as a result of using the proper implements — Massey-Harris time and labor-saving machines.

GET IN TOUCH WITH A MASSEY-HARRIS AGENT—  
HE WILL HELP YOU

# Massey-Harris Co., Limited

Head Offices :  
Toronto

Branches at :

Montreal, Moncton, Winnipeg, Regina, Saskatoon, Swift Current,  
Yorkton, Calgary, Edmonton, Vancouver, Kamloops.

Agencies  
Everywhere