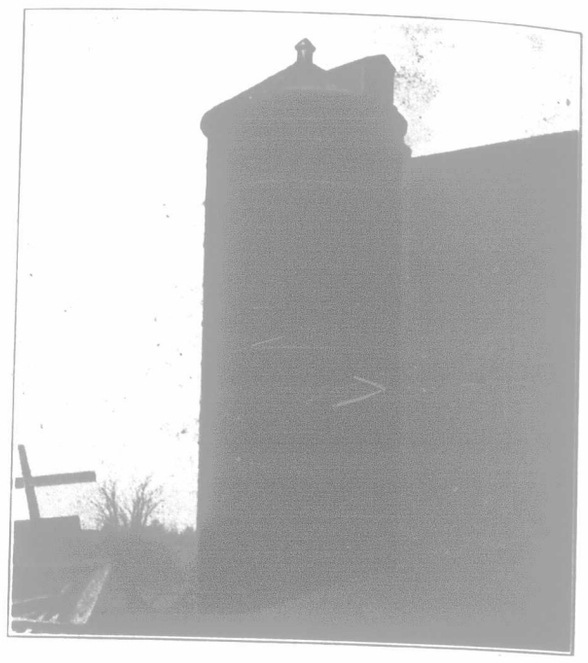
The Farmer's Advocate

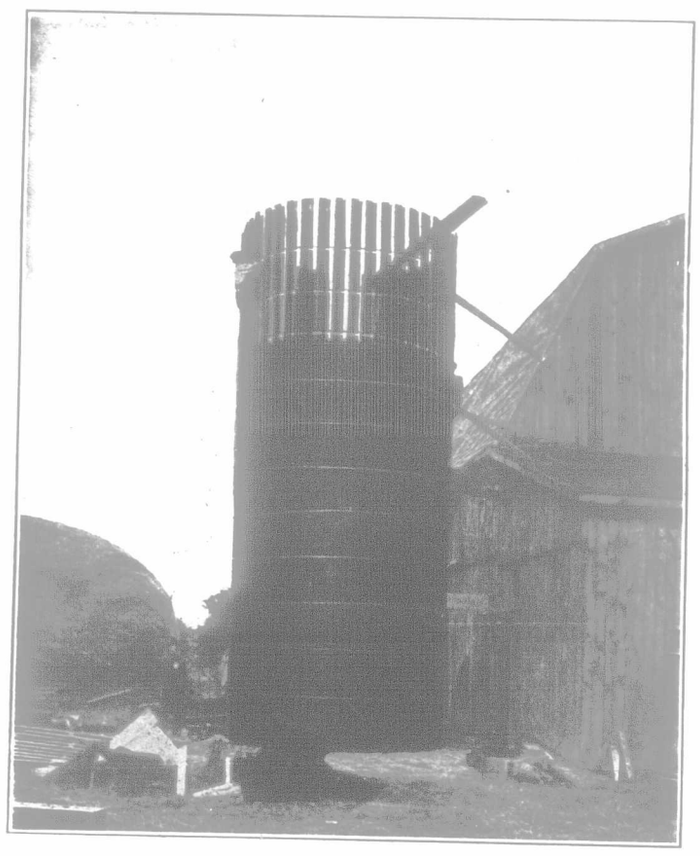
Christmas Number 1910

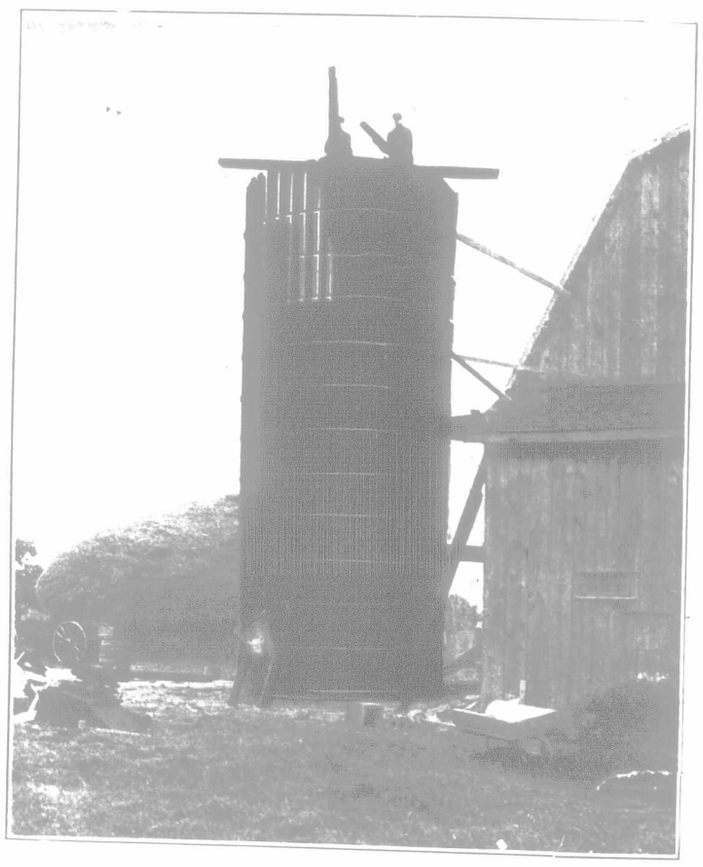
POOR COPY

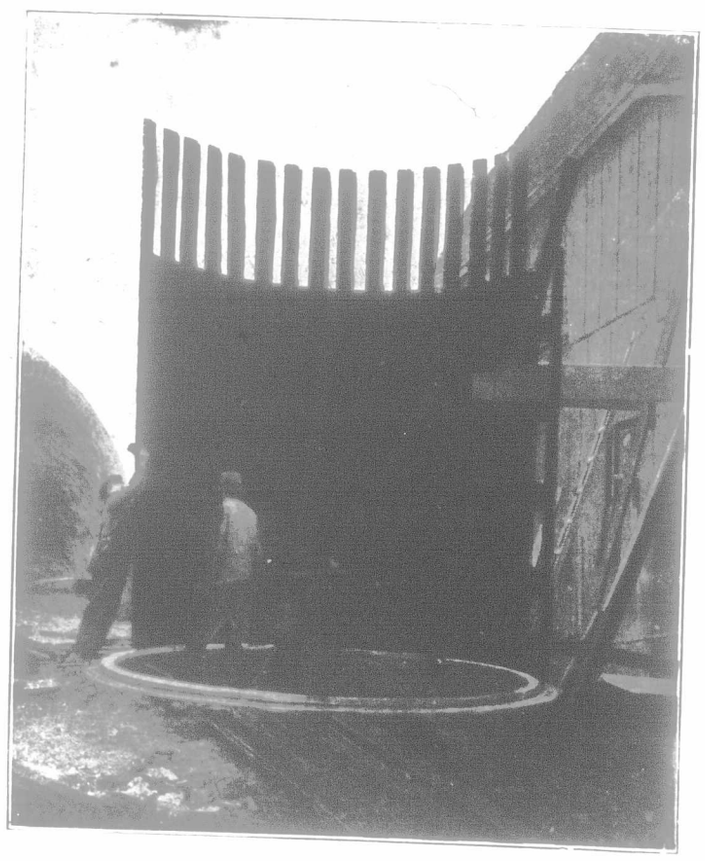
BURLINGTON
Cable-Band Silo

The Silo That Goes Up Without Trouble









"BUILD A SILO"

Dairy feeds are soaring high—
Build a Silo.
Summer seems a-goin' dry—
Build a Silo.
Cows, too, go dry on hay,
Sort of seem to fall away;
They need silage every day—
So build a Silo.

Pasturage costs quite a heap—
Build a Silo.
Winter feeds are never cheap—
Build a Silo.
Build a BURLINGTON CABLE BAND,
Easy to erect—everything to hand—
You'll have one that'll always stand—
So build a Silo.

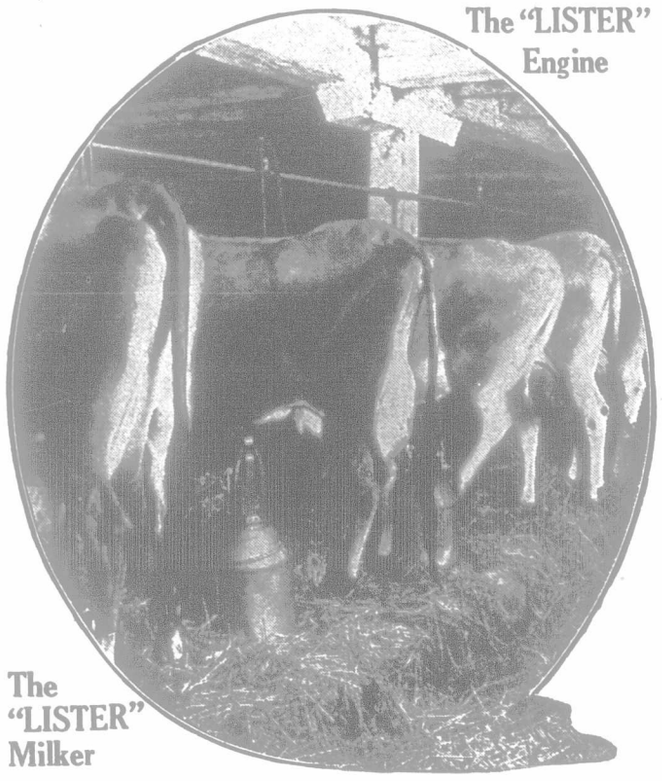
That's the burden of my song—
Build a Silo.
If you've cows you can't go wrong—
Build a Silo.
Milk will flow and smiles'll come
With the separator's hum,
And you'll shout "I'm glad, by gum,
I built a Silo."

THE
NICHOLSON
LUMBER COMPANY
Limited.

BURLINGTON
Ont.

Note our patented cable bands—the most important feature of the Burlington Silo. They give and take when Silo contracts or expands due to weather conditions. They are made of ½-inch steel cable, nearly twice the strength of the iron rods ordinarily used.

The "LISTER" Engine

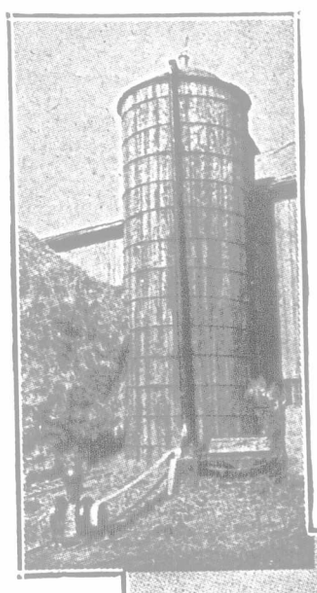


The "LISTER" Milker

The Name "LISTER" on Farm Power Machinery is a Guarantee of Quality

LISTER Farm Machinery maintains that reputation for high-grade construction and long life associated with goods of British manufacture all the world over.

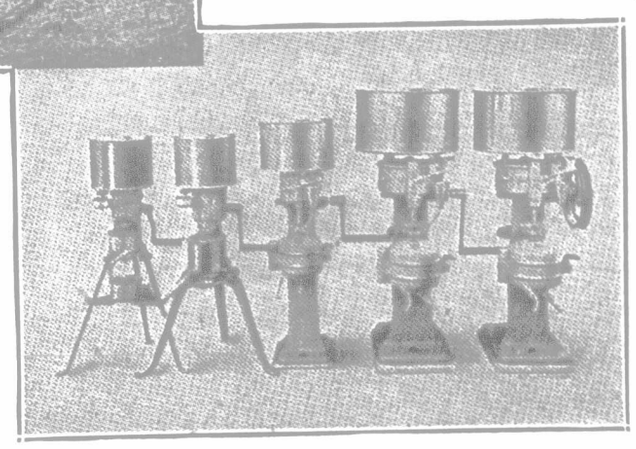
CALL on the nearest LISTER Agent, or inquire of us regarding any line in which you are interested.



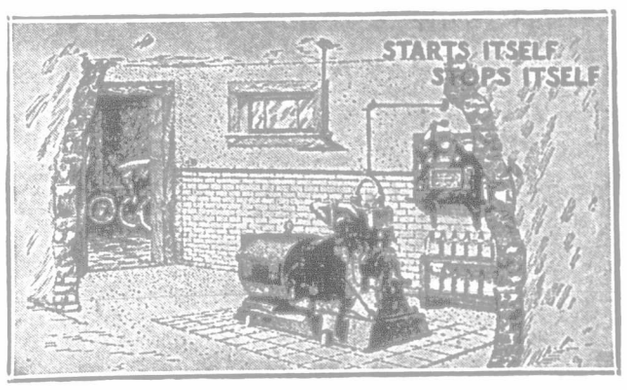
The Installation of

"LISTER" FARM POWER MACHINERY

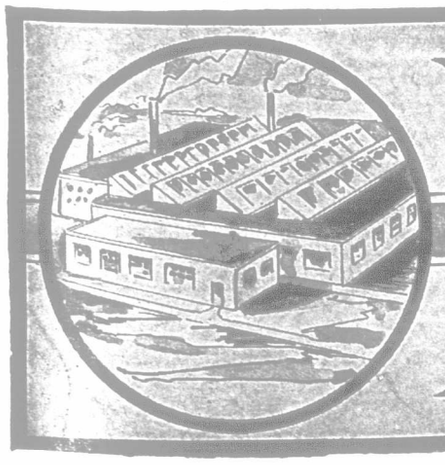
Will Aid You to Prosperity in 1920



"MELOTTE" CREAM SEPARATORS



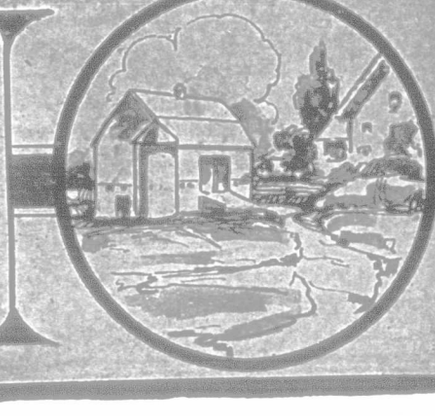
THE "LISTER-BRUSTON" AUTOMATIC ELECTRIC LIGHTING PLANT

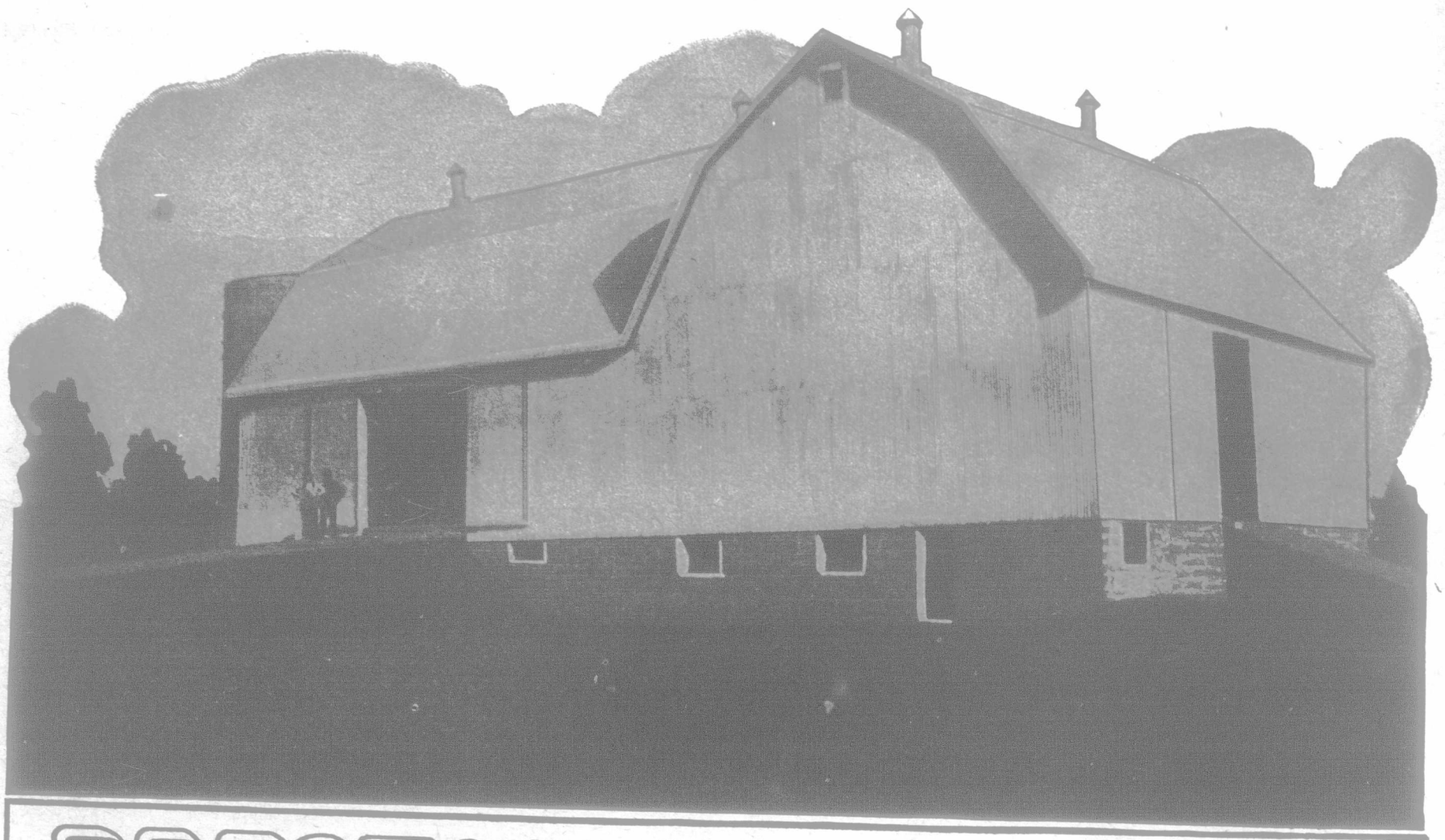


R. A. LISTER & COMPANY (CANADA) LIMITED

STEWART ST., TORONTO

AND **WALL ST., WINNIPEG,** MAN.





PRESTON STEEL TRUSS BARNS

Once more we have to announce increased facilities for the production of Preston Steel Truss Barns.

Last year we contracted for the output of three sawmills in Northern Ontario. We thought this would give us all the lumber we would need. But, it was not enough. Canadian farmers have shown such a preference for Preston Steel Truss Barns, that the output of these three mills was used up quite early in the season. For weeks we have been scouring the lumber districts, and exerting all possible pressure on the steel mills, so as to keep up with our orders.

But, in order to ensure both the quality and quantity of lumber needed for Preston Steel Truss Barns, we determined to become lumber producers, ourselves.

So, we have purchased two large Timber Limits. For several years to come, they will furnish us with plenty of lumber to manufacture Preston Steel Truss Barns in ever increasing numbers. From the felling of the tree to the finished barn, Preston barn experts will control the quality of the lumber that goes into Preston Steel Truss Barns.

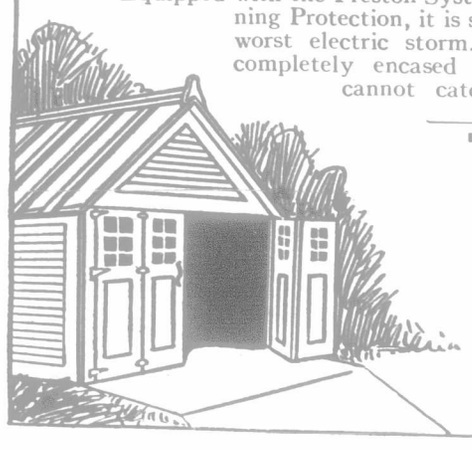
Plan NOW for the barn that will make money for you in 1920

Be satisfied with nothing less than a Preston Steel Truss Barn, because its patented construction enables you to store your crops with minimum trouble and no waste space.

Equipped with the Preston System of Lightning Protection, it is safe from the worst electric storm. And, being completely encased in metal, it cannot catch fire from without. Think what that would mean to your peace of mind, in a lightning storm, or when sparks from a steam engine or nearby fire, are showering upon your barn!

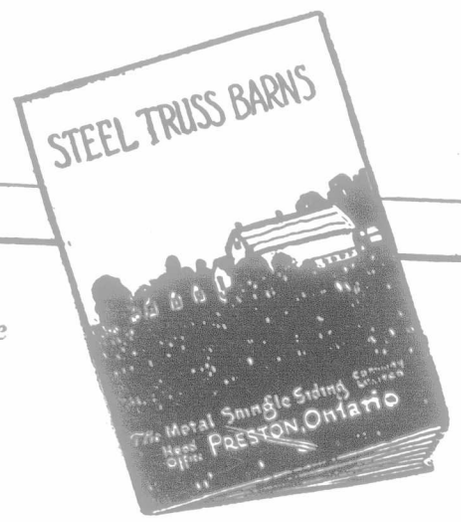
And don't forget that a small gang will build a Preston Steel Truss Barn in a few days. There is no "raising bee", and the women folk find little extra work in providing for the gentlemanly fellows who compose the Preston crews.

Our Book About Barns gives detailed information about Preston Steel Truss Barns and the service that goes with them. Write for the Book, mentioning the size of your farm, and we'll send you, free, our set of standard designs for "Rural Landscape Architecture." State also whether you would like to receive our booklets on Preston Portable Garages and Preston Ready Made Buildings.



The Metal Shingle & Siding Co., Limited

PRESTON, 121 Guelph St., TORONTO, 41 Abell St.,
MONTREAL, 85 De Lorimier Ave.



Please send me full particulars of your Stable Plans, Rural Landscape Architecture, and a copy of your Book About Barns.

Name .....

Address .....

R.R. No. .....

CABLE ADDRESS "WILLOUGHBY"

WILLOUGHBY'S FARM AGENCY

THE LARGEST FARM AGENCY IN CANADA

Over 800 Farms Listed

Selling Well Selected Improved Ontario Farms around TORONTO, GUELPH and HAMILTON

Offers Free Farm Catalogue

A Selected List of Farms

THE WILLOUGHBY FARM AGENCY was established in 1900 by J. A. Willoughby, of Georgetown, Ontario, who now occupies the position of President of the Agency. Mr. Willoughby is a man who is well and favorably known throughout Ontario, being identified with several different business concerns that bring him prominently before the public as a business man. Mr. Willoughby is the founder, President and Secretary-Treasurer of the Georgetown Coated Paper Mills Co. Ltd., President of the Georgetown Foundry and Machinery Co. Ltd., Chairman of the High School Board and Chairman of the Public Library Board.

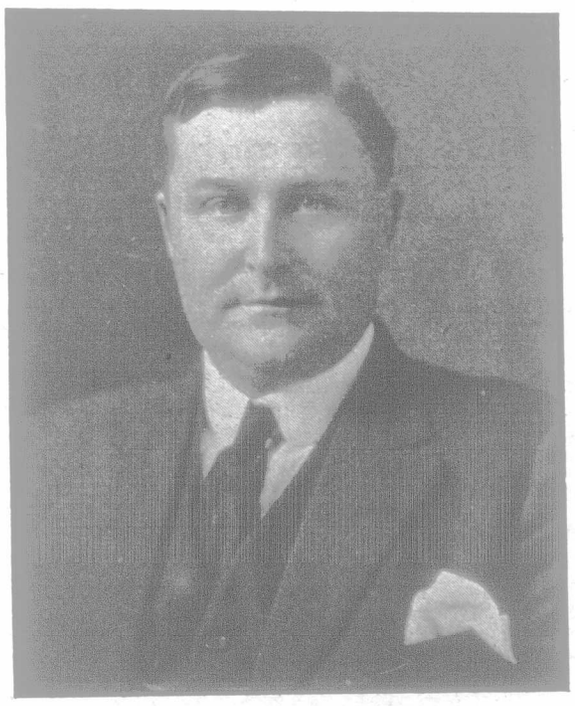
The first branch of this Agency was opened at Guelph, Ontario, in 1913, and W. W. Willoughby, of Guelph, a brother of J. A. Willoughby, the President, is the Secretary-Treasurer and in charge of the Agency of the Guelph district. With the growth of the business a third branch was opened in West Toronto in 1917, in charge of Mr. J. A. Pascoe, and during the same year a fourth branch was opened in Newmarket, with Mr. J. P. Denne in charge, and in 1919 branches were opened at Agincourt, Hampton, Erin, Bolton and Milton.

TORONTO OFFICE opened this month in the Phoenix Bldg., Corner of Victoria and Adelaide Streets, in order to take care of our increased business, and with a view of giving better service to our customers.

Let me say to those of you who have occasion to come to Toronto to either shop or on other business, we invite you to give us a call. If you are thinking of buying we will be glad to talk over your requirements; if you are going to sell we will be glad to serve you and give you our advice.

Why do people shop at EATONS and SIMPSONS? Because they have a large selection to choose from and a reliable firm to deal with.

Why do people come to the Willoughby Farm Agency? Because they have a large selection of farms to choose from and a reliable firm to deal with.



WHO ARE WE?

Men interested in the statements of the WILLOUGHBY FARM AGENCY are asked to apply to pleased and satisfied customers, or to any of the chartered banks of Canada for references.

Our statement that we are the largest FARM AGENCY IN CANADA requires no more proof. We have more than 800 farms for sale in different localities. Among them is to be found every variety of farm land, in a great range of prices, from the very low-priced farm, to that upon which a good big sum of money may be laid out for a high-class home within a few miles of the city of Toronto.

We have the very best facilities for selling you the kind of a farm you desire, as we have a large selection to choose from, and wish to add you to the many satisfied and prosperous farmers in this community.

ONTARIO PRESENTS FINE OPPORTUNITIES TO THE FARMER. Large cities are everywhere within reach of the properties we offer. Steam and electric railways, also good stone roads for motor trucks, autos, wagons and vehicles afford easy means of transportation, of produce out, or of your goods in.

Take the three cities of Toronto, Guelph and Hamilton. To live in the district around these cities means that the farmer lives in the midst of about one-third of the population of Ontario. Good markets are always assured in a thickly-populated district.

Consider carefully where you are located. Don't let the fact that you were born on the old homestead where you are living make you stay there if the farm is not laid out to your ideals. Your common sense should tell you to move. Pick out a farm that is located near some big city. Ship milk or cream or stock or produce to that city. Let your children take advantage of the railroads or the electric roads to get to High School, University, or the Ontario Agricultural College and the McDonald Institute at Guelph. Give them the increased advantages of music and social intercourse. Get where you can have the daily papers with their educational facilities within three hours of the time they are printed.

Is the farm you are living on able to fulfil all these conditions for your family?

IF IT DOES NOT, THEN IT IS UP TO YOU. SELL THE FARM THAT YOU HAVE, AND SET OUT TO BUY THE FARM THAT WILL SUIT YOU IN EVERY PARTICULAR.

Don't be foolish and start repairing the old buildings. It will never pay you—labor, lumber, etc., has gone up 30 to 50 per cent. Sell out and buy a farm with up-to-date buildings.

Do you want a deed and a good title to one of the farms in our catalogue? If so IMMEDIATELY—get in touch with THE WILLOUGHBY FARM AGENCY. Write the head office. Department 100 Georgetown, Ont., Canada, for FREE FARM CATALOGUE. DO IT TO-DAY. A POST CARD WILL BRING IT TO YOU.

Faithfully yours,
J. A. WILLOUGHBY,
President.

CABLE ADDRESS "WILLOUGHBY"

WILLOUGHBY'S FARM AGENCY

THE LARGEST FARM AGENCY IN CANADA

Seven Ways

in which the Renfrew increases profits

THE less it costs you to produce your butter the more profit you make. The Renfrew saves production costs at every turn. If you want more profit from your cows it will pay you to discard your present machine and get the

Renfrew
CREAM SEPARATOR

1 ***More Butter***—It gets more butterfat. It gets 99.99% while other machines lose up to a whole pound in 1,000 pounds of milk skimmed. "It is no exaggeration to say that two cows with a Renfrew are as profitable as five without," writes an enthusiastic user (name on request).

2 ***Better Butter***—The exclusive curved wings distribute the milk to the discs evenly in thin sheets. The globules of fat go through unbroken. Hence you get firmer, better butter, that commands the best prices.

3 ***Trifling Repairs***—"I have had it eight years, and it has never missed a skimming, and all the expense it has been to me is one set of brushes, one new rubber ring and the oil," writes a Renfrew user.

4 ***Low Upkeep***—It needs oiling but four times a year. Not a drop is wasted, no oil-leaks on the floor, no drip-cups to get out of order.

5 ***Skims Everything***—Writes another Renfrew owner: "I passed sour and curdled milk through my Renfrew separator and I got 2½ pounds of butter from it. There will be no milk wasted where a Renfrew is used."

6 ***Interchangeable Capacity***—When your herd gets more numerous, you don't have to buy a bigger machine—if you have a Renfrew, just send bowl and fittings in exchange for larger size equipment and continue using the old frame. Think of the saving!

7 ***Long Life***—The longer your machine lasts the less it costs you per year for skimming. Years after your Renfrew has paid for itself in more and better butter and low maintenance cost, it will still be giving you satisfaction. Can you afford to do without a Renfrew?

Write for Literature

The Renfrew Machinery Co., Limited

Head Office and Works, Renfrew, Ontario

Agencies almost everywhere in Canada

Eastern Branch, Sussex, N.B. **Quebec Branch, Montreal**

Other Lines: Renfrew Truck Scale; Happy Farmer Tractor.

82

FREE!

To Every Man who is building or remodelling his barn

THIS BT Barn Book shows you how to build your barn from start to finish, tells how to make the foundations, how to lay the cement floors and how to build the walls, how the cattle-stands can be made so they will not be cold, shows the best and most economical methods of laying out the floor space and putting in the stabling, shows right and wrong ways to remodel an old barn; shows how to ventilate barn and build cupolas for the roof. It tells how to frame the barn by a method that saves half the cost of the old way; shows how two men and a team can hoist the bents to position. You can build or remodel your barn yourself with this book to help, because every point is clearly illustrated by full-page photographs and blue print working plans.

This new 352-page book

This is the most elaborate and complete book on barn building ever published in Canada. It contains over 125 views of modern barns. Photographs of up-to-date barns were obtained in all parts of this country, and have been reproduced with full-page and double-page cuts, which show clearly every detail of construction. There are useful tables, showing the best measurements for Mangers, Gutters, Cattle-Stands, and Passages, costs of cement work, best sizes of doors and windows, amount of ventilation for different kinds of stock, capacities of silos, capacities of mows. There are also working plans for 14 different barns and exterior views of the completed barns. Best construction for Hog House is fully illustrated.

BT Galvanized Steel Stalls, Steel Horse Stable Fittings, Steel Cow Pens, Calf Pens, Steer Pens, Bull Pens, Manure and Feed and Hay Carriers, and Water Bowls are shown in actual use in many barns. Complete specifications for Stable Equipment which are useful in getting proper quotations from manufacturers.

This book is printed in colors and is bound with hard covers. It is not a mere catalogue. It is a work of reference, which you will prize and keep for years. It is considered authoritative on the subject of stable and barn construction. A copy of it should be in the hands of every man who is thinking of building or remodelling a stable, or who is going to put in the Sanitary Steel Stable Equipment.

Mail Coupon

Thousands of dollars were spent in obtaining information, plans, photographs for this book, and in printing it.

Yet we offer it without charge to any man who will write and state if he is building or remodelling this year, when he expects to start the work, and the number of head of stock he keeps. If you are building or remodelling next year, or later, you will receive the Barn Construction Section of the Book, this is the part which will interest you most until you are ready to go ahead. It is a neatly bound book of 80 pages.

Simply fill in the blanks of the coupon, and you will receive the Barn Book by first mail. You do not obligate yourself in any way.

The high cost of printing the book has forced us to limit the quantity. Make sure of your copy by sending for it to-day.

Beatty Bros., Limited

K351 Hill Street FERGUS, ONTARIO

FREE COUPON

BEATTY BROS. LIMITED,
K 351 HILL ST., FERGUS, ONT.

GENTLEMEN:—Send me your new 352-page Barn Book, without charge or obligation. I have filled in the blanks below.

Are you thinking of building a barn?.....

If not, are you going to remodel?.....

When will you start?.....

How many cows, horses, or young stock will you keep?.....

.....

Put an X after the kind of Sanitary Stable Equipment you are interested in.

(Steel Stalls.....) (Steel Horse Stable Fittings.....)

(Manure Carriers.....) (Water Bowls.....)

(Hay Carrier.....)

Your Name.....

P.O.....Province.....

Section.....Township.....Range.....

ONTARIO
The Land of Opportunities

IN THE CLAY BELT, NORTHERN ONTARIO

FOR INVESTORS, FARMERS, MINERS AND MANUFACTURERS

Ontario is ideally situated for commercial expansion, its boundaries touching the waters of Lakes Superior, Erie and Ontario; the Ottawa and St. Lawrence Rivers, as well as the Hudson's Bay. Her climate is attractive, and she enjoys every facility for transporting her products at little cost to the markets of the world.

RESOUCES.

Ontario includes 230 million acres of land, of which only 13½ millions are under cultivation. More than 20 million acres of the very finest arable land await the plough. Extensive forests of pine and other woods are yet untouched. Practically all minerals, excepting coal, are found, and there are 4,300,000 h.-p. in "white coal" still undeveloped. The value of farms in Ontario, including lands, buildings, implements and live stock is estimated at $1,480,000,000, yielding an annual gross return of at least 23 per cent. of their value.

MILLIONS OF VIRGIN ACRES.

We scarcely realize that right wthin our boundaries there is a vast area of rich farming land untouched by the plough greater in area than Great Britain, France or Germany. This Great Clay Belt is only a day's journey from Toronto—less than half way to Winnipeg. It has an excellent railway service over the Temiskaming and Northern Ontario Railway and the Canadian National Railway. In this great expanse, Ontario offers thousands of homesteads to the man who wants a home and prosperity.

THE SOIL.

The soil of the Clay Belt is chiefly a rich clay or clay loam throughout, and sand or gravel is seldom met with. A rock outcrop is occasionally seen, and these rocks are generally along the banks or in the beds of the streams or on the shores of a few of the small lakes. The soil is capable of growing successfully all kinds of grain and vegetables, fall wheat, oats, barley peas and potatoes. On all classes of land, high or low, timothy, clover and alfalfa grow in abundance. And all kinds of small fruits, such as strawberries, raspberries and currants are very plentiful.

TIMBER.

The timber of the country is not the great pines, oaks and maples that tested the strength and endurance of the pioneers of older Ontario, but spruce, poplar, balsam, tamarack, cedar, jack pine and birch, which are of comparatively small growth (except beside the creeks and rivers) and as such they are proportionately less of a strain upon the settler in clearing his lot. White and red pine are seldom met with except along the southern border. The other trees, although, where the land is high, timber suitable for lumber is to be found in quantities. Along the line of the Canadian National Railway, there are about 300 million cords of spruce, which, used as pulpwood, is equal to the European variety. The pulpwood alone of Northern Ontario is a great asset, and capital has a splendid opportunity for investment. There are several pulp mills convenient to the settler in the northern districts.

WATER POWER.

Northern Ontario is a land of many lakes and rivers, offering great scope for investment in water-power development in the interests of transportation, manufacturing, mining and other industries, including the supreme needs of agriculture. Besides lesser streams, there are twelve rivers crossed by the Canadian National Railways (Transcontinental), totalling in length about 2,000 miles. The part to be played by water-power in industrial development will be nowhere in the Province more important than in the Great Clay Belt, where there are many magnificent streams longer and more important than their compeers draining into the great lakes, but in that Belt, well east of Lake Nipigon to the Quebec boundary there is known to be over half a million horsepower, of which 81,000 h.-p. is developed.

CLIMATE.

A country as large as Northern Ontario cannot be classed as uniform in climate. Generally speaking, the summer is hot and the winter very cold. Though the latitude is not a perfect indication of relative climate, the lines show that Winnipeg is about 50 miles farther north than Cochrane, the present terminus of the T. & N. O. Railway.

FREE GRANTS FOR RETURNED SOLDIERS AND SAILORS.

All honorably discharged Returned Soldiers or Sailors who have served in the Canadian Expeditionary Overseas Forces may secure Free Grants, of 160 acres each, of land in any of the northern townships regularly in the market for sale or location. The townships of Kendall, Fournier, Calder and Eilber, traversed by the Canadian National Railway, are exclusively appropriated for the Returned Soldiers and Sailors, and applications may be made through the local Crown Land Agent. The Returned Soldiers and Sailor in each case is required, in addition to an affidavit, to file his discharge certificate, a copy of which is retained by the Department, the original being returned.

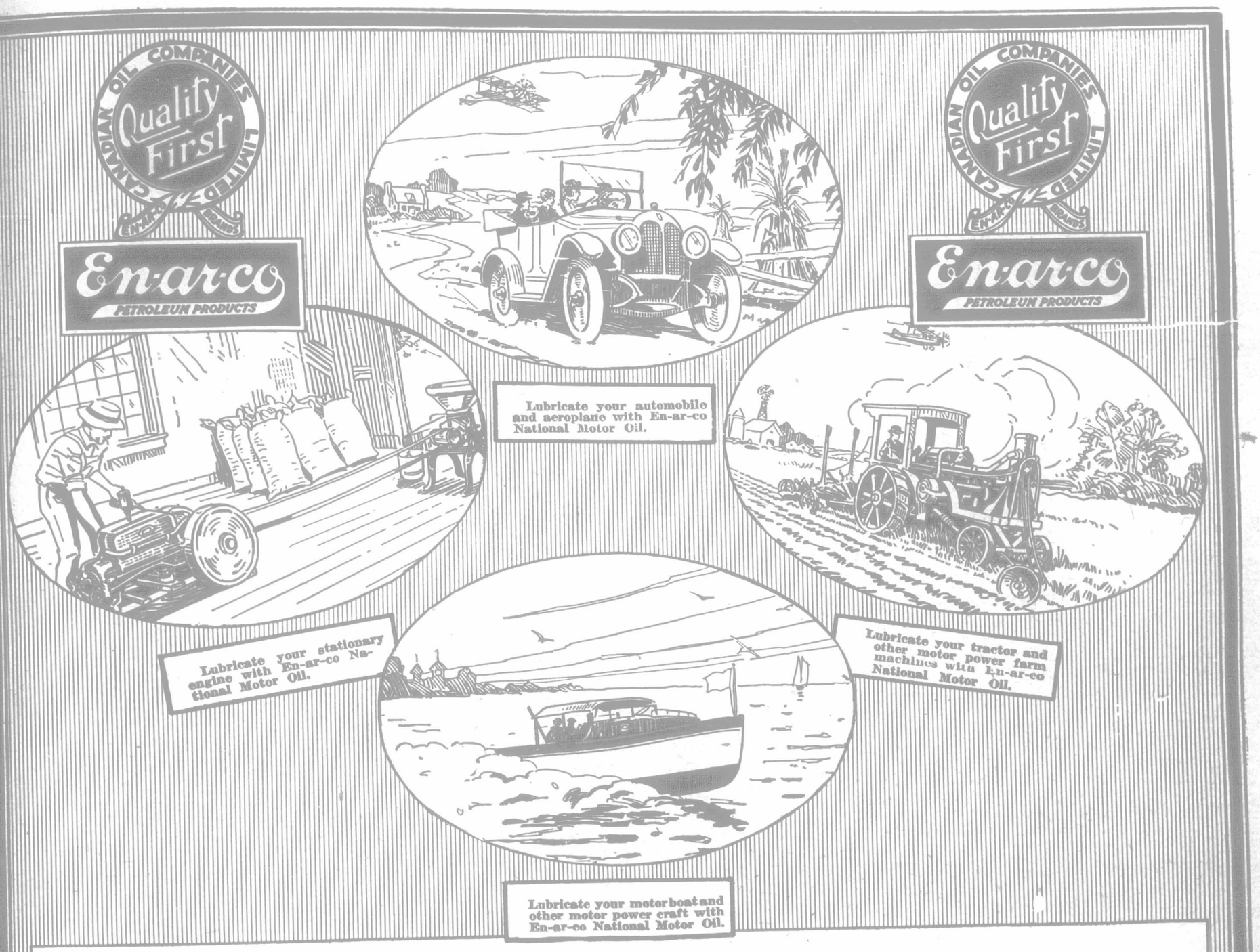
THE FUTURE OF NORTHERN ONTARIO.

No one who visits the Great Clay Belt but realizes that one day it will be one of the great gardens of Ontario, the wealth of the soil is unlimited. It produces the finest quality of grain. Clovers grow in abundance and cattle thrive on the natural grasses. There is plenty of good water and the climate—"No blizzards in winter, no windstorms in summer."

If you are planning to own a farm of your own, we ask you to investigate Northern Ontario. We shall be glad to send any reader free descriptive literature and full information about this great clay belt of Ontario.

BENIAH BOWMAN
Minister of Lands, Forests and Mines

WRITE:
H. A. MACDONELL,
Director of Colonization
Parliament Buildings, Toronto, Ont.



Use En-ar-co National Motor Oil

Get More Power and Longer Wear From Your Motor

In any climate, at any temperature, at any speed, up grades, or over any roads En-ar-co insures full power and longer wear from your motor.

This scientifically refined oil forms a soft velvety cushion or film that protects all moving parts against friction. And it does this with the least possible carbonization.

En-ar-co Quality Never Varies

Year after year the high quality of En-ar-co is the same. It never varies. When you buy En-ar-co you KNOW you *always* get the finest quality oil.

Only by using best materials, the most modern equipment, exact formulas, rigid tests, and by scientifically refining is such uniformity of quality possible.

Try En-ar-co National Motor Oil, and other En-ar-co products. Then you will be convinced. If your dealer cannot supply you, write us.

All En-ar-co Products Excel

White Rose Gasoline for greater power. National Light Oil for Tractor fuel. Also best for lamps, oil stoves and incubators. En-ar-co Motor Grease for every lubrication point around the motor car or tractor. Black Beauty Axle Grease for wagons. Always look for the En-ar-co trade-mark!

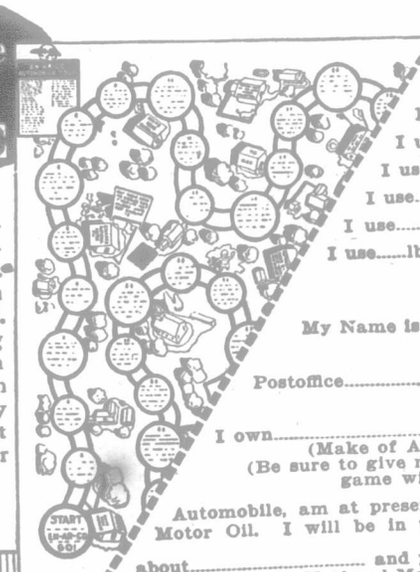
Made in Canada by

Canadian Oil Companies, Limited

Toronto, Ontario

Branch Offices in thirty-five cities

This Game SENT FREE



Send in the coupon for the En-ar-co Auto Game. It will be sent you absolutely FREE. A fascinating game in which autos compete in a cross country race. Write for it today. Remember it's FREE.

CANADIAN OIL COMPANIES, LIMITED, 1385 Excelsior Life Bldg., Toronto, Ont.

Send me your En-ar-co Auto Game free. Enclosed find three-cent stamp to partially cover postage and packing.

Also give nearest shipping point and quote prices on the items I have marked.

I use.....gals. Gasoline per year
I use.....gals. Motor Oil per year
I use.....gals. Kerosene per year
I use.....gals. Tractor Oil per year
I use.....lbs. Motor Grease per year
I use.....lbs. Axle Grease per year

My Name is.....

Postoffice..... Province.....

I own.....
(Make of Automobile or Tractor)
(Be sure to give make of auto or tractor or game will not be sent)

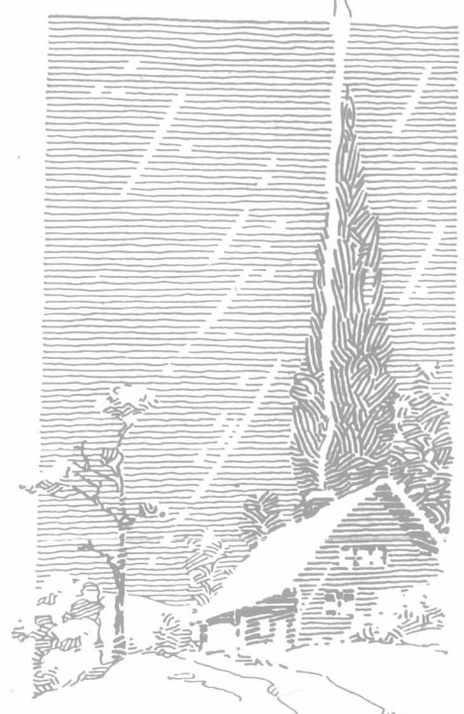
Automobile, am at present using..... Motor Oil. I will be in the market for more oil again about..... and you may quote me on..... gallons En-ar-co National Motor Oil

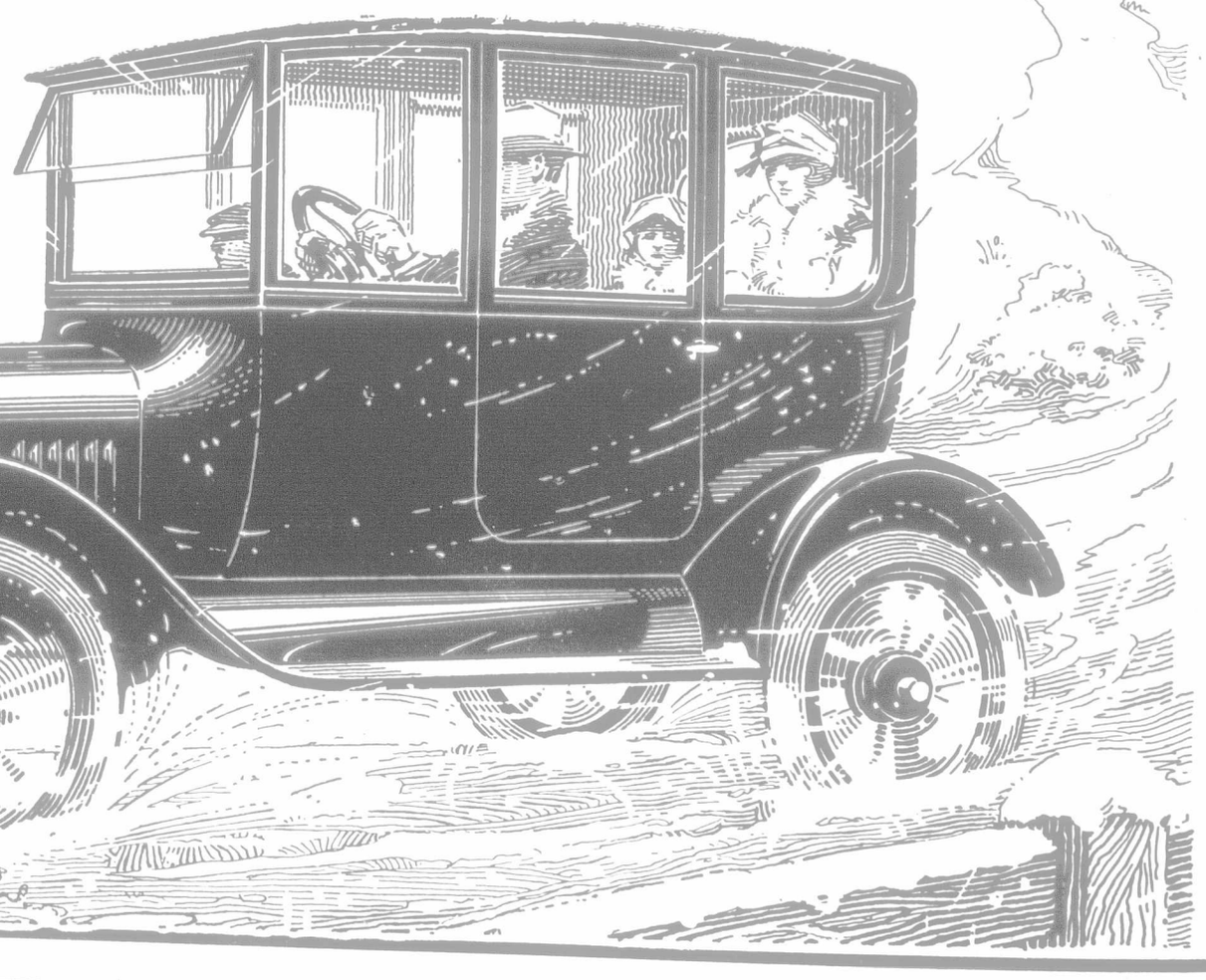
Ford Motor Company
OF CANADA LIMITED
FORD, ONTARIO

A LASTING CHRISTMAS GIFT

The Ford Sedan will be a constant source of pleasure in the years to come.

Make this Christ-mas the beginning of a long season of happiness by pre-senting the Family with a Ford Sedan—the car of comfort at a reasonable price.

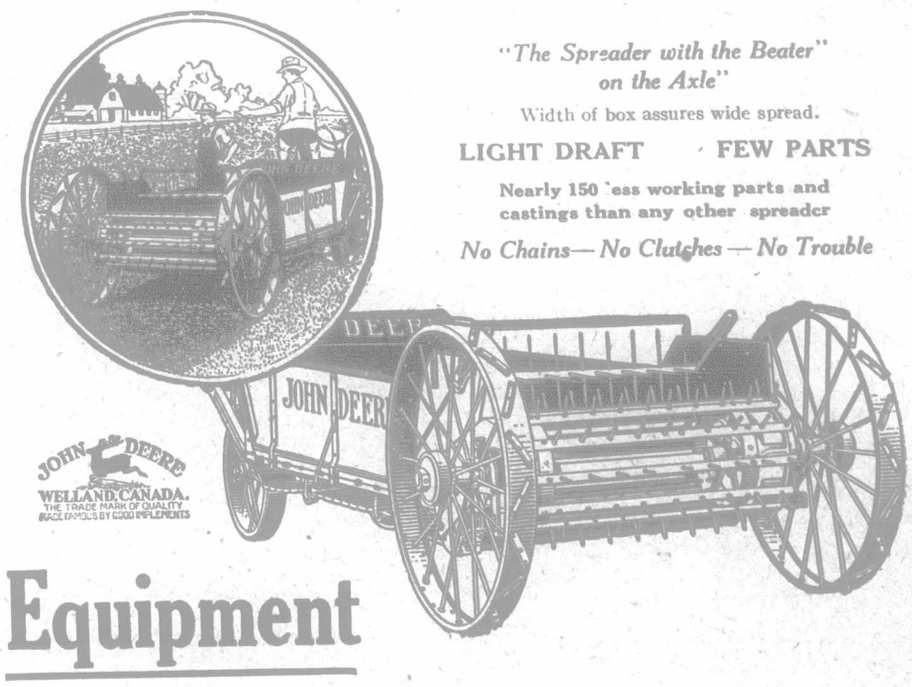




Make Yourself A Present of Bigger Profits for 1920

—buy John Deere Equipment

JOHN DEERE LOW-DOWN MANURE SPREADER



"The Spreader with the Beater on the Axle"

Width of box assures wide spread.

LIGHT DRAFT · FEW PARTS

Nearly 150 less working parts and castings than any other spreader

No Chains—No Clutches—No Trouble

Increased production—greater and better yields from the same fields—less time and labor—and all secured at a rock-bottom expense—that is what you want for 1920, and in the years to come.

John Deere equipment will go farthest in helping you to increase your yearly income. Just compare John Deere Machinery with any other make. Note the many exclusive features and you will see why it is most profitable to buy John Deere machinery—why John Deere comes out ahead.

What John Deere Means to You

Every piece of John Deere machinery has established a nation-wide reputation for absolute dependability, durability, ease of handling and labor-saving ability.

When you buy a plow, cultivator, manure spreader, seed drill, corn planter, hay loader, potato digger, or other machinery, you are absolutely certain of the safety of your investment—and big returns from it—if the machinery you buy is made by John Deere.

Another highly important item: When you buy John Deere equipment you get real service—from the machinery, your local dealer, and the John Deere Organization.

Make up your mind now to choose John Deere. Talk it over with your nearest John Deere dealer, or write direct to us. All John Deere representatives take a live interest in the problems of John Deere Customers.

Make Yourself a Present of Bigger Profits for 1920 buy John Deere Equipment.

John Deere Manufacturing Co. Limited

WELLAND, - ONTARIO

The John Deere Low Down Manure Spreader Will Help You Right Now

Consider the many exclusive featurers of the John Deere Low Down Manure Spreader. Compare it with other spreaders. It will do your work quicker, better and at less expense.

The John Deere is the only gear driven spreader on the market, because it is protected by Basic Patents. That is important. You know that nearly every automobile changed from chain drive to gear drive. They must have had good reason for changing. Choose the John Deere Spreader for the same reason.

The John Deere is an all year 'round machine—the gears cannot freeze. The beater is mounted on the axle: the drive wheels are out of the way when loading and you see where you put each fork full of manure.

Fewer Parts—Less Trouble

The John Deere Spreader rake revolves. The manure does not bunch and choke the beater: it requires less draft: an even amount of manure is delivered to the beater and a uniform spread is certain. Manure from the load moves backward and downward. The beater delivers manure near the ground and the wind does not blow it to one side or forward onto driver.

The sloping front board permits of higher loading at front end and makes it easy to take short turns.

Nearly 150 less working parts and castings than any other spreader.

No chains—no clutches and no trouble. All driving parts mounted on rear axle. No adjustments—nothing to get out of order.

Think what the John Deere Low Down Manure Spreader means to you.

A Wonderful Family Gift—Overland 4 With Three-Point Suspension Springs

GIVE your family a Christmas gift of "smooth roads" this year. Give them the new Overland 4 with Three-Point Suspension Springs, the greatest riding improvement since pneumatic tires.

The Three-Point Springs dissipate jolts and reduce sway and vibration to a minimum.

They make riding on any road smoother and more enjoyable.

With these springs Overland 4 seems to sail over bumps, cushioned from the shocks of the worst roads, with a road steadiness never before approached by a light weight car.

The Three-Point Springs attached diagonally at the *ends* of a 130-inch Springbase give *long* wheelbase steadiness and comfort with 100-inch wheelbase lightness, economy and driving ease.

By protecting the car from road blows they prevent excessive wear, give every part longer life and make Overland 4 very economical in upkeep.

A still further source of economy in Overland 4 is its light weight which saves in the consumption of oil and fuel.

With all these important features, Overland 4 is in addition a car of marked beauty and smartness of design. Its equipment is complete from Auto-Lite Starting and Lighting System to Rain-Vision Windshield.

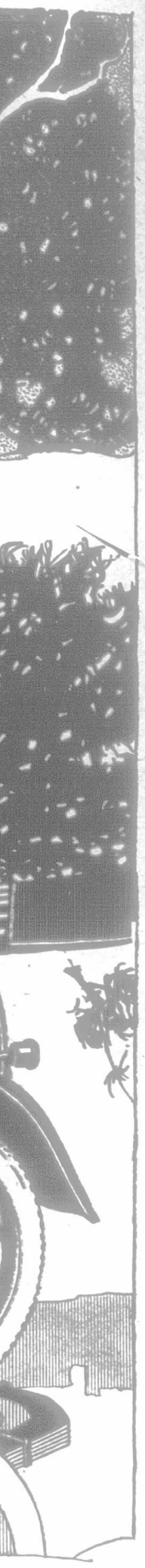
Ask the Overland dealer to show you this unusual car. Try its remarkable riding ease. It sets a new standard of comfort. Booklet on request.

WILLYS-OVERLAND, LIMITED

Sedan, $1345; Coupe, $1845; Touring Car, $1195; Roadster, $1195. Prices f. o. b. Toronto. War Tax included. Prices subject to change without notice.

Head Office and Factories, Toronto, Canada

Branches: Montreal, Winnipeg and Regina



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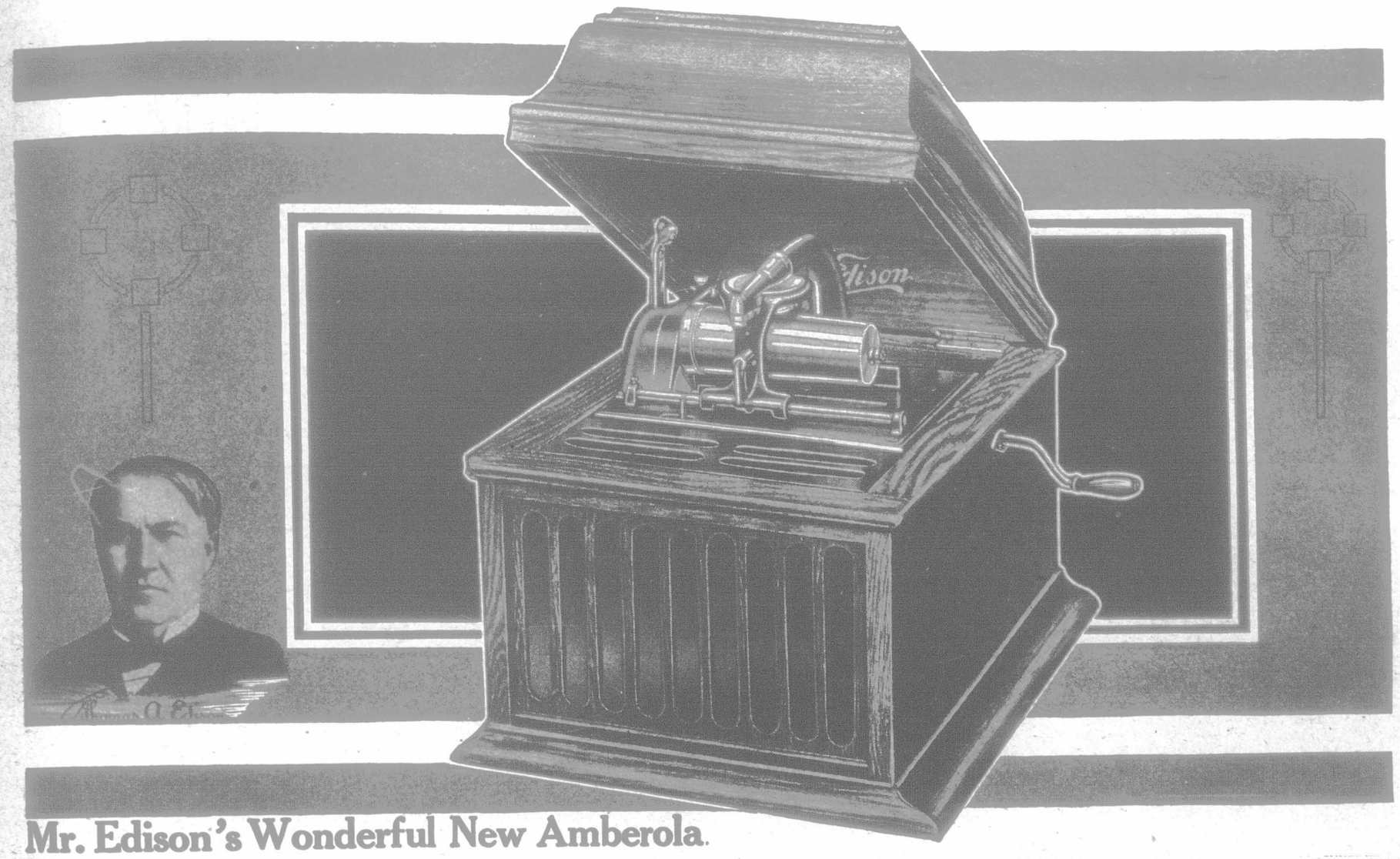


Mr. Edison's Wonderful New Amberola.

Sent on Free Trial!

Read the Coupon Below!

An astonishing offer—the New Edison Diamond Amberola, Mr. Edison's great new phonograph with the Diamond Stylus reproducer, and 12 brand new Blue Amberol Indestructible 4-Minute Records sent to you on *absolutely free trial.* ***Send no money***—just fill out the coupon below and send it to us at once. We will send you the complete outfit immediately. No C.O.D. Entertain your family and friends with the latest song hits of the big cities. Laugh at the side-splitting minstrel shows. Hear anything from Grand Opera to Comic Vaudeville. Judge for yourself just how much this great phonograph would mean to your home. Decide if you can get along without it. After the trial in your own home, make up your mind. If you decide not to keep the outfit, send it back to us *at our expense.*

Only $1.00 After Trial

If you wish to keep Mr. Edison's superb new instrument after the free trial, send us only $1.00. Pay the balance of $71.80 for the complete outfit in easy payments of only $6.00 for 11 months and $5.80 for the 12th month, total $72.80. Remember the 12 brand new Blue Amberol Indestructible 4-minute records are included with this outfit.

Think of it—a $1.00 payment, and a few dollars a month to get this outfit of Mr. Edison's new phonograph with the Diamond Stylus reproducer, the life-like music—the same Blue Amberol Records—all the musical results of the highest priced outfits. The *finest*, the *best* that money can buy at very much less than the price at which imitations of the Genuine New Edison Diamond Amberola are offered.

After years of labor on his favorite invention, Mr. Edison has made the music of the phonograph true to life. There is no reason now—especially since we make this rock-bottom offer—why you should be satisfied with anything less than Mr. Edison's genuine instrument. You are under no obligation on this free trial offer. *Hear the New Edison Diamond Amberola in your own home before you decide.*

Send No Money
Just the Coupon!

Convince yourself first. Get the New Edison Diamond Amberola in your home on free trial. See what a wonderful instrument it is—how it brings the music of the world's greatest singers and players, the sweet old time melodies, the jokes of the funniest vaudeville actors, all right into your own parlor as if they were there *in person*. See for yourself how much you *need* the New Edison Diamond Amberola in your life. See how much happier it will make your home. Just fill out the coupon and send it in. Of course, we do *not* want to ship an outfit to a person who can not offord to at least pay on easy payments (and when you get a free trial it must be understood that you can *afford* to keep it). *Yet*, no one is *under any obligations* to keep an outfit if it is not entirely satisfactory. If it is not just what you want for your home, return it *at our expense; you*, not we, must judge what the Edison phonograph means to you and we accept your decision cheerfully and without question.

F. K. BABSON, Edison Phonograph Distributors, Dept. 199
338 Portage Ave. Winnipeg, Man.
U. S. Office: Edison Block, Chicago, Ill.

No obligation to buy in sending this coupon; this is just an application for a Free Trial

F. K. BABSON, Dept. 199, 338 Portage **Avenue, Winnipeg, Manitoba**

Dear Mr. Babson:—As per your offer, I should like to hear Mr. Edison's wonderful new style phonograph in my home on free trial. If I decide to keep the outfit, I will have the privilege of the rock-bottom price of $72.80 direct from you on special terms. I merely agree to take the outfit promptly from the depot, pay the small express charges, and if I do not find it thoroughly satisfactory, I reserve the right to return the outfit at once at your expense. Otherwise, I will send the first payment of $1.00 within forty-eight hours after the free trial or as soon as possible, in no case exceeding one week, and will make monthly payments thereafter of $6.00 for 11 months and $5.80 for the 12th month. Total $72.80. The outfit is to remain your property until the last payment has been made. (This offer is not open to anyone under 21 years of age. If you are under 21 ask your father, mother or guardian to fill in and sign this coupon for you.)

My name..... Address or R.F.D. No.....

City..... State..... Ship by..... Express

Shipping point..... Ship by..... Occupation.....

Age..... Married or Single..... If steadily employed at a salary please state.....

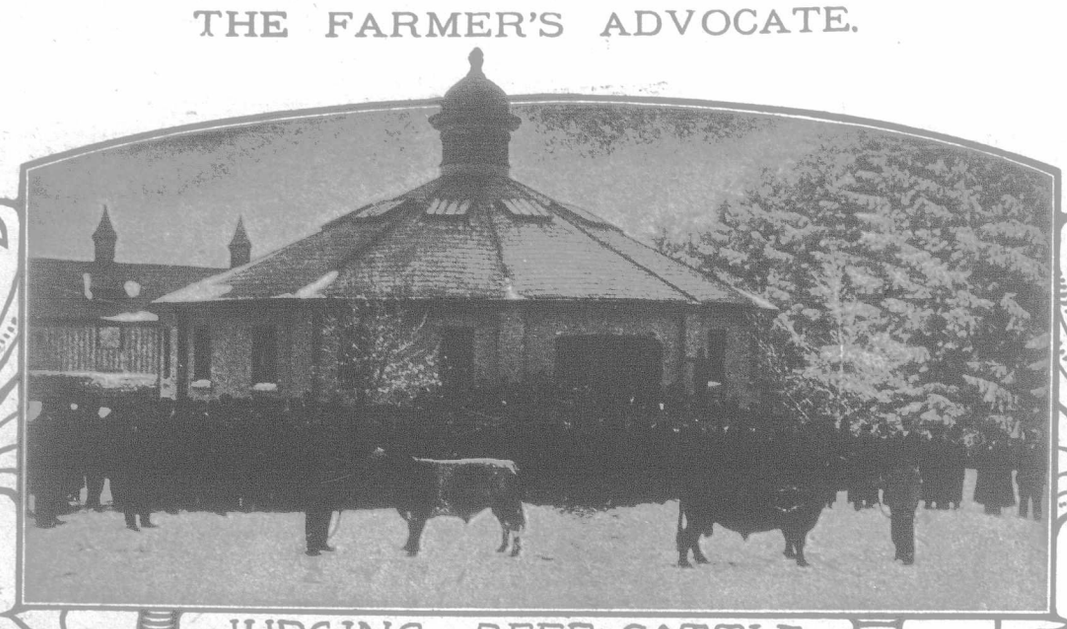
How long a resident in your neighborhood and your vicinity?..... If there is any possibly of changing your address during the next year, what will be your next address?.....

FREE!

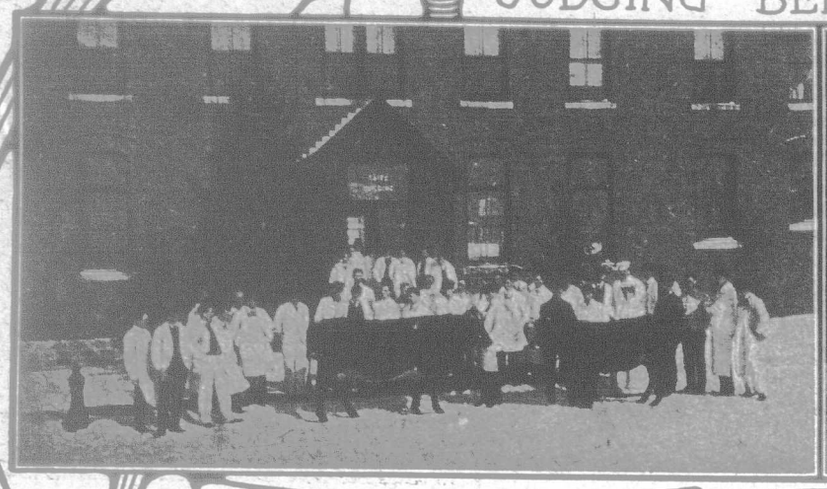
Short Courses at the O. A. C.

Factory Dairy Course
(6 months)
Jan. 2nd to Mar. 19th.

Farm Dairy Course
(4 weeks)
Jan. 26th to Feb. 20th.



JUDGING BEEF CATTLE.



BUTTER-MAKERS.

JUDGING POULTRY.

FREE!

Short Courses at the O. A. C.

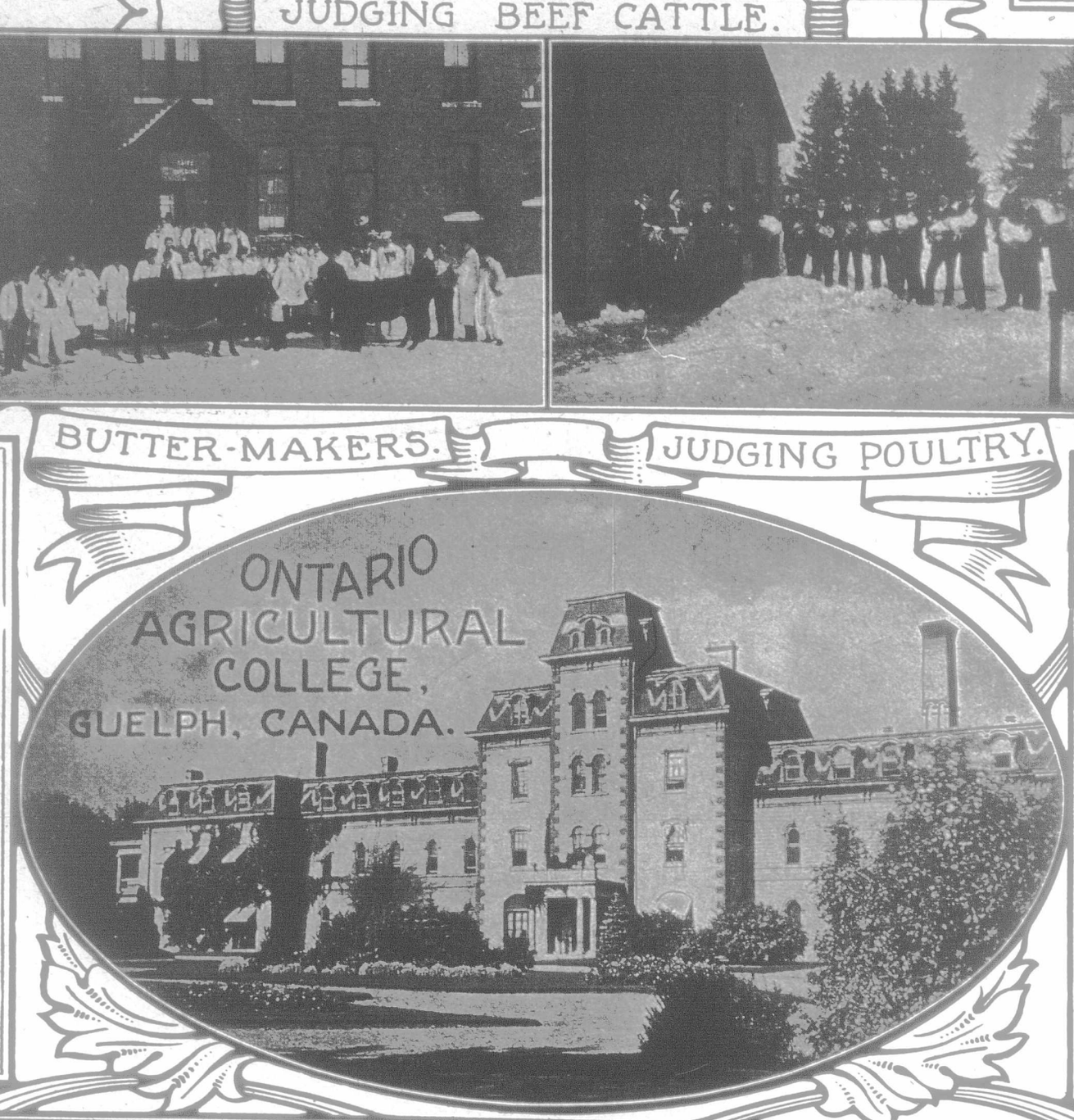
Stock and Seed Judging
(2 weeks)
Jan. 13th to 24th.

Poultry Raising
(4 weeks)
Jan. 13th to Feb. 7th.

Bee Keeping
(2 weeks)
Jan. 13 to 24

Farm Drainage
(2 weeks)
Jan. 13 to 24

Farm Power
(2 weeks)
Jan. 27 to Feb. 7



Fruit Growing
(2 weeks)
Jan. 26 to Feb. 7

Vegetable Growing
(2 weeks)
Feb. 9 to 21

Floriculture and Landscape Gardening
(2 weeks)
Feb. 23 to Mar. 6

FRUIT PACKING DEMONSTRATION.

DRESSED CARCASSES.

These courses are FREE. No tuition fees. The only expense is railway fare and board, write for a Short Course Calendar which gives full Particulars.

G. C. CREELMAN, PRESIDENT

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LIV. LONDON, ONTARIO, DECEMBER 11, 1919. 1420

Christmas and Its Message to Mankind.

The significance of Christmas and the message it brings to human hearts remain the same throughout the ages. The Yuletide has been observed since the star shone over Bethlehem, guiding the wise men of the East to the humble birth-place of their Christ; and it is well that at some season of the year mankind should cease from the commonplace things of life to perpetuate by spirit and by gifts the first real Christmas of twenty centuries ago.

"On Bethlehem's quiet hillside,
In ages long gone by,
In angel notes the glory floats,
'Glory to God on high.'
Yet wakes the sun as joyous
As when the Lord was born,
And still he comes to greet you
On every Christmas morn."

"Then sing your gladsome carols,
And hail the new-born Son;
For Christmas light is passing bright,
It smiles on every one.
And feast Christ's little children,
His poor, his orphan call;
For He who chose the manger
He loveth one and all."

Through long seasons of peace and the troubled days and years of war the message is the same. Comrade and enemy, friend and foe alike, submit to the gentle impulses of the festive season, and in accordance with the custom of many lands celebrate the coming of Him whose message still rings true. Were the Divine benediction observed throughout the year, sorrow and hardship would be minimized and man would be the servant as well as the benefactor of his neighbor. "Peace on Earth, Good-Will toward men," observed in practice as well as in principle, would lessen the burdens of nations and individuals alike, and bring to the troubled people of the earth the peace, solace and contentment which all so earnestly desire. Into the minds and hearts of men and women there are coming new thoughts, new ideals, new self-imposed responsibilities. Citizenship with all that it entails is being recognized as the inviolable right and the bounden duty of the individual, rather than a pastime or a monopoly of the leisured rich. Those who work and those who do not, together constitute the state, and each has his or her own duty to perform. When we all realize the real meaning of the word "service" and the requirements of citizenship, a marked change will come about and the conduct of nations will be more in harmony with the happy Yuletide spirit which prevails on Christmas Day.

Respects for the rights of others is the first duty of every citizen, and in these times when the very foundation of Governments throughout the world is threatened, how can one do better than accept the Golden Rule as the one great guiding motto of our lives? Every right and privilege implies a correlative duty. The citizen should realize that every concession asked for himself may be claimed with equal justice by his neighbor and other members of the complex social system. Accumulated wealth and intellectual endowments impose duties in proportion to those advantages or gifts, but they entitle no one to special privileges that cannot be granted to a weaker and less fortunate brother. The conduct of one and all should be so calculated as to knit together the social fabric of many strands, and to maintain the peace and good-will of classes, upon which true happiness is ever based. No amount of preaching, exhortation, or advice can guide one better on his way, or add one jot or tittle to the Divine injunction: "Whatsoever ye would that men should do to you, do ye even so to them."

Citizenship implies service and there is coming into the world a truer conception of what service really means. Work,—honest, conscientious work—is coming into its own. People generally are not showing more devotion to their tasks or greater perseverence in the pursuit of things to do, but there is so much need to-day for all those things which minister to the wants of mankind that anyone who turns his hand to the production of necessities is a benefactor of the race whose service must be recognized. Labor is the first necessity of human existence, and a proper adjustment of the mental attitude will give honor where honor is due. Whether it be in the field or factory, mine or forest, office or pulpit, work honestly performed means service to mankind, which, in the end, will command respect and gratitude. Our social system is beginning to appraise more truly the motives and conduct of men. Workers, drones and parasites will be classified into their respective categories, and each stamped with the mark of approval or disdain.

Service means a deep concern in our Governments and a similar concern on the part of those who rule for the well-being, comfort and prosperity of the governed. All the forces of the land, moral, religious, secular and financial, should be linked together in a forward movement to elevate the less fortunate, by education and training, to as high a plane of citizenship as they are by intellectual endowment empowered to attain, and place within their grasp all those things which contribute to the mental and physical well-being of our countrymen.

Christmas should be a time of joy, thanksgiving, sacrifice, and service. For wholesome mirth, perhaps, the old-time Yuletide surpassed the modern festive season, but the last few years have taught us much. Our minds have been broadened, our vision extended, the world has been brought closer to our door. The lessons learned should not be soon forgotten, and we should allow gifts, our sympathy, and deeds of kindness to brighten the pathway of friend and stranger alike, for we are all neighbors in this little universe. Bring back once more the old Christmas spirit which compelled the feeling of good-will and gathered many to the one large festive board. Do not forget the needy or those whose hearts are sad. Restrain not the little ones in their unadulterated joy, and make this the best and truest Christmas in living memory.

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, $2.50 per year; all other countries, 12s. in advance.
3. ADVERTISING RATES.—25 cents per line, agate, flat. Live-stock advertising rates given on application.
4. THE FARMER'S ADVOCATE is sent to subscribers until an explicit order is received for its discontinuance. All payment of arrearages must be made as required by law.
5. THE LAW IS, that all subscribers to newspapers are held responsible until all arrearages are paid, and their paper ordered to be discontinued.
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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 or 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, or
THE WILLIAM WELD COMPANY (Limited),
London, Canada.

A Word From the Publishers.

With pleasure we present this, the 1919 Christmas Number, to all readers of The Farmer's Advocate and Home Magazine. With it, into all homes where it may find its way, go the best wishes of its publisher, for a merry Christmas and a happy, prosperous New Year. Readers will notice changes in the Christmas Number as the seasons pass; these changes will be welcomed by some, while others may prefer the styles, illustrations and editorial matter which characterized our holiday numbers of the past. Be that as it may, "There is nothing constant except change," and year by year the entire staff of "The Farmer's Advocate" put forth every effort that the current Christmas Number may be better in every respect than the one which preceded it. This is the spirit in which the Christmas Number is compiled; expense is not considered, and every one of the hundred pages in the book is prepared with special care. We believe this is the best Christmas Number yet presented to our readers, but we have confidence in the judgment of those who read it and by their verdict we are willing to abide. Two more issues in this month will complete the fifty-fourth year of continuous publication of "The Farmer's Advocate," and to be able to present its readers with a hundred-page book, bigger and better than anything in the past, is cause for gratification. This is made possible only by the whole-hearted support of those who read the paper and the continued patronage of those who use its advertising columns. Never in the history of this journal was it held in more universal esteem than now, and this feeling of good-will the publishers and staff are endeavoring to reciprocate with one hundred per cent. service, and a continued devotion to the agricultural industry for which the paper stands.

The burdens cast upon publishers by the upheaval throughout the world are becoming heavier rather than lighter. Every item is costing more and, as in farming, the uncertainties are greater. Nevertheless, we have held the subscription price to the pre-war level in spite of the ever-soaring costs of publication, and many subscribers have commented on the fact that "The Farmer's Advocate" is the only thing for which they are not paying more than formerly.

We sincerely hope that the coming year may be more settled and brighter than the past, and if this special number contributes something to the advancement, pleasure and prosperity of our countrymen, we shall feel that our efforts have not been in vain. When through with this issue, show it to your friends or neighbors, and if extra copies are desired as gifts they will be forwarded, near or far, at the nominal price of 50 cents each. New subscriptions will be started with a copy of this issue so long as the supply lasts. "The Farmer's Advocate" wishes one and all a Merry Christmas and a Happy, Prosperous New Year.

Nature Study on the Farm.

By A. B. Klugh, M. A.

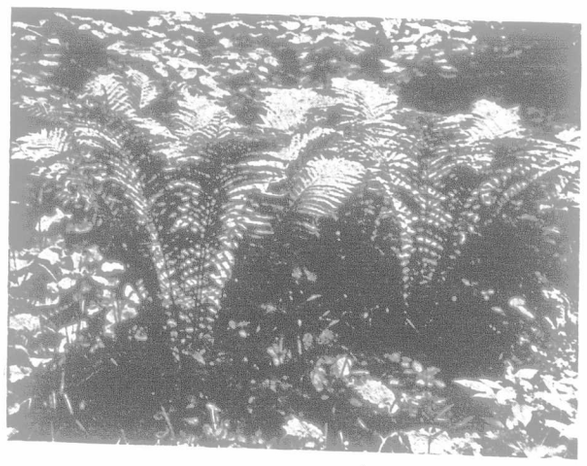
The farmer is a worker in nature's laboratory, and the more he knows of the facts and forces of nature the better he is as a farmer—and as a man. The value of nature study is two-fold, aesthetic and economic. As to which is the more important aspect may be debatable, but I put the aesthetic first because it is the more fundamental. A knowledge of the economic side may help a man to make a living, but an appreciation of the aesthetic teaches him how to live.

"The Marsh Marigolds Raise their Golden Heads."

The farmer is ever in the midst of nature, ever in close contact with the myriad forms of life. As he works in the field and meadow, orchard and wood, there is beauty and mystery on every hand. If his power of appreciation of these beauties and mysteries lies dormant he sees only the hum-drum side of life, but if through nature study his appreciation has been aroused and developed he is in harmony with his environment, and enjoyment and true contentment are his lot. The power of appreciation is not, as might be hastily assumed, a faculty which arises and reaches its fullest development spontaneously. True appreciation can come only through knowledge, through training, and this is equally true of art and nature. A man may "like" poetry, music or pictures, but his appreciation of the subtleties, of the finer and more exquisite beauties of these arts is dull unless his mind and senses have been quickened by training. He may derive a certain amount of enjoyment from the sights and sounds of nature, but true appreciation is reached only when the manifold intricacies and the most vital aspects of nature are revealed by close observation and study.

To give a man "eyes which see" and "ears which hear" and thus to reveal to him beauties before unperceived; to enable him to catch at least a few bars of the eternal symphony of the spheres; and to bring him into harmony with his environment and thus promote a contentment all too rare in these times of unrest, may truly be said to be no small thing. This is what can be accomplished on the aesthetic side by nature study, and I know of no other factor which can play so potent a role.

While the aesthetic value of nature study is fundamental, the economic value is also extremely important, and nowhere is this importance more manifest than on the farm. The farmer is constantly working both with and against forces of nature, and naturally the more he knows of these forces the more successful are his operations.



The Fronds of the Ostrich Stand Like Large Vases.

One of the very practical benefits derived from nature study is the inculcating of the habit of accurate observation. This faculty is of inestimable benefit in all walks of life, and to none is it more important than to the farmer. Yet this faculty is, unfortunately, surprisingly rare, and all sorts of absurd beliefs and prejudices continue to flourish because people are not trained to observe for themselves. Careless observation goes hand in hand with loose thinking, while accuracy of observation leads to clear reasoning.

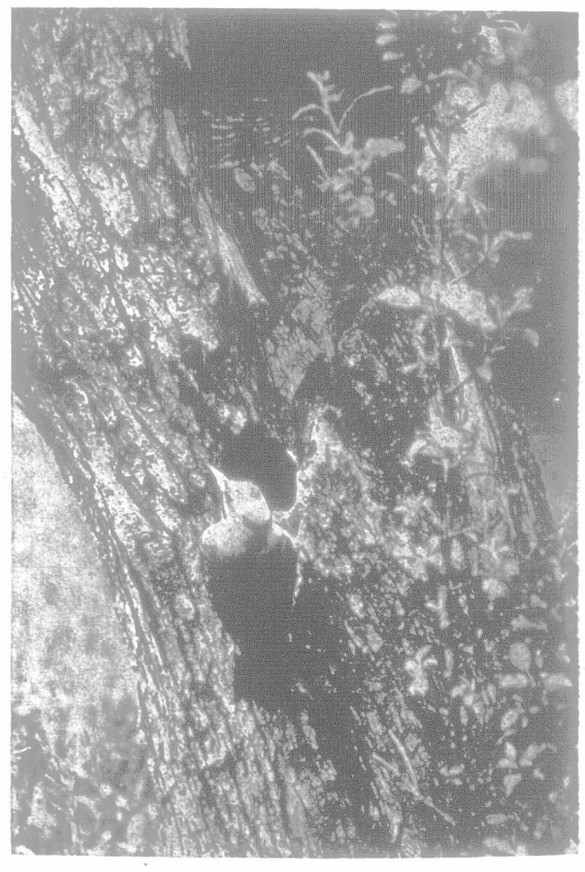
The fantastic things which people whom you regard as ordinarily intelligent will tell you about animals and plants would be funny if they were not sad—sad because they reveal that these people have used their eyes but little and their brains not at all. We pride ourselves on living in an enlightened age, but many of the widely current notions on natural phenomena have apparently been transmitted unchanged from the middle ages; yet these notions would be dispelled by a little original observation.

The general trend of all teaching is to cause pupils to believe what they are told. This is unavoidable in many subjects, particularly in elementary teaching, but an antidote for the placing of entire reliance on the spoken or written word is necessary, and this antidote is supplied by nature study.

Through nature study a thousand and one useful facts concerning injurious insects, useful, predaceous and parasitic insects, the economic status of birds, weeds, poisonous plants, the physiological requirements of plants, and the actions and interactions of the various forms of life which abound on the farm may be developed.

A little knowledge of weeds may often prevent the introduction of a very noxious plant. A man had a small patch of a very bad weed on his land. He had seen it, but paid no particular attention to it until a nature student roaming over the farm eliminated the patch, and taking some of the plants to him warned him of its noxious character.

Another man noticed that some plants in his garden were in an unthrifty condition. He saw little hemi-



The Flicker Takes Up His Abode in a Hole in a Stump.

spherical, red beetles on the plants, and assuming that they were the cause of the trouble he collected and destroyed them. The plants rapidly grew worse, and he was at a loss to account for it until a nature student showed him the minute aphids which were sucking the life-sap of his plants, and informed him that he had destroyed the lady-beetles which were eating the aphids.

An orchardist saw the series of holes which had been drilled in his trees by the yellow-bellied sapsucker, and assuming that this was the work of the little downy woodpecker he shot all these birds which visited his orchard to feed on the hidden cacoons of the codling moth and to extract the borers from the trees.

A dairyman pastured his cows in a field which bordered on a marsh. One day he found three of the cows dead. Neither the dairyman nor the veterinarian could ascertain the cause of death, but a nature student solved the problem when he found roots of the water hemlock, which had been cropped by the cattle, in the swamp. The swamp with its deadly plant inhabitants was then fenced off—a proceeding which probably saved the rest of the herd.

During a very wet season slugs became extremely abundant and were doing a great deal of damage in many gardens. The owners tried various methods of combatting them but without success, until someone whose interest in nature had extended even to the study of such unattractive things as slugs, and who consequently knew their habits, suggested the use of

(Continued on Page 2266.)

The Message of Peace to Rural Canada.

By Hon. T. A. Crerar.

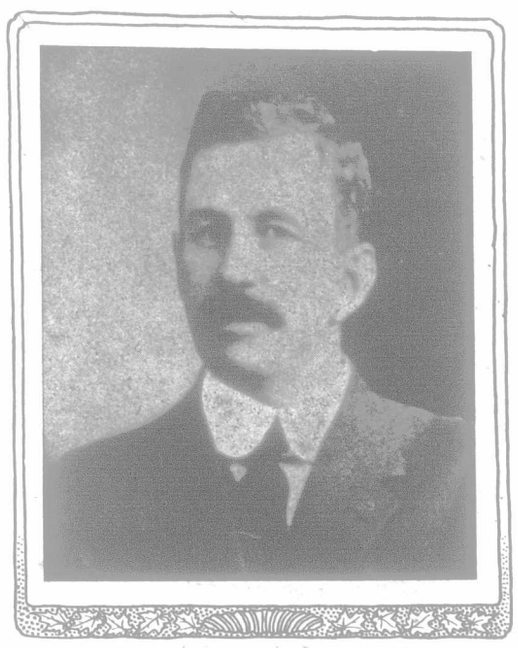
THE Christmas Season of 1919, for the rural people of Canada, with backs turned upon a war which has made the Christmas Seasons of the past five years almost a travesty, should mark a period of particular significance and importance. The farm homes throughout all parts of the Dominion have performed their noble part in bearing responsibilities and sacrifices involved in the recent war. They contributed their share of hard physicial toil in increasing and maintaining a needed output of foodstuffs. Their sons made some of our best soldiers on the battle fields of Europe, and bereavement and sorrow have touched every rural community. Life amongst farming peoples everywhere is symbolical of Peace. No class of people will so gladly welcome the defeat of militarism and the return to the ways of Peace as those who are living and working on the land.

In Canada, however, the return to Peace involves for the farming community more than the mere celebration of the conclusion of war. It ought also to mean the entrance upon a new period in the social and economic life of this country. Peace means for this Dominion, as well as the devastated countries of Europe, reconstruction—reconstruction of policies and ideas as well as the rebuilding of property and trade. In this work of national importance the Canadian farmer has the immediate opportunity of playing a greater part than he has taken in the past. Indeed, it is incumbent upon him to take that part, if Canada as a whole is to work out her proper destiny amongst the other nations of the world. An increased share in the responsibilities of Canadian citizenship is, after all, the best reward which can come to the farming people of the Dominion for the national service which they have performed during the past five years. It is theirs to enjoy that greater measure of nationhood which Canada has earned and established through the contribution which she made in foreign fields to the allied cause in the war.

In the past years the farmer in Canada has been rather disposed to let other interests than those of agriculture exercise a dominating influence over the affairs of the Dominion. The National Policy, so-called, under which Canada's material development has proceeded during the past 40 years has been based upon a fallacious principle, and in consequence we have to-day in this country an unwholesome and unhealthy proportion of our population congregated in urban, industrial centres, while beyond, vast acres of latent wealth, as well as extensive forests and mining areas, await the application of labor and capital. The altogether one-sided character of the national growth of Canada since Confederation is traceable largely to the fact that agriculture, while openly recognized as the "backbone" of Canada, has not been given the earnest and practical attention which the primary industry of the Dominion deserves. This, moreover, has been due in large measure to the willingness of the rural people to permit advocates of this unsound National Policy to gain too powerful a control over the public administration of their country.

This does not mean that farmers as a class are called upon to assert a narrow, selfish, class interest to overcome the handicaps which have been placed upon agricultural development during the past generation. It does mean, however, that intelligent opinion in the rural districts must be brought to bear upon the question of national policy in a determined and concentrated way. As representatives of the basic industry of the country, viewed both from the economic and social points of view, the Canadian farmer and his wife have no apologies to offer to anybody for exercising a greater claim upon the interest of Canada as a whole.

The present position of farming in Canada can best be described by a brief summary of returns made to the Dominion Census. The latest reports of the Dominion Census reveal a persistent tendency towards the growth of the urban centre even in the agricultural provinces of the West. The increase of population in the urban communities has been more rapid during the past two decades than it has been in the rural districts; and in the old Province of Ontario where urban industry has flourished most, the rural people have been depleted and reduced in numbers. In the Census of 1911, the urban population of Ontario was shown to have increased by 392,511 in ten years, whlie the rural population decreased 52,184 during the same period. In old Ontario in 1911, the urban communities represented 1,328,489 people as against 1,194,785 people in the rural districts. Urban industry in old Ontario, stimulated since 1914 by the war, has further increased this marked inequality. Quebec's rural population from 1901 to 1911 increased only 39,951 as compared with an increase of 314,383 in the cities of that Province. The rural populations of the three Maritime Provinces were materially decreased, and in both Nova Scotia and New Brunswick, the urban centres experienced comparatively large increases. A later Census has been published for the Western provinces, and here it is shown that as compared with 75.39 per cent. of the population being rural in 1901, the proportions in 1916 were 64.31 per cent. rural, and 35.69 per cent. urban. For a country, scarcely 15 per cent. of whose available agricultural lands are yet under cultivation, such a division of the population, as is shown by these figures, is abnormal and unhealthy. In the Census of 1911 the urban population of Manitoba, Saskatchewan and Alberta was shown to have increased 92 per cent. during the previous ten years, as compared with an increase of only 52 per cent. in the rural districts. The recent Census of 1916 shows that since 1911, this tendency towards expansion in the cities of the West has continued. In Saskatchewan, the predominant agricultural province of the Dominion, the percentage of rural people in the population has decreased from 84.37 per cent. in 1911 to 72.79 per cent. in 1916.



Hon. T. A. Crerar.

These figures show as clearly and as graphically as anything can demonstrate, the proportions of Canada's existing social and economic problems. Conditions which, in a pioneer country like Canada, have made it not only possible but more profitable for people to congregate in urban communities, and to expand the industrial equipment of Canada far beyond her present domestic needs, have been wrong, and must be changed if this country is to see its way clearly through the serious problems which now confront it. The cause of underproduction from the land and the failure of agriculture to draw and hold people to it as a business or occupation are due, in my opinion, to the effects of a National Policy which has consistently ignored the real and true sources of the nation's wealth. These basic conditions must be right before future generations can be expected to live on the land. Farming to be encouraged as the one greatest economic necessity in our national life, must be made more profitable to be attractive. There is much to be said about that inherent love of the land without which a man will never make a successful farmer, and it is as true of farming as it is of matrimony that when poverty approaches, love soon flies out the window. Farm homes are an asset to any country, and most of all to a country like Canada which is still laying foundation stones for a national superstructure. To have the proper sort of farm home through which future Canadian generations may be enriched, it is necessary that the farming industry should be assured of a monetary return sufficient to provide that margin of comfort which can afford privileges of education and social betterment. When this underlying condition is righted, we may then discuss questions of scientific agriculture in relation to soil cultivation, seed selection, animal husbandry, horticulture and the numerous other departments of farming in Canada.

When one considers the small fraction of available agricultural land in Canada that is settled upon and engaged in the work of producing food, the whole object of such an article as this should be to emphasize the need of immigration and colonization. Even in the Province of Ontario where agriculture is most varied, the new northern portions of that Province present an area for development which far overshadows, in possibilities, the results of the past three generations of agricultural work in its older regions to the south. When we look at a full-sized map of Canada and see how small a proportion of the total area is represented by populated districts, the thought must come to those interested in the future development of Canada that in so far as agriculture is concerned, the problem is not so much concerned with improved processes of farming in those parts already settled, but in improving basic economic conditions to the point where the tide of humanity shall make greater headway in regions which are yet wilderness and waste. But, to make headway for the future it is necessary for the present generation of farmers to organize themselves so as to perform tasks in marketing and buying co-operatively, thus enabling themselves collectively to overcome, in a degree at least, difficulties which it would be impossible to overcome as individuals. Co-operative effort in the farming communities of Canada is rapidly expanding, and promises to revolutionize old methods of merchandising and distributing goods. Co-operation also has a most important incidental influence upon those who enter into its spirit. It matters not whether co-operation be undertaken in the form of elevator companies, live stock associations, egg circles, beef rings, or companies for supplying coal, binder twine, flour or fence wire, the inevitable by-product of such organization will be the creation of a new and more vigorous appreciation of those rights and responsibilities which go with citizenship in municipality, province or Dominion. Co-operation also has the happy effect of developing social life and making a closer community in rural districts. To me, the goal of an agricultural policy for Canada should be,—first, to establish basic economic conditions which would extend present cultivated areas into the present vast territory which lies in idleness and waste; second, to encourage co-operative organization on the part of old and new farming communities alike; and third, through such organization to improve processes of production.

The importance of the present national situation in Canada following the war and the vital relationship to it of agriculture should, if properly encouraged, awaken a new sense of national consciousness amongst farming people in all parts of the Dominion. At the end of the present year, the net federal debt of Canada will amount to two thousand million dollars, or $250 for every man, woman or child living in the Dominion. Five years ago this same national debt amounted to only about $45 per head. The cost of bearing this greatly enlarged debt, together with the amount involved in carrying on various departments in the nation's affairs, will require at least four hundred million dollars a year. This means that after this year, the Minister of Finance at Ottawa will be faced with the necessity of raising money at the rate of almost $50 from every person living in Canada, in order that the nation's business may be conducted safely and satisfactorily. Five years ago, it was only necessary to raise $21 per head of the population to carry on the administration of federal affairs, It is clear, therefore, that with such a greatly increased financial burden which must be borne, new sources of federal revenue will have to be found. The vast storehouse of natural wealth which lies within the bounds of Canada as yet untouched, should easily provide ample sources of income to this country within the next decade. The problem will be to transform as much as possible of this natural wealth into forms of negotiable wealth, and in doing so make fair and equitable adjustment of the burdens of taxation. Agricultural resources rank first among the natural assets of the country. In view of the national need, therefore, agricultural development ought very easily be made the channel through which the present heavy financial burden on the people of Canada should be lightened. It lies with the agricultural communities of this Dominion to make such development possible, and thus perform their great part in bringing Canada through this period of reconstruction to a position of security and strength. In this way, if we but do our best, it may be said of Canada in future years that "Peace hath had her victories no less renowned than War."

A Scene Near Berwick in the Annapolis Valley, Nova Scotia.

The country-life movement is the working out of the desire to make rural civilization as effective and satisfying as other civilization. It is not an organized movement proceeding from one centre or even expressing one set of ideas. It is a world-motive to even up society as between country and city; for it is generally understood that country life has not reached as high development within its sphere as city life has reached within its sphere.

We call it a new subject. As a "movement," or a recognized set of problems needing attention, it may possibly be called new; but in reality it is new only to those who have recently discovered it.—*L. H. Bailey.*

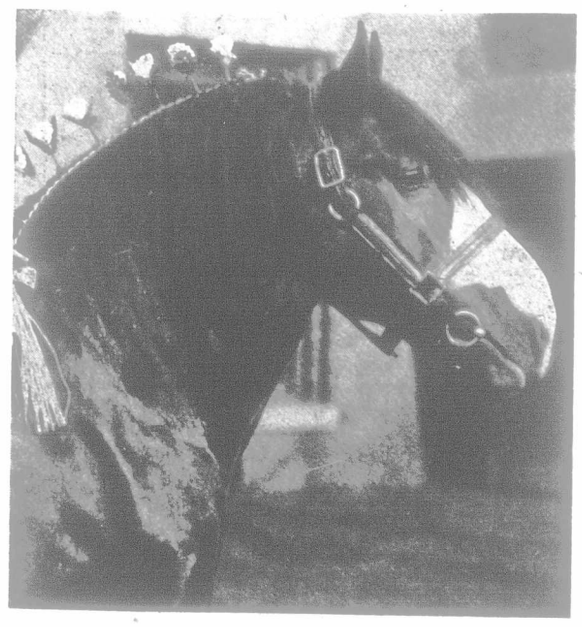
The Needs of Modern Clydesdales.

By Alex. Galbraith.

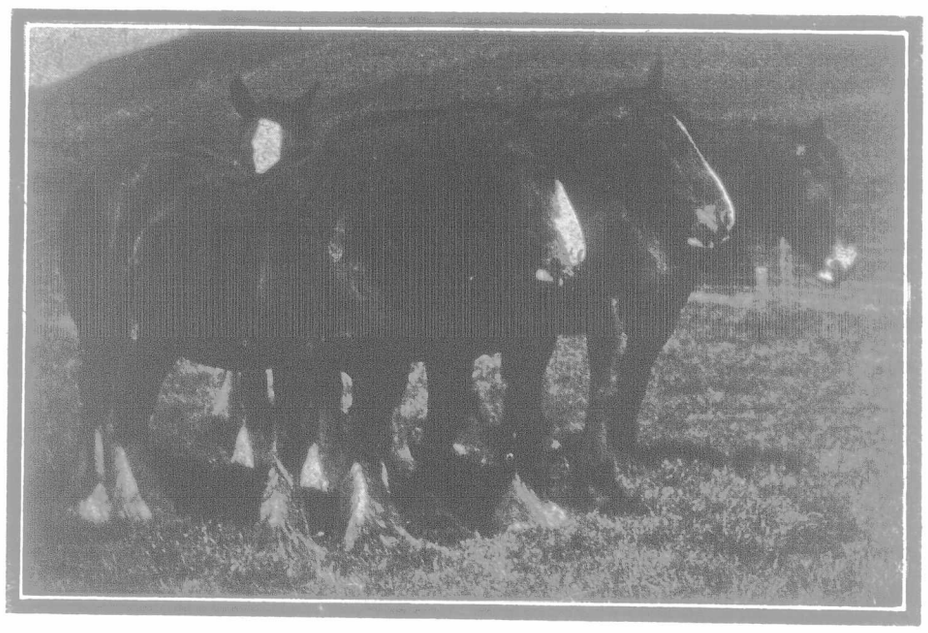
THE task has been placed before me to state briefly what, in my opinion, are the greatest needs of the Clydesdale breed in Canada to-day, and how these needs can best be satisfied.

The question pre-supposes the fact that something is wrong, something is lacking in present-day Clydesdales and, considering the fact that the Percheron and Belgian breeds are pressing closely on the heels of the longer established Clydesdales in Canada, and in some cases supplanting them, it makes the question a vitally practical one.

Now, if we admit that something is wrong, let us try to ascertain what it is with a view to rectifying this error if possible. Half a century ago or more, the Scottish breeders and users of Clydesdales found from experience that the weakest or most vulnerable places in the draft horse in the cities were the fore feet and the hocks. This was not peculiar to Clydesdales but applied to all breeds of draft horses. The feet were inclined to be brittle, and the hocks subject more or less to bog or bone spavins. It was likewise found very essential to have lengthier and more oblique pasterns in order to give elasticity of movement, and so remove the tendency to concussion. They also saw the desirability of straight, forward action in front and tolerably close hind action so as to attain the maximum propelling power and endurance. These conclusions were all perfectly sound, and the Scottish breeders, acting as pioneers, and recognizing the necessity of making changes, with the view to improvement, set themselves earnestly and persistently to the necessary task. Scarcely any complaint was heard at that date about under-sized horses, such as are very plentiful to-day, it is scarcely an exaggeration to say there were none. When Prince of Wales appeared as a yearling colt in 1867 and as a two-year-old in 1868, I remember well the enthusiasm he created, and how his narrow and somewhat "Roman" head and straight hocks were the only points that could be criticized. These defects, doubtless, came from his English ancestry—his grandams on both sides having been grey mares that came from the south country and presumably of the Shire breed, although this has always been a disputed point. A few years later, Darnley appeared on the horizon, but until he matured he elicited no special interest. His dam, a magnificent brown mare (Keir Peggy) had been stinted to a somewhat small and rather obscure son of Lochfergus Champion named Conqueror, and produced the world-famed Darnley. Darnley's faults consisted in an inclination to paddle when trotting and in being decidedly light in the muscling of his arms and thighs, although he was a magnificent horse otherwise. So popular did Darnely become during the thirteen years of his life time and so numerous are his descendents now that these defects are more or less visible in 90 per cent. of the present-day Clydesdales. Both Darnley and Prince of Wales were beaten when matured, Prince of Wales lowering his colors once to Rantin Robin, and Darnley suffering a defeat from the celebrated horses—Topsman and Druid. All these five horses weighed over 2,100 pounds, Druid being the heaviest, as he scaled nearly 2,400 pounds. Topsman was the greatest show horse of them all, and weighed 2,240 pounds.



A Real Clydesdale.



Bonnie Clydesdale Mares at Pasture.

The Clydesdale at Work on His Native Soil.

It is a far cry from that date to the present. It is a still further change from the Clydesdale type of the above-named horses to those now "ruling the roost." It is a question of evolution, but whether the wonderful change that has been made is for the better or worse remains a problem. That the breed has gained in many respects, such as quality of bone, action and under-pinning, goes without saying. That they have lost materially in weight of bone, substance, width, depth, and especially muscling in arms and thighs, is equally indisputable. That they have lost or are rapidly losing nearly all the foreign markets is also painfully evident and much to be regretted.

Now what is the cause and what is the remedy? No one will deny the benefits accruing from the annual competitions at the various shows in Scotland during the last half or three-quarters of a century. But these benefits have not, in my opinion, been entirely free from harm. A fashion has been created in Clydesdale show-rings that is at once foolish and frivolous, and entirely unworthy of the intelligence of such skilful men as these successful breeders undoubtedly are. Whether in the breeding of Shorthorn cattle or Clydesdale horses, the world has not produced more able or more skilful breeders than many of those still engaged in the business. They have molded the animals exactly according to their own ideas, and we all willingly and cheerfully take off our hats to the marvellous constructive ability of these master-minds.

But while this is the case, we are now confronted with a condition rather than a theory. If the Clydesdale has lost scale and substance and is losing the Canadian and other markets, what should be done to stem the tide? To this query I at once reply, cut out or abolish those foolish fads which prevail in the show-rings. Let breeders study the markets more closely and try to breed and supply the class of horses that those markets demand and for which they pay the highest prices. About the silliest fad I have ever known is the so-called "Spat"—an indispensible ornament of every Scottish show horse in recent years. It has no real use, as every sensible man knows, but is simply an attempt to create by artificial means, an imitation or false pastern. It is only a spurious deception and ought to be condemned everywhere.

Another foolish notion is the supposed necessity of having a horse built on extremely narrow lines, so that his hocks almost lean against each other and his fore legs, as has been well described, "seem to come out of one hole." In my boyhood days in Scotland there was a familiar song concerning a local thieving tramp named Heather Jock, who succeeded in usually evading the law officers. One couplet ran as follows:

"Jock was supple, swank and thin
Fine for going against the wind."

I have sometimes thought that a good many of the real up-to-date Clydesdales were built on the same pattern as Heather Jock, and could "Go against the wind" wonderfully well.

If the propelling power comes chiefly from the hind quarter, the thighs and gaskins, as we all admit, surely the muscles in those parts ought to be especially well developed. In like manner, the forearms should be strongly muscled. In these respects the present-day Clydesdale does not compare favorably at all with any of the other four draft breeds, nor with the Clydesdale of forty or fifty years ago. Neither are they up to the required weight, on an average, to-day. There is no reason in the world why the Clydesdale should have less weight than the Percheron.

Fifty years ago the Clydesdale out-weighed the Percheron on an average by several hundred pounds, and now it is the very reverse.

What is needed to restore the Clydesdale to the premier position in the world's markets are:

One.—Sane, sensible judging standards, regardless of so-called fashion or previous awards, and remembering always to "Keep the lorry in view."

Two.—Breeders should more closely consider the market requirements and mate their brood mares accordingly

Three.—More big, thick, weighty horses seen on our streets and public places generally, large numbers being always very impressive.

Four.—Clydesdale geldings well broken and shown in harness, wherever practicable, at fairs, singly, in pairs, three abreast, four-horse teams and six-horse teams. This is where Clydesdales specially shine.

Five.—Liberal, prominent and aggressive advertising in all leading papers, and a regular and persistent propaganda kept up all the time. This is done by the advocates of other breeds, and has never been given sufficient attention by Clydesdale breeders.

Some prominent men have suggested the crossing of Shires and Clydesdales to obtain more weight and substance. I hardly thing this is necessary, nor would

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Climbing the Long Trail.

By Wayne Dinsmore.

THIRTY years ago this Christmastide a lad seated on a huge load of firewood swung his four-horse team out of the river bottom and started up the long, winding canyon trail. Fast falling snow flakes obscured the road and twilight seemed near though it was early afternoon.

The trail seemed unending. From time to time the boy drew rein, and tightening the brake pole, held the load while the powerful blacks and greys regained their wind; but at the word of command they settled together into the pull, as the brake eased off, and moved on up the apparently endless canyon. Time after time they were halted to rest, but went on with frictionless team work that caused the driver's heart to swell with pride in their perfect performance.

The horsemen of this country are to-day on a hard, upward trail. They have had many a bad spot to pass, and are yet far from the top of the divide. They have not made the progress that should have been made in the last few years because of lack of united effort. The horsemen and allied interests need to-day what that slender youth had,—team-work in pulling the load to the end of the long trail.

Take courage, ye of little faith! The horse has been read out of existence time and again by enthusiastic advocates of other types of motive power, but there are to-day more horses in North America than ever before, and the price on good drafters has never been so high.

What is needed, is not more horses, but more of the right kind. With this we need a campaign of education, financed by horsemen and all allied interests, that will raise the horse to a position in public esteem to which his merits entitle him.

How many people in our cities realize that the displacement of horses in most lines of transfer work increases the cost of food, clothing, shelter and fuel? Very few have any idea of this, yet it is true. Mr. Benson, a member of the Chicago Cartage Exchange, recently remarked—"If we do not get more good draft horses soon the cost of transfer work in Chicago will mount very greatly, and merchants will be staggered by the increase in cost of delivery." These, as any one familiar with commerce knows, will be passed on to the consumer of goods,—so that every flat dweller, householder and humble working man, must help pay the higher cost of delivery due to a scarcity of good drafters. The collection, verification and publication of exhaustive proof of the foregoing—it exists and can be secured—will educate the ultimate consumer and the middleman to an adequate appreciation of the part the horse plays in reducing transportation costs. More drafters will be seen on city streets when the men who are interested in horses, harnesses, wagons, horseshoes, horseshoe-nails, blankets, hay, grain and feed, and in the myriad other industries which are related in more or less degree to horses, get together in a national organization strongly financed by small contributions from thousands of sources. They can then educate all people to the truth about city hauling. They can and will show that cost of horse-drawn delivery is to other types, as freight service is to express. Team work by horsemen and allied interests will make this possible.

The place of the horse in agriculture must be studied, and his premier place in economic agriculture clearly set forth by state experiment stations and farm-cost studies. Differences in existing types of horses need careful attention and inefficient types should be weeded out. The load a drafter of the strongest pattern can handle should be determined, and breeders encouraged to produce horses that can deliver more power in proportion to feed consumed. The working life of horses of various types should also be worked out as exhaustively as in mortality tables of large life insurance companies, and preferance given to strains possessing the characters of long life and a high rating on endurance and health; for the horse that can go into the collar every day in the year has a much higher effectiveness in ten years than one that is subject to sick spells, be they due to distemper, influenza or what not.

Comprehensive studies need to be made on reducing farm labor costs by the use of larger team units. Time and again I have seen one man with six horses doing as much per day as two men plowing with three-horse teams, thereby cutting man labor costs in half; yet virtually all that has been done in encouraging the use of larger team units has been done by manufacturers interested in the sale of larger types of machinery. Only one experiment station in the United States has done anything on this, and so far as the writer knows no provincial school of agriculture has had the enterprise to go out and collect the best from the actual experience of Canadian farmers who are using large team units.

These are but a few of the problems before us. They exist in agriculture as well as in commerce and transportation, have never received the attention they deserve, and will not until horsemen and their allies get together in a mighty organization, in which individual ambitions are subordinated to the good of the whole movement. Team work is needed; and it has already been started in the United States in the organization of a body known as the Horse Publicity Association of America. The name will probably be changed, but the purpose of the movement, which I hope will be followed soon in Canada, is to weld horsemen and all allied lines into one united body, that will through true team work pull the load safely and soon to the end of the long, upward trail.

"Under a gray old castle's frowning walls a drawbridge falls across the moat. The trumpets sound. A glittering cavalcade emerges. Pennons gay and guidons flutter in the breeze. Steel and silver—corselet, hilt and morion—glisten in the morning sun, and noble chargers, mostly white and gray, prance proudly, bearing out into the medieval world brave, belted knights and their retainers faring forth to meet what ere betides.

"Generations pass: in the far distance the rhythmic beating of heavy hurrying hoofs! It is a highway builded by the kings of France. To the sound of the horn and the sharp note of the lash, the great diligence bearing the royal mails and laden deep with passengers and their gear comes into view. A rush, a roar of wheels and the great freighted coach is gone.

"Agriculture calls: down the long furrows see the shining plowshares deeply driven. The mellow earth awakens, and lo, the stored-up riches of a fertile field await the seed. Long is the journey and repeated oft. From 'early morn to dewy eve' the living shuttles travel, back and forth; but weight that wearies not is harnessed.

"And yet again, last scene of all: a busy modern city street. Huge vans and trucks are rumbling ever on the granite blocks. Big grays and blacks march proudly to the music of a nation's commerce. Power patience, dignity personified. Glory be to men who can produce such prodigies!"

BY ALVIN H. SANDERS.

Belgian Mares and Their Foals.

An Even Dozen of Percherons and Belgians.

The SHORTHORN'S CONTRIBUTION TO NATIONAL PROSPERITY.

by R. W. ROAN

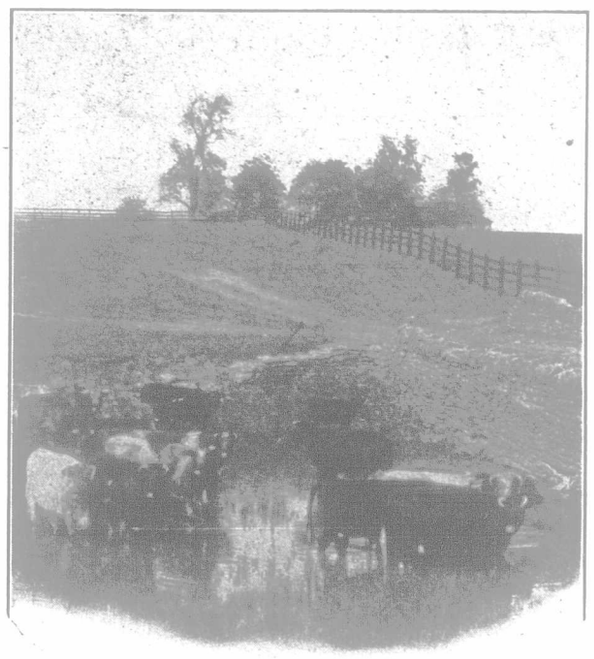
THE Shorthorn is the greatest colonizer of all breeds. It has kept even pace with the advance of civilization. From its native home in the British Isles, its face has been toward the setting sun, and wherever it has gone prosperity has followed in its wake. It is a three-in-one breed. Not only is it of red, white and roan color, but it combines work, milk and meat in the one animal. It not only was the pioneer's breed in days of yore—it is both the pioneer's and the farmer's breed to-day.

Like many other breeds of prominence, the Shorthorn is of composite origin. The aim of its originators was to develop both beef and milk in the one animal, and in this their efforts were crowned with success. They builded better than they expected. No other breed combines prime beef and milking qualities in the one animal as does the Shorthorn—thus the farmer's cow and its great world-wide popularity.

It was early in the eighteenth century that the breed began to take shape and to show definite characteristics. The policy of so mating the males and females as to eliminate weakness and to strengthen desirable points has been assiduously followed by breeders down through the decades. Messrs. Bates, Booth, Colling and Cruickshank had much to do with the making of the Shorthorn, and quite naturally their names are revered wherever the Reds, Whites and Roans are kept. Little did these men realize how much they were handing down to posterity in the form of cattle to improve native stock, or as a breed whose value to a world-wide stock industry is incomprehensible. The followers of the above-named breed-makers have added their quota to the upbuilding and stabilizing of the industry by perfecting the breed of their choice. Shorthorns have substance, capacity and a fine appearance, showing splendid character and a depth and thickness of body and fleshing which appeals to the aesthetic in man. Early in the breed's history a slight variance in ideals was noticeable. The followers of one school maintained great capacity and sacrificed a little smoothness for milk. The other school developed fineness of quality and smoothness, but at the expense of the lactic fluid. In the Homeland, the breed not only supplies meat for a multitudinous population, but it largely furnishes a milk supply for the greatest metropolis in the world. It is continually adding laurels to its records, both at the block and at the pail, until to-day it stands supreme among Great Britain's bovines. The King and peasant find common ground in their love for the native breed, which supplies their tables with sweet, juicy roasts, and milk and cream of a golden hue. In no country has a breed been so highly developed and popularized.

But what of lands across the sea? How has the Shorthorn breed added one jot or one tittle to Canada's prosperity? Its value has been inestimable. Other breeds have come and been developed, each with a niche to fill in our growing live-stock industry, but the Shorthorn followed the pioneer and at the yoke greatly aided in clearing the homestead and establishing a nation. There ever remains a love for the breed which shared with man the privations of a new country. As a producer of milk and meat, this pioneer breed furnished sustenance to the woodsman, the farmer and their families.

The Shorthorn, as first known in Canada, was a utility animal. It possessed breed type, character and good conformation, but the breeders were not so particular about the symmetry of form as many patrons of the breed are to-day. A cow which would pay her way at the pail and produce a steer that could be developed into a good carcass, was wanted in a new country, and the Shorthorn did both. The Shorthorn did it a century ago, it does it now—not only on the pioneer's homestead, but on the long-established farm [illegible] has produced [illegible] for a given [illegible] In the early days the [illegible] specials



Mortgage Lifters and Nation Builders.

cows of this breed maintained the cheese industry, which not only supplied a home demand, but left a large quantity for export. Dairy butter made from Shorthorn cream was for many decades used in the majority of the Canadian as well as British homes. While a revenue was being produced from the lactic fluid, a lusty calf was being raised which, at three years of age, was fitted for export. Besides providing an exportable product, which replenished a meagre national treasury, Shorthorn milk and beef paid for thousands of farms and built many comfortable homes.

As years passed, certain families or strains of Shorthorns became more popular than others, partly due to their intrinsic value from a utility standpoint, and partly to the satisfaction derived by breeders from the ownership of animals of beauty and illustrious lineage. The Bates strain which, by the way, was bred along dual-purpose lines were massive, graceful, high-quality individuals and obtained a great following. The Princesses, Waterloos and Duchesses were representative families. They were highly prized for their dairy qualities, but they compared favorably in conformation with the Booth-bred cattle, which were selected more exclusively for beef. In 1873, the beginning of a golden age for Shorthorns, the sum of $50,000 was paid by Hon. M. H. Cochrane for ten head of Bates-bred cattle, which included Duchesses and Waterloos. In 1875 the climax was reached in the sensational sale of Duchesses at the historic New York Mills dispersal, in which Canadian, as well as American and English breeders, participated. Such prices had never before, nor have they since, been paid for Shorthorns. The Duchess strain was in demand, and breeders paid fabulous prices to obtain ownership of representatives of this renowned family. Although developed in England, the pure Duchess strain, derived from Duchess 66th, had become cornered by breeders on this side of the water, and the dispersal of 1875 gave an opportunity for a bidding duel between breeders on both sides of the Atlantic. The account of the sale reads like a fairy tale. As the queenly Duchesses were led into the ring, bids mounted up by the thousands of dollars until one individual changed hands at $40,600, and five brought $25,000 apiece and over.

Many Canadian breeders had by this time established creditable herds containing members of the best strains, and consequently were in a position, when the boom of the 'seventies was on, to furnish breeding and show-ring stock at very remunerative prices to their American cousins. The tide was beginning to turn more to the beauty of form, and gradually, but nevertheless surely, the milk yield decreased in many families of the breed. The followers of Amos Cruickshank, the Quaker of Aberdeenshire who gave to the world the thick, low-set, easy-feeding type, began to increase. Among the first importations were Cruickshank Butterflys and Missies. These two families have continued to hold a prominent place in the Shorthorn fraternity.

At this time there was keen rivalry between the Bates, or dual-purpose, Shorthorns and the Booth and Cruickshank, or beef, Shorthorns. As the block is the final test of the beef breeds, Bates was not averse to accepting challenges to show in competition with the beef families, and it is worthy of note that on many occasions he was successful in capturing championships at fat stock shows. On this side of the pond, the progeny of Bates-bred bulls were securing like honors in Canadian and American show-rings.

However, fate decreed that the beef type should gain the ascendency, for a time at least, in the minds of breeders, and the sensational history of the Princesses and Duchesses has been repeated with the Butterflys, Missies, Lavenders, Roan Ladys, Augustas, etc. Breeders paid more attention to the form of the animal and the milk yield fell off. When the lactic fluid became inadequate to supply the demand specialized dairy breeds began to appear, and with their advent the Shorthorns in Canada slowly but surely lost some of their "dual" qualities. They became a beef breed of merit, capable of holding their own in all competition, either in the show-ring or at the block. Probably a higher quality steer is produced for market, but the udders of many of the dams are deficient and scarcely capable of supplying milk enough to properly raise their calves. The breed is more beautiful in form and symmetry, but the dual-purpose qualities are more difficult to breed and develop than they once were. As a beef breed and for grading up the Shorthorn is the most popular in the country. There is a reason. A Shorthorn bull of quality, mated with even an ordinary, nondescript cow, stamps his individuality upon his offspring. Thus the blood of the Red, White and Roan has done much to improve commercial herds and the prepotency and all-round usefulness of the breed have made it a favorite.

The pendulum swings back. Realizing that the Shorthorn is in danger of losing its cherished position as the "farmer's cow," breeders are turning their attention to the milking propensities of the breed, knowing that if milk is

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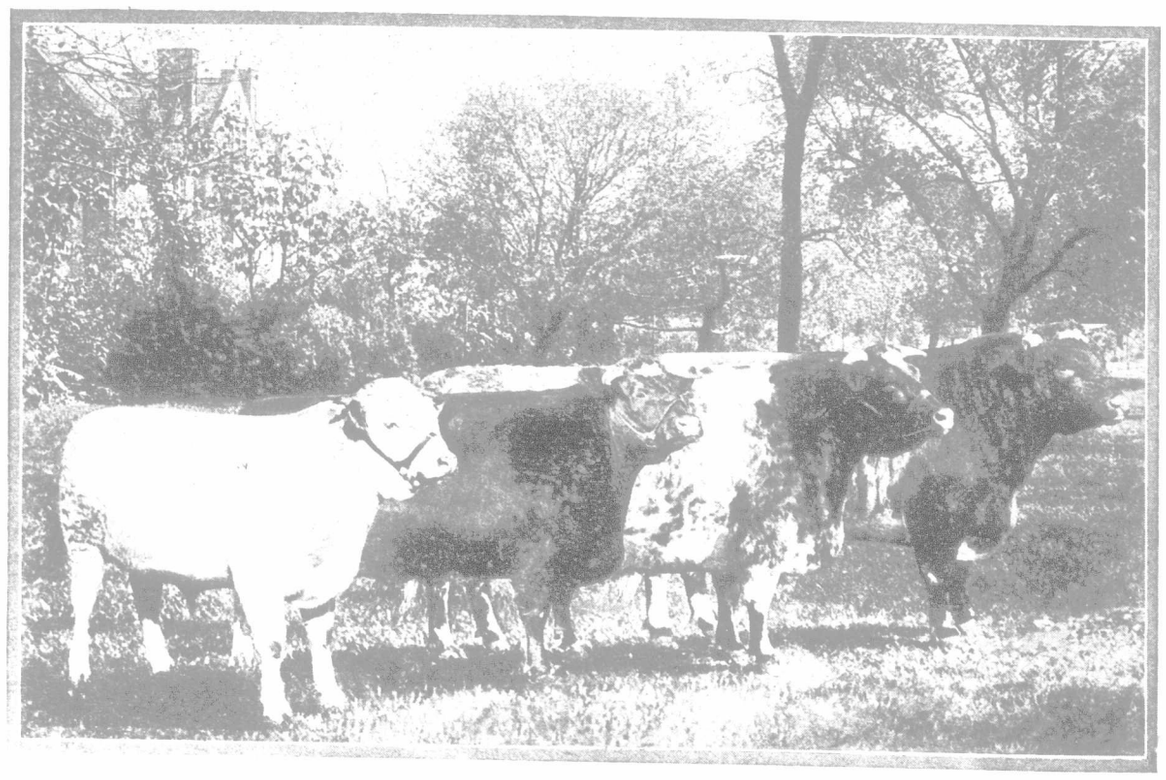

Shorthorns—the Forerunner of Prosperity.

The DODDIE'S TRIUMPHANT MARCH

by KENNETH McGREGOR.
BRANDON, MAN.

BEEF cattle will always be an important feature of the agricultural industry of Canada. Its development and its prosperity is of interest to everybody. The three leading breeds of beef cattle, Herefords, Shorthorns and Aberdeen-Angus, will all play their parts in this development. Each breed has been developed towards the same standard, that is, perfection in beef form, as demanded by the butchers. Fancy points are overshadowed in importance compared with the necessity in all breeds of producing cattle that will dress out the highest percentage of high-priced meats. No one of these breeds are perfection. There is room for them all and each to play an important part. The Aberdeen-Angus have certain things to their credit, and as the demand for uniformity of type and color in the herds is increased and demand for high-class beef compared with ordinary beef increases among the general public, then also will the demand for Aberdeen-Angus cattle increase. From the earliest days of their development, starting as a dairy breed and so on up, they have been noted for the fact that they have been able to produce a higher percentage of high-priced cuts than any other breed, that their meat has been firmer, indicating an absence of excess surface fat, and that they have been very early maturing.

Fifty years ago, although there were numbers of good Shorthorns and Herefords on the American continent, hardly a single Aberdeen-Angus animal existed outside of their native districts of Scotland. Small importations were made at first which were gradually increased in number. This was continued down to the present day, until now both in United States and Canada they rank almost in numbers and certainly in importance with any other breed of beef cattle. They have won their way to this position by sheer merit. They have spread to almost every district on the North American continent against the urgings of a good many and by the simple fact that they are able, against an unlimited number of competitors, to demonstrate their ability to produce winners and champions in the fat stock shows the world over, whether it be with single steers, carloads or carcasses, with ordinary unbiased butchers as judges. With tops for the fat stock markets and record prices added to their winnings they can be declared to-day to have demonstrated their ability to produce a higher quality and more perfect form of beef than any other existing beef breed. The determining factors in this have usually been, as stated before, their high percentage of muscle and meat over the back, loins and hind quarters where the high-priced cuts are, and their firmness of meat. Added to this, of course, is their invariable excess of smoothness on all parts of the carcass. The above statement that the Aberdeen-Angus breed has reached a higher state of perfection in beef form than any other breed, is not made lightly but rather on the achievements of the breed in actual competition with the others. Canadian shows of recent years have clearly demonstrated this in the fact that there have been as many Aberdeen-Angus champions and record price breakers as all the other breeds put together, notwithstanding the fact that their supply and number of cattle to draw from has been, in the past, three to one against them. This is a fact that cannot be overlooked. We have reached the stage in all businesses where a man must realize that the production of only the best is essential to his success.

If the Aberdeen-Angus breed, as they have demonstrated, can produce invariably a higher-priced, higher-quality carcass of beef, then why not produce that kind while you are at it? This question entering a good many people's minds accounts for the rapid increase and growth of the Aberdeen-Angus breed, and it is certain to continue in the future because after all it is only a logical question. To substantiate more firmly the assertions made above, I might mention that since 1904 the Angus have eleven times been the champion car lot at the Chicago International Live Stock Show, probably the largest of its kind in the world. An Angus steer has been grand champion ten times, and the breed has always won the grand championships in carcass awards at this great show. After all, what is talk in the interest of anything unless the one talking has some facts and figures to prove what he is talking about. It is all right to say something is better and something is worse, but the average man wants to know why. The above winnings are practically identical with those of the Smithfield Show in England, where Aberdeen-Angus have won more prizes than all the other breeds put together.

The growth of the breed in Canada has been wonderful. The last year registrations of the Aberdeen-Angus breed increased to a larger percentage than any other pure-bred breed of cattle. The revenue and number of registrations in Canada increased in 1918 over 1917, 200 per cent. 1919 over 1918, shows a similar increase. Aberdeen-Angus cattle are certainly on the upward move in Canada.

These figures correspond very closely with those of United States and the Argentine, not only have they increased in numbers, but they have increased in value as indicated by the results of auction sales. These go to show that the Aberdeen-Angus breed have made an actual increase in their average selling price in excess of all others, and have raised them from what used to be termed the ordinary farmers' cattle to a universally recognized premier beef breed, with some of the leading men of all countries behind them and with increased support.

At the recent Toronto Exhibition, a tremendous show made by the Aberdeen-Angus breed was a clear indication of their growth in the Province of Ontario, not only were their numbers increased, but the winning animals in a good many cases were good enough for the leading shows of America. This fact corresponds with those of Western Canada where the breed is fast

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A Winning Herd of Aberdeen-Angus Cattle.

Why Britain's Live Stock Remains Supreme.

By Archibald MacNeilage.

THE unquestioned supremacy of Great Britain as the source of pure-bred stock for the world is one of the evident facts in international agriculture. The long-sustained continuance of that supremacy is an element that hardly admits of easy explanation. Taking a world view, one is almost inclined to say that with the exception of Percheron horses and Friesian or Holstein cattle there is not a breed of live stock of world-wide reputation whose habitat and place of origin is outside the British Isles. Breeds there are among the Swiss valleys and elsewhere worthy of high commendation for milk production, but the breeds of cattle, sheep and horses having world-wide reputations are, with the exceptions named, indigenous to these Islands.

The story of the origin and development of each of these breeds is in almost every case the story of the life-work of one or two individuals identified with each breed. The master spirit among them all was the taciturn Robert Bakewell (1725-1795) who with the material at his disposal in Leicester sheep, Longhorn cattle, and the Black horse of the English Shires, developed and applied principles which lie at the root of stock improvement. What these principles were, had to be deduced from the results of Bakewell's work as seen by others. Applied by the brothers Collings and Thomas Bates, and at a later date by Amos Cruickshank and William Smith Marr, to Shorthorn cattle, these principles evolved a much more profitable and universally adaptable breed than the Longhorn. Handicapped by its unwieldy horns, the great lengthy cattle upon which Bakewell expended his genius could never have acquired world fame. For one thing their picturesque headgear in itself makes them an almost impossible proposition for shipping, and no amount of success in other directions could have neutralized that handicap.

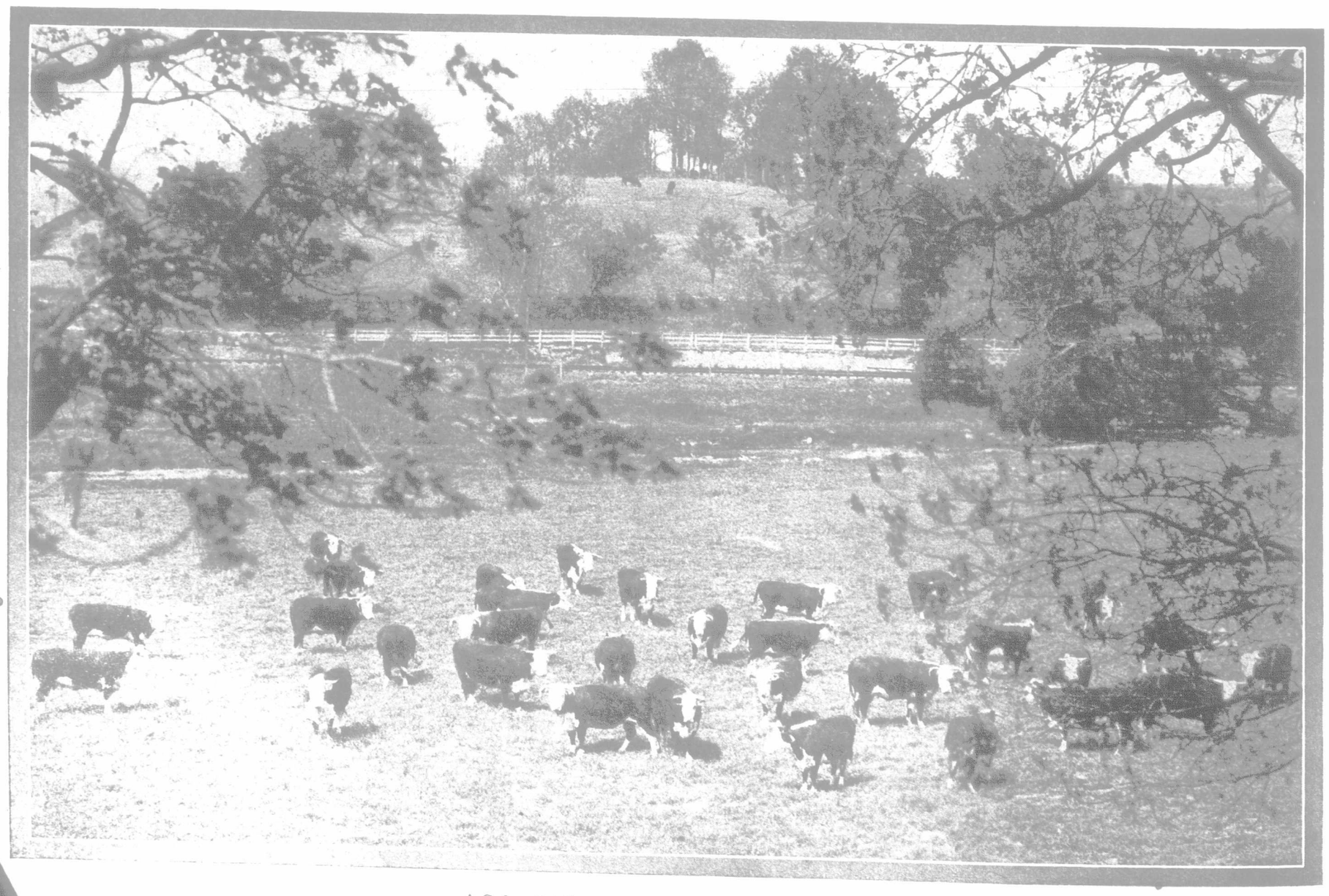
With Leicester sheep the case was different. In this breed the work of Bakewell remains; yet the most famous of the descendents of Bakewell's Leicesters is not the breed properly known to-day as Leicesters, but the Border-Leicester whose habitat was on the lower grounds on either side of the Tweed. Hence its name. The improvers in this connection were the brothers George and Matthew Culley, Northumberland farmers, whose descendents are still eminent as pastoralists on the Cheviot ranges. The brothers Culley were pupils of Bakewell, at Dishley, and returning to their own country in 1767 they brought with them some representatives, both male and female, of the Dishley flock. The Culleys were not the only patrons of Dishley rams, which were annually hired out by their shrewd owner. The Culleys farmed at Fenton and Mark on Tyne, and adopted the Bakewell principle of hiring out their rams. It is interesting to note that not until 1868 did the Border Leicester, as distinct from the (English) Leicester, receive classification at the H. and A. S. Shows. This dual classification continued almost without a break until 1881. Since that date only Border Leicesters have been known at the Scottish shows.

In carcass competitions neither the pure-bred Shorthorn nor the pure-bred Border Leicester cuts any figure. The Shorthorn is easily beaten by the Aberdeen-Angus, the Galloway, the Highlander, or the Welsh. The Border Leicester puts up a hopeless fight against the Cheviot, the Blaceface, the Southdown, or its own crosses. Nevertheless, when it comes to the pure-bred sales, the sales of breeding stock, the sales of male animals for grading-up inferior stocks, whether at home or abroad, the Shorthorn and the Border Leicester in their respective races are an easy first. So far as average prices and average values are concerned, with them it is ever a case of "eclipse first and the rest nowhere."

I fear this exordium has become slightly irrelevant, yet no better illustrations can be found of the supremacy of British breeds of live stock than the Shorthorn and the Border Leicester. What they are by pre-eminence, other British breeds are in less degree. The pre-eminence abides. To what is it to be attributed? The enquirer says, "You Britishers sell many of your best for exportation, yet you still maintain your pre-eminence. You scatter, yet you persistently increase. Argentina pays fabulous prices for your best Shorthorn bulls and your best Lincoln rams, yet in the end of the day you can always produce something which beats the best that Argentina can produce." There is an element of truth in this but it is not wholly true. The buyer from overseas certainly buys what he believes to be the best of the breeds named that money can buy, but it does not follow that he buys the best. His standard of what constitutes the best is not necessarily the British standard. Not infrequently when a battle royal takes place at a great Shorthorn sale for something which both the home breeder and the exporter regards as the best, the home breeder scores. He rarely allows the best to leave the country. I think I am correct in affirming that in no single case can it be said that the overseas buyer has purchased something which the home breeder grudges. Take the case of Clydesdale horses. All the highest *bone-fide* prices of entire horses have been paid by home breeders. During the past autumn an earnest effort has been made by the Agricultural Department, at Edmonton, Alta., to get any one of the best Clydesdale stallions with an approved reputation put in price, but the thing simply cannot be done. These horses, (horses of the class aimed at) are much more valuable here than in Canada, i. e., a much better return can be secured for money invested in them in this country, than could be secured in Canada. They are all hired for many seasons ahead. While many good Clydesdales have been exported during the past forty years, I have never known one exported which could not be replaced at home. In saying this I do not forget the three or four Cawdor Cup winning mares that have crossed the Atlantic, and least of all the two grand mares now on the way to Troy, N. Y., for Mr. Cluett. These mares will be costing Mr. Cluett something like $15,000 apiece, or perhaps more. Nevertheless, we can replace them here. The bunch of very fine mares which were taken some years ago to British Columbia were excellent specimens; nearly all of them were prize winners here, and no mere chance prize winners. Nevertheless, we had no difficulty in filling all their places. Last week a Scottish tenant-farmer, after strenuous bidding between him and at least a dozen other tenant-farmers, purchased at public auction a yearling Clydesdale colt for $17,000.

In the Shorthorn world the like holds. The triple first-prize bull of this year, Edgcote Hero, champion at Belfast, Dublin and Edinburgh, and first in his class at the Royal at Cardiff, was sold back to his breeder for £10,000, or $50,000. He had been used as a well-grown calf in his breeder's herd before he was sold. The calves which resulted from that use were seen while the show season of 1919 was in progress. A Chilian buyer, and an English breeder, and a Scottish breeder (the last, his breeder) were all negotiating to purchase, but the last claimed him and he returns to the Balcairn (formerly the Edgcote) herd. A young heifer calf, one of his few produced as a youngster, was sold at Penrith this week to a home buyer for £735, or $3,675. The point of all this is that the theory on which the problem rests, which I am asked to solve, is fallacious. It is not the case that the British stock breeder sells this best for exportation, and is yet able to breed better stock than his customers who take away his best.

Bakewell taught this, amongst other lessons to his countrymen, that the way to produce the best is to reserve the best females for breeding purposes in one's own herd or flock or stud. The practice of this precept, coupled with the personal equation, and the climatic and soil conditions in Great Britain, are the main causes of British pre-eminence in pure-bred stock-raising. During the Shorthorn pilgrimage in the North of Scotland, in October, it is undoubted that the females seen in the byres at Collynie, Uppermill, Balcairn, and Linksfield, were the theme of much more universal admiration than the stock bulls. This is said without



A Splendid Herd of Hereford Breeding Females.

detriment to the supreme merit of Lothian Mario, which Lord Lovat bought at Linksfield for £3,150 or $15,750. These cows and heifers were symbolical of the stock to be found in all the noted herds of pure-bred stock in Great Britain. No great breeder can be named with whom Bakewell's cardinal principle is not a cardinal principle. The visitor to Strathspey will find himself much interested in the stock bulls, but he will come away with a much deeper admiration for the matrons of the various herds of Aberdeen-Angus cattle to be found in that region. The same is true of J. Ernest Kerr's Aberdeen-Angus herd at Harviestown, and of Lord Rosebery's herds of Shorthorns and Aberdeen-Angus at Dalmeny. It is true that the bull is one-half the herd, but it is equally true that he is only one-half; he is not and never can be the whole. During the past ram-sale season, record prices were made for rams of the three distinctive Scottish breeds, the Blackface, the Cheviot, and the Border Leicester. In every case the flocks which furnished these record-making rams have been bred for many generations along definite lines, and with a fixed and definite aim in view. The Overshiels flock which furnished the £450 Blackface ram at Perth has been for about half a century bred on definite lines. The ewe stock has never been changed. The Overshiels is a large holding in the Lammermoors, on the borders of Midlothian and Berwickshire. The three brothers Archibald, by whom the flock has been reared, are now represented by one survivor. All three were bachelors, and their flock was their constant study. They consistently aimed at a definite type. The extent of their holding with its various hirsels afforded scope for blood-blending without too close consanguinity. Constitution was never sacrificed, and in a mountain breed this is a *sine qua non*. The policy ever adhered to was never to sell the best ewes or the best rams. High-class and numerous as were the annual offerings of tups, numbering between 200 and 300 annually, visitors always found that there were better among the stud rams than any that were offered in the sale-ring. In the case of the Border Leicester flock of Mr. Kinnaird, Newmains, Prestonkirk, out of which came the £600 ram of that breed, the same principle of selection is being followed. The flock on Newmains is a comparatively recent foundation, but it is on both sides constituted by selections from Galalaw, and Galalaw was a continuation of Mellendean, one of the oldest flocks in the Merse. The pre-eminence of the Newmains' flock is due to the skill with which excellent material has been handled and adherence to the principle laid down by Bakewell. Still more striking is the evidence of this in the case of the Millknowe flock of John Robson, which produced the £620 Cheviot ram. Mr. Robson belongs to a very old family of flockmasters in the Cheviots. The flock is known as of Newton, Bellingham, and Millknowe, Duns. The modification of type in the produce of these flocks during the past thirty years is one of the most striking facts in the history of the Cheviot breed. Within the period named, Mr. Robson has brought up his flock from being one of those in which sheep somewhat lacking in size were produced to its present position as the most popular source of well-grown typical Cheviot rams. This has been effected through a process of selection and gradually grading up, and not by the use of any violent cross. Such modifications and improvements are not effected in a day.

The personal equation counts for much. No matter how skilful the owner of a herd flock or stud may be, unless his efforts are seconded by his herdsman, shepherd or groom, success will be slow in coming, and may at any time be doubtful. Stock-breeding cannot be learned from books. Most of the successful stockbreeders whom I have known have been silent men. It is always difficult to get them to explain their methods or give reasons for their matings of sires and dams. I am of opinion that the breeder's gift is largely intuitive. Somehow the breeder cannot explain his reasons, yet he undoubtedly has reasons. That this intuitive breeder's gift is largely distributed amongst cattle and sheep breeders in Great Britain is, I think, undoubted. In many cases the successful men have been bachelors, and I incline to think that the absence of family responsibilities lends itself to a more intense introspective mode of living. This is conducive to the independent thinking which is necessary to the man who would make his mark as a stock breeder. A successful breder is born — he can never be created—and no amount of reading will ever give rise to the gift, although it may foster and develop it. The herdsman or shepherd is also special creation. Many of the most successful flock masters in Great Britain have either themselves been shepherds or their forebears have been such. I think this may be predicated more generally of flock masters than of cattle breeders, although some of the most noted of the latter have been descended from men who were once in subordinate positions. In every case the successful stock breeder is the man who personally understands the details of management. I cannot recall a single case in which distinction has been attained in stock-breeding by a man who was dependent on employees for the direction and management of his stock. A first-class herdsman, shepherd or groom is

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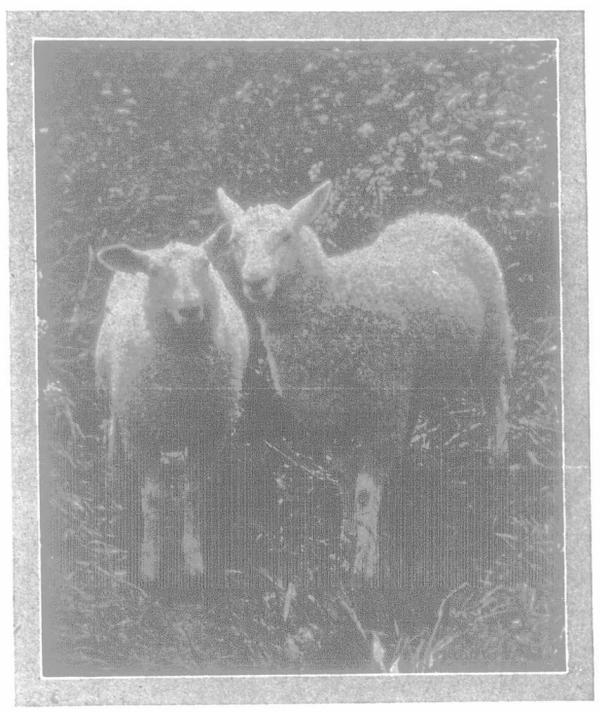
The Farm Flock.

FOR a country so favorably adapted to sheep raising, the "Golden Hoofs" have not come into their own on the Canadian farm. Even with the remunerative price for wool and the demand for mutton, Canadians do not produce a sufficient quantity of either product. The horse, the cow and the pig, while no more profitable, are given the preference in housing, feeding and general care, while on many farms the animal which furnishes us with material to keep the chill north wind from our bodies, and to sustain us with its savory meat, is permitted to shift for itself. Under such conditions it is little wonder that the flock does not respond. Given the attention in breeding, housing and feeding, this ovine class of stock will probably return several times more dividend than other animals for the amount invested.

The English, Scotch, New Zealand, Australia and Argentine farmer takes kindly to the rearing of sheep, and in these countries the best specimens of the



Leicester Twins.

different breeds are to be found, and the work is considered a major branch of the farm business; so long as we look upon it as a side line, just so long will we remain a second or third-rate sheep-raising country. Why is it that on the North-American Continent, where there is much need for woolen raiment, sheep raising is not more popular? Our sheep population is away below what it should be, largely because the small land-holder does not include sheep among his live stock. That the climate, environment and fodder are suitable none will dispute; that disease is not so prevalent as in other lands is well known, and that our markets for the product are on a par with those of other countries has been amply proven during the last two years. Yet, in spite of our favorable situation, sheep have not found favor with the average Canadian farmer. Seventy-cent wool and twenty-cent mutton do not appear to be sufficient inducement to increase the number and size of the flocks. The volume of sheep and lambs marketed this fall surpasses that of previous years, and there is reason to believe that it is more than cull ewes and surplus lambs that are finding their way to the slaughter house. It is doubtful if there ever was such a scarcity of wool, and as the population of our country increases so will the demand for wool. Mutton has at times been in disrepute, but the objectionable flavor is due to improper fitting or carelessness in dressing, rather than to anything inherent in the body of the animal itself. The possibilities for increased mutton and wool production in Canada are unlimited, but the increase must come, if it comes at all, from the small flock rather than from the ranch. The latter does not offer the possibilities it once possessed, owing to the land passing into cultivation. Nevertheless, the area admirably suited to sheep raising in Canada is boundless, but there is a dearth of good shepherds.

Other men have labored to evolve breeds of sheep suited to every condition and climate. The recognized breeds of sheep are as near perfection as human effort can bring them in the time since they were originated, and representatives of these breeds are to be had in Canada. It is now a matter of purchasing foundation stock and by careful selection and judicious mating prevent retrogression and possibly strengthen slight weaknesses where they exist. There is no really best breed to start with, as all breeds fill a particular place for which they were created. The prospective purchaser must decide for himself which breed best suits his fancy and conditions. Then, when the flock is started, give it a square deal and it will pay well; consider it as a scavenger on the farm and treat it as such, the returns will be meagre.

Sheep minister to the comforts and sustenance of the human race by supplying wool, leather and meat. No other animal can exactly take its place, yet the supply of wool in particular is below the demand. The price in this case surely cannot be the cause of a decline in supply, as it is greater now than it was when the supply was more abundant. Sheep do turn noxious weeds, which other animals do not relish, into high-quality mutton and in this way are an aid to better farming. The farm flock brings in a tidy revenue spring and fall, just at a time when cash is needed and other branches of the farm are not offering marketable products. Then, too, several sheep will thrive on the acreage needed to sustain one bovine, and the revenue will be proportionate. Hilly grass-land, not suited to cultivation, makes ideal pasture ground for sheep. The high, dry land sustains the flock in the summer, and the winter fodder can be produced on the low lands. Judging from the number and size of flocks, the Canadian farmer does not appreciate the woolled tribe as does his Australian or New Zealand contemporary.

There must be a reason why sheep husbandry is not taken more seriously. The dog nuisance is one reason openly acclaimed, yet if there is anything in this how do present sheep owners keep their flocks intact? It is quite true that dogs have committed many depredations but this is not the only cause. Lack of proper fences, sheep and bovines not grazing well together, and loss from internal parasites, are advanced, but none are insurmountable. In years gone by, when our sheep population was greater than it is now, when wool and mutton, quality and prices were lower, it did not take much to discourage a man with a small flock.

One remedy would be higher-quality sheep, or more and better sheep. As the grade sire is banished and his place at the head of the flock taken by a pure-bred ram, an improvement in quality will be effected. There is no use of raising scrub sheep when high-quality individuals can be purchased at the low prices paid for breeding stock this fall. Many of the ewes and ewe lambs slaughtered this season would have made good breeding stock, and after culling the pure-bred ram lambs there would be enough and to spare. Prices of breeding stock in Great Britain, the home of most of our breeds and the Canadian wool and mutton markets of the past two years, should encourage many to invest in a flock. What if prices do decline somewhat, there will still be a profit over cost of production if reasonable care and attention are given. But if results are to be obtained; the flock must be in the hands of some member of the household so that it will be looked after regularly and obtain the attention meted out to other classes of live stock.

To go into sheep raising is not as satisfactory as to grow into sheep raising. Too often the man who becomes seized with the idea that sheep raising is a bonanza, and plunges into the business, suddenly changes his mind and pulls out. This is not the class of flock-owner that adds stability to the industry. His failure, largely through ignorance of sheep lore, deters others, who would undoubtedly be successful, from becoming interested in a flock. It is not advisable to carry a larger number than can be conveniently handled, but a well-cared-for flock on every farm suitable for sheep raising will give an increased revenue to those farms, and will strengthen our live-stock industry.

A Remunerative and Productive Flock of Hampshires.

Marketing has in the past been a weak link in the business, but co-operative marketing of wool and sheep has given the producer the full benefit of the market, without jobbers or middlemen reaping a large percentage for a negligible amount of work as compared with the labor of the producer. Now that co-operative marketing has become firmly established, prices may be more stable than when the dealer took advantage of every factor possible to enable him to buy as cheaply as he could and then sell on the up market. The human race will always need wool, and properly-dressed and cooked mutton should always command a good market. Wool and mutton production should keep pace with increased population, but in order to do this there must needs be more well-bred sheep on more farms.

Stocking the Ontario Farm.

By Prof. Wade Toole, O.A.C., Guelph.

ONTARIO has been in the past, and always will be, essentially a live-stock Province. Mixed farming, with live stock the basis of operations, began as soon as the early settler found that mining soil fertility was, in the end, a losing game. No one can continue to sell plant food off his farm and still have the abundance necessary to produce bountiful harvests unless he returns to the land, in full measure, the necessary elements removed by his farm crops. The fertile, virgin soil of this grand old Province yielded abundantly of its fruits as the pioneer toiled between the stumps in his little clearing. Gradually the increasing number of clearings widened and cropping systems enlarged and with the growth in number and size of these clearings live stock steadily increased and cropping systems changed to meet the new conditions. The first settlers brought some live stock out with them from the Old Land and they found it good business from the start. As early as 1834 Scotchmen coming out to this Province brought with them a few pure-breds and so the history of Ontario in live-stock development began.

Readers know the success which has attended the efforts of the live-stock man during the century which has since elapsed. That success, coupled with the changing conditions as the agriculture of the Province develops from the pioneer to the stable and set systems best adapted to a country like ours augurs well for the future of the live-stock farmer in Ontario. We are standing on the threshold of great developments in agricultural work and the outlook ever brightens. Just now, large numbers of the brave men who have returned from the battle fields of Europe are anxiously awaiting opportunity to settle on the land. They have tasted the outdoor life and enjoyed it. They want to farm. They are asking for the necessary training. Thousands more, as our cities grow larger and the cost of living therein increases, are thinking and talking of the farm as their future home. They must be directed to the line of farming which will be most profitable, pleasurable and generally most satisfactory. For the great rank and file who settle in Ontario mixed farming, with live stock as a special interest, will appeal most and will continue to hold premier place.

One of the first questions arising in the minds of those contemplating making a beginning in live-stock farming and one of the problems of the man already in the business is to know just what class of stock to select and the numbers which his particular farm will carry. Of course, a great deal depends upon the local conditions and environment and upon the owner's likes and dislikes. It rarely proves profitable for a man to go into something he does not like. Other things being equal, it generally pays to select the class and breed of stock most desired by the owner, provided the local conditions are such as to lend themselves readily to success with the class of stock chosen. Most farms require a few horses, some cattle, a number of pigs, and very often a flock of sheep. The question is: How Many?

It is not possible for anyone to lay down a set rule as to the numbers of the different classes of live stock farms of various sizes should carry in this or in any other Province. The man on the land must be governed by his own individual conditions as to land, location, capital and market. It is safe to suggest, however, that the beginner be careful at the start. It is always wise to start with a few good animals of recognized merit, learn the game, and increase as experience warrants. Big starts often mean great loss whereas a moderate beginning generally grows into something of which the owner may well feel proud. Especially in these days of high prices is it advisable to start on a moderate scale. But what should be the aim of the man on the land in so far as ultimate numbers of live stock are concerned? As previously stated no one can tell definitely but figures already at hand may be some guide.

As readers know, the Farm Management Department of the Ontario Agricultural College have been making farm surveys in several sections of the Province. Owing to the fact that a number of questions have been coming to the Animal Husbandry Department of the College asking for definite information as to the numbers of live stock farms of various sizes should carry, figures obtained by the survey were compiled by two four-year students, G. W. McCall and E. C. Stillwell, and they reveal the numbers which are actually kept on the farms coming under the surveys. In this work some eight hundred reports of individual farms in Oxford, Dundas and Peel Counties were compiled and the live-stock figures tabulated for farms of the following sizes: 50 acres, 100 acres, 150 acres, 200 acres, 250 acres and up to 300 acres.

Some very interesting facts were obtained from these figures. The accompanying table shows at a glance the numbers of the various classes of live stock actually kept on the eight hundred farms considered. The acres in pasture are also given so that the reader may see just how the farms stock up in live stock and in pasture land: but the reader will note how closely the numbers run to about 20 to 22 head of cattle per hundred acres. Fifty-acre farms run about 12 head but the larger farms carry just about 20 to 22 head per hundred acres.

In horses the 50-acre farm seems to be well equipped with three, the 100-acre farm with six, the the 150-acre farm with seven to eight, the 200-acre farm with nine to ten and so on. It is just possible that with the increasing use of modern farm power the number of horses may be reduced on the larger farms.

The numbers of sheep carried on these farms are small. The average 50-acre farm does not seem to lend itself readily to the keeping of very many sheep along with the other stock. However, there are large numbers of farms of this size which could profitably carry a small flock. On the larger farms the average flock of sheep is small but it must be remembered that these farms are largely dairy farms and sheep breeding and dairying do not seem to go any too well together. It will be noted that in Caledon, which is a general beef cattle section more sheep are kept on the fairly large farms and the numbers shown are likely about a fair average for like sections of the Province.

From one to three brood sows seems to be the average per farm and store pigs run accordingly. Most farms maintain at least one or two brood sows and generally to good advantage. It will be noted, however, that on the small farms in Oxford County and also in Caledon Township practically none were kept. This, of course, depends on special conditions.

Average Number of Animals on Different Sized Farms.
Average for Three Counties.

Acres in Farm	Cattle		Horses	Sheep	Swine		Total Stock.	Pasture Acres.
	Grade	Pure			Brood Sows	Others		
50	12	2	3	0	1	6	24	12
100	21	0	6	0	1	10	38	31
150	34	6	8	3	2	13	66	41
200	40	4	10	4	2	20	80	80
250	59	2	14	19	3	10	107	118
				OXFORD.				
50	12	2	3	0	0	4	21	12
100	25	3	6	1	1	7	43	25
150	33	5	7	3	2	9	59	33
200	40	7	9	2	2	13	73	80
300	60	8	15	0	3	8	94	120
				CALEDON.				
50	12	0	5	0	0	10	27	12
100	16	0	6	7	0	12	41	32
150	30	0	7	12	2	7	58	60
200	33	3	10	15	2	25	88	66
250	50	3	15	31	3	25	127	130
				DUNDAS.				
50	16	1	3	0	1	6	27	16
100	33	1	6	0	1	11	52	33
150	50	4	8	9	2	16	89	50
200	50	3	11	7	3	20	94	100
250	83	1	11	14	3	7	119	141
300	66	4	13	0	3	27	113	132

In going over these figures the reader will notice that from 12 to 17 head of cattle is the average for 50-acre farms, from 16 to 34 head for 100-acre farms, 30 to 50 for 150-acre farms, from 36 to 53 for 200-acre farms, from 50 to 84 for 250-acre farms, and from 69 to 66 for 300-acre farms. These figures are the highest and lowest averages for the farms of all three counties together and separately. They show some diversity

The area in pasture is also interesting. Note how it increases as the size of the farm increases, the larger farms showing proportionally more grass than the smaller. It would appear, then, that in actual practice a hundred-acre farm carries, on the average, from 20 to 25 cattle, about 6 horses, a varying number of sheep (possibly about 6) and generally 1 brood sow and about 10 store pigs. Is this enough? It is difficut to state definitely just how much live stock a farm should carry but we can get a good hint from further investigations in the Farm Survey work which have proved conclusively that these farmers who have the largest numbers of the highest quality of live stock are the men who are getting the largest labor incomes from their farms. It would appear that with the most modern systems of farming in this Province, with due attention paid to crop rotation, cultivation and seed, that the numbers of stock kept on the average farm might very well be increased. First, however, we must head every effort toward a higher quality of breeding sires and dams. Over fifty per cent. of the bulls used in Ontario are grades or scrubs. This should not be. The profit per cow in dairy herds where good pure-bred bulls are well established has been proven to be three times as much as where the cows are the progeny of grades and scrubs. The same is true in greater or lesser degree all down the line. There is no place for the grade sire or for the scrub sire be he pure-bred or grade. The inferior sire should go first and then we should endeavor to increase the size of the herds and flocks.

It has been proven possible in other countries where very specialized farming is practised to carry one cow or its equivalent per acre. There are great possibilities ahead of the Ontario stock and general farmer. Is it too much to hope that some day the average 100-acre farm in Ontario may carry 30 to 50 head of cattle and more than double the sheep and pigs now maintained? But let the quality be improved first; there is no danger of getting too much of a good thing. Ontario has twenty-five million acres of assessed land and fifteen million acres cleared. What a heritage!

Making Bacon on the Farm.

A Flight in the Air.

By Sandy Fraser.

I NEVER tauld ye aboot that trip I took to Ottawa last fall, the time o' the Tractor Show an' the Plowin' Match. That was when the young chap from Glengarry took the first prize in his class for fancy wark wi' the plow. I'll have tae admit that there was naebody in his class but himsel', but his plowing was none the worse on that account, an' the rest o' us that had come frae the auld county on the St. Lawrence did some pretty loud cheering on general principles.

I ran across Mac again, early the first day o' the show. He's the lad I tauld ye aboot once before as bein' with me in Ottawa at some fat stock exhibition or ither, I think it was. He's a guid sort o' a fellow, is Mac. One o' these chaps that ye have to knock doon an' keep yer foot on their necks if ye want to get a chance to pay for yer ain share o' the cider an' ginger ale an' such like ordinary drinks as ye can get at the present time. Nothing seems to please Mac better than to see the crowd enjoyin' themselves an' him footin' the bill.

Weel, Mac an' I started oot to mak' the round o' the place together. It's an unco' guid-sized ranch, that Experimental Farm they hae up at Ottawa. The Government must ken how to get aroond the laboring man when they can keep help enough to rin it. For some reason warkin' for the Government sounds guid to the average mon. For mysel', I think I'd rather rin my ain show.

Hooever, as I said, Mac an' I started to tak' a look aroond to see what wis gaein' on. We didna spend muckle time on the chaps wi' the walkin' plows. As the laddie said when they passed him the bread at the picnic, we could get plenty o' that at hame. But it was a caution tae see how hard they were warkin' for all they were gettin' done, these fellows that were takin' part in the plowin' match. The sweat was showin' under their braces, I can tell ye. They were settin' the sod right up on edge an' every furrow was as straight as the shortest way from here to there. I dinna think I'd want my hired mon to be a fancy plowman. He'd be gettin' the last o' the spring plowin' done along aboot the middle o' hayin' or aroond then. When ye see a furrow six inches wide an' eight inches deep ye can bet that the mon that made it was payin' mair attention to appearance than he was to speed. I was never like that, especially in my young days. It was slap it over an' get the field done. Mony's the bad crack I got too, wi' my makin' the horses go on a sort o' half trot in a place where there would be an odd chunk o' a stane. I mind o' gettin' the plow handles on the side o' the heid mair than once an' bein' laid oot flat. A few experiences o' the kind had the effect o' takin' a wee bit o' the ginger oot o' me through time. It's a great warld this, for teachin' moderation in all things.

But to get back to Mac an' oor sight-seein'. After we had passed oor opinion on the wark o' the walkin' plows, for the benefit o' those standin' aroond, we went over on tae anither field where the tractors were rinin' up an' doon, drawin' from two to five plows after them. It was an unco' great sight, no mistak'. There was aboot a couple o' dozen, or mair, o' these tractors in every size, shape an' color that ye might fancy. They were doing guid wark an' doing it quick. That's the beauty of these "young locomotives," as Mac called them. But the wee ones for me! They're no' sae apt to get buried alive as some o' the big fellows, I'd be thinkin', especially in weather like we had a year or mair, ago. That's what I notice aboot these tractors, ony o' them. If ye get stuck 'an let the driving wheels keep on' turnin' round they'll dig a hole for themselves an' get oot o' sight as quick as ony groond-hog ye ever saw. But, losh man, it isn't hard to tell what's coming. They'll be as plentiful through the country in the course o' a few years as the automobile is to-day. They dae the wark an', as time goes on, they'll be daein' mair an' mair o' it. As Mac said, it may no' be lang till the doctors will be prescribin' a course o' exercise suitable for farmers that hae got too fat through daein' all their wark wi' a tractor.

Weel, after Mac an' I had followed these machines aroond for an hour or so an' had sized them up an' placed them in order, accordin' tae merit, we began to think o' takin' a stroll over to the tents where was all the machinery that had been invented for the farmer since the time when they tied two sticks together an' called it a threshin' mill. But juist then we heard an' unco' racket up above oor heids an' when we looked to see what it might be there was one o' those flyin' machines that we hae been readin' sae muckle aboot ever since the war started, an' before that. I'd never seen but the one in my life an' that was a lang way off. Mac was the same, sae ye may imagine we forgot all aboot the ither things we were gaein' to do an' turned oor attention to the aeroplane, as they call it. By this time the machine had circled aboot an' landed on the groond a couple o' hundred feet from where we were standin'. "Come," says Mac, "an' let's get better acquainted wi' her." So we went over an' had oor first guid look at man's latest invention that's gaein' to put the railways in the scrap-pile an' the steamship companies oot o' business. But we didn't get a chance to look vera long. The pilot had found anither passenger who was willin' to mak' the trip wi' him an' off he started again. When they had left the groond an' were weel up in the air, Mac cam' over to where I was standin' an' says he, "I'm goin' up in her, Sandy. It's a great chance at this stage o' the game. I'm no' gaein to miss it," he says. "Look here Mac," says I. "Remember

Supplementing the Self Feeder.

yer care at hame. Yer auld wumman an' —" "Hoot," interrupts Mac, "The auld wumman wad be the first to tell me to go, gin she were here. An' the further I went the better she wad be pleased. I'm gaein' to get clean off this auld earth for once," he wound up.

"A'right," says I.

When the flyin' machine came back, after bein' aboot a quarter o' an' hour in the air, Mac was ready, wi' the money in his hand, to pay for his "trip tae the moon," as he said. He put a guid face on it but I could see that he was a wee bit nervous. However, he got in, after singin' a paper puttin' all the blame on himsel' in case o' accident. After they had strapped him in an' the pilot had started up his engine, Mac looked over to where I was standin'. "Good-bye, Sandy," says he. "Remember me tae the folks at home." "Good-bye," I replied. "A safe journey an' dinna come back too soon, whatever ye dae."

I kept a pretty close eye on the machine that trip, ye may be sure. I had no' mind to be bringin' Mac hame to his wife lookin' the worse o' wear or wi' his works oot o' order in ony way. Once I thought they were comin' doon head first, sure enough. But it was only one o' those dives, or "loopin' the loop," as they call it, that the pilot will be doing noo an' again for the fun' of the thing, I suppose.

When Mac came doon he was in great trim. "It's fine, Sandy," he says. "Dinna miss the chance o' bein' able to look doon on yer fellow-men for once." But I could see his hand shakin' a wee bit as he was lightin' his pipe.

He had made up his mind, however, that I'd tak' that trip. An' when I told him that I was gettin' up in years an' wad have to be cuttin' oot tricks o' that kind he juist laughed, an' says he: "they tell me that a man eighty-eight years auld went up the ither day. No sport like an old sport," says Mac. "That wasn't the way the proverb went when I heard it last," I replied, "but I'm no' gaein' to let you hae the laugh on me, Mac. I'm goin' up." "Good!" says Mac. "I'll see that yer business is settled up a'richt in case onything happens ye."

The aeroplane didn't seem to be sae lang in comin' back with the last passenger it had taken up, and befo e I kenned it Mac had spoken to the pilot for me an' they were wa t'n'. I used to read in my auld history book aboot King Charles the First gaein' to his execution an' I used to wonder how it wad feel to be in his boots. I guess I ken noo, tae a certain extent. I'm thinkin' I put a guid face on it, however, an' when the chap came to strap me doon to the seat I was thinkin' that it was juist aboot milkin' time at hame an' wonderin' how the auld wumman wad be gettin' alang wi'oot me.

But when the machine started I cam' back to a realization o' my position. We were rolling alang over the field, an' an unco' rough field at that, at the rate o' aboot one hundred an' fifty miles an hour. My auld gray hair wad hae been standin' on end, I ken, if it hadna been for the wind that seemed to be tryin' to blow it clean off the back o' my heid. Once we left the groond, though, it wasna sae bad. I began to loosen my hold on the sides o' the trap I was in an' to try an' tak' in some o' the scenery. Dae ye know, this earth is an uncommon fine place when ye get far enough awa' from it. We had got to a height o' aboot fifteen hundred feet, takin' the pilot's word for it, when he turned aroond an' cam' back over the fields where was the crowd of people an' the tractors an' all. The auld preachers were right when they said that mankind was pretty small potatoes. Ye have only got to see them at the right distance tae realize that. What I saw frae the aeroplane made me think o' a kitchen table in fly time. But there's na discount on the fields an' the trees an' the rivers an' the ither things ye can see frae that height. Beautiful is a lang word for me, but I dinna ken ony ither that will dae justice to what I saw that day. I was unco' glad I'd taken my chance.

But juist here I noticed that my pilot had stopped his engine. And then the whole machine began to turn over an' start towards the ground. I kenned in a minute what I was in for. We were gettin' ready to tak' that dive that I had watched the ither fellows tak' when I was at a safe distance. But noo I was one o' the chief performers mysel'. The machine turned pretty near clean over, an' then took a sudden drop o' I canna tell how mony feet. Maybe a hundred or mair. Gosh man, it was awful. I felt as though I was turnin' inside oot as weel as upside doon. I forgot everything but juist to hang on. I even forgot all aboot the ten dollar bill I had given the chap for takin' me on this wild trip. Did ye ever dream that ye were fallin' off a barn or some high place like that? Well, ye'll ken a little what I felt like yon day. But, like as in the dream ye never quite touch the groond when ye fall, so I an' my man turned right side up before we had gone too far an' Mac tauld me, when I got doon, that he heard my sight o' relief from where he was standin'. I'll no deny that it felt better to be right side up than to be ony o' the ither ways I had been tryin'. But by this time my journey through the air was drawin' to a close, an' soon we were back on the auld earth once mair. It's no' a bad feelin' to find somethin' solid under yer feet after ye have been off in the air like I was. As the Irishman said when he was tryin' to figure oot whether it was better to travel by land or by water; "in the case o' a wreck on land, ye're there, but wi' a wreck on the water, where are ye?"

However, as I said, I got safely doon an' Mac an' I went off up town to compare notes an' get some supper. My appetite was beginnin' to come back

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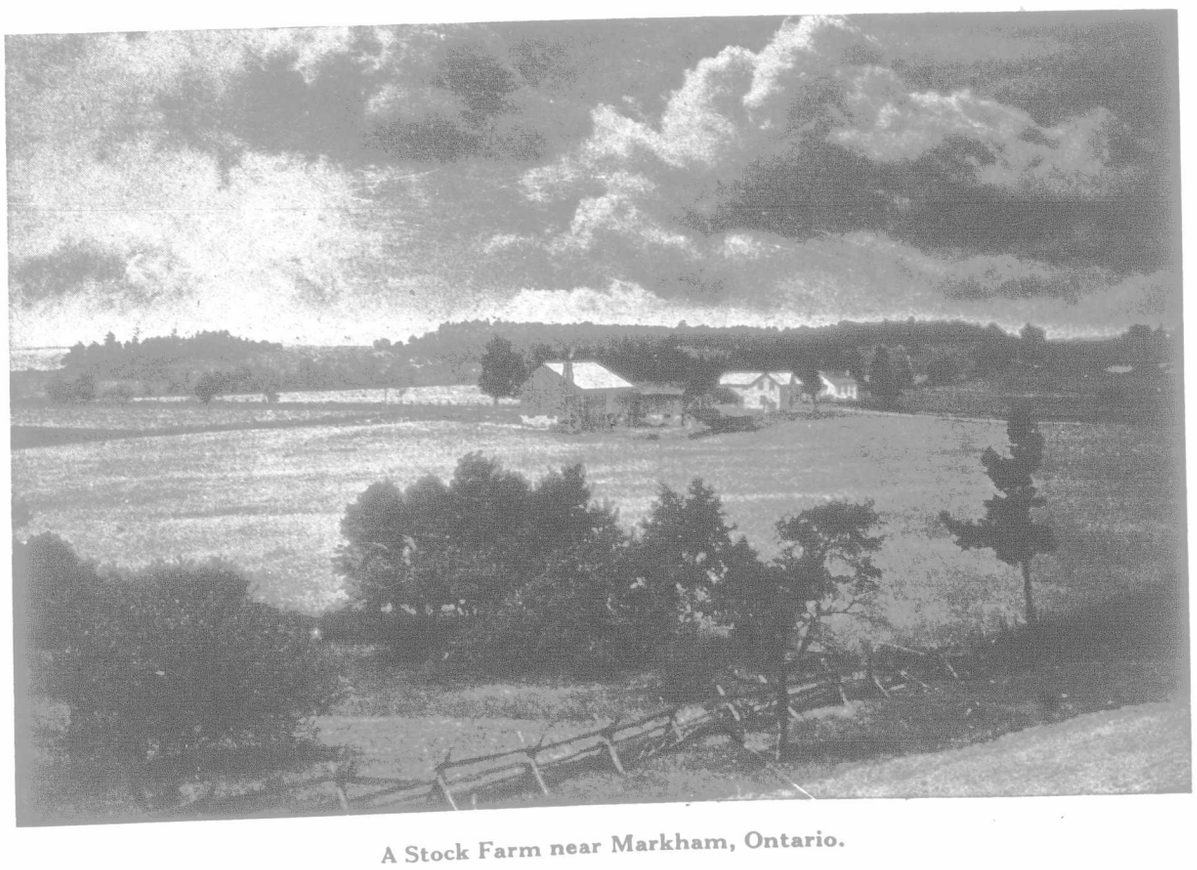

A Stock Farm near Markham, Ontario.

Useful Landscape Gardening on the Farm.

By Prof. F. A. Waugh.

EVERY once in a while I have an invitation to write a magazine article or deliver an address on "The Ornamentation of the Farm Yard." While I usually accept these invitations I always refuse the topic. Personally I do not care much about purely ornamental undertakings; and, what is more radical, my conception of landscape gardening is not of a decorative profession. I think all good landscape gardeners depend more upon fundamental planning and less on superficial adornment.

A fair and useful comparison can be made with architecture. A good architect has to plan a house so it will stand up—so it will be safe and strong. Also the house must be practical, usable, livable. If it fails in these mechanical features of the plan, no amount of ornamental gingerbread work over the outside will save it.

The same thing is true of a farm house. If the house is located on a bad site, if the buildings are inconveniently arranged, if the driveways and feed lots are misplaced, if the kitchen sewage runs into the well—then no ornamental treatment of the front yard will make it a decent place to live.

What the landscape gardener would like to do, therefore, would be to treat the whole problem, and treat it radically. His ideal would be to have the entire farm rightly planned. Each field should be given the size and shape best suited to its practical management. There would be a system of farm roads as short and direct as possible making all parts of the farm accessible. The buildings would be located with reference to outlook, sanitation, and convenience of administration. All the farm buildings would be arranged in a compact group with a view to reducing the labors of farm routine. Such questions belong partly in the field of farm management, partly in the field of argicultural engineering, but partly also with the problems of landscape gardening.

It is necessary to recognize, however, the fact that such radical measures cannot always be taken. This whole life of ours is for the most part, a life of compromise. We must accept conditions as they are offered to us and make the best of them. The landscape gardener, no more than anyone else, can rise above the fixed quantities of existence.

To state the problem in more practical terms the ordinary farm comes before us with many of its features already determined. The home site has already been adopted and the buildings mostly placed. Under such circumstances what can the landscape gardener do to improve the surroundings of the ordinary farm?

Certain specific things can be done of which the following seem to me to be the most practicable and the most important:

The whole place should be cleaned up and put in order. Farm machinery, hencoops, bicycles, and all domestic and agricultural paraphernalia should be removed from the lawn and put in their proper places. Order is Heaven's first law; and it is also the first law in landscape gardening. The disorderly appearance of farm yards is a national and crying evil widely recognized and lamented.

The place must be kept clean. Now, the maintenance of cleanliness and good order is far from being a trifling task. Good housekeeping inside the home costs a great deal more than house furnishings, and requires talents of a higher order. In landscape gardening we recognize one entire branch of the profession under the name of maintenance; and park maintenance, for example, requires good executive ability and costs money. Any ordinary city park spends from $100 to $750 a year for the maintenance of every acre. To keep any farm yard neat and clean will require the expenditure of at least $100 worth of labor every year. This fact should be clearly recognized and plans should be laid on that basis.

A front yard should be developed. While the front yard has been relatively over-emphasized in this counrty, the idea is still perfectly sound and should be acted upon. unless a family has the pride to present a clean and attractive front yard to the view of their neighbors, not much progress can be expected elsewhere about the premises. This yard should be small, clean and dignified. A common mistake on farms is to make it large and showy.

A home lawn and garden should be made. This is really more important than the front yard, just as the living rooms of a house are much more important than the front hall. This home garden should be at the side or back of the house and largely out of sight, especially if the main road is very much used. This home garden should not only be private but should be ample, comfortable and furnished for use. Here is where the family ought to live out-of-doors, and especially to rest and play. If there is a flower garden it should be in connection with this private portion of the grounds.

A service area should be established. This will be a space, greater or less, set aside from the other parts of the grounds and marked off by hedges or screens. It will be used for hanging out the clothes, piling the cord wood, drying the milk cans, possibly for setting out the brooders while the crop of young chickens is coming on in the spring. It will be plain of course that the service yard should be connected with the kitchen while the home

A Garden Should be Good to Live In.

lawn should be connected with the sitting room or living room of the house.

As a practical means of securing certain of these results it will usually be necessary to re-grade the lawn, especially the front lawn and the private garden. A little strip of good lawn grass neatly clipped with the lawnmower does as much to give an air of good breeding and good keeping to a home as almost anything which can be supplied. Yet there are thousands of farm yards which simply cannot be lawn-mowed for the single reason that they are too rough. There are thousands more which will not support a good growth of lawn grass because the soil has not been deeply and thoroughly prepared and properly drained. Nothing less than a thoroughgoing reconstruction of the lawn, from the sub-soil and the drainage up, will start these places on the right road.

Each farm yard should have a few hardy deciduous trees. The general tendency is to plant too many. Three or four large, well-grown, finely formed trees are better than 30 or 40 which crowd one another, over-shade the house and prevent the growth of any lawn grass. Evergreen trees, as a rule, should be used as a background for the house or as a wind break, and should not be placed upon the lawn.

Wind breaks or screen plantings may be placed where necessary, as, for example, to shut off unattractive views or to cover up dilapidated buildings. Of course, it is much better to remove dilapidated buildings and to cure the evil views rather than merely to cover them up. The necessary screens may be made by plantings of evergreen trees, by hedges, by masses of shrubbery, or in close quarters by lattice work covered with hardy climbing vines.

Foundation plantings about the house, the garage and similar buildings often give a very attractive air to a place. Especially if the foundations are high and bare they will be greatly softened by the planting of loose irregular masses of hardy shrubbery such as privet, barberry, deutzia, syringa, lilac, etc. It may be remembered, as a practical matter, that privets and barberries do better than other kinds of shrubberry on the shady side of the house.

A flower garden is the ambition of many a good farmer's wife. It is a feature that should certainly be supplied wherever it can be properly maintained. This flower garden should be located with the private garden and not in the front yard, and should be so placed that it can be given good, thorough cultivation, just as is given to the vegetable garden. Emphasis should be placed upon hardy herbaceous perennials rather than upon annuals or greenhouse plants. Such good old-fashioned plants as peony, iris, larkspur, perennial phlox, asters, foxglove, aquilegia, hemerocallis ,and dozens of others are available for this sort of planting.

Provision should be made especially in the private garden for liberal outdoor living. There should be shelters, seats and other attractions which will lead people into the garden and keep them there. An outdoor campfire is a very cheerful feature of this sort. Bird-houses should be supplied for much the same reason. Sometimes a fountain or pool of water will yield the family a large crop of satisfaction. Here also on the private portions of the ground should be developed tennis courts, croquet grounds, and other means of outdoor play. It should be one of the fundamental ideals that a home yard to be lived in— is to be used—every day, not merely to be looked at on Sundays when company comes. If the grounds are really attractive, if there is always something there to do, or something worth while to see, then the garden will be freely used. Success at this point is the greatest success of all.

One cultivates a lawn even with great satisfaction; for there is nothing more beautiful than grass or turf in our latitude. The tropics may have their delight but they have not turf; and the world without turf is a dreary desert.—CHARLES D. WARNER.

A Pleasant Farm Home with Background of Willow Trees and Foreground of Lilacs.

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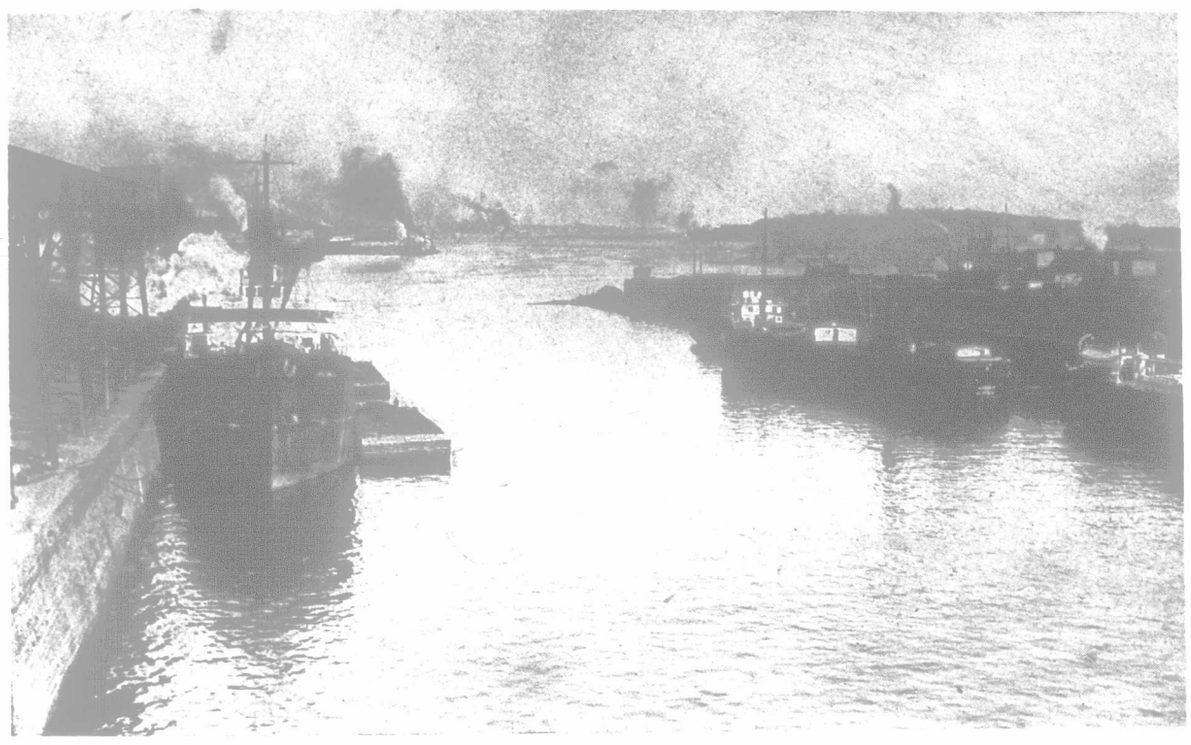
What's Your Dollar Worth in Foreign Markets?

By W. C. Clark, Queen's University.

TO some of us who had long since repented of our childhood dislike of those dull lists of mountains, rivers and lakes, of treaties, kings and dates drilled into us in the little old red school-house on the hill, the great war brought another "fourth book" course in world geography and history which was of absorbing interest and which will therefore be remembered. To-day the heritage of war has brought the world to school again,—this time to learn the mysterious working of the financial machinery by which the trade and commerce of the world is carried on. What is a bill of exchange? What is meant by rate of exchange, by the discount on the dollar, by the decline in foreign currencies? What is the Canadian dollar worth in New York, in London, in Paris, in Rome and in Berlin? These are questions which the man in the street and the man at the plow are asking—and must answer if they wish to know some of the important factors which to-day are influencing the prices of wheat, bacon and sugar and the other products which they buy and sell.



A Montreal Harbor Scene, Looking from Lock No. 1 Down the River St. Lawrence.

Moreover, it is time that the bill of exchange was coming into its own, for there is nothing more fascinating, and few things more important, than the study of these magical little bits of paper which pass from hand to hand in the exchange markets of the world and form the money of international trade. At the outbreak of war when the system broke down, even Lloyd George was amazed to find the important part played so quietly and efficiently by what he called those "wretched, crinkled, scrawled-over, blotchy, frowsy pieces of paper." It is just four hundred years ago since Marco Polo made his great journey into the interior of China and found to his astonishment that the native Chinese passed around bits of paper instead of money "with as much gravity and solemnity as if they were gold and silver coins." We have since become used to bank notes and other forms of paper money, and the gravity and solemnity is on the faces of only those of us who haven't any or many of those bits of paper to pass around. But even we would probably be just as perplexed as Marco Polo was if we could see the inside workings of, say, the London money market,—see the tremendous pile, perhaps ten billion dollars worth, of such bills of exchange which are bought and sold in London in the course of a single year and see the miraculous way in which these bills in London enable a Quebec tanner to buy hides from Argentina, a Toronto dealer to import tea from Ceylon, and the United Grain Growers' Limited to export wheat to France, yet no gold need cross the ocean, the seller need not wait for his payment a single day and the buyer need not pay till his goods are sold. Surely 'tis a wonderful system!

What then is a bill of exchange? As the bill is full brother to the cheque, it should not be difficult for anybody to get a clear grasp of its nature. A cheque is simply a credit device drawn by a person who has credit at a bank, ordering the bank to pay a certain sum of money to himself or to a third party. Now the bill of exchange is the same sort of order to pay; it is a credit instrument drawn by one person ordering a second party (usually in a foreign country) to pay a certain sum of money to himself or to a third party at a certain specified time. Thus, while a cheque is always drawn on a bank, bills of exchange may be drawn on manufacturers or dealers, though to an increasing extent they also are drawn upon banks. Again while the cheque is always payable on demand, that is as soon as presented to the bank, most bills are only payable at 10 or 30 or 60 or 90 days after sight. This is really the only important difference between the bill and the cheque.

Now, just as a cheque can only be drawn by a person who has obtained credit at a bank either by borrowing or by depositing actual cash, so a bill of exchange can be drawn only by those who in one way or another have secured a credit or a claim to money in a foreign country. For purpose of illustration let us take the case of sterling bills in New York, that is to say of bills of exchange on England. Now in what ways may people in New York secure claims to money in London? Obviously if the New York branch of the United Grain Growers has exported wheat to England, it has a claim to so much money in England and has the right to draw a bill ordering the importer of the wheat or his bank to pay so many pounds sterling to a specified person at an agreed-upon date. The bill might read somewhat as follows:—

$1,000. ORIGINAL. New York, Dec. 25, 1919.

Sixty days after sight of this original of exchange (duplicate unpaid) pay to the order of the bank of Montreal one thousand pounds sterling.
Value received. Charge to the account of (2,000 bushels of wheat by S. S. Arabic).

United Grain Growers, Ltd.
Per ..... Manager.

To Parr's Bank,
London, England.

The United Grain Growers, Ltd., thus orders the importer's bank (Parr's Bank) to pay the face value of the bill to its own bank, the Bank of Montreal. The United Grain Growers sells the bill (with the bill of lading and insurance certificate attached), to the Bank of Montreal at the current price for such bills in New York and, having received its money is no longer interested in the transaction. The Bank of Montreal sends the bill to its London branch, which takes it around to Parr's and has the latter write "Accepted" (with signature and date) across the face of it. It can then be sold at its face value minus interest at the current rate of 63 days, or it may be held at the credit of the Bank of Montreal for 63 days, when the importer will pay Parr's and Parr's will pay the Bank of Montreal.

But in tracing the life-history of a bill of exchange, we have got away a little from our subject. What we started out to show was that the export of goods from the United States gave rise to a supply of English or sterling bills in New York. As a matter of fact, most bills are created in this way as a result of the shipment of goods from one country to another. For obvious reasons such bills are spoken of as grain bills, cheese bills, cotton bills, etc. It is equally clear that anybody in New York who has sold stocks or bonds to Englishmen or anybody who has performed services (such as transportation or insurance or financial services) for Englishmen or any bank which has arranged to borrow temporarily a certain sum of money from a London bank will have claims to money in London, and, therefore, will have the right to create and sell sterling bills in New York. Hence, there are four chief ways in which a supply of such bills will arise in New York: 1, by the export of goods; 2, by the export of securities; 3, by the export of services, and 4, by short-time borrowing in England.

Conversely there are four chief ways in which a demand for such bills may be created. Any New Yorker who has imported goods or securities from England or who has had services performed for him by Englishmen will have debts to pay in England, and will want to buy a bill of exchange with which to pay his debt. Similarly any NewYork bank which has arranged to grant a short-time loan to an English bank will want to buy bills in order to transfer the funds to London.

So at any time in New York there are a number of persons who have bills to sell and a number who want to buy bills. The banks act as go-betweens, buying bills from those who have them to sell and selling them to those who need them to pay debts in England. The price of these bills is known as the rate of exchange on London and, like the price of wheat or any other article, it varies with the conditions of supply and demand. If the supply of such bills is large and the demand for them small, the price goes down; but if many people want to buy and few people have bills to sell the price rises. If supply and demand were equal, exchange would be at par; that is to say, a claim for one pound sterling in London would be worth $4.86⅔ in New York. This is called the "par of exchange," because there is just as much pure gold in the English pound as there is in $4.86⅔ of American money.

Now exchange is seldom, if ever, at par. At one time it is selling below par or "at a discount;" at another time it is selling above par or "at a premium," as the bankers say. Ordinarily, however, the actual rate never departs from par by an amount greater than the cost of shipping gold. Remember that the bill of exchange is simply a cheap substitute for a payment in gold. If, therefore, the discount becomes greater than the cost of shipping gold it will pay the person who has a claim to English money to import gold from London rather than draw a bill. Conversely, if the premium becomes too high, those who have debts to pay in England will refuse to buy bills and instead will

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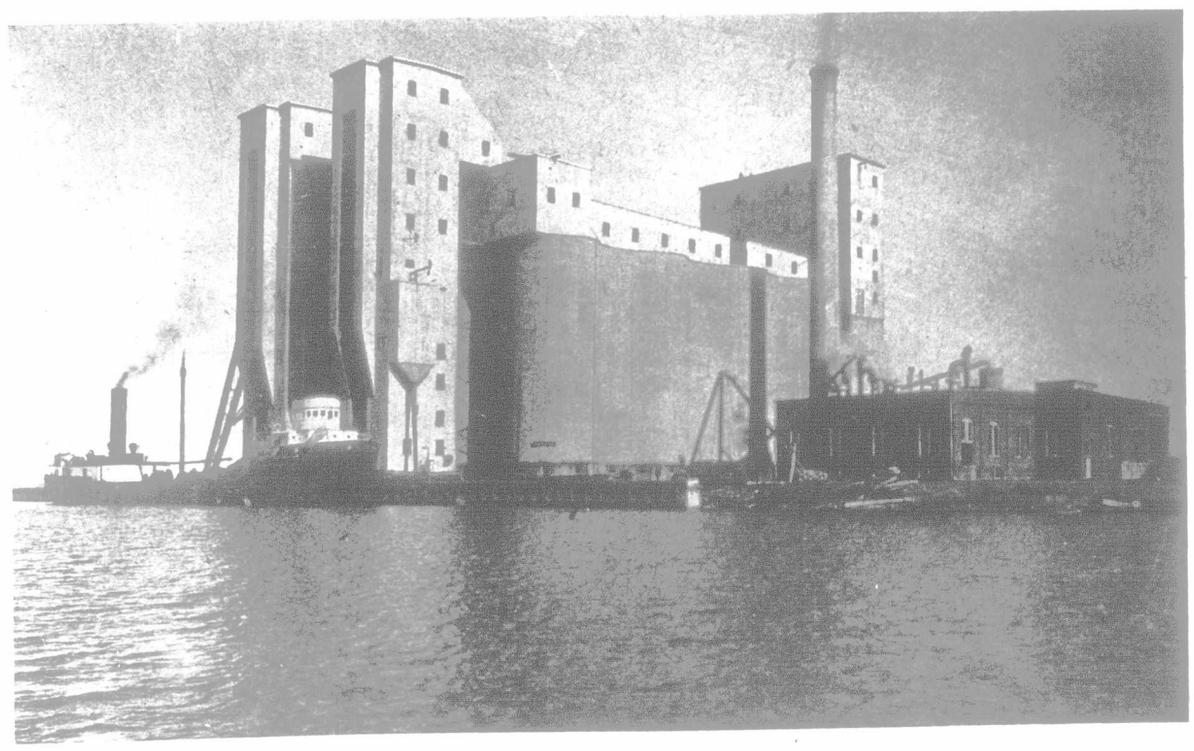


Elevators at Port McNicoll, Ontario.

Seasonable Messages from the Ministers of Agriculture.

ONTARIO

Very gladly do I avail myself of the hospitality of the columns of the Christmas Advocate to send greetings to the farmers of Ontario. Even more than others this Christmas will be a memorable one and my hope is that it will be as happy as it is memorable. In thousands of farm homes it will be remembered as the Christmas on which the boys were back after their valiant and victorious service overseas. All rejoice in this fact and give praise. and thanks for the peace which our Canadian heroes have helped to secure. My sincere wish is that goodwill and good cheer may abound throughout the land.

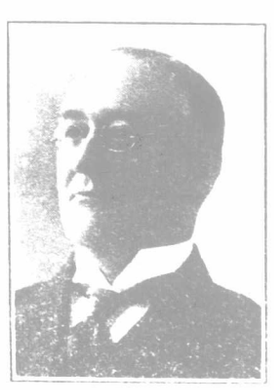
This season, however, is not only a time for reunions but also for reflection. There will be surveys of the past and plans for the future. In the thoughts of farmers particularly there may occur considerations in regard to recent events in the political arena in this Province and an effort to understand their great significance. Apart from any controversial aspects and regardless of what the future may have in store, I think we may all agree on this, that what has happened has given a new dignity to our calling as farmers and a new confidence in the system of democracy under which we live and are governed. It is proper that we should gather encouragement from these facts in the consideration of our plans for the future.

And certainly it is well that we should give thought to the future. The times are troublous as well as momentous. With fluctuations in the market and elsewhere it is not easy to see very far ahead. Under such conditions I can only direct attention to what may be regarded as basic conditions. It is the duty of everyone, whether on the farms or elsewhere, at the present time to work and save. If this is the duty of the individual, then it is clearly the duty of the Government to see that the conditions for working and producing are made as favorable as possible and to set an example of thrift for the better carrying out of the general injunction. Not only is this imperative, but we should endeavor to so plan that our work will be effective and of permanent value. I believe every farmer should endeavor to study the conditions from not only the local but the world-wide standpoint. To my mind there seems to be little doubt but that in spite of changes in trade and fluctuations of markets there will be a steady demand for the products of Ontario farms for years to come, for export as well as for local trade. It may be wise, however, to stick to the staple products and above all to stick to live stock and live-stock products. The situation as to cereals will naturally adjust itself more readily than the situation in regard to live stock and live-stock products. We should also endeavor to maintain a high standard of quality for all the products which we place on the market, as this will be essential in order to retain our position abroad in the face of the keener competition which may be expected as the years go by and as Old World countries begin to produce more fully. If we follow these lines I have no doubt as to the future of Ontario as an agricultural Province.

I know something of the resources of Ontario in the fertility of its soil and in the quality of its live stock. I know also something of the Ontario farmer and of his skill, resourcefulness and sterling qualities of work and thrift. For my own part I intend to see to it that he has all the energetic backing and support which organized agencies can give him. In this way bringing to bear the individual skill and organized support on the natural resources of the Province, I feel that we will best be able to bring to the farmer the economic justice which he deserves, supplementing the political freedom which he has achieved for himself; and if we can accomplish this I feel we will be accomplishing something which is in the best interests of the Province as a whole.

MANNING W. DOHERTY,
Minister of Agriculture.

NOVA SCOTIA



The season of 1919 has in general, been a favorable one for the farmers of Nova Scotia. The yield of all crops has been higher than average, while the fruit production has been more than double that of the previous year. In the face of higher cost of labor and supplies our farmers are better off financially than usual. As a result an optimistic spirit prevails that gives promise of a still greater effort in agricultural development.

Agriculture has made a decided advance in Nova Scotia during the past decade, particularly in dairying. As an illustration of this it should be noted that the output of our creameries has increased by more than one thousand per cent. during the past ten years.

In forcasting the future of Nova Scotia agriculture it may be said that in dairying as well as in fruit growing and sheep raising we have reason to believe that only a beginning has been made. These are mentioned as the outstanding features of our agricultural activities, which include all branches of farming for which a temperate climate is adapted. Experts state that about fifty per cent. of the land area of Nova Scotia could be brought under the plow, but they also consider that much of this possible arable area should not be developed without a corresponding industrial development that would enlarge the local markets. Fortunately the varied resources and commercial situation of the Province combine to give promise of this necessary industrial growth.

It is but natural that Canada, East and West, should be in an unsettled condition as a result of the strain of war. As the mental effect passes off, however, readjustment will follow, and more sustained production result. It cannot be too strongly emphasized that the various economic ills from which we suffer at present will not be cured except through earnest and prolonged individual and co-operative effort. The welfare of our industrial and mercantile centres must make for the progress of the country, and vice versa. Confidence between town and country will go a long way toward solving the economic problems that confront us.

G. H. MURRAY,
Premier and Minister of Agriculture.

SASKATCHEWAN

At this peaceful, kindly Christmas season, the farmers of Canada may look forward to a few weeks of comparative leisure. Our severe Canadian winter is one of the farmer's best friends. Winter calls an armistice between the farmer and the hordes of insect and other enemies and the vagaries of climate with which he must wage perpetual war during the growing season. Winter is the season for reflection and planning, for reviewing and analyzing past failures and successes and outlining the program for next season's campaign.

The prosperity of our country and the welfare of the world for the coming year depends very largely upon the carrying out successfully of the plan of work which individual farmers are now quietly preparing. Humanity faces a tremendous task in repairing the destruction and waste of four years of war, and the farmer's share in this reconstructive period is the most important of all. His task is to feed the world, and most magnificiently has he performed this task under very trying conditions the past four years. The world has been perilously close to famine and is still living from hand to mouth; and the high cost of living cannot come down very far until the farmer can profitably produce more food at a lower cost.

Before the cost of production on the farm can be materially lowered, all the economic burdens which press unfairly upon the great agricultural industry of Canada must be removed. The farmers have demonstrated most clearly that if these problems are not solved, they will take a hand themselves in framing a tariff fair to agriculture and in dealing effectively with all factors which artifically increase the cost of production.

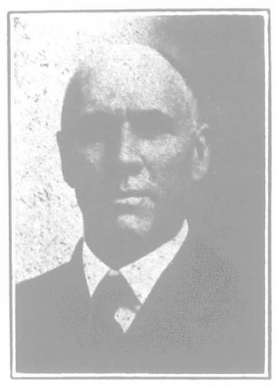
Co-peration has been found by many Canadian farmers, more especially in the Western Provinces, a most effective measure for securing for the producer a larger return for his labours, without any additional cost to the consumer. I hope to see this movement grow and broaden until there is established a permanent national food selling organization which will, to a very large extent, eliminate speculation and gambling with the food of the people, and thus leave the farmer only his eternal gamble with nature.

Hand in hand with co-operation goes education, and the modern progressive farmer no longer sneers at "book farmers," being in many cases a book farmer himself. Farmers intensely dislike advice on how to run their own business when this advice comes from unqualified sources, but they have learned the value of expert information which they can secure from specialists who have devoted the better part of their lives to the study of some special phase of agriculture. The keen interest shown in argicultural extension work and the increasing number of boys and girls from the farm entering our high schools, colleges and universities is a most hopeful augury for the future.

This era dawning in Canada promises to be more than anything else a Farmers' Era, providing only that farmers do not lose sight in their day of power, of the vital principle of democracy, of equal right to live and equality of opportunity to all.

CHARLES A. DUNNING,
Minister of Agriculture.

MANITOBA



Farmers of Canada, and particularly farmers of my own Province, I greet you!

Now that the horizon is clearing, and we are entering upon this new era of reconstruction, we must look ahead, and to another, for inspiration. Though in a sense we are the most independent class of people in our country, we too, are touched by this spirit of unrest which has the whole world in it's grip. Conditions can never be as they were; we must begin anew, with a clean slate, and with each one of us taking on his or her responsibilities of citizenship. I think that we all realize the profound meaning of this word that has so long been lying dormant, and has at last awakened with a broader, more unselfish meaning. With the awakening has come a new conception of the greatest privilege a man or woman can have. . to be a citizen of the British Empire. We must all be worthy of our heritage, worthy of those who so gallantly fought and fell for the principles we hold most dear.

We must ever strive for a new Canada, a better Canada and a more prosperous Canada. We all have our part to play, but we as farmers must take the leading role when Canada's prosperity is at stake, for Canada is primarily an agricultural country, and with every farmer doing his best, he would be lifting his country high in the eyes of the world. The only way to gain this end is by the road called co-operation, the road we must all sooner or later learn to travel. I am not speaking to the farmers of Manitoba alone when I say co-operate with your Department of Agriculture, for after all it is *your* Department of Agriculture. Consider it a personal possession, let us all unite in making the work carried on by the various Departments as beneficial as possible.

Manitoba is singularly fortunate; we have never had a provincial crop failure. We have, within the last number of years, entered the dairy and vegetable markets, and thus early have gained a reputation as enviable as our reputation in the grain markets of the world. We all must learn the ways of intensive farming; it is a lesson to be learned from older countries. Here our great fertile prairies have proved too great a temptation, and we have endeavored to spread our energies over too vast an area.

We are the pantry of our country—Let us remember that without our pantry well stocked and cared for, our household will not thrive.

Again let me offer you my greetings and sincere good wishes for the coming year.

V. WINKLER,
Minister of Agriculture.

QUEBEC

The agricultural Province of Quebec is not indifferent to the great reconstruction movement undertaken by every country in the world, in order to repair the disasters caused by the greatest war in history. Every kingdom, every republic, every colony, every province even, should enter into this world-wide movement and each one would, by furnishing his quota, contribute to restore the economic equilibrium, which has been lost to the detriment of all.

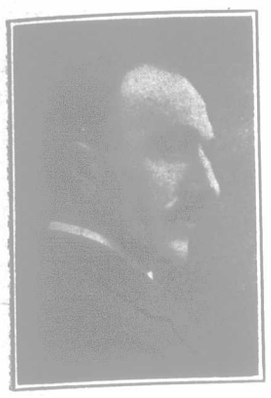
True to its special mission, the Province of Quebec realizes that it it must play a part of paramount importance in this vast reconstruction work and it has already sought to show that it would be the first to respond to all the urgent appeals of the present. Our 1918 Greater Production campaign aroused practical efforts and awakened once for all, the productive energies of our farming population. Guided and directed by our Government, the scientific authorities and the most competent experts put their knowledge and their patriotism at the service of their country. The 150,000 farm owners who maintain the landed wealth of the Province responded admirably to the watchword given and even exceeded by 609,000 acres the area of greater production which we had proposed to them to undertake. We may add, with legitimate pride, that this development goes on increasing in the same proportion, and we make bold to state that the Province of Quebec never so strenuously strove to realize its ambition of being preeminently the farming Province of the Dominion.

The most earnest wish of the Province of Quebec is to advance in unison with the other Provinces of the Dominion in the upward path of progress, and therefore she wishes her Sister-Provinces a prosperous and productive future. And in order that her wish may be

ulfilled, she invites all rural groups: provincial or local Agricultural Co-operative Associations, Clubs, Syndicates, United Farmers, etc., to co-operate with her in a common spirit of sympathy, interest and ideas.

J. E. CARON.
Minister of Agriculture.

PRINCE EDWARD ISLAND



My Christmas message to the farmers of the Province which I have the honor to represent, is: Let us work together to secure better marketing conditions, and an increased production from our farms.

The Province of Prince Edward Island was probably less affected by the great unrest following the cessation of hostilities than any in the Dominion; and with us a labor strike is unknown. We have been blessed with one of the best crops in our history. Prices for most of of our products have been fair, especially for the lines marketed through co-operative associations, as our Egg and Poultry Association, The Wool Growers' Association and the co-operative creameries, and the experience we have gained in grading and marketing should encourage us to, as far as possible, standardize or grade all the products we have to offer. We have experienced an era of unsettled prices in all farm products, and an experiment of governmental price fixing, which, while intended to be aimed at the middleman has resulted, in the instance of hogs, in an unfair price being paid our farmers, that may result in a lessened quantity being produced later on. Supply and demand would appear to be the only rational means of price regulation.

With our limited area our only hope for development is through the medium of live stock, particularly dairy cattle, hogs and poultry. Our soil, being of a sandy loam nature, varying in some localities to clay, with good natural drainage, does not bake in extremes of heat and moisture, is easily worked and responds readily to good treatment. In the past we have exported entirely too much grain and hay. We are better supplied with suitable farm help than any of our sister provinces. By employing more of this help on the land, and by a more general system of live-stock farming in conjunction with the use of the natural fertilizer available, we can greatly increase the fertility of the soil and virtually build one farm upon another. We cannot hope to compete with prairie countries in production of classes of stock that can be raised upon the open prairie in large herds, but with our temperate climate, our regular rainfall, and ample labor supply, we may grow our heaviest producing crops in summer and profitably manufacture them into high grade animal products in winter. Those that require most attention in raising will return the greatest profit.

We might well adopt in other lines the advice of potato men to plant plenty of seed when the price is low. The future of the Agriculturist was never brighter in this Province. We have the facilities for a greatly increased production of animal products, and we may, by standardizing, guaranteeing quality, and marketing co-operatively, receive higher market prices.

WALTER M. LEA.
Minister of Agriculture.

NEW BRUNSWICK

The Province of New Brunswick contributed to the Fighting Forces in the war an equal, if not greater, number of men than any other Province in Canada, according to its population. Its principal industries are Agriculture and Lumbering. While the towns and cities contributed liberally, a majority of the men who went overseas were engaged in these two great industries. A serious problem developed (that was not so noticeable in the first two years of the war,) in the third year, when the sources of food supply became cut off and exhausted; all available shipping were required for the transportation of troops. Supplies from Australia and the Argentine were no longer available, on account of the submarine menace, distance and time for transportation.

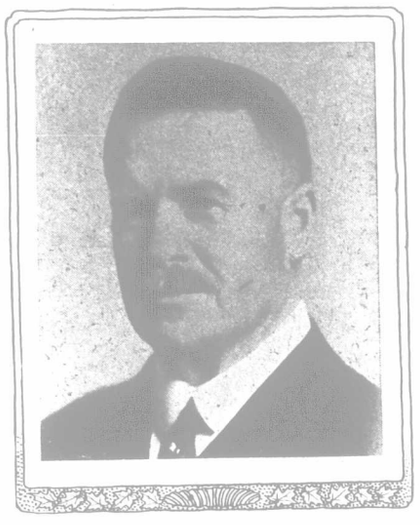
The great bulk of our producing element of Canada overseas became a consuming element. The Fighting Forces of the Allied Nations, as well as the civil population overseas, were depending largely upon the United States and Canada for their food supply. One hundred and ten million people on this Continent had to be provided for, as well. All available shipping was used to move wheat from the elevators to feed the Fighting Forces and civil population overseas, which tided matters over until the new crop would grow.

The difficulty to be encountered can be better understood when it is realized that four times the average production was required. with only one quarter the amount of labor to produce it in. To speed up munition production, a plant could increase the capacity in a day or a new factory could be erected in a month, but in Increased Food Production, we had to work with the slow processes of Nature which only gives us one crop in twelve months; and the fact of our having the most rapid development of vegetable growth, for staple crops, of any country in the world; the difficulties encountered in sowing larger acreage, harvesting and storing larger yields, with less than six months to do it in and with seventy-five per cent. of the men who formerly produced it looking to this country for bread, presented a problem difficult to work out under such circumstances.

There was a general concensus of opinion that production could not be had without men to cultivate the soil and it would be a judicious administration of the war to retain from the remaining overseas draft, men who had been actually engaged in farming before they put on the khaki, as taking many of them rendered large producing areas in well equipped farms, with teams, power and machinery, unproductive. A very small percentage were allowed to return to farm work, but hundreds of tons of hay were never cut and acres of root crops froze in the ground in New Brunswick, because of the lack of help to harvest them.

All the Provinces, as well as the different States of the Union, organized an Increased Production Campaign. War gardens were planted and a wonderful increase was secured. In New Brunswick the farmers responded well to the appeal. Everybody in their household worked sixteen hours per day, old and young, men, women and girls. New Brunswick produced enough wheat, in 1918, to feed the total population of the Province for a year. The Government, meanwhile, encouraged the construction and had erected modern flour mills in the Province, with a total grinding capacity of 350 bbls. of flour per day.

J. F. TWEEDDALE.
Minister of Agriculture.



FROM THE FEDERAL MINISTER.

CANADIAN farmers during the past few years have shown themselves capable of great things. In quality and quantity our agricultural production has been such as to win for our country a most enviable reputation. Canadian bacon, Canadian cheese and Canadian wheat are recognized on the British market not merely as standard products, but as the best of their kind and beyond competition. With such unequalled conditions as our great country affords we can and should do as well with many others of our exportable products.

None of us will see such another time of stress as we have just so successfully passed. All of us, however, must now spend our every effort to hold the honors we have won and add to our prestige in the British Markets if we would win out in the great economic struggle just ahead.

Canada's liabilities from the war are enormous. She can meet them best through her agriculture and other great resources. On Canada's farmers, therefore, largely rests the resonsibility of her future. When her farmers are prosperous Canada is prosperous and her debts are being liquidated. The prosperity of her farmers depends upon themselves in very large part. World conditions, it is true, enter in, but with superior products and energetic marketing we can more than hold our own.

It is held by some that if Canadian agriculture pays Canada's debts then the Canadian farmer suffers and the other industries go free. This is a misapprehension. If Canada pays her debts through her agriculture, it means that her agriculture is thriving and her farmers prosperous. The more prosperous our agriculture the greater our national wealth and the more quickly and the more easily shall we meet our liabilities, for all will be able to contribute their fair share. As farmers we have an excellent start, an unsurpassed market, the strongest incentive for production, and unlimited energy. Let us get busy, for progress on our part means propserity for all.

S. F. TOLMIE.
Minister of Agriculture.

ALBERTA

Farming, like every other business or occupation is in a more or less unsettled condition at the present moment. The fluctuating values of every commodity the farmer has to sell is making it difficult at the present moment for men to decide upon the line of agriculture they will venture during the next few years. A good many of us have continually and consistently held to the opinion that live stock is the only sound basis for permanent agriculture, and I am thoroughly convinced that there has not been a time within my recollection when this statement was truer than it is to-day. There is a world demand for meat products that the growers of live stock are not in a position to supply at the present time, and keen though this demand is now, and is bound to be in the future, the demand for dairy products is even greater. But co-incident with this, there is to-day the keenest demand for pure-bred live stock, particularly cattle, that the world has seen in several decades. Cattle markets all over the world have been becoming more discriminating during the past few years, there being a wider spread between the high class finished beef animal, and the scrub that can never be offered in real good condition. The result of this is a very widespread desire upon the part of cattle breeders in every country in the world to improve the quality of their herds. This has caused an unprecedented demand for pure-bred, high-class cattle, culminating the other day, in Scotland, at William Duthie's record breaking sale, when 19 Shorthorn bull calves, averaging under twelve months, brought an average price of slightly over $7,000 each, with the top one selling for $27,000. These are phenomenal prices, and it is only the breeder who has excelled all others that can ever hope to secure them. Nevertheless, they are an indication of the trend of the times and this sale goes to show how keenly men will compete in an auction ring to-day to secure the very highest class of cattle that skilful and experienced breeders are able to produce on their farms.

Other sales both in the old country and on this continent of all breeds of cattle, have resulted in unprecedented prices and a keener demand, than has ever been shown before in the world's history, upon the part of hundreds of farmers to secure better cattle than they now have. It would appear that this demand has only begun. It is only within the last few years that agricultural education has begun to make itself felt on the farms in North America, and every boy that has been trained in the science of agriculture, which includes the judging of good live stock, has carried back to the farm with him a strong desire to breed better cattle than his father did. Campaigns for improvement in live stock are being put on by agencies of different kinds in all parts of this continent, and leading live stock men in England and Scotland have gone so far as to demand that the Boards of Agriculture should license bulls for use in private herds with a view to controlling the breeding of cattle to such an extent that they would be greatly improved. Some of the States to the south of us have made their slogan "A pure-bred cow on every farm" and it would appear to me that the next ten years will see more substantial improvement in the quality of live stock kept on our farms than any preceding period in our history. Consequently the breeding of good live stock should be one of the most profitable lines in farming, during the next few years, that we have ever known.

What is true of cattle is also true of sheep and hogs, except that they can be reproduced more rapidly, consequently the breeding of them fluctuates to a greater extent. I have also the greatest possible confidence in the value and importance of breeding good draft horses. Especially will this be true in Western Canada. We have literally millions of acres of land that must be plowed to support the population that will crowd Western Canada in the next ten years. And for all around farming operations it will be some time before the draft horse is replaced. The farmer of the future is going to be harder to satisfy in the quality of his live stock than the farmer of the past. He is going to demand a better class of horses, in fact it would appear to me that improvement in the breeding of all farm animals will be the leading characteristic of farming during the next few years, and the man who produces the best will reap the largest reward.

DUNCAN MARSHALL.
Minister of Agriculture.

THE road was muddy and the hill was steep,
The horses willing, faithful, but, alas,
Their straining muscles strove in vain to reach
The summit aimed at by the driver's lash.
Once more the quiv'ring flesh is made to feel
The stinging whip,—once more the beasts essay
Its mandate to obey, and yet in vain.
Man's limitations can be voiced, but when
A brave horse finds his Rubicon is reached
He must submit to urging that would call
From humans a remonstrance or a groan.
When will men learn that e'en a horse can know
The limit of his strength, and when he shows
His willingness unequal to the strain,
Slacken the rein and lend a helping hand?

From "Our Dumb Animals."

The Holstein --- Past, Present and Future.

By Neil Sangster, President Holstein-Friesian Association of Canada.

AS owner of the oldest established herd of Holsteins in Canada, and as a breeder who has been honored by his fellows with the highest position in the gift of one of the wealthiest and most progressive live-stock associations in this country, I feel that readers of "The Farmer's Advocate" will pardon me if I grow a bit enthusiastic over a breed of cattle which has revolutionized the dairy industry of the Dominion.

It was in the winter of 1882-3 that my father laid the foundation of the Pleasant Valley herd. Several farmers in Ontario made small importations from the United States about the same time, notably J. S. Hallman of New Dundee, M. Cook & Son, Aultsville, H. M. Williams, Picton, S. Macklin & Sons, Fenella and H. & W. F. Bollert, Cassel. Other breeders who were prominent in the eighties were: G. W. Clemons, St. George; J. W. Lee, Simcoe; Scatcherd & Son, Wyton; Smith Bros., Churchville; A. Gifford, Meadford; R. S. Stevenson, Ancaster; and A. Kennedy, Ayr. At the Toronto Exhibition of 1883 some eight or ten men interested in the new breed got together and formed a Holstein-Friesian Breeders' Association of Canada. Surely these men builded better than they knew.

The way of the pioneer breeder in those days was harder than that of the proverbial trangressor. We were bombarded on every side by partisans of the old established breeds. When I think of those days I am reminded of the old saying that you will always find the most sticks under the tree that bears the choicest fruit. However, intrinsic merit is bound to win in the long run, and when I size up the dairy situation to-day I feel amply justified in claiming that experience has shown the Holstein-Friesian cow to be better qualified than any other to fill the requirements of the dairy farmers of Canada. I have seen the membership of our Association grow from a dozen in 1883 to 3,200 in 1919, our registrations from 400 in 1891 (when our herd book was established) to 15,000, our annual income from practically nothing to $35,000. I have watched our membership increase in my own Province of Quebec from one to about 400. The Beauharnois District in which I live has always been the centre of the Ayrshire interest in Canada, yet at our last Ormstown show the exhibit of Holsteins outnumbered that of the Scotch cattle.

The two greatest factors in popularizing the Holstein cow have undoubtedly been the official test and the public dairy test at agricultural fairs. It was in 1894 that the American Association established a system of testing under which representatives of agricultual colleges and experiment stations acted as supervisors, watching and weighing every milking and testing all by the recently invented Babcock test. Such tests were practically free from any suggestion of inaccuracy, and in a few years established beyond a doubt the fact that Holstein cows had no equals as milk and butter producers. When we consider that approximately 900,000 Holsteins have now been registered in America, all descended from the few thousand original imported animals and that the annual registration of black-and-whites in both the United States and Canada now surpasses that of all other dairy breeds combined, we must admit the wonderful impetus given by official testing to the Holstein industry. Up to the present, about fifty cows have made records of over 40 pounds butter in seven days, the highest being the Canadian cow, Rolo Mercena DeKol, with 51.93 pounds. Nearly 1,200 have exceeded 30 pounds and many thousands have made records between 20 and 30 pounds. Holsteins hold all, or practically all, world's records for milk and butter production. At least 75 per cent. of all the dairy tests held at exhibitions in America during the last 30 years have been won by Holsteins. The only tests for economy of production at the Ontario Winter Fair have been won by Holsteins. It is worthy of note that Rhoda's Queen, a Quebec Holstein, was the first cow in the world to give 100 pounds of milk in one day in public test, and to my knowledge only one other cow (Miss La Honda, owned in Nova Scotia) has ever turned the trick.

The future of our breed depends upon keeping it a commercial breed rather than a millionaire's toy, one that will give a profitable yield through the whole year and through a series of years, one, in short, that will make the every-day dairyman a good living. Our aim should be not so much to make large short time records, as to breed big, handsome cows that will produce from 12,000 to 20,000 pounds of milk that will test well above the legal standard. I am especially proud to find Canada breeding cows like Jemima Johanna of Riverside, champion of all breeds in this country with her yearly record of 1,280 pounds of butter, and the only ten-year-old cow in the world to give over 30,000 pounds of milk. Then there is Zarilda Clothilde 3rd DeKol, the British Columbia cow, with over 30,000 pounds in strictly official test, and who promises this year to go about 33,000 pounds with a good chance of being a world's champion. Everyone is familiar with the great Ontario cow, May Echo Sylvia, the only cow in the world to give over 1,000 pounds of milk in seven days, and her famous son, Carnation King Sylvia, sold at six months for $106,000, the highest bona fide price ever paid for an animal of the cattle kind of any age or breed. Many other famous animals might be mentioned which have contributed largely to give Canadian Holsteins the reputation they now enjoy, a reputation that is second to none in the world.

We find that not only in America, but in Great Britain and South Africa, Holsteins are commanding enormous prices. Our Live-Stock Commissioner, Mr. H. S. Arkell, tells us that everywhere he went in Europe people were inquiring for Holsteins. One notable reason for this is their adaptability to varying climatic conditions. They were brought to their present high standard on the rich meadows of Holland, but they lose nothing by removal to other countries. They thrive in the great dairy districts of Ontario and Quebec, on the hills and in the valleys of the eastern provinces, on the western prairies and on the rich alluvial lands of the Pacific slope. Pure-bred Holsteins are now becoming exceedingly popular in Great Britain although for years it has been impossible to import live stock from the continent, except one importation made in 1914 by special arrangement with the Board of Agriculture. In Belgium, Germany, Denmark, Sweden and Russia, Holsteins have done remarkably well. They are the favorite cattle of South Africa and are numerous in New Zealand. In Australia, the West Indies, Japan and South America they are becoming well known.

On account of the scarcity and high prices of all kinds of meats, the production of veal is now adding an important item to the credit side of the farmer's balance sheet. No kind or quality of veal is in such great demand as that of the Holstein-Friesian breed and its

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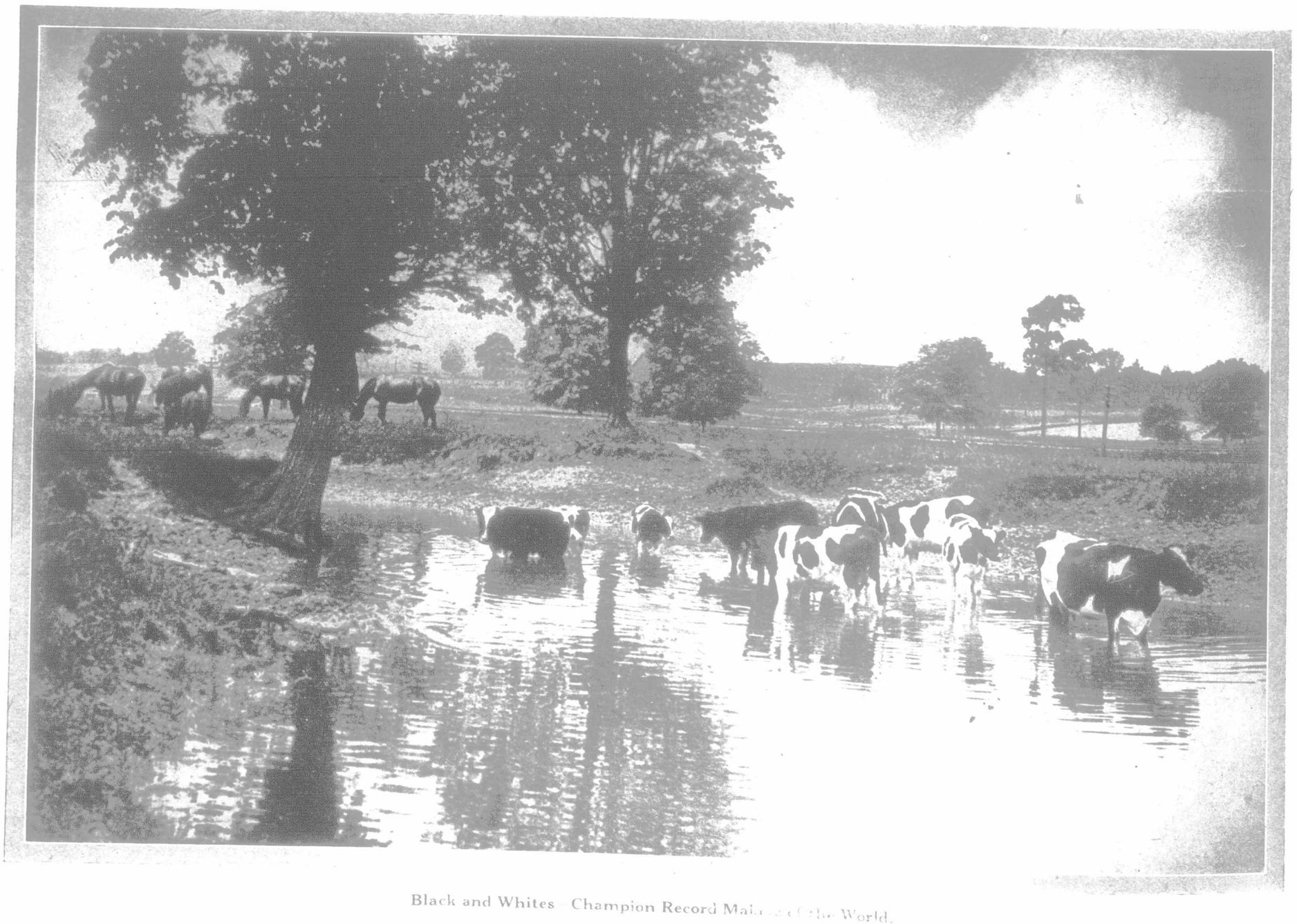


Black and Whites—Champion Record Mak[illegible] of the World.

A Greater Dairy Industry for Canada.

By E. H. Stonehouse, President National Dairy Council.

PROBABLY no branch of Agriculture has responded to the call for greater production to a greater extent than Dairying, and there is no doubt that the future holds possibilities the extent of which we are only now beginning to realize.

Before the war, cheese and butter making were the chief outlets for the great flow of milk produced in this Province, but to-day, other industries have been established which require vast quantities of milk and cream.

I refer particularly to condenseries and powdered milk factories which have been established in many of our chief milk producing counties. One company alone has used over 70,000,000 lbs. of milk in one year. Possibly 250,000,000 pounds have been absorbed by these and allied industries during the current year.

Whole milk consumption in cities and towns has not increased materially. This is a field where an educational campaign would be of inestimable value in increasing consumption of an article of diet which is of absolute necessity to infants and growing children, if normal development is to be assured. When milk prices soared upward in Philadelphia, New York and other American cities in 1916 and 1917, an appalling increase in infant mortality was the result. Many families were found giving their children tea and coffee instead of milk.

A paragraph from a recent bulletin from the office of Dr. Hastings M. O. H. of Toronto is especially applicable here:

"It must be apparent that our first duty is to advise the public of the real food value of milk, and that milk is essential not only for infants, but for children of all ages, for the expectant mother, for the nursing mother and for the sick. Milk has absolutely no substitute in the diet of the child. The regular use of milk and a more extensive use of milk would constitute the greatest single factor of safety in the human diet. Milk is a substitute for other foods, but no other food is a substitute for milk."

During the war it was amply demonstrated that wounded and sick soldiers recovered much more rapidly when abundant supplies of fresh milk, cream and butter were available. The necessity for such a campaign becomes apparent when statistics show that the domestic consumption of whole milk is less than one pint per capita, per annum. Imagine what would be the condition of our young calves and pigs if their rations were in the same proportion.

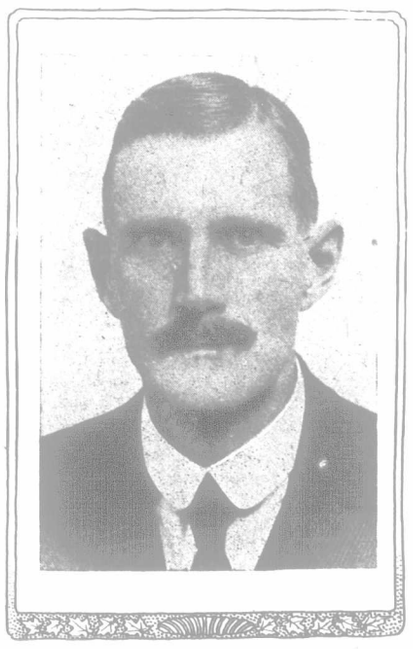
In many parts of the United States, in spite of the fact that milk is much more expensive, consumption of whole milk has been almost doubled through campaign agencies.

Ontario is pre-eminently a dairy Province and if the progress of the last few years is maintained, she will be without a peer among the great dairying countries of the world. But if this result is to be realized and our place maintained in the foreign market, we must still further advance our ideals. Milk must be produced under the best possible conditions to insure freedom from impurities, must be handled and transported in a way to keep it free from contamination and deterioration and of a quality as regards butter-fat content, that not only as food in its natural state, but as a manufactured article, it will be of the greatest possible excellence.

We see then what an opportunity is before the Ontario dairyman and it depends largely on himself as to whether this prospect will result in the establishment of the industry on a firm and permanent basis.

With this end in view, milk and cream producers associations have been organized in many sections of the country and the coming winter months promise to see the whole province, especially the great milk producing counties, covered with associations affiliated with the Milk and Cream Producers' Association of Ontario.

Alarm has been expressed in some quarters that this organization will be used to unduly increase prices of milk and dairy products, but exactly the reverse is the case. There is no doubt that for long years the dairy farmer has been getting less for his product than the cost of production would warrant; and if prices had not been materially increased there would have been a diversion to other and more profitable branches of agriculture. This would have meant a falling off in production, with a corresponding increase in prices to the urban consumers and a blow at the manufacturing end of the industry, as the supply would not have been sufficient for their maintenance and expansion. Even with values that now obtain, the temptation is great for the producer to dispose of his high priced grain and hay and to cut down his labor costs by selling his dairy stock for which there is an unparalleled demand both in the United States and many European countries at prices that have never been even approached in the history of the dairy business. But we must consider the future and not allow our dairy herds to become so depleted that the industry will suffer. We must not allow to slip from our grasp the markets we have secured through the abundance and excellency of our products.



E. H. Stonehouse.

There is another means of advancing the industry and obtaining greater returns which has not been sufficiently emphasized, viz., economy in production. One has only to travel through the Province and notice the dairy herds to realize the necessity of more care in breeding. Particularly is this true as regards the sires being used. Not all the scrub bulls lie buried in our rural fair grounds and all too many are still perpetuating stock that can only be a source of loss to their owners.

Though the initial outlay for a bull of a good dairy breed possessing the desired qualifications may seem large yet the returns in a very short time will more than justify the outlay. The prospective purchaser should also bear in mind that while purchasing an animal of a large producing strain, quality is equally or even more important. This has been emphasized by a constantly falling butter-fat content, especially during the last two or three years. With a carefully selected dairy

herd the feed problem must then be faced, but with the saving effected in the purchase of high priced concentrates by co-operative buying together with the growing of an abundance of the succulent feeds our difficulties may be greatly reduced.

The quality of our product not only as regards butter-fat content, but its care from the time the milking operations are begun until it is delivered at the dairy or manufacturing plant, is kept constantly before the members of our Associations. In this connection cleanliness in milking and handling the milk and utensils together with the chilling of the milk to proper temperature, is being especially emphasized.

Another matter that has occupied much of the attention of the association is the equalization of prices as between the various branches of the industry so that none will be prejudicially affected. The necessity of this becomes apparent when we see the falling off in the production of cheese, the most important of the milk products. It is also necessary for our continued prosperity that all branches of the industry should work together in harmony. The producer, the distributor and the manufacturer are so closely related that what affects one affects all; and conflict and misunderstanding not only result in loss to these interests, but also to the consumer who very often is the greatest sufferer of all, since he must foot the bill and pay for conditions that were possibly capable of adjustment.

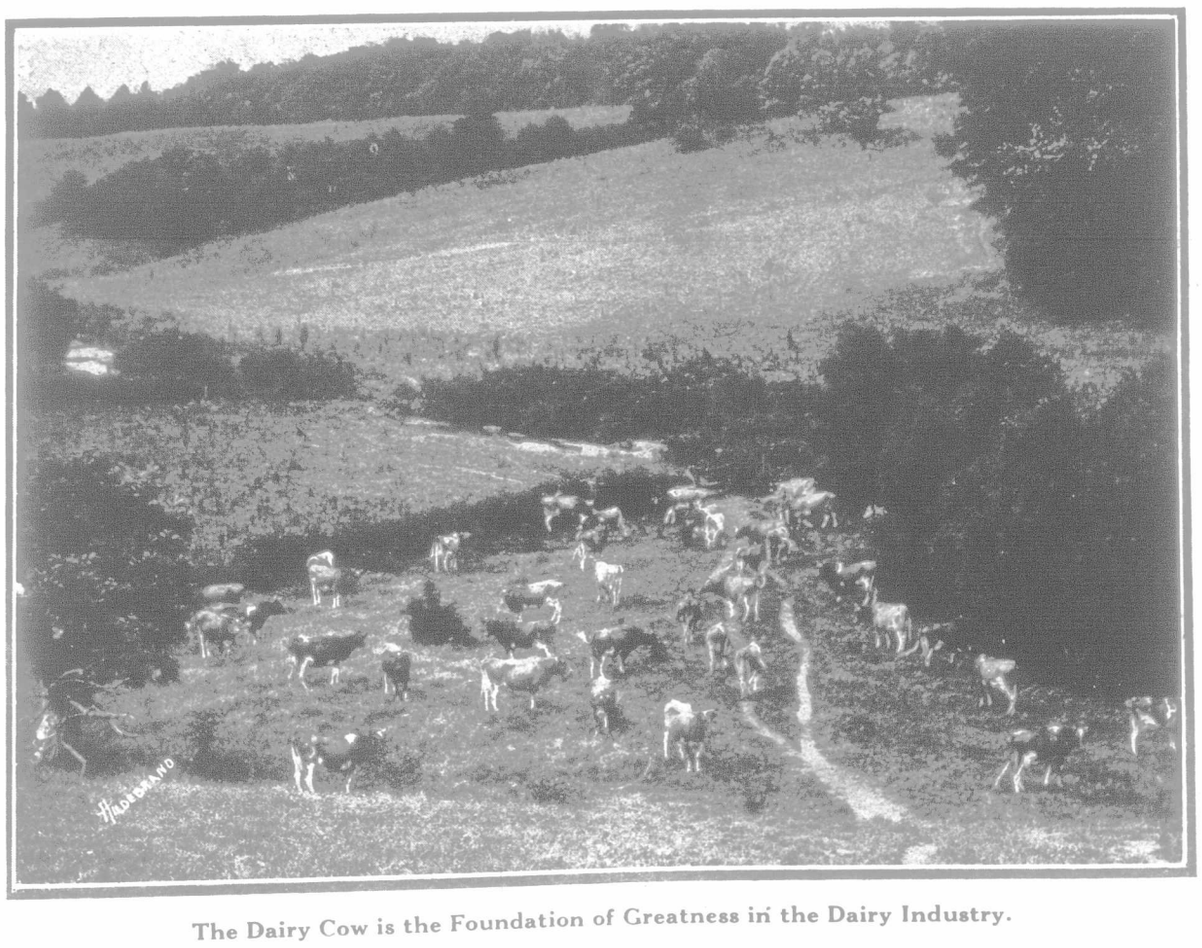
The dairy industry owes to the consuming public not only an article the quality of which has reached the highest point of excellence that care and up-to-date methods can produce, but at a price which will place within the reach of all classes of our population, particularly the young, an abundance of a food which is absolutely necessary if we are going to have a vigorous, virile manhood and womanhood.

Another agency which has great possibilities for the building up of the industry is the recently organized National Dairy Council of Canada. It has long been felt by those who have had the best interests of dairying at heart, that some organization was required to coordinate the various branches of the industry and that would be provided with the means to encourage and protect any branch which might be jeopardized or prejudicially affected, as well as to take the initiative in any measures calculated to improve conditions whenever such necessity became apparent. Already much has been accomplished and if the progressive program which was adopted at a recent meeting of the Council is carried out, it will receive the enthusiastic support of dairymen and dairy organizations throughout the Dominion.

The objects of the Council are as follows: 1. The consideration and advancement of all matters tending to the improvement of the dairy interests of Canada, including production, manufacture, storage, transportation and marketing. 2. To carefully consider the effect of proposed legislation or regulations, both Federal and Provincial; and to assist in the enacting of measures which shall be in the best interests of dairying. 3. To encourage the holding of meetings and distribution of literature and, by systematic advertising, to inform the general public in regard to the food value of dairy products.

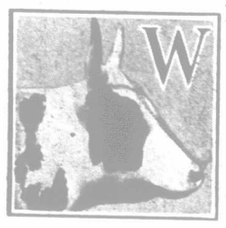
The Council has also plans under consideration for a great national dairy show and hope shortly to make a definite announcement.

During the reconstruction period upon which we are now entering the great dairy interests of the Province of Ontario are determined to spare no effort in developing and expanding one of our greatest sources of national wealth and in laying broad and deep the foundations of an industry of paramount necessity to the well being of our people.



The Dairy Cow is the Foundation of Greatness in the Dairy Industry.

Ayrshires---Industrious Servants of Humanity.



By Gilbert McMillan.

WITH some reluctance I have accepted an invitation to write a Christmas message to my fellow Ayrshire breeders, through the medium of the Christmas Number of "The Farmer's Advocate," a reluctance prompted more by a knowledge of my inability to make it forceful enough rather than any defect in the subject of my message, "The Ayrshire Cow."

Satisfactory as the standing of "Our Favorites" is to-day, it is certainly no time for breeders to lie back in self-complacent mood and let things take their natural drift, expecting thereby that we shall maintain our position; for undoubtedly we are entering a period when past standards will not hold the field any more in animal than in mechanical architecture.

Ayrshire breeders can, however, face this period with confidence, as the foundation on which they have to build is one that has been laid under a hard, stern, practical environment, and by a race noted for their shrewd and solid characteristics. The world owes much to the Scotchmen for their constructive work in animal husbandry, and we challenge anyone to show where they have created a more efficient machine for converting the raw products of the farm into the finest of human foods than the Ayrshire cow.

With the exception of the fancy vessel fad carried on by a few in Scotland, the Ayrshire breed has never been the spoiled child of fortune, but rather the industrious servant whose labor produced the necessaries of life for her master; that she did this right royally is well within the knowledge of the writer, whose first experience of the breed was on a six-hundred-acre holding in Scotland, where a dairy of eighty Ayrshire cows earned the entire rental, over their cost of feed. The producing ability of the breed is not now, however, a matter of either guess or conjecture, thanks to our R. O. P. system, and the American "Advanced Registry," which is now also supported by the work of the Milk Record Society in Scotland.

In our Canadian R. O. P. we have the following numbers in the various classes, and their average production is given:

Classes	Number	Pounds Milk	Pounds Fat
Mature Cows	418	10,275	414.00
Four-year-olds	157	9,425	383.00
Three-year-olds	280	8,483	352.50
Two-year-olds	544	7,575	311.90

The average for 1,399 cows and heifers is 8,771 lbs. milk and 358 lbs. fat, and the average test is 4.08 per cent.

The summary, up to October 1, of the American Advanced Registry is as follows:

Class	Number	Lbs. Milk	Lbs. Fat	Test
		Average	Average	Average
Mature cows	1,148	11,083	431.12	3.89
Senior 4-year-olds	217	10,619	416.43	3.92
Junior 4-year-olds	214	9,888	395.26	4.00
Senior 3-year-olds	307	9,377	374.86	4.00
Junior 3-year-olds	287	8,824	349.66	3.96
Senior 2-year-olds	564	8,511	346.85	4.58
Junior 2-year-olds	596	7,917	388.94	4.03
Cows and heifers	3,363	9,628	381.47	3.96

The Scotch milk record system, which is run on somewhat different lines, (the whole herd having to be put under test and only a normal lactation period allowed) shows that in 1917 they had over 9,654 cows and heifers under observation, with an average of about 7,000 lbs. for the former and 5,700 lbs. for the latter. It might also be mentioned that in 1917 millfeeds were almost unobtainable, and under the existing conditions the results are certainly a credit to the breed. It might be mentioned, too, that the calving requirements for the Canadian R. O. P. are more exacting than the American; in the former, two freshenings being required within fifteen months. While this, no doubt, accounts to a certain extent for the longer records in the American A. R., a certain amount of it is also due to more liberal feeding methods, and on this point Canadian breeders have got to wake up.

New men may not be altogether to blame on this point, for as an Association we have laid far too much stress on the natural hardihood and thriftiness of the breed, and catering as this does to a too natural tendency on the part of the breeders, the result has been that seventy-five per cent. of our Canadian Ayrshires to-day never acquire their maximum size or producing ability. This is one point where we have resolutely to wake up and do better right from the day on which the calf is born. A trip through the Ayrshire herds in any section of the country discovers too many evidences of this "penny wise, pound foolish" policy.

The success of the Holstein breed has been in no small measure due to the fact that they were recognized as big eaters and were treated accordingly, and it is up to the Ayrshire men to take their cue from this, and they can safely rely on the inherent thriftiness of their breed to make proper use of what they get.

It is sometimes said that the appeal of the eye is stronger than any of the other senses, and if this holds good it would surely put the Ayrshire right to the front; for by general admission none of the other breeds can put up the attractive display of the Ayrshire in the show-ring, their clean-cut, breedy appearance and attractive coloring stamping them undeniably as pure-breds. And on this account it is almost a wonder the Ayrshire should have remained the standby of the working farmer rather than the hobby of the rich.

No breed has been more successful in combining show-ring standards with productive ability than the Ayrshire, as is evidenced by the fact that at all big shows, on both sides of the line, nearly all the winners in the show classes maintain their position in the record classes. This is certainly a very desirable feature, and one that the associations fostering the breed should do their utmost to encourage; and it ought certainly to be the aim of every constructive breeder to fill this double standard. Undoubtedly, the greatest handicap the breed labors under is the monstrous injustice of selling milk by bulk, irrespective of its fat content.

It is hardly conceivable in these days of pure-food laws and regulations, when almost every article you buy has to be labelled as to its exact content, that milk, the food on which the very lives of infants often depend should be sold simply as milk, when there may be and often is a difference of from twenty to thirty per cent. in its actual nutritive value.

"The low quality of the milk produced is one of the chief reasons to-day for the low rate of consumption," are the exact words, used in discussing this question, by the head of one of the largest milk distributing concerns in Canada, and yet our whole system puts a premium on low-grade milk.

The Province of Ontario two years ago, recognizing the injustice of the pooling system even at factories, passed a law to make it compulsory to pay for milk according to its value; but for some reason that has never been explained, it failed to put the law into operation. Let us hope Ontario's new Government will have more courage and a keener sense of justice.

In its general adaptability the Ayrshire cow is surely the prototype of the race that developed her, and if the proverbial Scotchman is found at the North Pole, and he has a cow, it will be an Ayrshire. It is a fact, however, that Ayrshires are to be found making good in practically every British colony, not to mention the large numbers to be found in Sweden and Japan. In the United States they can be found in every State from Maine to California, and even in the Hawaiin Islands. The inference from this is that the breed has the ability to adapt itself to whatever conditions it may be called to work under, but let it be strictly understood that even an Ayrshire with all its inherent

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The Ayrshire Combines Show-ring Form and Productive Ability.

Shock Troops of the Northern Frontier.

By W. D. Albright.

A poplar fire roared in the sheet-iron heater. Another crackled in the cookstove at the kitchen end of the settler's snug log cabin. Mrs. Johnson rose to put in a block of "bone" poplar, for though it was but the third week of October, a Peace River cold snap, extraordinarily unseasonable, had clamped down with sudden severity. A two-day snowstorm was fairing off and the mercury had fallen rapidly to zero, threatening to reach ten or fifteen below by morning.

"Yes," pursued the first speaker, "we have not a bad climate here, on the whole, but it can be cruel as the grave to those who are unprepared. The way these cold snaps pounce down every once in a while is a caution. And they always find somebody unready. I'm afraid a good many of you returned men are not any too well fixed for the first winter?"

"Guess not. Frank Hardisty's just getting his shack up now. Been hanging out over at Jackson's this while back. Has an open-work pole stable for his cayuses with a load of slough hay on top; a sort of brush lean-to for his cow out in the bluff and a dozen chickens in a packing case with a blanket over the top. Geordie Cummings will be packing his roll-up out to his stable to-night. His stock is pretty well quartered but his house is not finished. And some of the other boys have a lot to do before winter sets in.

"Most of them are getting hung up, too, for ready money. Having laid out their Government loans—after waiting for them almost long enough to have earned the money—they find themselves tied at home looking after their stock, with no chance to get away and rustle a living. Several have either to haul water or drive their stock a long way to it. I'm glad I passed up the loan proposition and started in clear of debt. You see, I have my shack up, a well sunk, and was able to clear about six dollars a day running a threshing engine out around Bear Lake; so that heels me in with a pretty good bunch of grubstake to start the winter on. What some of the fellows are going to do beats me. How is old man Innes getting along?"

"I'm afraid he'll be one of the cases you're speaking of," replied Mrs. Johnson. Got trimmed by a Jew buying his horses at steel head; was loaded up with more implements than he needed to start on—you know these soldier loans look good to the implement agents—wife got sick from exposure on the trail. Lost a horse from influenza. No kind of an axman and has very little idea how to care for stock. Got here too late to put up much hay and found that to mow the peavine and vetch he had been told about growing so rank he had to spend more time clearing the ground of stumps and down-falls than it took to make the hay. So he has a dozen head of horses and cattle with very little to feed them on. Seems as if about the only thing he knows how to produce is interest-bearing debts. But that girl Betty is a brick."

"Yes?"

Jim's interrogative rejoinder betrayed his interest, but not his acquaintance. For it happened that he had met Miss Innes more than once and even as the kindly neighbor chatted his thoughts had been dwelling on the girl. There was a fresh, sweet wholesomeness about her, along with a practical capability that impressed him as characteristic of Canadian womanhood.

"Well, I must be dangling," said the soldier-settler picking up the little pail he had brought along for milk. "Have you a loaf of bread to spare? You see I haven't got my sour-dough started yet since I returned from threshing."

"What will it be?"

"Oh, that's all right."

"No, I want to pay my way."

"So do we. You see Mr. Johnson could not very well go to the war and he feels now as though he owed a personal debt of gratitude to everyone of you boys for fighting his war, as he puts it. It isn't charity. It's coming to you, and welcome."

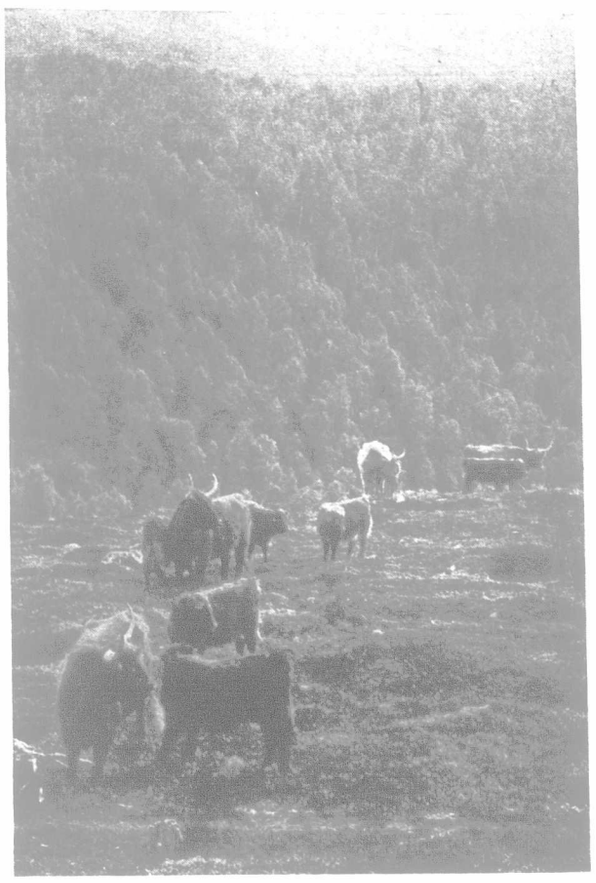
"Well, if that's the way you feel about it, all right," said Jim, slowly pocketing the change, "but thanks very much."

"And here, take this along. It's a little jar of rhubarb and Saskatoon jam, with a dash of wild black currant in it. It's not very sweet, for I had to pinch the sugar this year, but it will help out your desserts. You can slip it in your pocket. Always be free to make yourself at home here. Batching must be a drab life. Come and take Christmas dinner with us."

Christmas dinner! Two years ago he had spent Christmas in a military hospital. This would be better. "Thank you,, Mrs. Johnson. You've very kind. I won't refuse such a good invitation. Good-night."

"Je-rusalem!" exclaimed James Carruthers as he stepped out into the still, frosty air. "This sure is a country of surprises. They told us the last cold spell back there the second week in October was unusual and we probably wouldn't have another like it until November. This has that beaten a mile," he reflected as he strode briskly along. "And three days ago it was warm as May."

Through snow knee-deep in places he waded, his feet pressing at times into the yielding mud beneath. Stars twinkled in a grey-cold sky, diamond points of light scintilating from the pure-white surface all about. Poplar and willow, laden with snow, assumed fantastic shapes in the milky starlight. A fringe of spruce bordering the stream which threaded the broad valley ahead, reared their tall, black sentinel forms skyward, as though challenging another winter to do its worst. Following



In the Highlands of Scotland.

the trail down a sweeping half-mile slope, the walker neared a slough.

"Whew," he blew through his teeth. "Corker how much colder the draws are than the hills in this country. Never knew the like anywhere else. Bet it's twelve or fifteen below here right now."

The sound of wagon wheels and creak of whiffle-tree irons caught his ear. Round a bunch of low willows plodded a hoar-frosted four-up with weary, lagging, hesitant steps. A homesteader's load of freight loomed up behind. No driver in evidence. Jim looked to see one trudging after the load, but, stepping out to let the team pass, he noticed a man flopped across the seat. "Poor devil, he'll freeze, sure as H—l!"

"Helloa there!"

No answer.

Halting the team, Carruthers climbed the wagon and succeeded in rousing the sleeper.

"Gee," said the latter at last, "you spoiled a great dream. There were bells ringing and voices singing. It was fine."

"You'd have heard the angel harps soon enough, if someone hadn't happened along," returned Carruthers dryly. "How much further you got to go?"

"Alex Innes! How far is that?"

"About five miles," replied his savior, eyeing him with a sudden dark interest. This must be the friend Jim had heard they were expecting.

"Betty wrote me it was fifteen miles from Hythe. Seems to me I've covered twice that already," said the drowsy driver. "This cobbled-up leg they fitted me out with", he explained, "makes it hard enough walking on good roads. On these it's impossible. It was a case of sit here and freeze. I wasn't expecting this sort of weather. It was like summer when I left Grande Prairie, and I have only light underwear. Lucky I had this service coat along."

"Better pull in to Johnson's up ahead and put up there for the night. They'll make you comfortable."

"No, I'll have to make Innes'. They are expecting me, and they must be getting low on grub."

But you're liable to drop off again and cash in before you get there."

"I think I can keep awake."

Jim knew better. "Well turn in awhile anyway to warm up and feed."

The prudence of this advice was obvious. "All right, but I mustn't stay long."

Carruthers introduced the newcomer and went to the rn to care for the team, Mr. Johnson being away from me. In about three quarters of an hour the freighter came out announcing that he must be on his way. Jim had watered, fed and rubbed down the horses and re-bound the load of freight. "I'll go with you," he said simply.

"I'd hate to have you do that", protested the other, though not too unwillingly, for he was still shivery, the night was sharp, the trail bad and the road strange.

"Yes, I'm going" said Jim.

The stranger directed a keen glance at Carruthers as though searching for a haunting yet elusive identity.

Both men will long remember that drive. The snow screeched louder and louder as the sub-Arctic night wore on. They talked little for cold breeds a numbing taciturnity. More than once Jim roused the sleeper, urging him to pound his chest and work his toes. His own sheep-skin-lined cordurov he finally pulled off and lent to the man to whom Betty had been writing. As much would he have done to any sufferer in Flanders' Fields. Why not then at home? Himself, he walked most of the way to keep up circulation.

At last it ended. A rambling set of unfinished buildings silhouetted the horizon. A lamp within the house sent rays of light through several unmudded chinks in the log walls. Cattle bawled in the corral. Mr. Innes had been almost laid up with a bad cold. His wife was still indisposed.

Betty met the newcomer with an embrace of welcome and bowed a wan though friendly greeting to Jim. She had been sitting up nights to keep fires going and wait on the sick. The stock had been fed irregularly, licking snow in lieu of water. Food was short for man and beast and the woodpile at vanishing point. Carruthers took in the situation and set himself to help out. The team stabled, unharnessed, rubbed down and fed, he "rustled" some wood, chopped, split and carried it into the house, refusing to allow his companion to assist. He "packed" in one or two boxes of the most likely looking groceries and a sack of flour. Finally he remembered the milk and bread in the wagon and the jam in his sheepskin pocket. Producing these, he invited Miss Innes to make use of them. She was nothing loath.

During all this time Carruthers was conscious of a chill settling into his bones. Then a fever started. Then for a while he knew nothing. When he awoke to consciousness Betty Innes was bending over him with an anxious face. Pneumonia had gripped him and another patient had been added to her care. The man whom Jim had succored walked over and inquired earnestly as to his case. That was all just then.

Followed a protracted convalescence during which the men became acquainted.

"I ought not to have gone under that way," Jim apologized for himself one day, "but since I was gassed my lungs aren't up to the mark."

"Gassed eh, when did it happen?" asked the other.

"October, 1917."

"Passchendale?"

"Yes."

"Flesh wound in the leg, too?"

"Yes."

"Blown off the trench mat into a shell hole, weren't you, and half covered with slime?"

"Yes."

"I believe I helped to carry you in. I was stretcher bearing there at the time. Thought your face had a familiar look, though 'civies' make quite a difference in a man's appearance and one doesn't stop long to search for family resemblances when there is a push on. "Funny," he added musingly, "how the paths of Destiny cross and re-cross in this big, little, old world."

The bitterness of jealousy left Jim's breast. If Betty married Ben Tallman she would be getting a good husband. All the same, a pang of disappointment gnawed at his heart.

"Want to sit up awhile to-day, Mr. Carruthers?" asked Betty cheeringly one day.

"Sure thing."

"Kate's coming to-morrow. We'll soon have quite a family here."

"Who's Kate?"

"Why, my sister, Ben's wife."

"Ben's wife! I thought", he hesitated.

"Thought what?"

"I thought he was probably engaged to you."

"To me, ho, ho! 'What made you think that?' "

"Why—several things. He mentioned your writing to him; and then the way you met him, and all."

"Anything wrong about writing one's brother-in-law, and kissing him too, when you haven't seen him for years?"

"Well, no, since it turns out that way."

"What do you think of this homesteading business?" Jim asked, changing the subject to cover his confusion—or was it to mask a buoyant surge of relief and hope?

"Why, it's not bad, I fancy when one is properly established. On the start, it's a bit rugged and the income is mostly outgo, so we've found. It seems sometimes," she added whimsically, "as though Nemesis follows the homesteader. What do you think of it yourself?"

"I think you have it sized up about right. It's all right if you tackle it right. It's no gold mine and it cannot very well be capitalized on a commercial plane. Money will not take the place of thrift, industry and Mother Wit."

"Two things I'm sure of," he continued, "Outside a few favored areas this is neither a straight grain-growing nor yet a ranching country. It's a mixed-farming proposition, pure and simple. One may winter dry stock at a strawstack in a bluff but it's both cruel and unprofitable to do it. Shelter and feed should be supplied.

"One thing certain. It's easy to grow green feed. The way oats flourish is good to see. We threshed some fine crops of wheat down around the Lakes and the big farmers there are making money. Saw some great crops of potatoes this fall—three, four and five hundred bushels per acre. And they tell me small fruits are succeeding well where given a chance. Say, would you believe it? We had pumpkin pie for Thanksgiving

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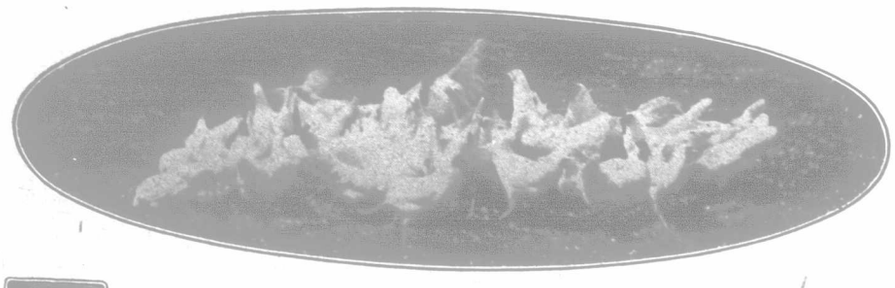

Stabilizing the Canadian Poultry Industry.

By M. A. Jull, Macdonald College, Quebec.

THE wonderful development of the poultry industry in Canada during recent years has been due chiefly to the increased laying capacity of the average farm hen. The present-day production of the descendent of *Gallus Bankiva* has placed her in the front rank of the producers of human food, and this has had the effect of stabilizing the poultry industry. It has been demonstrated most clearly that in times of food privation the smaller animals are looked upon with greater favor than under ordinary times. Since a good laying hen is one of the most economical producers of human food, it is only natural that the relative value of the poultry industry, in supplying the ration with a large quantity of good food products, has been greatly enhanced. In this respect the opinion of Dr. Raymond Pearl is significant, for he is an investigator of high standing and has had an opportunity of making a very close study of the food situation. He says that "the studies we have conducted here have made it increasingly clear that the day of the large unit, such as the beef animal, in the production of necessary foods of animal origin, is rapidly passing. The steer is too uneconomic a transformer of energy to last long as a chief source of animal foods for mankind. The war has very much accentuated this development and has turned our attention to the relatively greater economy in production of smaller units, such as poultry." This is the reason, it seems to me, why the poultry industry has developed until it has become of considerable importance as a branch of agriculture.

In the early history of the poultry industry attention in breeding work was devoted chiefly to the production of exhibition strains, and since type and plumage development constituted the basic criterion of excellence it is not surprising that many of the exhibition winners were not particularly good egg producers. Perchance some of them might be caught laying now and then, but in spite of the low average production the breeders gave good service to the poultry industry in distributing well-bred stock, which resulted in considerable improvement of the mongrel stock of the country. The local poultry associations rendered valuable service in encouraging the breeding of poultry of the better kind. With the advent of the egg-laying contests, however, much more attention came to be devoted to the question of egg production until to-day it constitutes the major interest in poultry raising. Just as soon as egg production began to be a significant factor in poultry raising, just so soon did farmers become interested in the industry. Since the farmer took hold of the proposition, the industry, from a commercial standpoint, has been developed to a marked degree. The breeding problem has become very much broadened, and to-day the essential thing is to produce laying strains of the leading varieties, the individuals of which will conform fairly well with standard requirements and at the same time will produce heavy layers.

The local poultry association, therefore, as the unit of organization in poultry interests, has broader interests than formerly, inasmuch as the economic factor of production is of prime importance. The numerous local associations of each province are affiliated with their provincial poultry association, and thus the organization of the poultry interests is carried one step farther. The provincial poultry associations are united under the recently organized National Poultry Council, an organization charged with the function of most completely developing the poultry industry of Canada. From very small beginnings the poultry industry has been developed until it has now one of the most complete organizations of all the agricultural industries.

The industry has been developed to the extent that Canada was the first country in the world to adopt official standards for eggs and poultry meat. This is a striking achievement when viewed from the standpoint of production and consumption, and imports and exports of eggs within recent years. The total increase in the population of the country, the relative increase in urban at the expense of rural population, and the increased popularity of eggs as an article of diet are chiefly responsible for the enormous consumption of eggs. Canada is eating more eggs than formerly, and so are the other countries. That is the chief reason why the poultry industry is developing at such rapid strides.

Although the imports of 1918 nearly equalled the the exports in quantity, Canada enjoyed a favorable balance of trade amounting to $767,065. During the seven months of the present year the export trade in eggs has equalled in quantity the whole export trade in 1918. Such an increase in exportation to Great Britain is due largely to the better methods in which the business is being done. It should be remembered that eggs cannot now move interprovincially, or for export, except under Government inspection and in accordance with standard grading. British importers have strongly commended this action on the part of Canada, and on the British market Canadian eggs now have the preference over eggs from the United States. Owing to Government inspection and the official grading of eggs, the future demand for the Canadian product is bound to be very heavy. Every farmer should appreciate this feature of the poultry business for it will have a direct effect upon prices, which, in turn, affect profits in poultry production. The Canadian standards of eggs have been well received by the British trade, and judging from the sentiment prevailing in England, as intimated in the comments of one of the leading importing firms of Great Britain, it is up to Canada to maintain the reputation gained for her products. "We would like to say that the Canadian eggs packed in boxes bearing the Government stamp give confidence to the buyers on this side. . . . English importers are attaching a good deal of importance to this official stamp, and in the near future it will be the means of giving confidence between the buyer here and the shippers in Canada." It will be seen, therefore, that Canadian standard eggs have already made a reputation on the British market and British buyers are looking for more. The poultry industry of Canada has been put on the map, and now the watchword of everyone should be "Produce and export." A heavy export trade will tend to maintain a high standard of prices and place the industry upon a thoroughly stable basis. In order to meet the heavy export demand there must be increased production.

The amount of revenue to be obtained from the farm flock depends upon a number of factors, including, especially, breeding, feeding and management. A combination of these factors makes for success.

The factor of breeding might be considered as the basis for success, for no amount of good feeding and proper management will make poorly-bred hens lay many eggs. With bred-to-lay stock, under efficient management, it requires about four and one-half pounds of feed to produce one dozen eggs. Under ordinary conditions a laying hen consumes annually, on the average, about ninety pounds of grain, ten pounds of green feed, two pounds of oyster shell, and one pound of grit. On the average farm, however, the annual feed bill is reduced considerably because of the scattered grains and waste feed picked up. The average farm hen lays about sixty eggs per year, principally from March to June, the season of low profits, whereas on feed cost alone sixty eggs laid from November to March would pay for a hen's keep for one year, leaving the balance of the eggs laid during the year to pay other expenses and for profit making. The average farm hen should not only lay 144 or more eggs in a year, but the majority of them should be laid from November to March, the season of highest prices and greatest profits. Not only is this necessary from the standpoint of economical production, but from the standpoint of breeding it is highly desirable since heavy winter laying pullets make the best breeders as yearlings. Since the male has a greater influence in transmitting the ability to lay a good number of eggs in the winter months than has the female, the problem is to select the heaviest winter producers and mate them with a male whose mother was known to have been a heavy winter layer. Nevertheless, care must be exercised in the selection of the female breeders, for pullets which start to lay early are usually the best layers; also, the pullets which lay best during the winter months are the best layers for the year. Production in the pullet year is nearly always greater than in subsequent years and so most of the flock should be pullets, keeping a few selected yearlings as breeders. By observing the above features and by doing a reasonable degree of inbreeding, a winter laying strain can be developed, and in this way more satisfactory returns secured through increased egg production.

Maximum egg production is controlled largely by the method of feeding as well as by the nature of the feeds given. One of the prime factors in feeding is to compel the birds to take plenty of exercise. The litter in the house, in which the whole grain should be scattered, should be about ten inches deep.

Poultry require larger proportions of protein than other animals and they also require relatively large amounts of carbohydrates, but they digest very little crude fibre. For both growth and egg production, mineral matter is required in much larger proportions than in the diet of other animals. In the morning feed a mixture of wheat and oats, or wheat, corn and oats, giving enough to make them scratch for at least an hour. The noon feed should consist of a slightly-moistened mash composed of ten parts bran, six parts crushed oats, five parts cornmeal, three parts middlings, three parts beef scraps, and one part charcoal, all parts by weight. This should be fed in very small quantities, and at the same time green feed in the form of sprouted oats, mangels or well-cured, chopped alfalfa hay should be given. A dry mash of the same mixture is kept in self-feeding hoppers. The evening feed should consist of wheat and corn, or the latter alone, as it is a particularly valuable winter feed. Grit and oyster shell are kept in self-feeding hoppers. Skim-milk, when available, and clean water should always be provided. It is well to add enough potassium permanganate to the drinking water daily to make it a light purple color. The best feeder is one who observes the hens closely and is able to feed according to their daily needs.

One of the first principles of efficient management is to have the pullets well developed and fully matured by the first of November. Since the average pullet does not commence to lay before five or six months of age, it is necessary to hatch the chicks as early as possible, April being the best month for most parts of the country. The farmer's object should be to hatch as early as possible, and he is advised to make greater use of the incubator and coal-burning brooder.

Early-hatched pullets having abundance of constitutional vigor require good housing conditions throughout the winter to make them lay well. The laying house should be supplied with plenty of fresh air at all times, but at the same time it should always be free from dampness. Use about one-third cotton and two-thirds glass on the south side of the house, and be very sure that the house is free from drafts at all times. It should be well constructed, economical and convenient.

In order to take advantage of an increased output from the farm flock, resulting from improved methods of breeding, feeding and management, the farmer should endeavor to market his eggs in the best condition

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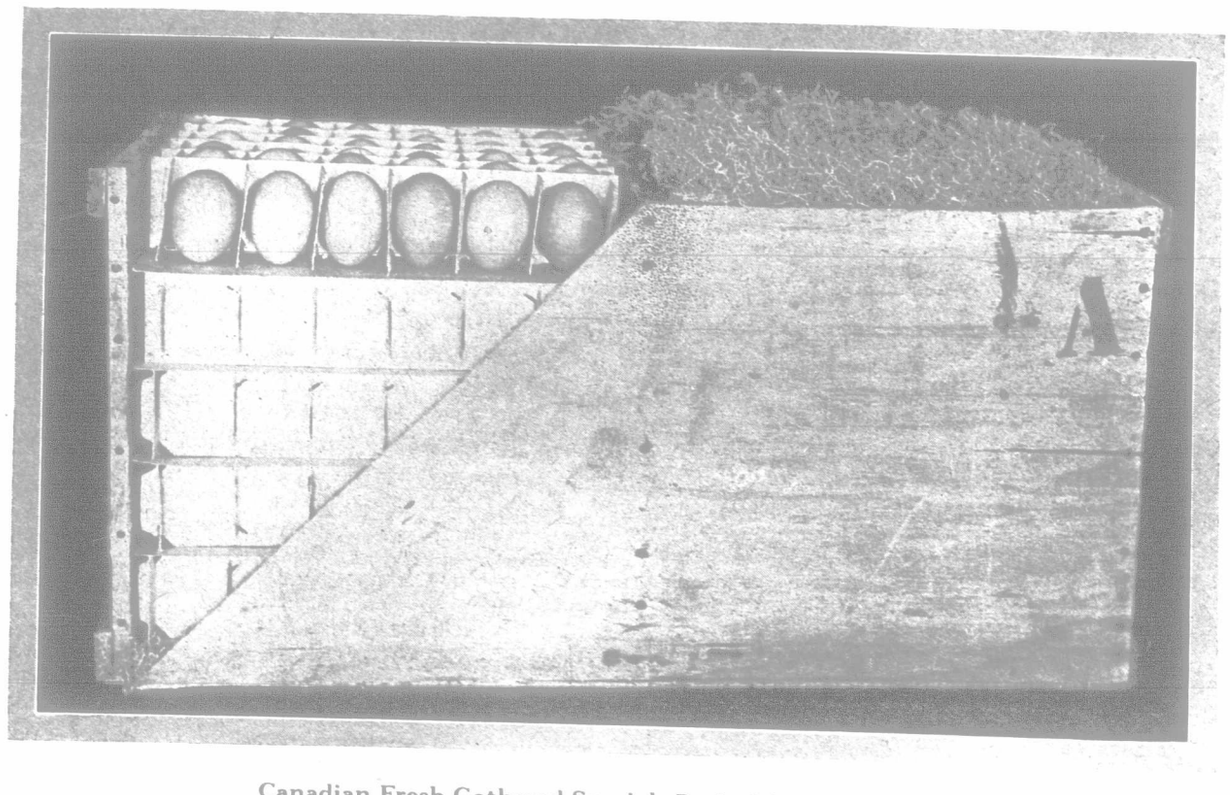

Canadian Fresh Gathered Specials Packed for Safe Transit.

Canada's Horticultural Heritage and Harvest.

By W. T. Macoun, Dominion Horticulturist.

THE horticultural reputation of Canada in other countries has been made mainly from the fine apples that have been produced in this country for many years and sent to consumers in other lands. If it were not possible to grow another horticultural crop, the fame of Canadian apples alone, at home, abroad and in the United States, is sufficient to keep us on a high horticultural plane. But the apple is only one of many horticultural crops, the production of which the wonderfully varied climate of the Dominion makes possible.

It has been the writer's privilege to travel from the Atlantic to the Pacific in Canada every year for the past ten years and also to touch at many intermediate points in the East and West and on the Great Plains. This year the Peace River District was visited. Knowing Canada so well, one can close one's eyes and mentally see the whole country laid out as a panorama. Now the snow lies deep on the ground at Ottawa, but far away in the West, washed by the waters of the Pacific and warmed by the genial Japanese current, lies Vancouver Island. There is no snow on the ground about Victoria. An odd rose on the bushes is a reminder of the wealth of bloom which has passed and a presagement of the next year's gorgeous show. The trees of English holly are laden with berries, great quantities of which have been shipped East at very remunerative prices to furnish the popular demand for Christmas decorations. The climate on the southern part of Vancouver Island is particularly favorable for the English holly, and those who were far-seeing enough to set out plantations of trees some years ago are reaping a rich reward. Soon the snowdrops will be in bloom and the wallflowers, primroses, violets and other hardy flowers will be in flower when the snow is deepest in Ontario. Daffodils and tulips are wonderful, individual flowers in that cool climate, and early season, lasting for weeks. The daffodils bloom so early here that a trade in cut flowers is springing up with the Prairie Provinces, where the blooms are sent while that part of Canada is still in winter's cold embrace. The winter climate of Vancouver Island is so mild that it compares favorably with the warmest parts of England, and even California is little better. In the winter of 1918-19 only four degrees of frost were recorded near Victoria, though usually there are a few more than that. Because of this mild winter the fig, the almond, the persimmon, the English walnut, and filbert all can be grown more or less successfully. Even the tea plant survives and some good cups of tea have been made from leaves of the tea plant grown at the Experimental Station, Sidney. The hardier fruits are grown with good success, the pear in particular doing admirably here, while cherries of the finest quality bear abundantly. The Gordon Head District is famed for its fine strawberries.

When lilacs bloom on Vancouver Island winter still prevails on Prince Edward Island. Spring is delayed on that beautiful island, "The Garden of the Gulf," because the Arctic, not the Japanese current, is master here. It is late before the ice which jams in between the Island and the Mainland is all away and the spring flowers of March and April on Vancouver Island linger until July on Prince Edward Island. The cool summer with abundant rainfall is very favorable for summer flowers, and the dahlia, sweet pea, other annuals of all sorts, and herbaceous perennials grow to perfection here. The apple is the principal tree fruit grown, but pears, plums and cherries succeed well. Lack of transportation in the past has prevented the rapid development of the fruit industry here as there are not sufficient markets on the Island to take any large quantity of fruit. Owing to the lateness of the season the small fruits grown on Prince Edward Island find a ready and profitable market when shipped to Cape Breton or the Mainland. Because of the cool, late season the strawberry lasts into August, and the crop, not being as a rule reduced by drought, is large. The prices have been good in recent years, and this season one grower had a gross return of over two thousand dollars an acre.

The peaches are now in bloom in Canada, and through our mind's eye we look down from Queenston Heights and Grimsby Mountain in Ontario and note that lovely sight. There lie before us acres upon acres of pink tinted blossoms, a certain proportion of which will soon be followed by those attractive looking and luscious fruits which require more heat than is furnished by the summers of Vancouver Island and Prince Edward Island, in order that those delicate flavors, for which Canadian peaches are famous, may be developed to perfection. There are large areas in British Columbia, such as in the Okanagan District, where the peach does well, but the marketing of peaches there is not so certain to be remunerative as in Ontario.

It is the time of apple blossoms, and from that wonderful point of vantage the "Look Out," near Kingsport, and the Gaspereaux River and the famous Annapolis Valley of Nova Scotia, mile upon mile of apple orchards lie white before one's gaze. Nothing horticultural in any part of Canada is so impressive as this. The view from Queenston Heights and Grimsby Mountain are fine, but they pale into relative insignificance when compared with this great panorama, and when in autumn one sees these orchards laden with fruits, as they were this year, one realizes how much the apple means to the farmers and fruit growers of Nova Scotia. It is estimated that in 1919 there will be between 1,500,000 and 2,000,000 barrels picked and packed there. So great was the crop that much difficulty was experienced in getting barrels and pickers to safely harvest it. It is not so long ago since Ontario and Nova Scotia were looked upon as being the great sources of supply for apples, but British Columbia has come steadily to the fore and this year it is expected that 1,500,000 boxes will be marketed. The British Columbia growers early realized the value of good packing and attractive packages, and boxed apples from the Province of British Columbia are now found in large quantities on the markets of Ontario, competing successfully, and outselling the apples grown in that Province. The quality of the Northern Spy apple, which is a prime favorite all over Canada, and which seems to find an more congenial home in the great apple sections of the Province of Ontario than in any other part of Canada, is helping to save that Province from being entirely dominated by fruit from other provinces as the large buyers of apples nearly always want as high a proportion of Ontario Spies as they can get. Unfortunately, the Northern Spy, while the most popular winter apple with the Canadian consumer, is not one of the most profitable to the grower. It is a matter for serious thought that a Province in which so large a part is admirably suited to the growing of apples of the finest appearance and best quality is not making greater advances in the apple industry. Now that the war is over it is hoped that there will be a revival and a great development in the apple industry in Ontario, for it has been demonstrated by the best growers that, even with keen competition, apple growing in the Province of Ontario can be made quite profitable.

What shall be said of the pears, the plums, the cherries and the apricots, which can be grown and are grown in great quantities in Canada. The climate of the Southern part of the Okanagan Valley in British Columbia has been found peculiarly suited for that delicious fruit the apricot, and this has proved one of the most profitable fruits there. The apricot blooms very early and often there are frosts at blooming time in other parts of Canada, but in the Southern Okanagan these seldom occur. The sweet cherry, also, finds a very congenial home in the Okanagan, and because of the dry climate, suffers less from rot than in other places. He who has been at Summerland when the Bing cherries are ripe will not soon forget the delightful experience of eating Bings to the full, for there are no bad after effects and the sensations during consumption are great. It is difficult to imagine a fruit grower anything else but happy who grows and sells this fine fruit. But the growing of sweet cherries is not confined to the Okanagan in British Columbia nor to that Province. On the Niagara Peninsula in the Province of Ontario sweet cherries have proved very profitable to the growers.

The pear is one of the most delicious fruits in existence, and can be grown very successfully over a wide area in Canada, yet there never seems to to be an adequate supply of them. More pear growers are needed, since, if the best flavored varieties of this fine fruit could be readily obtained at reasonable prices, the consumption of pears should increase rapidly.

Most of the grapes are grown in the Province of Ontario, though the grape can be grown quite successfully in other provinces in Canada. The grape is one

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Commercial Orcharding in Nova Scotia, near Salt Water.

Our Country's Call.

By J. B. Reynolds, President Manitoba Agricultural College.

IT is generally admitted that the outstanding material question in Canada to-day, as it is in practically every country, is the question of the increased and increasing cost of things.

When these things are finished products, or in other words, are ready to be used or consumed, their increased prices affect everybody, since everybody is a consumer. Therefore, the increased cost of things is a matter of universal concern and complaint.

When the things are in a raw or unfinished condition, their increased cost, as well as the increased cost of finishing them for use can be, and generally is, added to their final price. For example, the miller charges the increased cost of wheat, along with the increased cost of labor and machinery used in coverting the wheat into flour, in the price of the flour he sells. The baker in turn charges all these increased costs, together with his own increased costs of operation, in the price of the loaf he sells. Incidentally, it may be observed, if both of these charge also a percentage on costs for profits, they are better off because of their higher costs. The same is true of the jobber and the retailer, who if they manage to keep up the volume of their business, are, therefore, better off under the general condition of high prices, if as is usually the case, their profits are not "specific" but "ad valorem."

The professional practitioner, whose charges are variable at will, also has the power of handing out to his clients the burden of the whole increased cost of living.

All this is aptly characterized by the vulgar and familiar phrase "passing the buck." But there is one very large class in the community which has no direct opportunity of "passing the buck" and that is the wage-earning class. Whether it is the laborer who works for a stated amount per day or per hour, or the teacher who is engaged at a fixed annual salary, the increased cost of things bears equally hard. And since wages and salaries, with few exceptions, are originally determined by the cost of living, together with the cost of maintaining a position and appearance in keeping with the occupation, it is apparent that any new increased scale of prices must bear hard upon those living on wages determined under the old scale of prices.

Hence the increased and increasing cost of things has inevitably resulted in a need for increased wages and salaries. The professional wage-earner—the clergyman, the teacher, the college professor — has little redress but to leave his case to be settled by the law of supply and demand, or by the sense of justice in employers, both of which forces operate tardily, and in their effect always lag behind the increasing costs.

The industrial wage-earner, on the contrary, has a powerful weapon in his trade-union and in the organized strike. He strikes for higher wages and gets his increase. But the increase is at once added to the cost of things which he has to buy as a consumer. Scarcely has he struck, therefore, and turned round to his work to draw his increased wage, when he finds that he is worse off than before, for he is now paying in the cost of goods he buys, not only the increase in the wage he receives, but a profit on that increase filched by the manufacturers and dealer as the goods pass through their hands. Then he strikes again, and so on "ad infinitum."

Where is this vicious state of things going to stop; and what is the remedy? This country, every country is calling for answers to those questions.

The questions are answered partly by answering another question: Where did all this begin, and from what causes? And I believe that it began with those forces, economic and social, which have built up the city at the expense of the country. An American paper of recent date contains the following note: "Surveys by the Boston Chamber of Commerce conducted before the war have shown that the cost of living in the principal New England cities is from twenty to fifty per cent. greater than in the South or Middle West. Factories are moving to sections of the country where living expenses are cheaper. A short time ago the writer met a New England manufacturer on his way to Virginia to look over a new location. He said he was convinced that the living expenses for operatives and consequent labor costs in New England made it impossible for him to compete successfully with Southern and Western factories, and he was going to move where he could meet his competitors on a better advantage."

Obscure [illegible] of the top-heavy city popula-

tion which is not broad-based upon an adjacent country population sufficient to supply the food requirements of the city. But that is not the only, nor the worst effect of the super-growth of cities. The larger and more numerous are the towns and cities the more numerous are those people who, instead of being primary producers, follow secondary, speculative and parasitical enterprises. The city means, not only a different and less essential class of production, as compared with the country, but numerous types of non-productive occupations increasing with the size of the city.

Wheat boards, food boards, price-fixing orders, boards of commerce, may accomplish something, but they cannot change the laws of the universe. They cannot make bread or shoes by getting orders-in-council passed. If they managed to reduce all prices and costs and wages by act of parliament to their pre-war levels the change would be better for some and worse for others, but it would not affect the average situation, for there would be no more wheat or leather or wool in the world than before, nor any more thrift or industry.

The cat is out of the bag. Our trouble is a very common and homely one—lack of the plain everday necessaries. And that lack, in turn, is due to another lack—the lack of industrious people to produce what the world needs, and in the meantime, while prices are high and things are scarce, of thrifty people who will make what they buy go as far and last as long as possible, and who will buy as little as possible. Thrift! In this time when an orgy of spending seems to have taken possession of the people, any voice uplifted in the cause of economy and thrift is the voice of one crying in the wilderness. It is a very unpalatable truth, but a truth, nevertheless. In these five years we have acquired the habit of spending. We are spending upon luxuries and indulgences never thought of before, and because we have acquired the spending habit, we pay without question prices for necessaries which would have horrified us in a saner time. And so the profiteer thrives. And at the same time men by the thousands prefer to be idle rather than work on farms; girls will not work in good homes; labor unions are demanding an expert workman's pay for an unskilled workman's service, and are fast cutting down the hours of daily work below the point of maximum efficiency.

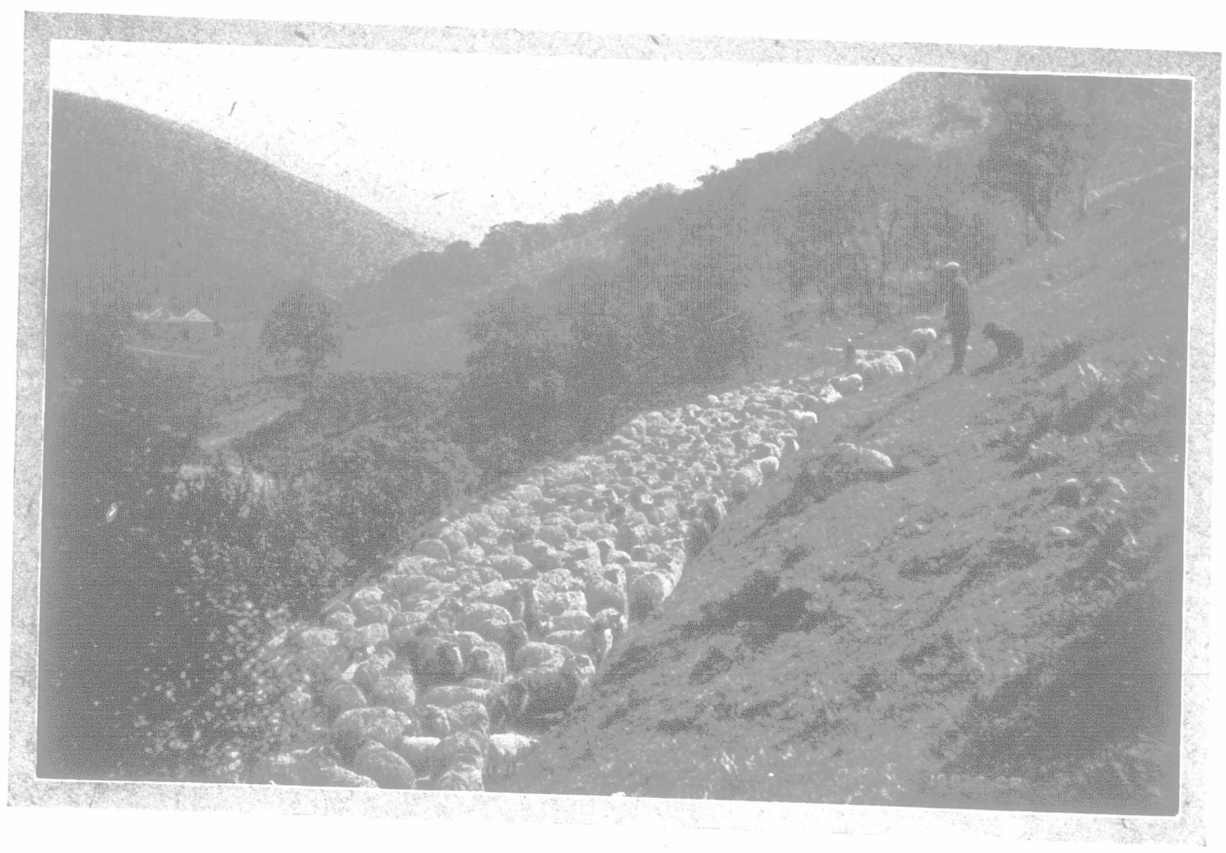
Canada is calling now for good citizens, with the emhpasis on the "citizen." In this sentence the word "good" is not to be considered independently, or according to any pre-conceived notions of what "goodness" is, but strictly as an adjective modifying the word "citizens." And as a matter of fact, goodness in citizenship is the last kind of goodness to which the good man or good woman attains. To be a good individual in the moral or religious sense; to be a good father or mother or son or daughter; to be a good neighbor; all these forms of goodness are reached with more or less ease and success by many citizens. But goodness in citizenship is the last and highest and most difficult virtue. And it is so not because it is distinct from these others, or contrary to them, but because it includes them all and goes beyond them all, as these other forms of goodness are commonly understood and practiced.

What are the qualities of the good citizen? To use the word in present favor among platform orators, how does he "function?" It is not enough that he be merely good in the sense of being harmless, well intentioned, law-abiding. There is a negative sort of goodness which, for practical purposes in getting ahead with any progressive scheme of citizenship, is good for nothing. He is not a sheep, to be driven safely into the political fold, and corralled there; he is not a hog, with both feet in the trough; nor an irresponsible colt, to be caught with a handful of oats while some one halters him; nor a beast of burden. He must have capacity and convictions and character that will enable him to make a real contribution to the well-being of the community and the state.

Well, what does the country need just at the present time? It will doubless be agreed that the country needs citizens who are both able and willing to add to its material wealth. Our prime natural needs are food, clothing and shelter. With respect to every article that goes to make food, clothing, or shelter, there are three distinct functions to be performed; to produce the raw material, to manufacture this into the finished usuable product, and to distribute the products to the points where they are wanted. In order that the whole people may have bread and butter and meat and vegetables to eat, a very considerable amount of more or less intelligent work must be done by certain citizens. Fields must be tilled, grain sown with faith in a harvest to come; harvesting and threshing and marketing follow, all requiring hard labor. Cattle must be raised for meat and milk and hides. Gardens must be cultivated. For warm woollen clothing, sheep must be raised and fed and shorn. But wheat and milk and vegetables and wool and hides are only the raw material of our necessities. Wheat must be ground, the flour separated from the offal, and baked into bread; hides tanned and made into shoes; wool carded and spun and woven into cloth; cream separated from the milk and manufactured into butter. And when these raw products have been manufactured into finished articles ready for consumption, they have to be carried all over the country or out of the country, wherever they are needed, and this carrying calls for engineers and firemen and conductors and trainmen, express men and freight men, jobbers and retailers, and all the multitude of operators necessary in transportation and in distribution.

In this extensive chain of activities, what motive induces all these people to do their particular kind of work—the farmer, the gardener, the buttermaker, the miller, the baker, the weaver, the tanner, the shoemaker, the railway operator, the retail dealer? For the good of the country, to respond bravely and serviceably to the country's call, what motive should prompt each worker, and how should he prepare himself for his work?

Two instances will illustrate this point: A few weeks ago I was waiting for a train in an American city. Looking out of the window of the waiting-room I watched for an hour a gang of men mixing concrete. Six men were engaged in loading sand into wheelbarrows and dumping it into the bucket of the concrete-mixer which was about twenty feet distant from the sand pile. When the bucket dropped back into place empty, the three wheelbarrows were full, ready to be dumped into the bucket. Three men each with his barrow tipped the sand into the bucket and then wheeled the barrow back to the sand pile. Three other men with shovels then filled the barrows. The whole operation took forty-five seconds. The men then rested until the mixer was ready to receive the bucketful of sand and cement. From the time the bucket dropped back empty until it was filled, tipped up by machinery, emptied into the mixer, and back into place again to receive three more barrows of sand, it was just four minutes. Six men were working forty-five seconds out of four minutes, or less than nineteen per cent. efficiency. That happened not once only, but repeatedly for an hour while I was watching. A week later I was at the same spot on the return trip and saw the same process repeated with scarcely any variation. Along the side of the unfinished depot which these men were helping to build was a huge placard bearing the legend: "Welcome home, boys. This depot will be completed in September 1919, and will cost $11,000,000." [This excellent discussion will be concluded in the next issue. Fail not to read the author's stirring appeal in the concluding article.]



A Scotch Shepherd and His Flock.

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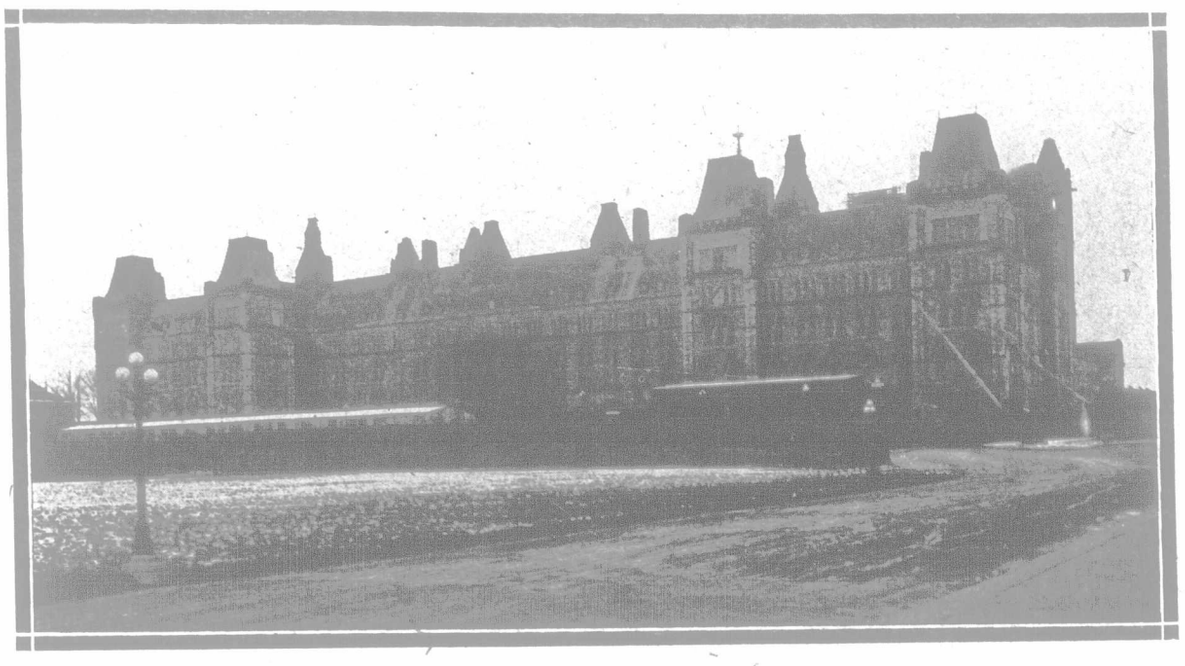
Our Law-Makers and Their Habits.

By Bird's I. View.

THE saying is attributed to Carlyle that mankind may be divided into four classes, namely, noblemen, gentlemen, gigmen and men. In as much as this implies a difference in mental or personal attributes, the same can be said of members of the Houes of Commons at Ottawa. One naturally expects to see brought together in the chamber of the House for the duration of each Parliament, two hundred and thirty-five of the ablest, most intelligent and most respected citizens of the Dominion, but it would not be fair to say that such a gathering actually takes place. Aside from the fact that the full membership of the House rarely, if ever, is in attendance at the same time, there are several reasons why it is practically impossible for the rank and file of the members to attain a standard of citizenship very much above the average. Every thinking man knows how difficult it is to vote for the best man at election time. Thousands of votes are cast on the strength of a snap judgment, made after seeing or hearing a candidate speak once, and the inevitable result must be that the mass of public opinion is very often wrong. Whether it remains in the wrong is an altogether different question. Then, too, we as Canadians are not given to a study of Government, and when confronted with its problems we are apt to make but a poor fist of it.

This brings out the matter of politics. It is unsafe nowadays to use the word politics for fear of being misunderstood, because the real subject has been so blackened and besmirched with the questionable practices of devout party heelers that to speak of politics at all, unless one explains the purity of one's mental attitude, is to invite suspicion and disregard. But politics, nevertheless, is so important a factor in Governmental conduct that unless those who compose or support our Government are really big men they tend to be dragged into the vortex of partyism, out of which, in most instances, there is no return. It is rarely to be expected that the members on the Opposition benches will be less susceptible to the influence of partyism than their more happily situated fellows across the floor, and they will, and do, therefore, resort to partisan tactics altogether remote from those big and more or less indefinite questions of policy—which originally gave birth to party government—in order to gain some advantage that will bring them nearer to the land of promise.



The New Parliament Buildings Under Construction at Ottawa May be Ready for Occupancy at the Next Session.

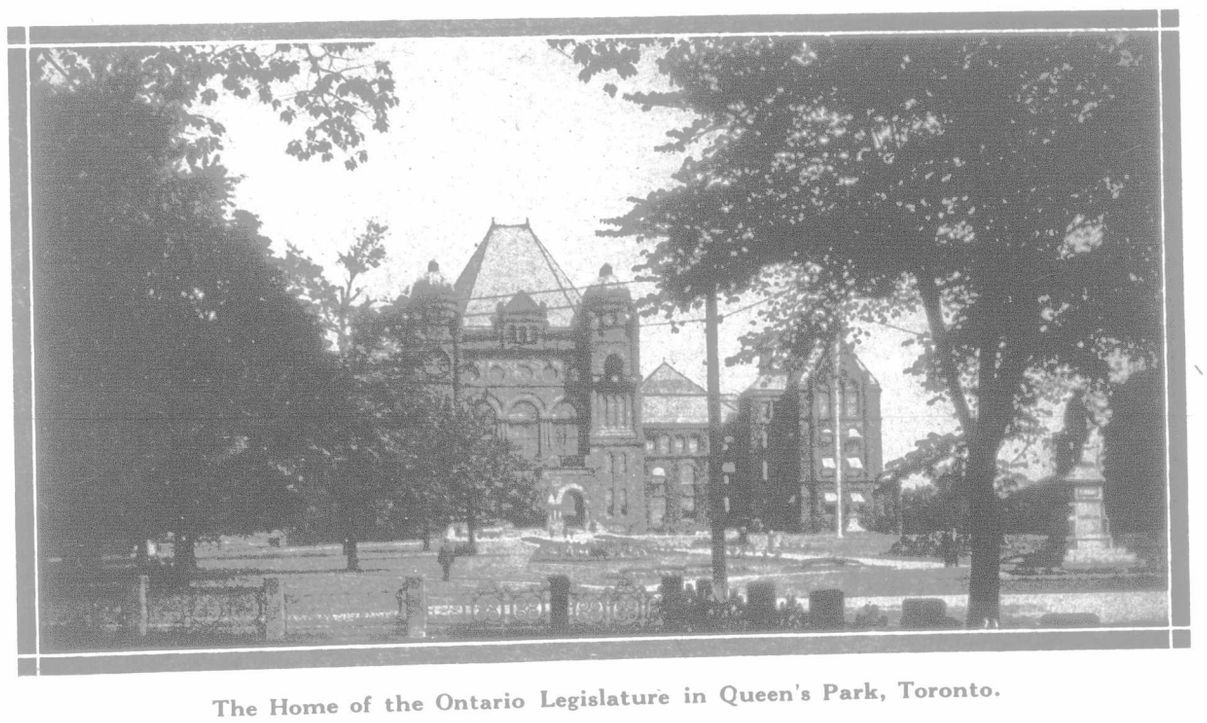
It is curious how many members fondly cling to the time-worn anchor of political patronage. Public opinion is in most cases tolerant of abuses within the circle of Government, but when it is once aroused, as in the case of patronage, and efforts are made to improve conditions, such members as above referred to seem unable to lift themselves above the old level. The average member knows but little more about the civil service than the ordinary intelligent citizen, and yet he plaintively claims the right to make appointments that will swing the votes of a certain family or clique in his direction. Why? Take the case of a member who wins his seat by three votes, as did one member at the last election, or of another who wins with fifty votes. How would such men be expected to look upon patronage? Surely as a grand opportunity for political entrenchment whereby they can make sure of sufficient easily swung support to keep themselves quite safe. At present a man must have either private means or extraordinary ability to make public service of this sort a paying proposition. Being a member costs too much money for the average good citizen to attempt it, and here lies at least one of the reasons why there is not more of the best blood and brains of the country in the House of Commons. It would be interesting to know how many members are serving the country for nothing and boarding themselves, because election expenses have taken up practically as much as they will receive in sessional indemnities during the whole life of this Parliament. The common sharing of election expenses, such as is practiced now in the case of farmer candidates, is one way to a solution of this difficulty. Of still greater assistance would be a further monetary attraction to the able men of the country so that they could and would offer themselves as candidates.

One is always apt to be critical of Governments, but it is not the place or purpose of this article to criticize any existing or particular Government. It is not necessarily the Government, but the system that needs renovating, although it is the Government that must apply the remedy when prompted to do so by public opinion, or intelligent statesmanship. Any system that will countenance or encourage a needless waste of time and money in conducting the affairs of the country is wrong. Any system that will permit a session of Parliament to linger and languish in desultory debate for four months and a half when all the business could be conveniently handled by thoughtful men in three months is wrong. So also is the system wrong which permits debates in the House to proceed on important matters when only thirty members are sitting. The system is wrong that permits page after page of Hansard to be filled with petty nothings by some misfit member, of whom it might be said, as of the brook,

"I chatter, chatter, as I flow."

Really, one cannot wonder that when certain members rise to speak, the House is quickly emptied and those who remain to preserve the quorum of twenty members, immediately bury themselves in a newspaper, or make haste to engage in small talk among themselves. Byron must have been thinking of such men when he wrote:

"'Tis pleasant sure to see one's name in print,
A book's a book, although there's nothing in't."



The Home of the Ontario Legislature in Queen's Park, Toronto.

Voluminous speeches must be made either for effect on votes or to satisfy personal vanity. Members often fancy that they say more in two hours than they do in twenty minutes, but they rarely do. In such cases it is repetition rather than procrastination that is the thief of time.

The system is wrong that permits estimates for large sums of money to be voted annually without members knowing, or caring, for that matter, how it is to be spent. The Cabinet may pass a vote on the advice of the Minister responsible, but when that item comes before the House there is the undemocratic understanding that refusal to vote the budget appropriations shows lack of confidence in the Administration. The result is that Government members know they must support the vote and refrain from too serious criticism of each item, relying on their efforts off the floor of the House to satisfy their own constituents, and content to let the other fellow pull home a little of the bacon of which they hope to get their share. As for the Opposition, members across the floor are always at a disadvantage on the estimates. They can protest, or laud, as they like; it makes but little difference because they are rarely in a position to know the details. The Minister in charge of the estimates can tell them as little as he pleases with little chance of being rounded up, because he has all the information and his questioners have none, except the lump sum to be voted and the most general information.

A Minister of the Crown has no light task if he attends to his business. Not only must he administer the affairs of his own department of the Government, but he must be able to pass intelligent judgment on the proposals affecting every other department as they are brought before the Cabinet Council for sanction. The Department of Public Works is a great source of political alms. It is the shrine of every petty politician within marching distance. Now that Canada has acquired a vast mileage of nationally-owned railways, it may be expected that the Department of Railways and Canals will be the goal of many political beggars who will develop a keen solicitude for that portion of the dear public which they represent. Of all the Cabinet positions, the Minister of Agriculture has about the heaviest. His appropriation is jealously crowded down to the absolute minimum, and if he once turns his back after getting an item passed by the Council, it is likely to be missing or transformed into a wharf or postoffice before he can turn back again. Few people at Ottawa seem to love a farmer. Most of them do not even know one, but there is a possibility that they may become better acquainted some day.

The lobbyist is a character likely to brush up against you gently any time in Ottawa. His specialty is getting what he wants when he wants it, and to this end he devotes all of his energy. He breaks in the members and Ministers by the most likely method. If they are not vicious or experienced he soon is able to get them broken in so they will ride easily without a saddle. They get the idea that brotherly love is a great thing to meet up with, and consequently they neither kick, bite nor run away, until to do so would seem almost like injuring a friend. Lobbying provides great opportunity for finesse—whatever that is—so much so that when advertised later on as broken to harness, the member is apt to excuse himself with the plea that,

"He kicked me downstairs with such exquisite grace
That I thought he was handing me up."

But, Gracious goodness! we haven't said anything yet about the Senate, the Federal Old Men's Home. The

(Continued on page 2255.)

The International Live-Stock Show.

It was expansion year in all classes of live stock at the Intarnational. Never before did breeding stock of such quality nor in such numbers grace the tan bark of the great amphitheatre. One has toattend this show in order to grasp an idea of its magnitude and splendor. Under a canopy of flags and bunting, (no Canadian flags to be seen), the awards are made. Last year it was thought that the show had reached its zenith, but the 1919 Exposition will go down in history as a record breaker, not only in the long line-up in the ring but in the price of pure-bred stock at auction, and the price of finished steers. Breeders are evidently in a better position than ever to meet the growing demand for high quality stock. A few Canadian breeders were out with very creditable entries, and secured prizes in horses, cattle, sheep and swine, but they have to work hard for everything they get in an American show-ring. It is to the credit of our breeders that they are better "sports" in the showing of stock than are our American cousins.

During the day cattle and heavy horses are judged in the presence of thousands of spectators from every State in the Union, and from various parts of the world. At night the ampitheatre is given over to the light horse breeders, when a show of great merit, which attracts immense crowds, is staged.

Seventy-five car lots of steers were in competition. Every breed and cross was represented, but in the final analysis a load of Angus yearling steers were made champions. They were a beautiful lot, uniform in conformation and as highly finished as the best in the single entry competition. This car lot was shown by J. Hubby, of Illinois. The cash prizes on the load amounted to $1,225, and the steers sold at $45 per hundred weight. Forty-six of the show car lots sold for an average of $25.45 per hundred. The championship in car lot of lambs went to Heart's Delight Farm, New York, on Southdowns, and these sold at 37 cents per pound. A car lot of Hampshires were champions in the hog division, and sold at $20.50 per hundred.

A grain and hay show was held during the week of the Exposition. In grain classes open to the world Canadians were successful. In the first twenty-five placings out of eighty-seven in hard, red wheat, all but six were entries from Canada, and the most of these were made by members of the Canadian Seed Growers' Association. The first place in a large entry of oats was also won by a Canadian on the Victory variety, which tested 48.6 pounds per bushel. First in barley and black oats also came this side of the line.

The American colleges had excellent educational exhibits, not only showing the natural resources of their particular States, but giving in tabular form the results of experiments in soil cultivation, fertilizing and cropping, as well as in the feeding of different classes of animals. The entire show was full of valuable object lessons, and live-stock breeder or general farmer could not attend without becoming enthused, and eager to improve on his own farm.

Fat Classes.

As it is a great honor not only to the individual breeder and feeder, but to the breed as a whole to win the grand championship at the International, enthusiasts of the different breeds thronged the ring-side of the immense amphitheatre throughout the day when the judging of fat classes was going on and needless to say, excitement ran high as champions of pure-breds and grades lined up in their last and greatest contest—for grand championship. This year the honors fell to a grade Hereford junior calf, and when the decision was made a mighty cheer rose from the breeders of whitefaces. The finished product is the value barometer of all our beef breeds. The fact that no one breed has a monopoly on the individual and car-lot champions and grand champions, indicates that the recognized beef breeds are nearly on a par in the production of commercial cattle and market toppers.

There are classes for the pure-bred steers, and the honors within the breed are keenly contested. There was, however, a larger percentage of cull steers this year than is usually the case. The senior yearling Shorthorn steer, spayed or martin heifer class was by no means an outstanding one. At the top stood Sultan Selim 2nd from Purdue University, a steer of good type and well finished. He was smooth and deep fleshed, but many in the class were not of the best type, and had scarcely the finish to warrant them being brought into competition. In the class of fourteen junior yearlings were several toppers possessing that great breadth and depth of body, together with smoothness and finish. Kansas College won on a choice quality steer that was meated to the hocks. The champion of the breed was the junior calf Cloverleaf Jack, shown by W. C. Rosenberger & Sons, of Ohio. Stronger classes of steers have been seen at the Guelph show.

While the Shorthorn awards were being made W. J. Grant from Argentina, was working on the Angus steers. He had splendid material to choose his winners from. The low-set, thick, soggy calves and yearlings carried a good finish. The battle, however, was chiefly between entries of American colleges. The standard bearer of the breed was U. C. Jock 3rd, a senior yearling from the University of California. He was picked as winner of his class from a group of fourteen. While he carried a wealth of flesh he was not as smooth over the back as Angus usually are. However, his massive body meated to the hocks made him a favorite and a runner-up for the highest honors of the show. The junior yearling and calf classes brought out many choice specimens.

Hereford breeders were by no means behind their neighbors. Never was such large Hereford steer classes seen at the International, and Judge Wm. Smith, of England, had no light task in deciding on the winners. While there were many tail-enders there were toppers in each class. The honors fell upon Fancy Rupert, a senior yearling from Kansas Agriculture College. He was a magnificent steer, with a well-proportioned body, a wonderful top and smoothness and evenness of fleshing. He showed particularly well from the side. There were thirty-two entries in the junior class that were well selected. Many were real toppers. The University of California annexed the blue on a growthy smooth, well-finished steer. In the junior and senior calf classes the battle was largely between entries from state colleges.

The real showing of fat stuff which attracted attention was the large classes of grades and crosses. The winner in the class of twenty senior yearlings was a massive black steer carrying a deep layer of firm flesh over the body, but he had very uneven fleshing on the back. However, his finish appealed to Judge J. J. Cridlan, of London, England. The line-up presented a motley of colors as representatives of different breed crosses competed for first place. There were five and forty junior yearlings from which to pick five winners. This was the strongest class from the standpoint of quality and finish throughout as well as in numbers. Purdue's Ace, an Angus grade, a particularly sweet calf with straight lines, secured the blue ribbon. The form was ideal, and the fleshing was even and deep. Bob White, a Hereford grade, stood second. He, too, was a magnificent steer, with a wealth of fleshing, together with quality and finish, but the touch did not impress the judge as did the black. It was among the junior calves that Judge Cridlan found the sensation of the show. Junior Lad, a Hereford grade, was a very attractive youngster. A good deal of breed character was shown, and he was ripe for the block. His dark red color trimmed with white, the straight lines, deep side and graceful carriage made a beautiful picture. While a great depth of flesh was carried it was evenly distributed and mellow to the touch. He was only a January calf but he weighed 1,025 pounds. When this baby lined up with champions of the other breeds for the grand champion decision a great silence prevaded the ring side, while Judge Cridlan critically examined the various animals. Finally it narrowed down to Junior Lad and U. C. Jock 3rd, the pure-bred Angus Steer. However, after due consideration the hand fell upon the Hereford cross and a mighty applause rose as the spectators crowded around the grand champion steer of the show. The calf was later sold by auction going to the bid of Monsel Bros., of Nebraska, at $2.62 per pound where he will be slaughtered and eaten at a public barecue on January 6. Commenting on the steer Judge Cridlan said he was the best Hereford he had seen in America or at the great Smithfield Show in England.

Espair Marshall.

Junior champiod Aberdeen-Angus bull at Chicago for H. Fraleigh, Forest, Ont.

Breeding Cattle.

While there were mediocre entries in the fat classes, such could not be said of the breeding classes. It appeared as if breeders were vying with one another in an endeavor to make their breed supreme in points of number and quality of entries. The aged classes of Shorthorns were scarcely up to high-water mark, but never was the breed stronger in young stuff. It was truly expansion year for the Whitefaces and Doddies. A word picture very inadequately conveys the idea of quality or the excellency of the entries, as line upon line of bovine celebrities stood at attention or majestically marched past the judges. At times during the judging one might see in the ring a class of thirty or forty mossy-coated reds, whites and roans, and back of them a class of similar number of sleek, thick Whitefaces, while at the end might be standing twenty or twenty-five low-set, thick, soggy Doddies. Then there were classes of Polled Durhams, Red Polls, Polled Herefords and Gallaways. It truly was a feast for one's optics. The cash value of these animals was in the hundreds of thousands, while the potential value to the live-stock industry of the country is incomprehensible.

SHORTHORNS.—There were some 550 entries in Shorthorns, and the fray was led off by a class of ten aged bulls. There were several outstanding herd sires. Pride of Oakdale, exhibited by F. R. Edwards, Tiffin, Ohio, topped the class. He is a bull with substance and quality. He presented a bold front, and carried a depth of flesh on a broad back and well-developed quarters. Campaigner, shown by R. Eastwood, Long Branch, made a good appearance. He had scale equal to the winner, and is a splendid-topped bull with a good deal of character. The judges, J. Thomson, of Kansas, and Capt. T. E. Robson, of London, decreed however, that he should stand in fifth place. Sixteen two-year-olds made a formidable line-up. In it were two dark reds and five whites, the remainder were roans. Lespedeza Collynie, from L. L. Little's herd in Tenn., was soon slated for the blue ribbon, and was also successful in taking the grand championship ribbon to the South with him. He has truly great breed, type, character and conformation. His back is broad and as level as a billiard table, while his sides are deep and smooth. He was not the only good bull in the ring by any means. Glaryford Augustus, from J. O. Pew's herd was a runner-up in body and lines, but he showed scarcely as high quality. Forbes had another Augustus that possessed wonderful type and finish. There was a quartette of toppers in the senior yearling class with Hercules Diamond by Gainford Perfection in first place. He is a low-set, soggy calf, as straight as a whip, and as smooth as an egg. Great breed character was depicted in his beautiful head. His three nearest competitors were much like him in quality, form and finish. The junior yearling class, eighteen strong, showed marked uniformity of type and build. Maxwalton Monarch, shown by Carpenter & Ross, Ohio, was placed first. He is a smooth, deep, thick calf and was considered of junior champion calibre. There were a lot of straight, thick lads in this class, any one of which had qualifications to head the most elite herds. Then came twenty and seven senior calves before the judges, and the clock in the tower ticked off the hours ere a decision was reached with this superb lot of herd header material. So near alike were the entries that from the ring-side it looked as if the judges would not go far astray by placing anyone up. Consequently, the decision must needs be based on fine points. The honor fell upon Marshal Joffre from the herd of J. W. McDermott, Mo. He certainly is a soggy, mossy-coated youngster, with all kinds of quality and breed character. It was a pleasing sight to see the long string of highly-fitted and carefully-selected reds, whites and roans. The junior calves were fifty strong, and among them was Matchless Dale, a Canadian-bred, shown by Duncan Marshall, of Alberta. When the class had been given the once over Matchless Dale stood at the top, and it didn't appear as if any entry would challenge his position. He is a particularly sweet calf with a beautiful head, straight lines, well-arched ribs, full quarters, and on top of these has character and quality. There was a lot of good calves in this class, but among them was a steery headed youngster with an excellent body behind that head. Possibly he had a little better arch of rib than the Canadian, at any rate he or his backer showed fight for first place and finally won.

The aged cows were shown with calf at foot, as they should be. The class was not large, but there were several outstanding matrons with calves of the right quality. Carpenter & Ross led with Carrie's Last, a four-year-old in fine bloom. The two-year-olds brought out a strong line-up. They were a bunch of deep, thick, smooth sappy heifers that held the attention of the judges for nigh unto two hours. Little Sweetheart from California, shown by T. S. Glide, is a veritable block with a splendid head and excellent quality. She is red in color with a few white markings. Her depth, thickness, straightness and breed character were captivating. Her closest competitor for first was Cloverleaf Gloster, shown by W. C. Rosenberger & Sons, Ohio. She, too, is a red with a deep, thick body and extra quality. From a class of over thirty senior yearlings, Lavender 47th, favorably known to Canadian show-ring followers, was chosen as banner bearer. She is a beautiful heifer with her wealth of quality and

finish, and rightly headed the class, although there were at least ten heifers of blue ribbon calibre. The winner is from J. G. Barron's herd, Brandon, and finally won the junior championship and met Little Sweetheart, the senior champion, to compete for the grand championship. It looked from the ringside that the white heifer from Canada had the qualifications for the highest honors, but the mantel finally fell upon the red two-year-old, from California. It was rumored around the ringside that she is sold for export at well over $20,000. Be that as it may, the white heifer filled our eye. The junior yearling heifers made a remarkable class. Over forty mossy-coated youngsters lined up, and at none could the finger of scorn be pointed. One must see this class to appreciate the excellency of quality and character rapt up in those heifers. Among them was Strawberry Blossom 2nd, shown by Carpenter & Ross, but bred by Kyle Bros., Drumbo, and shown by them at Toronto, where she stood second in a strong class. She has done well since the Canadian National, and was good enough to win first in such strong company. Many will remember her low-set, thick, sappy form with that beautiful head. Placing the awards in the calf classes was no light task. Many of the entries were as near alike as two peas; not only in form and finish, but in color. The showing of herds and groups was of great educational value to those interested in breeding live stock.

The milking Shorthorns were out in larger numbers than usual, and Prof. Barton, of Macdonald, Quebec, placed the awards to the satisfaction of most of the exhibitors. In following the work it was evident that the judge did not believe in sacrificing form for milk. Too many of the entries were of a specialized dairy breed type, rather than of a combination of beef and milk. The mature cow and young bull classes were particularly weak from a dual-purpose type standpoint, but the aged bulls and the heifer classes brought out remarkably fine entries. There were five aged bulls, and most of them had scale and showed very good Shorthorn type and form. Queenston Duke, head of the herd of J. E. & C. B. Wade, Ohio, a deep, thick, white bull, was first and champion. Gretna Farms, Ill., had a thick, sappy bull of spelndid conformation in second place.

Many of the cows in milk carried large, well-balanced udders, but there was scarcely cow enough in many cases. H. E. Tenor, of N. Y., had the outstanding cow in the aged class, and also the winner in the three-year-old class in May Washington, a cow sired by Cyrus Clay. In the two-year-olds some of the entries were of dairy type, while others were meaty but did not show much udder development. The later were prefered by the judge. The yearling and calf classes were ten to fifteen strong, and brought out many typey, promising heifers.

ABERDEEN-ANGUS.—The Doddies certainly upheld their end of the show in breeding stock. Not only were the classes large, but the quality and fitting were superb. Right at the start judge W. J. Grant, of Argentine, picked on the thick, deep-bodied, soggy, low-set kind as winners, and stuck to it throughout. There were nine aged bulls and they were a smooth, uniform lot, with rotundity of form and depth of fleshing. Idolmere, exhibited by J. C. Huggins, of Tenn., won out and also secured the senior and grand championship. His top was a little rolling, but he carried a great depth of mellow flesh. His closest competitor, Black Benz 2nd, was somewhat faulty at the loin, but otherwise a close runner-up. Bar Marshall, from the Escher & Ryan herd, Ia., won in a class of ten two-year-olds. He is a bull with a faultless top, showing strong masculine character. A few entries narrowed from hooks back, while others were a little rough at the shoulder. A great deal of interest centred around the class of nine senior yearlings. From the time they entered the ring Espair Marshall, shown by Howard Fraleigh, Forest, Ontario, was slated for first place. He is a smooth, deep, soggy bull, close to the ground, and possessing a wealth of quality and character. There was no one that disputed his place in his class or as junior champion. The judge, who at all times carefully weighed the points, deliberated long over this bull, and the winner of the aged class for grand champion. The old bull had no better form or finish, but was a little more alert. Very little criticism could be made of the yearling or calf classes. The entries were thick, sappy, well-grown youngsters and were well brought out.

The Angus female classes were even stronger than the male classes. The line-up of twenty-six entries in mature cows brought out deep, thick, breedy individuals. Seldom does one see so many breeding females with the scale and quality. At the top stood Queen Milly of Sun Dance 3rd, shown by G. C. Parsons, of Alabama. She is a very thick, soggy cow bristling with breed character. Her closest competitor was Escher and Ryan's Erica McHenry 39th, a cow of much the same pattern as the winner. The former cow won out for grand champion. Some of the entries were so low-set that their bodies came within about fifteen inches of the ground. The two-year-old class brought out many excellent breeding propositions. This lot was very uniform in type and size. From a score of senior yearlings Edella of Page, shown by Hartley Stock Farm, North Dakota, was chosen for first place, and later won the junior female championship. She is a heifer of beautiful form and breed character. The calf classes brought out long lines of black beauties that were particularly well developed. The junior calves were extra well grown, and were brought out in the pink of condition. It was a wonderful showing of Doddies from the time the aged bulls entered the ring until the last group classes had been passed upon.

HEREFORDS.—The breeders of the whitefaces certainly made a grand display of their breed, as class after class they brought real toppers before judge Wm. Smith, of Penbridge, England. The massive individuals of dark red color with white faces and fronts made an attractive sight. A baker's dozen aged bulls entered the contest to be passed upon by the critical eye of the judge, who after carefully going over the different entries had the animals walk. Brummel Fairfax, from W. T. McCray's herd, Ind., stood at the top. He is a bull of wonderful scale, and is particularly well proportioned. He carries depth and thickness from the shoulder to the tail head. Walter L. Yost's Braemore had almost the scale of the former bull, and he carried an excellent back and loin. There wasn't a weak bull in the line. Romeo Fairfax won the two-year-old class for McCray. He, too, is a massive individual, particularly well filled between hook and pin bones. The junior yearling, Beau Woodford, captured the junior championship for E. H. Taylor, of Kentucky. The uniformity of type was well marked in the yearling and calf classes, and the entries in the different classes were much the same size and weight.

Some magnificent matrons were brought out in the aged cow class, in which a score of the pick of the breed was shown. J. W. Van Natta, of Indianna, won the class on Belle Blanchard, a particularly thick, deep cow possessing excellent breed character. She was in the pink of condition, and although in high flesh she was smooth and well proportioned. This cow was made senior champion, but went down to defeat for the grand championship before the senior yearling heifer Belle Blanchard 63rd, shown by J. Engle & Sons, of Missouri. This heifer is nearly perfect in form and finish, and with it has breed character showing at every point. She is a very attractive heifer, and carries her great thickness and smoothness right to the tail head. The calf classes almost filled the large judging ring, and every one looked like a good breeding proposition. It was only on fine points that the winners were picked. The showing of herds will be remembered, by those present, for many a moon. Fifteen senior herds headed by typey, massive, high-quality bulls graced the ring. It gave spectators a better idea of what the different breeders were doing than could be gathered from the single entries. Then there were eighteen junior herds and as many groups of four animals, get of one sire and progeny of one cow. These showed the true breeding qualities of sire and dam.

Students Judging Contest.

Students specializing in agriculture at our colleges look forward with interest to the annual Students Judging Contest staged at the International. The contest is open to contestants from agricultural colleges in Canada as well as in United States. Our boys have on every occasion done good work and several times the coveted trophy as well as special prizes and medals have come to this side of the line. But, whether the boys win or lose the traditions and honor of our agricultural institutions are ever upheld. These contests are a great stimulus to the men specializing in live-stock husbandry. The training in preparation for the contest and the final workout in the great amphitheatre, Chicago, gives the men graduating from our agricultural instititutions a greater knowledge of live-stock husbandry than they would otherwise have.

This year teams from Manitoba, Guelph and Macdonald competed against fifteen American teams. The coaches Professors McMillan, Toole and Barton, all of which had represented Guelph at Chicago in past contests gave the boys the best of training. That the Canadian colleges were twelfth, fifteenth and eighthteenth in the list in the final analysis this year is no discredit to either coaches or boys. Some of the strongest men ever sent to Chicago were on those teams and creditable placings of the stock were made. As many classes were placed in accordance with the views of the judges as was the case when Canadian teams won in the past. The boys were scored severely on reasons even on classes placed correctly. On the surface it would appear that a concerted effort was made to keep the Canadians from winning. The examiners were all American and while the contestants go by number so as not to disclose their identity to the examiners, many of our boys were asked if they did not represent a Canadian college. This was very unfair but the fact that they did not win does not make them any the less valuable to their Alma Mater and their country.

Judging contests should be fostered. We should have a big national contest at Toronto when the new Live-Stock Show commences and our colleges should continue to send teams to Chicago. Whether they win or lose they are gaining a higher education. As the Chicago contest is termed an International it should be insisted upon that there be one Canadian judge or examiner on every class of stock the boys work on. This would give Canadian contestants more confidence.

The following is the score made by the different colleges competing.

Texas, score of 4,119; Nebraska, 4,103; Kansas, 4,059; Iowa State, 4,057; Purdue, 3,946; Minessota, 3,909; Oklahoma, 3,899; Ohio State, 3,859; Missouri, 3,811· North Dakota, 3,767; Penn. State, 3,754; Manitoba 3,720; Wisconsin, 3,677; Kentucky, 3,643; Ontario, 3,366; South Dakota, 3,353; Arkansas, 3,291, and Macdonald, 3,221.

Horses.

The 1919 horse show of the International Exposition was one of the best ever staged in the great amphitheatre. The breeds were represented by individuals of high merit. The Percherons possibly put on the largest show and it was a particularly pleasing sight to see the long line-up of Blacks and Grays. In the aged stallion class there were seventeen massive, high-quality animals shown. They certainly showed draft conformation, and while some had clean, fine-quality under-pinning, others were coarser than Canadians like to see them. The winners in the aged class were J. H. Serven & Son, of Illinois, on Jasmine 2nd., a massive horse of excellent quality and breed character. He was later made the senior and grand champion. The junior champion came from W. S. Corsa's stable, the winner being Wolfington. In all the female classes big, strong, matronly mares competed for first place, and most of them showed trappy action and travelled true.

The Shire exhibit was superior to those of the past. Truman, of Illinois, had a particularly creditable showing and secured the grand championship on Kirtling Bold Lion, and the junior championship on Golden Taw. The grand champion mare was Locking Starlight, exhibited by Schaffenacker & Sons, of Illinois. The big, drafty Belgians were also out in full force, with from ten to fifteen entries in most classes. Holbert Farms, of Iowa, were successful in many of the classes.

The Clydesdale showing attracted a good deal of attention. While the entries were possibly not as drafty as the Percherons and Belgians, they had cleaner and higher-quality under-pinning. The entry of Clydesdales at the International is steadily increasing from year to year.

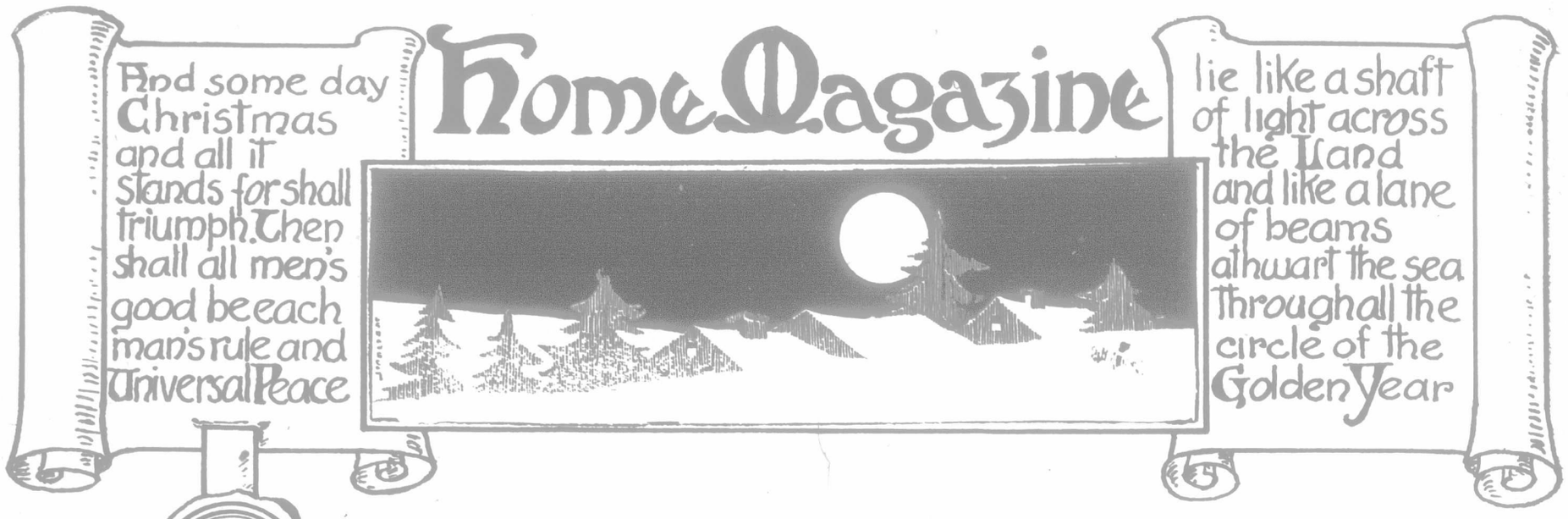
CLYDESDALES.—This year an excellent showing both in numbers and quality was admired by a large following at the ringside. Eleven aged stallions made keen competition and hard work for judges, A. McFarlane of Iowa; W. H. Pew, Ohio, and Alex. Galbraith, of Alberta. Baron's Best and Bonnie Flisk from t he Graham Bros.' stables, Claremont, were in the ring, and were candidates for high honors. Baron's Best was in excellent form, and in spite of his eighteen years moved with the freshness of a colt and really looked younger than Fairholme Footprint, the six-year-old that finally won the class and also the senior and grand championship. The winner is an attractive horse, but showed a trifle down in the back, and from the ringside his underpinning was not to be compared in quality to that of the Canadian horse, which was placed second. The other Graham entry was fifth. Soldier Baron, a son of Baron's Best, went into second place in the three-year-old class. He is a typey, high-quality Clydesdale of more drafty type than Proud Archer, the winner. He was superior from the hocks down and picked himself up nicely. The junior champion of the show was the two-year-old Kinleith Footprint, shown by G. A. Cluett, of Mass. Caradoc Magic, shown by S. Hagerty, Sask., was second. Caradoc Hiawatha, the yearling from Saskatchewan, was discriminated against. He was placed fifth although he appeared good enough for first. Fifteen foals made a remarkable class, and it was topped by Royal Stamp, that tidy, high-quality son of Halma, shown by Graham Bros.

The placing of the brood mare class was closely followed. Craigie Sylvia, the recently imported mare for which Mr. Cluett paid in the neighborhood of 4,000 gr. was in the ring. Finally she was placed first and received the grand championship, although she was not in the bloom of some of the others. Conyngham Bros., of Pa., were second with Elma, a six-year-old mare of splendid type and finish with a beautiful set of legs. The three-year-old mares were headed by Merlin Princess from Edellyn Farms, Ill., although she had no lisense to win over Hahma, from Graham Bros.' stables. The latter had greater scale and a more attractive matronly appearance along with a trimness and trappy action which is hard to excel. The junior championship was won by Cluett on Langwater Jessica, a daughter of Fairholme Footprint. This filly possessed scale and quality, and was an attractive mover. This class brought out a dozen exceptionally fine mares. The yearling mare class was won by Conyngham Bros., with Graham Bros. in second on Quality Lady. In a class of six entries of two produce of one dam, the Claremont stables won first.

Swine.

In keeping with other classes of stock, the swine entries showed an increase over past years. The International was held in the fat-hog district and it was but natural that the bulk of the show should be made up of the thick, fat type of hogs. However, there was a better showing than usual of Yorkshires; in fact, Professor H. H. Kildee, of Ames, who made the awards, claimed that it was the strongest showing he had ever seen at the International. In the fat barrow class, J. E. Brethour & Nephews, of Burford, were first and second in a class of seven, for hogs weighing over 160 and under 190 pounds. They were also first with a pen of barrows coming within these weights, and won the class and the championship on a pen weighing over 190 and under 225 pounds. The champion barrow was exhibited by F. F. Davison, of Iowa. In breeding Yorkshires, Brethour was first on the aged boar, with Davison second. In the aged sow class Brethour was shoved down to third, although he had an entry that conformed to our type of Yorkshire more closely than did the Davison entry, or the entry from the Ohio State University. The Judge picked on a more upstanding, lanky pig than we like to see. However, Brethour was first and second on his yearling sows, and secured the grand championship on this entry. In a class of seven senior sow pigs, Brethour was first and a like honor came to him in his aged herd and in get of boar. Duroc Jersey, Berkshire, Poland China and Hampshire classes were particularly strong, but the Tamworths did not have as large an entry as did the Yorkshires.

A report of the sheep exhibit will appear next week.



1919

The Coming of the Christ Child

AND there were in the same country shepherds abiding in the field keeping watch over their flock by night.

And, lo, the angel of the Lord came upon them, and the glory of the Lord shone round about them: and they were sore afraid.

And the angel said unto them, Fear not: for behold, I bring you good tidings of great joy, which shall be to all people.

For unto you is born this day in the City of David a Saviour, which is Christ the Lord.

And this shall be a sign unto you; Ye shall find the babe wrapped in swaddling clothes, lying in a manger.

And suddenly there was with the angel a multitude of the heavenly host, praising God, and saying,

Glory to God in the highest, and on earth peace, good will toward men.

And it came to pass, as the angels were gone away from them into heaven the shepherds said one to another, Let us now go even unto Bethlehem, and see this thing which has come to pass, which the Lord hath made known unto us.

And they came with haste, and found Mary, and Joseph, and the babe lying in a manger.

And when they had seen it, they made known abroad the saying which was told them concerning this child.

And all they that heard it wondered at those things which were told them by the shepherds.

But Mary kept all these things, and pondered them in her heart.

And the shepherds returned, glorifying and praising God for all the things that they had heard and seen, as it was told unto them.—Luke 2, 8-20.

* * * *

And he opened his mouth, and taught them saying:

Blessed are the poor in spirit: for theirs is the kingdom of heaven.

Blessed are they that mourn: for they shall be comforted.

Blessed are the meek: for they shall inherit the earth.

Blessed are they which do hunger and thirst after righteousness: for they shall be filled.

Blessed are the merciful: for they shall obtain mercy.

Blessed are the pure in heart: for they shall see God.

Blessed are the peacmakers: for they shall be called the children of God.

Blessed are ye, when men shall revile you, and persecute you, and shall say all manner of evil against you falsely, for My sake.

Rejoice and be exceeding glad: for great is your reward in heaven: for so persecuted they the prophets which were before you.

Ye are the salt of the earth: but if the salt have lost his savour, wherewithal shall it be salted? It is thenceforth good for nothing but to be cast out, and to be trodden under foot of men."

Ye are the light of the world. A city that is set on an hill cannot be hid.

Neither do men light a candle, and put it under a bushel, but on a candlestick; and it giveth light unto all that are in the house.

Let your light so shine before men, that they may see your good works and glorify your Father which is in heaven.—Matthew 5, 2-16.

By Vogel. **The Adoration of the Shepherds.** From Copley Print. Copyright by Curtis & Cameron, Foston.

Politics, Woman and the Boon She Will Crave.

By M. C. Dawson.

HAD full citizenship been granted to Canadian women six years ago, the privilege would have been received with open rejoicing. The granting of the vote, by our Government, would have been hailed as a great victory after a long fight. Feeling ran very high at that time, and it seems almost unbelievable, now, that there was an occasion on which policemen were placed in the galleries of the Legislative Chamber, in Toronto, lest women should create a disturbance while the Lords of Creation, on the floor below, debated the "to be or not to be" of the "vote for women," with a foregone conclusion that it was "not to be."

Canadian womanhood was indignant and outraged over this incident, for Canadian women had never adopted the tactics of the militants, believing that, with Canadian men, those extreme measures would never be necessary.

Whether this faith would have been unduly tested, we shall never know, for we have lived a long, long time in the last five years. We have lived through the long days and nights of service, of dumb endurance, of white-lipped fear. While our hearts contracted with the mere thought of the blow from which we were shrinking, we still prayed that we might have strength to "kiss the cross." The issues we dealt with were life and death. Our thoughts were with the lads "over there." And the rights and privileges of which we had once heard so much seemed trivial things in comparison with the fact that the boys, whose baby hands once clung about our necks, were out there, beyond our ken, in such a hell of suffering and horror as the world had never before imagined.

Women forgot the ballot and took their places in the ranks of those who served. Their one desire was to help, to succor, to relieve pain, to soothe, to heal and to save; and when, because of her great service, the ballot was bestowed on woman, without a dissenting voice, there was scarcely a mild ripple of interest. Great strides in advance were being made in every department, great and wonderful things were happening, impossibilities became matters-of-course. The ballot was received in this spirit.

And then, woman stood hesitant and reluctant where the brook of home-life meets the river of public life. She was not quite so sure, now, that she wanted to enter politics, for she had learned that life could be very full of things that count immensely in the life of our nation, without stepping outside of the sphere which woman had occupied for so long. As a "ministering angel," she had played a role which dwarfed every other service in her estimation.

The persistent propaganda, carried on by men and women ever since that day, one hundred and fifty years ago, when women insisted on laying aside their draughty, enveloping shawls, and on wearing tight-fitting coats which revealed their figures, had still some effect. Common sense to the contrary, woman peered into "politics" and wondered if, after all, political life would not prove to be vile, contaminating and demoralizing as had so long been taught. She wondered if the time would ever come when she would be able to enter a polling booth without a feeling of guilty impropriety.

True, the men whom she would mingle with in the polling booth would be the same men whom she met on the street, with whom she went to church, with whom she rode in the street car, from whom she bought goods over a counter, beside whom she sat at a concert or whom she met socially. But, in some mysterious manner, so she had been taught, the polling booth changed these men into beings who were fairly reeking with evil. She felt that no matter how daintily she stepped, in a polling booth, contamination of some sort would cling to her garments and herself.

So she stood hesitant and man awaited her coming into politics with mixed feelings. You never knew what woman would do in any situation, and woman in politics was liable to do "most anything."

And then, all at once, woman entered, the same woman man had always known, and she came in her most appealing guise, as a mother carrying the Child of the race in her arms. And men everywhere sighed with relief, for here was woman as they loved her best, and, because she brought the Child and set him in the midst, her petitions, like Queen Esther's, will be granted before they are put into words.

The fact that the Referendum was linked up with the recent election was fortunate, so far as woman was concerned. It was easy to persuade the timid ones to vote for the first time, because that vote was for the Child. It brought to many women a realization of what their place in politics must be. The man and the woman, working together, make a perfect home. The man earns the living, accumulates property, provides for the needs of his family. The woman keeps the home clean and sanitary, makes the dollars go as far as possible, cares for the children. The man is interested in making a living. The woman is interested in the making of lives. Each has a distinct part, and neither interferes with the other.

So, in the making of a perfect nation, men and women will work together the same as in the home. Neither need interfere with the work of the other. There will still be ditches and watercourses acts, there will still be transportation and highway problems, there will still be laws concerning cholera in hogs, and laws protecting property, and laws which shall reflect the various things in which man is interested. Women will undoubtedly be interested in all these laws too, for every law indirectly affects the home. But, in the future, there shall be more laws dealing with the child, with life, with women and girls. It is no fault of man's that these laws are not already incorporated in our statutes. Man legislated about the things in which man was interested directly. The things which were not legislated on were woman's work. Woman did not ask and woman did not receive. Will she receive in future? Undoubtedly! In the recent election one party had as a plank "Pensions for Mothers," and another party had as a plank "Equal education for rural and town children." Why were these planks adopted? Because women are interested in these things and women have a vote. The Child of the race is the woman's work, and in the recent election she was asked whether she wanted her life-work marred and spoiled, whether she wanted liquor to return.

Dear God! what a question! It were more reasonable to expect a man to refrain from voting on the question of having the property which he had accumulated destroyed by fire than to keep woman from the polls with so much at stake.

The Visit to Emmaus.

By Leon L' Hermitte.

From Copley Print. Copyright by Curtis & Cameron, Boston.

So woman entered politics for the Child, and she will ask the Government for many things for the Child. And the boon which she will logically ask first will be mothers' pensions. Canada recently claimed our sons to defend us on the battle-line, thus establishing, for all time, the fact that the defence of our country is the common duty of all, just as the enjoyment of our many privileges and our unbounded freedom is the right of all. Canada learned that the strong wall which keeps out the foe is built of flesh and blood. Wealth can supply the silver bullets and loving service can alleviate conditions at the front, but the strong right arm of our manhood is the bulwark on which we lean. So if Canada, in time of war, can claim the boys who grow up in the homes of our widowed mothers, then Canada is interested in giving those boys a chance to grow up strong and well. To allow children to grow up physically unfit is like building the walls of a fortress of crumbling stone. Besides, Canada now cares for dependent children, in institutions that are expensive because of the paid help required. If the mother were paid enough to keep the children together in the home the cost to the Government would be less than at present, because the mother would do all the work required herself. Looking at it from the financial side, mothers' pensions will be a paying proposition. Looking at it from a sentimental side, mothers' pensions will pay a thousand times over because of the atmosphere of love which will surround the children as they grow.

No one would care to see our children handed over to the Government at the age of seven years, for military training, as has been done in many countries in both modern and ancient times. But the Government can supplement the home and give to the child many things which the parents cannot give.

For instance, the average mother cannot look inside the head or the body of her child and detect lurking disease. No matter how she loves the child, she cannot do this, for it needs science and not love to be able to do so. Neither the parent nor the Government can afford to allow a child to grow up defective. Medical inspection of schools is the only guarantee that the Government can have that the nation's chief asset, the Child, will grow to years of maturity with a sound mind in a sound body.

But surely parents can be trusted to do all that can be done for the Child? Surely intelligent people can care for their own children? An expert on chickens was called in consultation by a neighbor whose hens refused to do their duty, so far as laying eggs was concerned. The expert poked around in the hen-house for a few minutes and then asked, "How often do you clean out your hen-house?" "Oh!" replied the man whose egg baskets were habitually empty, "I clean it out every spring regularly." You smile? Well, if dirt isn't good for chickens it isn't good for children. How often do you clean out your schoolhouse? Once a year? Twice a year? At home you scrub and clean and polish and keep the house spotless. But the child spends five days out of seven days in the little white school-house which is scrubbed out once or twice a year!

Do you know that forty per cent. of all the school teachers who died last year, died from tuberculosis? And if there were any germs in the school-house where any of these teachers taught those germs remained in the school-house for some time. And when the school was swept and not very well dusted, Johnnie and Mary might get their hands quite dirty from rubbing them over their desks or over their slates. If Johnnie and Mary were at home, they would be asked to wash their hands and faces before eating their dinners. But at school, there might not be a wash-basin in which to wash, for wash-basins cost about forty cents. And if Johnnie or Mary washed those dirty hands at the pump and the water ran down into the well, they would pump it up again and drink it some other day.

Small things, very small, but straws show which way the wind blows; and you cannot show me the average oblong, white, unattractive building, which is set down in the midst of beautiful homes, with beautiful surroundings and which is called a school, and make me believe that the care of the Child receives as much attention as does the care of the live stock. Why, the live stock have running water which they can drink at will, they have the most approved blending of rations, they have bank barns that are marvels of comfort, they have everything which will produce the best results. Dare we claim that as much is being done for the children? If not, then the care which we provide must be supplemented by the Government.

By providing medical inspection the Government will spend money on the Child which it now spends on our jails and lunatic asylums. Physical conditions and moral conditions are closely bound up together. We are told, by those who are interested, that fully ninety per cent. of our criminals are criminals because of some physical defect. It costs money to take care of criminals. They are a dead loss to the country in which they live. If the money, which their care costs, were spent when they were children, to remove their physical defects, how much better return the country would get for the expenditure! For every man and woman who is physically perfect is an asset to the land in which they live, and every defective man and woman is a decided loss to that country. Medical inspection is a boon for which women have asked for some years. It will be granted by the Government because of the new viewpoint which the war has given to us as a nation, because so many young men were found physically unfit.

Another boon which women will eventually claim, will deal with property. Apparently this is contradictory to what has already been stated. Property is a man's work, so why should woman be interested? For the best reason in the world, because there are few Canadian women in rural homes, who do not materially help in the accumulation of wealth or competence.

How does woman do this? On a farm woman's work includes dairy products and egg production among other things. These, the butter and eggs, are sold and the proceeds are used to buy groceries and clothing for the family. In this way the farmer can devote the money made from grain, cattle, pigs and other products to paying for help, paying for machinery and running expenses, paying interest on borrowed money, paying off the mortgage or to making a deposit in the bank. If household expenses were added to all that he has to pay, it would mean less paid off on the mortgage, or less deposited in the bank, or less up-to-date farm equipment. So his wife helps him materially by paying attention to her end of the partnership.

At the present time an Ontario woman can claim one-third of her husband's property—when she becomes his widow. How many of them put in their claim? Very few. How many of them accept the terms of their husband's will which leaves them a home with their son and a few dollars a year? Nearly all? When the heart is softened by bereavement, it naturally turns with greater affection to those who are left. The aged mother has sacrificed herself so long for others that she cannot imagine that the day can ever come when those who once were her babies may prove ungrateful. To many that day never comes. To others, it comes very soon, bringing heart-ache and tragedy in its train. To protect these women, who will not protect themselves, because they will not raise a fuss, women will ask for an amended law which shall make it impossible for a husband to override the law of the land, by making a will which deprives his wife of her share of the property, and which shall make the "one-third" her property while she is still a wife and not a widow. A small matter again, but, unfortunately, such sordid things as these can mean so much in the life of a woman who has served the State well and faithfully in her home among her children.

And surely woman shall ask the State to protect girlhood! Surely woman shall throw a protecting arm around the young of her own sex! For thirty years woman fought for temperance, principally for the boys, indirectly for the girls. For thirty years woman taught temperance in the home, in the school, from the platform. For thirty years woman beat with her bare hands on a wall of stony indifference, because the final step, the voting out of the liquor, was not hers to take. To-day, woman has the vote. To-day, woman has prohibition because woman has raised and trained a generation of men who believe in prohibition.

Has woman been as faithful to the girl in her teens? If not, it is time for woman to use the great power which has been placed in her hands, to make this country a safe place for all. Western Ontario was treated to a sickening spectacle about a year ago, that of women pleading for a boy who had wronged a girl of tender years. Western Ontario has time and again seen sentences of a few months imposed on men who have wronged girlhood. Western Ontario has even known such men to go unpunished. And until woman is more loyal to woman, there will be no more stringent laws dealing with such cases.

Every movement has its martyrs. The first woman who became a medical student was shunned by other women as if she had the plague. Other women would pull their dresses away from her as she sat in the street car, because she was such a dreadful woman. She suffered a martyrdom of persecution at the hands of other women, women who sought to curry favor with men by throwing stones and saying, "Behold, I am not as this bold, unsexed, dreadful woman." But because that woman who first studied medicine persevered and endured to the end, how many millions of other women in our land and in lands across the sea have been blessed, to how many tortured bodies has come sweet healing!

The first women who do anything are reviled by their own sex. "If I had a wife like that, I would do so-and-so," declares man, and women without courage, without backbone, without loyalty, hasten to say "Behold I am not such as that woman whom you condemn."

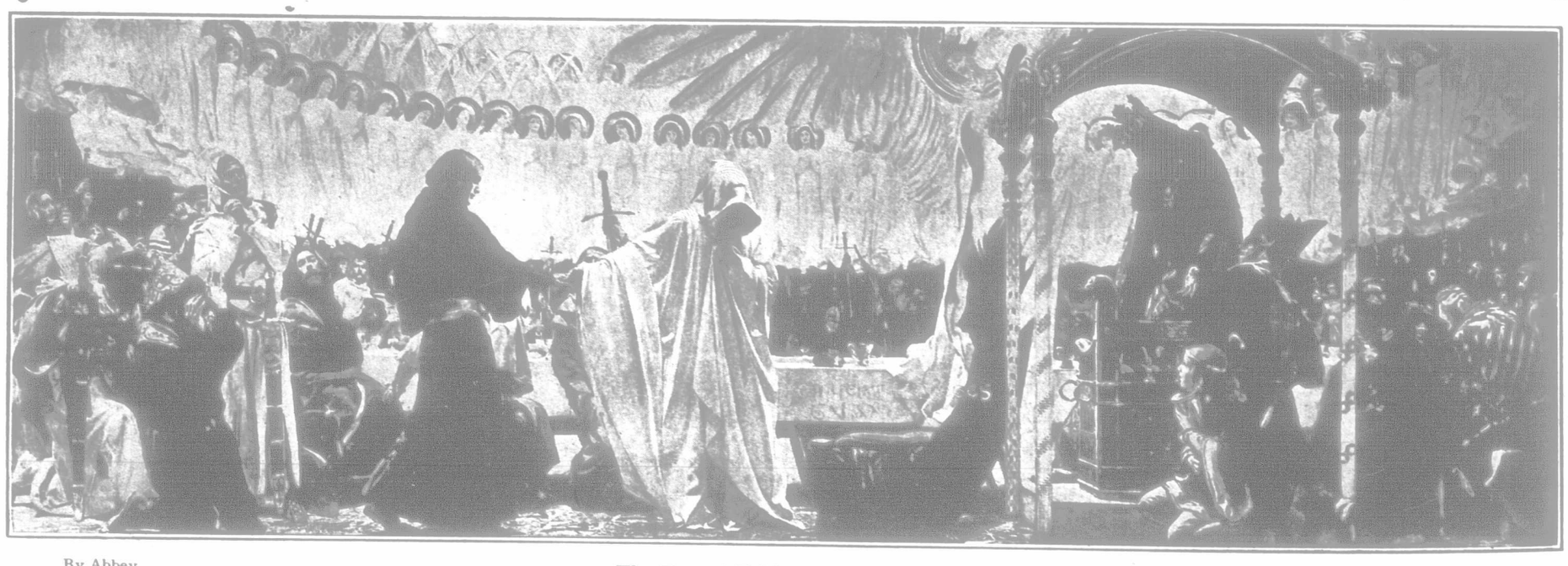
If only our women will be true and brave, how much we can do! If only our women will refrain from casting stones at the pioneers in all new movements, how we can take the girlhood of Canada into our own sheltering arms, and how soon the day will come when it shall be as great a crime to injure one of these, His little ones, as it is now to injure the property which a man has accumulated. Let us trust that the day is not far distant when women shall say to our Government. "We who have rocked the cradle, ask that our life-work, our children, be as well protected from injury as is the property which represents a man's life-work.

A woman's work is the making of lives. What a mockery to endeavor to make lives and then to allow those lives to become a curse instead of a blessing! To sit idly by and see our life-work destroyed when we have the means by which this evil can be routed! It is too much to expect that woman will fail to make a plea along this line, a plea which will perhaps meet with strong opposition but a plea which will, in the end, win the support and the approval of all right-minded citizens.

Women will bend their efforts toward securing the same wages for men and women who do the same amount of work. They will ask that we be more careful about child labor. They will ask for baby clinics and perhaps they will even go further.

We hear a great lot of talk about how our system of education lures the boys and girls away from the farms. We hear Governments condemned because of rural depopulation.

Continued on page 2244.



By Abbey.

The Round Table of King Arthur.

Galahad is about to take his place at the great Round Table. He is led by the mysterious figure of his ancestor, Joseph of Arimathea. Sword hilts, lifted high on every side, give the sign of the cross and portend the conflicts that are to be waged in its sacred cause. King Arthur rises from his seat to receive the new knight, and Galahad advances with involuntary movement, as though, in the hands of destiny, all sense of self lost in the greatness of the moment. The picture is from Copley Print. Copyright by Curtis & Cameron, Boston.

Pictures for the Farm Home.==== By "Junia."

SHE was a sweet-faced, white-haired farm woman, and she stood at the door of her comfortable home looking away beyond at the rolling country with its bits of woods all gorgeous with autumn coloring.

"I often think," she said, smiling, "that we do not need pictures in the country. We have them about us all the time."

Of course she did not mean that to be taken literally—she had pictures on the walls of her own home; she was merely expressing, in this way, her appreciation of Nature in its many moods, Nature glistening white in winter, bursting into pale green in spring, deepening into gold at midsummer, flaming forth in scarlet and orange in September, and shading off into soft grays and umbers in November.

A little later another farm woman wrote: "Do give us some articles on art this winter. If I have a passion for anything it is for pictures. I want to draw and paint. I want to look even at prints of the wonderful works of great artists."

Perhaps it was her coaxing that decided the writing of this article for our Christmas number; but the words of the woman first spoken of influenced too, for they made very emphatic the remark of a great decorator of houses that while landscapes seem to be in the right place in city homes it is better to have architectural and figure pictures in country homes,—on the principle of contrast, you see, for "variety is the spice of life."

Of course it goes without saying that walls, as a rule, need pictures—especially the beautiful, restful, softly-colored, patternless, or comparatively patternless walls that are now considered in the best taste for nearly all the rooms of a house. Pictures relieve the bareness. If well chosen they supply points of interest and beauty which may relieve a room from an appearance of utter commonplaceness, transforming it to a spot that expresses culture and intimate acquaintance with all that real Art stands for.—Even more: they may inspire—and perhaps this has been the real mission of the greatest artists, whose work has ever been to uplift.

Nor is it necessary, in these Twentieth Century days, to be a millionaire and expend large sums upon original masterpieces to have attractive and inspiring pictures in one's home. To such a height of perfection have reproduction processes now been brought, that exquisite prints of nearly all of the world's great pictures (in color or sepia) can now be bought at very reasonable prices,—the higher the price, of course, the better the reproduction. Roughly speaking, it may be said, that, from the best picture companies, prints good enough to place upon any wall can be bought for from two to fifteen dollars (without frames), while excellent prints of heads can be secured at from say sixty cents up—an easy way, surely, to surround oneself with the faces of one's heroes.

And now to the pictures shown in our pages to-day:

"The Adoration of the Shepherds."

Perhaps E. Irving Couse did not know that the traditional birth-place of the little Christ Child is a *grotto* in the rock near the quaint old town of Bethlehem of Judea; perhaps he thought that Art can set aside fact or tradition; perhaps he imagined that in that hot country Joseph would be likely to construct an outer booth to which Mary and the Holy Child might come in the cool of the evening to get the air. At all events he has disregarded the grotto, and most certainly the lighting of the picture suggests sunset. And what a beautiful peaceful picture it is! The "Three Kings" have not yet arrived. But the shepherds who heard the wonderful music sung by the angelic hosts have not waited for great men to show the way. They have come, in all ages,—the sturdy young man, the child, the old man upon whose head has descended the "snow of many winters." Simply and adoringly they gaze upon the little Child so wonderfully heralded, the Prince of Peace,—the heavenly song still ringing in their ears: "Glory to God in the Highest! On earth peace, good-will to men!"

How suggestive, too, the little lamb led by the child in the foreground of the picture! The lamb waits, patiently. The child is too young to bow his head in worship; he just looks on with wondering eyes.

Mr. Couse, the creator of the picture, began life as a near neighbor of our own. He was born in Saginaw, Mich., in 1866, and very early realized that his part in life was to be a painter of pictures. That conviction led him first to Chicago to study Art, then to New York, and finally to Paris. Eventually he wandered to "the South", and became so deeply interested in the Pueblo Indians and their wonderful country that he bought for a summer home an old Mexican convent which had been built when the country was new in the very south-western section of the Rockies. He has painted many pictures of the Indians—a difficult matter at first, because the Indians have a superstition that if they pose for a picture their souls after death will inhabit the picture instead of going off to the Happy Hunting Grounds. Mr. Couse, however, succeeded in gaining the confidence of those near his convent home, and says they soon became much interested in seeing a picture grow, often even giving suggestions in regard to one detail or another. . Perhaps it was in this south-western country, too, that Mr. Couse gained the intimate knowledge of sheep which appears in the little lamb and and the troop of sheep following the shepherds in the "Adoration" picture.

This artist, by the way, has won many prizes and medals for his work, both in Europe and America, one of the most important of which was a $500 prize given by the U. S. National Academy of design.

"The Visit to Emmaus."

Leon L'Hermitte, painter of this picture, has achieved, remarkably, expression of his subject. He has caught the moment when the risen Jesus, "as he sat at meat" with two of the disciples, at Emmaus, opened their eyes so that they should know that it was He. The strength and calmness of the Christ, seated a little apart from the rest, stand out in vivid contrast to the evident surprise and excitement of the disciples, while the woman who is serving, and the child in the background show by their attitude that they know nothing of the wonderful event that is transpiring in their house.

Leon L'Hermitte; as his name intimates, is a Frenchman. He was born near Chateau-Thierry (the point at which the French and Americans, last year turned the Germans back in their march towards Paris), the son of a schoolmaster. But his grandfather was a vine grower, and in his early years the young Leon worked in the fields, there gathering up, all unconsciously, the color and movement in peasant life which, later, he threw upon his canvases. Eventually he opened a studio in Paris, but he loves to paint pictures of rural life, and most of his time has been spent in his native village, where, in a great glass studio in his father's garden many of his picture-dreams have taken form.

"Hope."

By Sir Edward Burne-Jones. Copley Print. Copyright Curtis & Cameron, Boston.

"The Round Table of King Arthur."

Among inspirational pictures surely must be placed all that have to do with Sir Galahad, the knight of white armor. who did no wrong but followed the chivalrous and the brave and was rewarded at last by the vision of the Holy Grail. . "I want to put pictures of Sir Galahad in my boys' rooms," said a wise mother who recognized not only that pictures please, but also that they *influence*.

Do you know the story of the Round Table? If not, and you wish to know all about it, read Tennyson's "Idylls of the King"—modified, a little, it is true, from the original legends. If you wish to go still nearer to the source, visit some good library and get the account written by Walter Mapes, also the "Parzifal" of Wolfram von Eschenbach, and the very much Anglicised version, Malory's "King Arthur and His Knights." The story has been told, indeed, in almost every country of Europe, some say based upon an old Pagan legend which has become mixed with stories of the Christ. "Parsifal" and "Galahad" are substantially the same. After Caxton set up the first printing press in England he wrote: "Many noble and divers gentlemen came and demanded many and often times wherefore I have not emprynted the noble history of the San Graal," and in 1485 he did "emprynt" it, when Malory's "Morte D'Arthur" first saw the light on printed page.

It is probably from Malory's version that Abbey has taken the ideas for his fine frieze decoration, "The Quest of the Holy Grail," in the Boston Public Library, which has, fortunately, been reproduced so that anyone can buy prints of the beautiful pictures which form the details of the frieze.

Briefly the story of the Quest is this: In the days when Uther Pendragon was king of England, a son was born to the king, who following the advice of a wise magician, Merlin, gave the babe to him, wrapped in cloth of gold, to be brought up as Merlin would have him. Merlin called him Arthur and gave him to a good knight called Ector to be "fostered" without telling the knight, however, that he was to have care of a royal prince; "nor in all England did any man save the king know that such a child had been born." . . Very quietly, as the son of Sir Ector, did the boy grow up, but in the meantime King Uther died of a malady that for three days held him speechless, and for a long time the realm stood in great jeopardy, first one quarreling, and then another, as to who should be king. Finally Merlin went to the Archbishop of Canterbury and counsel led him to send for all the lords of the country to come to London by Christmas, "in the hope that Jesu, that was born on that night, would of His great mercy show by some miracle who should be rightwise king of the realm." In the greatest church of London all ranks of men gathered to pray, and when the first mass was done there was seen in the churchyard a great stone with a steel anvil in its midst, and in the midst of the anvil a naked sword upon which was written in gold the words, "Who pulleth this sword out of this stone and anvil is rightfully king born of all England." Not one of the lords could move the sword, nor could anyone until the young Arthur, by chance, withdrew it. As a consequence he became king, and, although beset by many strange happenings, wisely and well did he rule at his fair castle, Camelot, with his fair Queen, Guinever, beside him.

Now Guinever was the daughter of

King Leodegrance, of Cameliard, to whom, upon one occasion, King Uther had presented a great Round Table, about which one hundred and fifty kinghts could sit, and when Arthur and Guinever were wedded, Leodegrance sent the Table, as a gift, to Arthur's court. This gave Arthur the idea of founding the order of the Knights of the Round Table, pledged to go forth to do good deeds, to protect women, to right wrongs, but long enough it was before all the seats were filled, for "two sieges were void."

It cannot here be told of the adventures that came to the Knights, and to their King with his mystic sword. "Excalibur," which he had obtained from the hand of an arm "clothed in white samite," that reached upward from the midst of a lake. Strange happenings of enchantment befel; Arthur, in great battles, defeated the Romans and drove them away; some of the knights did evil and many fell by the way. —Those who will read the whole story must do so elsewhere.

At last came a feast of Pentecost when the king and all the knights were come from the service; but still one "siege" was "void", the "Siege Perilous," in which no man might sit else he should be destroyed. And on this day, to the astonishment of all, upon the Siege Perilous were newly written letters of gold that said, "Four hundred winters and fifty-four accomplished after the passion of our Lord Jesu Christ ought this siege to be filled." And they all said "This is a marvelous thing," for upon this day was the time accomplished.

"In the meantime," to quote Malory, "came in a good old man and an ancient clothed all in white; and there was no knight knew from whence he came. And with him he brought a young knight, both on foot, in red arms, without sword or shield, save a scabbard hanging by his side; and these words he said: "Sir I bring you here a young knight the which is of king's lineage, and of the kindred of Joseph of Arimathea, whereby the marvels of this court and of strange realms shall be fully accomplished."—Whereupon the old knight led the young knight to the Siege Perilous, where he sat and was not destroyed. So came Sir Galahad to the Round Table of King Arthur.

Here it may be recalled that Joseph of Arimathea was said by legend to have lived for some time at Glastonbury ("where the winter thorn blossoms at Christmas, mindful of our Lord"), in England, to which place he had brought the Holy Grail (or Graal), the cup used at the Last Supper, and afterwards to hold the blood that poured from the Holy Body on the Cross. At that place it had remained, in possession of Joseph's successors, until the time of King Arthur, when the guardian sinned and the Grail disappeared.

This night of Pentecost, after Sir Galahad entered the great hall at Camelot, the Knights all renewed their vows and sware they would find the Holy Grail, and Galahad declared, "If I lose myself I save myself." Says Sir Percivale (Tennyson's "The Holy Grail"):

"'And all at once, as there we sat, we heard
A cracking and a riving of the roofs,
And rending, and a blast, and overhead
Thunder, and in the thunder was a cry.
And in the blast there smote along the hall
A beam of light seven times more clear than day:
And down the long beam stole the Holy Grail
All over cover'd with a luminous cloud,
And none might see who bare it, and it past.
But every knight beheld his fellow's face
As in a glory, and all the knights arose,
And staring each at other like dumb men
Stood, till I found a voice and sware as vow.

'I sware a vow before them all, that I,
Because I had not seen the Grail, would ride
A twelvemonth and a day in quest of it,
Until I found and saw it."

Sir Galahad also sware the vow, and many other among the Knights. . . They rode forth and met with great adventure, but only Galahad, the pure-hearted, the "Knight in Silver Armour," saw clearly the Grail, which, long since, he had been taught to see through spiritual eyes by the sweet nun sister of Sir Percivale. "Losing" himself as he went, in service for others, he "found" himself. In the chapel, at the sacring of the mass, at last,

"I, Galahad, saw the Grail,
The Holy Grail, descend upon the shrine:
I saw the fiery face as of a child
That smote itself into the bread, and went;
And hither am I come, and never yet
Hath what thy sister taught me first to see,
This Holy Thing, fail'd from my side, nor come
Cover'd, but moving with me night and day,
Fainter by day, but always in the night
Blood-red, and sliding down the blacken'd marsh,
Blood-red, and on the naked mountain top
Blood red. And in the strength of this I rode,
Shattering all evil customs everywhere."

Thus Galahad rode until at last crowned king "far in the spiritual city."—So Tennyson ends the story of Galahad and the Holy Grail.

Edwin Austin Abbey (1852-1911) painter of the frieze in the Boston Library, was born in Philadelphia, and at nineteen began his artistic career as an illustrator. He loved to paint "stories", and, besides the King Arthur series, painted a series of Shakespearian representations.

"Hope". "The Coming Storm."

The famous "Hope" by Burne-Jones may not express the depth of imagination of that equally famous one by G. F. Watts, which represents a symbolic woman, with bandaged eyes, seated on the globe, and still playing her harp although all the strings but one are broken; but it certainly appeals to many people as more decorative. Burne-Jones's Hope, with her spray of blossoms, looking up for inspiration and reaching up for help, is very beautiful, and the whole picture reminds one of a precious window of stained glass.

Edward Burne-Jones—later Sir Edward Burne-Jones—was born Aug. 28, 1833, at Birmingham, Eng., in a comfortable, middle-class home. At King Edward's school he gained a thorough knowledge of the classics, and decided to enter the Church, hence went up to Exeter College, Oxford, where he met William Morris. The two became great friends; each found that the other was interested in art more than in anything else in the world, and realized with some consternation that the idea of the Church as a life-work was losing its interest. While hesitating Burne-Jones saw some of Rossetti's paintings, and his fate was decided. He went up to London, talked with Rossetti and became his pupil, Rossetti helping him to get orders for work. In 1859 he studied in Italy and in 1860 married. . The year before, Morris had married Miss Siddal and gone to live in the wonderful house fitted up as the Morris home at Bexley Heath. Instead of occupying a pulpit he now found himself head of a firm whose object was to give to the "common people," instead of the ugly things they had been obliged to buy, beautiful textiles, fabrics, stained windows, furnishings, even clearer and better lettering in the books they read. With this firm Burne-Jones became at once connected, and for nearly 40 years contributed designs for various branches of the work. But he also painted pictures; indeed made a real sensation in the Art world at the Art Exhibition in the Grosvenor Galleries in 1877. At that time his work met with much criticism, "Punch" declared that his figure of Vivien was "at least twelve hands high," a raillery for which excuse was given by Burne-Jones's habit of giving his figures exaggerated length, especially from the waist down; but the poetry of his ideas and the beauty of his lines and compositions made an impression, especially upon the French artists who were quick to perceive something new, and different and worthy of study and respect.

Burne-Jones loved to paint allegory and story, especially if inspirational, and at the time of his death, in 1898, was working on one of the most ambitious pictures he had ever planned, "Arthur in Avalon." He was never spoiled by success, and never made any effort to attract attention. Quietly and steadily he worked, pleased if he could but create visions of beauty for the world. He said "I mean by a picture a beautiful, romantic dream of something that never was, never will be —in a light better than any light ever shone—in a land no one can define or remember, only desire—and the forms divinely beautiful—and then I wake up, with the waking of Brynhild."

Incidentally, both Rossetti and Burne-Jones frequently used for their model Mrs. William Morris, with her beautiful, pensive, almost wistful, face. Perhaps this is why, so often, the casual art student confuses their paintings.

* * * *

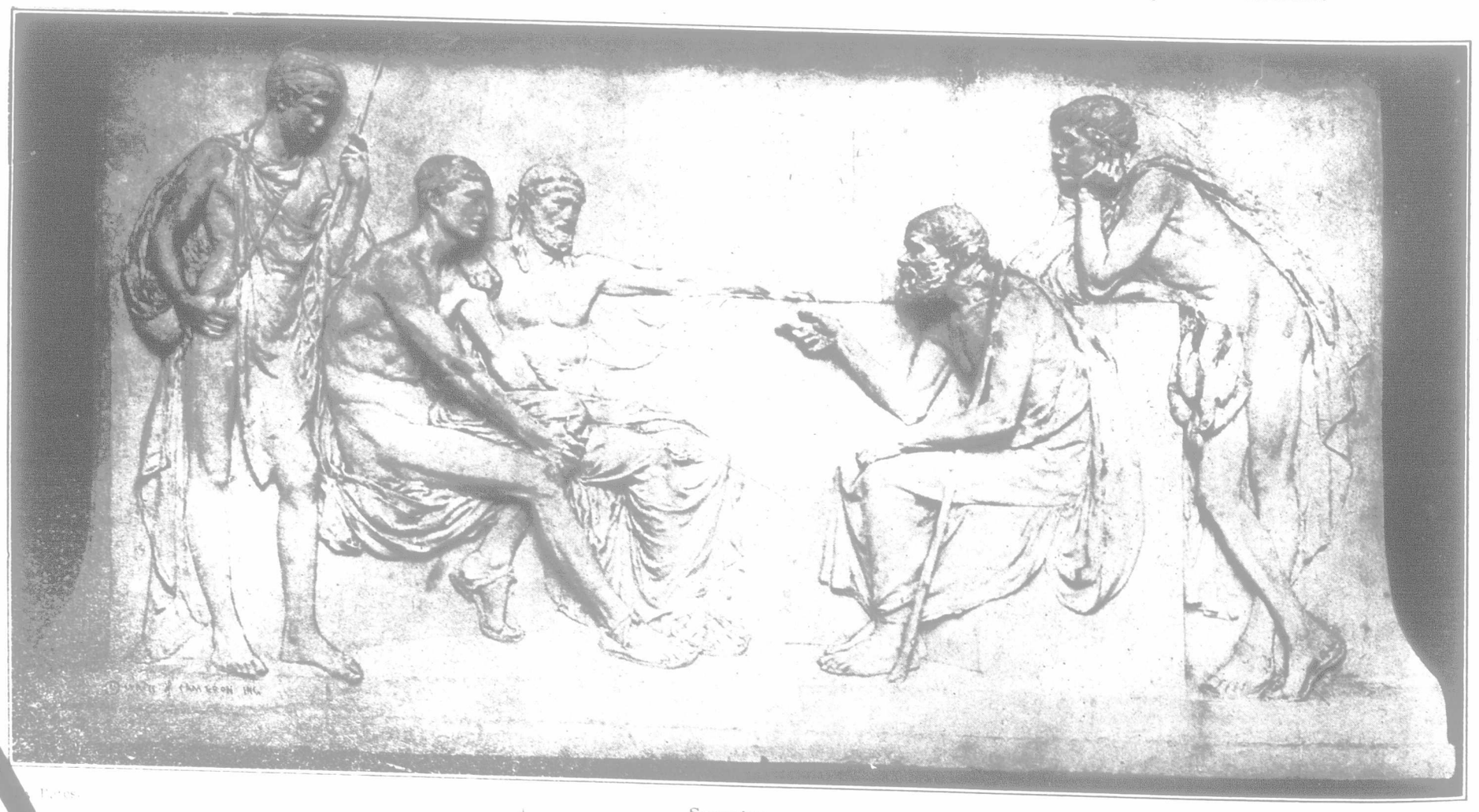
"The Storm," by a French artist, Pierre Auguste Cot, explains itself. It would almost seem that the two sprites, lost in their dreams of youth and love, have tarried over long, until the storm is almost upon them. To read any deep allegory into this picture is to spoil it. One must think of a real storm and know that it will never catch up. The artist has wished to portray youth, beauty, grace, action,—and he has succeeded.

"Socrates." "Appeal to the Great Spirit."

Another picture that might well adorn the wall of a boy's room is a print of the bas-relief, "Socrates," by Bates. Here the great philosopher is represented as talking to the young men, who, rapt in attention, sit reverently at his feet, in spirit, to learn.

Or who could fail to catch the lesson of Cyrus Dallin's beautiful piece of statuary, "Appeal to the Great Spirit"? Patiently, almost sleepily, the horse waits—but the man looks up to his God—the god of his pagan ideal, perhaps,—yet the God who understands any cry that goes up to Divinity, and makes allowance for the child-mind in the peoples of earth.

Cyrus Dallin has here achieved a fine piece of work, lofty in conception, exquisite in execution.



Socrates.

From Copley Print. Copyright by Curtis & Cameron, Boston.

Hope's Quiet Hour—The Prince of Peace.

His Name shall be called. . . the Prince of Peace. Isa. 9:6.

That great prophecy of the Messiah which is always associated with the Christmas season (Isa. 9) is more easily understood if read in the revised version of the Bible. There we see how the gloom of former days will shine out with the glory of God. There we are encouraged to believe that as the nations increase the joy will also increase. There we are told that when the nations of the world yield willingly to the rule of Christ, all the armour of warriors and the bloodstained garments of warlike times shall be used as fuel of fire. This shall be the result of that Birth in Bethlehem, for unto the whole race a Child is born, a Son is given. The Child who entered the world so unostentatiously on the first Christmas Day, is not only "Mighty God" but also "Prince of Peace." The prophet Isaiah saw afar off the amazing increase of His kingdom which is steadily winning its way among the nations to-day. He said that it should be a kingdom of peace and righteousness, established by the zeal of the LORD of hosts.

Last Christmas we rejoiced in hope of an established peace, and this is our great Peace Christmas. Of course war may break out in the world again: but men are learning by sad experience that war is a horror of made folly, and that nations—like individuals—are far better off if they live side by side in peace and helpful neighborliness. War does not pay! It destroys swiftly the work of years, and it changes friendliness into hate, cruetly and revenge. We went into it only because we had to, but it was with a stern determination to fight our way into peace. War is a terrible disease, but peace is the normal, sane condition of society.

"It is Thy Will
That life should seek its golden prime,—
That strife 'twixt man and man should cease,—
That all Thy sons should build Thy peace."

Christ is slowly transforming the world. Just try to picture to yourself how different life would have been to-day if He had not appeared among us, to show once for all the beauty of a holy, unselfish earthly life. Cut out of past and present history the deeds and words of kindness, and the thoughts of purity which have been directly inspired by the example and teaching of Jesus Christ. Cut out, also, the goodness which is the reflected glory of Christianity—for goodness is very infectious and plenty of people who do not believe in the Divinity of Christ are trying to follow His example and teaching. Cut out, all the direct and indirect influence of Christ on human hearts and actions, and you blot out millions of kind acts and beautiful thoughts every minute.

A man may be a professed unbeliever in the claims of Christ, yet he can't honestly refuse to own that the Name of Jesus is above every name in the hearts of many millions, and that for love of Him great multitudes are spending their lives gladly in the service of their fellows.

Some people venture to assert that the Founder of Christianity never lived. They call the Gospel story a "myth." They must be very credulous to believe that a mere legend can uplift national ideals, change savage peoples into civilized, transform selfishness into love, and cause great multitudes of people to deny themselves for the sake of helping neighbors or enemies. Has any other man inspired innumerable sermons, books and hymns? Has any other man had innumerable churches, hospitals and charitable institutions built in his honor? Has any other man won such surpassing love that strong men, weak women, and even children, have,—for love of him,—faced death in its most dreadful form with glad hearts and shining eyes? If the story of JESUS is only fiction, as some say, how is it that no other character of fiction in all ages has won the deep devotion of multitudes of pure-hearted men and women? How is it that Christmas Day is an international Birthday? Our neighbors celebrate the birthdays of Washington and Lincoln, we keep Queen Victoria's birthday, and I suppose Germany has been accustomed to celebrate the Birthday of its Kaiser. But we all celebrate Christmas Day—the Birthday of Christ. I shall never forget a little Jewish boy's indignant reply on one occasion when I said that I supposed the Jews did not keep Christmas. "Of course we keep Christmas!" he exclaimed. I think you will find that many people who care nothing for Christ celebrate His Birthday. They also are intending to start the New Year by dating their letters "1920". That is, they acknowledge that the Birth of Jesus Christ has given the world a new start. They are certainly inconsistent, but at least they can't deny that the Name of JESUS stands to-day far above the name of every other man. What explanation of this self-evident fact can they offer?

One writer declared: "The world itself is changed: it has never been the same since Jesus left it. The air is charged with heavenly odors, and a kind of celestial consciousness, a sense of other worlds, is wafted on us in its breath."

He was expressing in poetical language a mysterious truth. Each week I write the "Quiet Hour", feeling certain that our readers in many parts of Canada are consciously living in everyday fellowship with the Master who fills my own life with daily gladness. I can send them messages by spiritual "wireless," because our hearts are attuned.

Every day our King is extending His kingdom, winning the loyal allegiance of new subjects. They often come in to enlist in His army from the most unexpected quarters. A chaplain at the front was told by one of the soldiers that before the war he had belonged to a society that was "Anti-King, Anti-Country and Anti-God." They went so far as to say that God did not exist—how could they prove that amazing assertion? But the War swung this man round suddenly, so that he was ready to die for King and Country, and also declared himself to be a firm believer in "The Friend behind the Sunset."

It is strange to find the Prince of Peace extending His kingdom of peace in the midst of war, yet in many cases the poet's words have proved true.

"Let the rattle of rifle and shrieking of shell
Sound the trumphet of peace with our God."

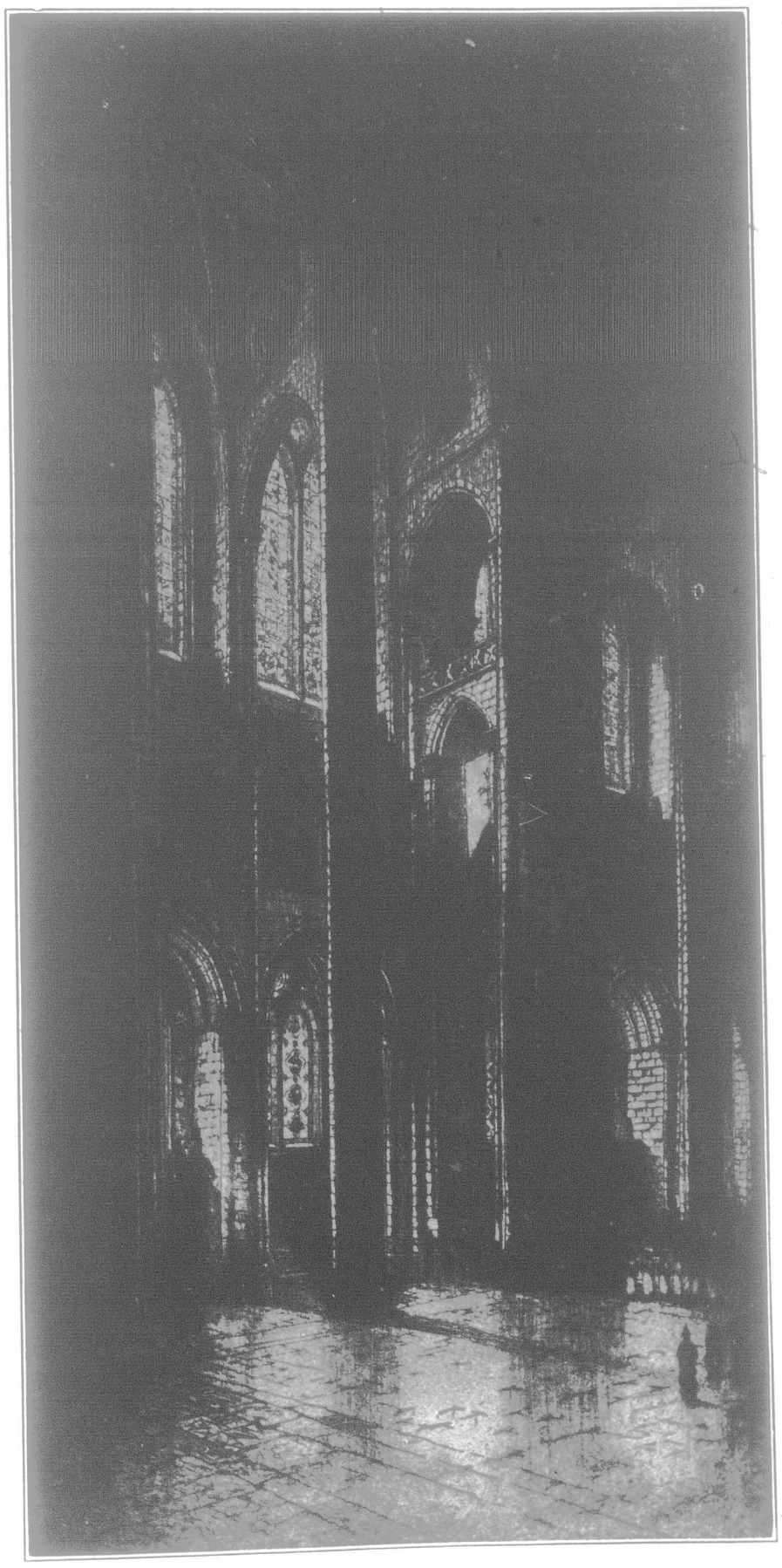
JESUS means "God the Saviour," and He is constantly reaching out to change into shining purity lives which have been defiled with wilful sin. What other man has power to cleanse souls from sin?

The Prince of Peace is Emmanuel—God with us. That is what we all need,—the consciousness of the Divine Presence and unfailing Love. We can look up into the face of the Living JESUS many times during the busiest day—yes, even during the flying days just before Christmas. We do not lose time, but gain strength and joy through the momentary lull in our work. We may—if we will—feel the touch of His hand on ours at any moment. The most commonplace task will be transformed and glorified if we take it from His hand, and offer it to Him when completed. His invisible Presence can bring romance into the most weary and depressed heart.

God has given us many lovely names for the Hope of all nations, and one of these is "Shiloh," which means Peace.

"Shiloh is come; His feet our earth have trod;
Now thanks and glory to the CHILD our God."

DORA FARNCOMB.



Nave of the New Cathedral of St. John the Divine, New York.

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The Three Kings.

BY EMILE CAMMAERTS.

Three Wise Men followed the Star,
Gaspard, Melchior, and Balthasar.
—Longfellow.

That's a far-away sound behind the hill,
The russet hill in the blue of the night:
The Star's at the head and the moon at the tail
Of the tinkling of crystalline bells.

One camel, two camels, three camels come
—The Star at the head and the moon at the tail—
Three big humps and three great Kings
All silver and gold in the blue of the night.

To the dancing tune of the crystalline bells,
Gaspard's beard in the wind, Melchior's arms like a cross,
They trot swiftly down from the top of the hill
Where Balthazar's straining his eyes to the Star.

"At Thy feet we lay our scepters down,
Our crowns in Thy arms and our hearts in Thy hands,
And we bring to Thee myrrh and the fine, fine gold
And sweet odors of frankincense.

"Hither we come from the end of the world
—Clink-clank through the snow, clink-clank in the cold—
Following forever the vagabond Star,
And we hunger for Thee!"

Little Rosie's Adventure.

A Christmas Story for the Children.

BY MRS. BUCHANAN.

Rosie.

ROSIE was a little girl not quite six years old, who lived in town, and did not know very much about the country. Along with her father (who was a returned soldier) and her mother, and her elder sister Winnie, she lived in a town in the Province of Ontario, quite uneventfully, until one never-to-be-forgotten day in winter, when something happend out of the usual, and it was all Rosie's own fault too. Rosie did not go to school, but her sister Winnie did. One afternoon, just before Christmas, when Rosie got tired playing with her dolls and picture books she asked to go outside with her hand-sleigh, so her mother said she could go for a while if she did not go far away, and that she was to keep a look-out for Winnie as she came from school and come back with her. So Rosie donned an old aviation cap of her father's and a coat her mother had made down out of an old one of her own, and getting her hand-sleigh from the back shed, away she went, full of glee, rejoicing to be out in the fresh air and sunshine, with the soft snow underfoot and the tinkle of sleigh-bells in her ears.

For a while she played in her own yard, and out on the sidewalk in front of the house, but by and by she ventured to the corner two or three houses away, and there just across the street she saw a farmer's sleigh with a whole lot of little people in it, some of them her own companions. Without stopping to think she dashed across and was soon in amongst the happy noisy crowd, with her little sleigh in the rear and she hanging tightly on to the cord. She had often heard the children talk about how they got into the delivery man's sleigh and had a nice ride around town and got landed back safely to the place from which they started, but I don't think she thought much about that now, she just saw the others there, and she went too.

Now it happened that Farmer Brown had gone to town that day. He lived quite a long way out, over the top of a steep mountain. He had taken in some potatoes, and other produce, and was taking home groceries and a barrel of gasoline to run his gasoline engine with. He had just got the gasoline loaded, and after talking for a few minutes to the man who had helped him, turned around and lo, and behold! his sleigh was well filled up with children. "Drat the youngsters!" he thought, "Those town children are perfect plagues. Some day some of them will be getting hurt, then who will be responsible?" Just then, however, an acquaintance came up who asked if he was going his way and he replied that he was, and thinking perhaps that the children were going home from school he said nothing to them, but gathered up his lines and drove off. He drove into his friend's yard, stopped, turned round, and drove out again. At different places along the road some children got off, and others got on, while the sleigh kept jogging along, until finally when he was quite a way out he looked around and saw what he thought was a small boy hanging on to a little hand-sleigh, and a bigger girl, but the only thought he gave them was, "Well, I guess they know where they are going, and they will get off when they get ready as the others did." Then he caught sight of another sleigh ahead and whipping up his horses soon overtook it. It proved to belong to a man he knew called Jim Right.

Jim had a quiet, steady team, so he tied up his reins and came back and rode with Mr. Brown. Soon they both noticed that it was beginning to snow, and the wind was rising, so they talked about the weather, and the state of the roads, and the produce they were drawing, and the prices of potatoes, wood, hogs, etc., and the high cost of living, and they were sure it was not the farmers' fault if the prices were high, because they got no more than they earned, but it was the middleman who was to blame.

About this time they were nearing the top of the mountain, and the storm was increasing, and the snow was coming sifting down with a vengeance known only in those parts. As a stronger gust of wind lashed their faces, Right turned around and saw something behind the gasoline barrel. "What is that you have with you, Brown?" he asked. "Looks like a little boy at the back of the sleigh," and springing up he went back. Sure enough there was little Rosie, who, they thought, was a little boy. She had crawled close up to the barrel to be out of the cold wind, and there she was half asleep and nearly perished, with the cord of her little sleigh still held tightly in her half-frozen hand.

Very quickly they got her forward under the buffalo robe, and shook her, and rubbed her, and questioned her, but all the answer they got was that she came from the Y. M. C. A. About this point Mr. Right's road turned to the right, so he got on to his own sleigh, and Mr. Brown again whipped up his horses and made all haste through the ever-deepening snow to his own home.

Mrs. Brown had the supper all ready awaiting his arrival, and the stable boy had the lantern lit, ready to go out to help to unhitch, but when at last the sleigh bells were heard a-jingling up the lane and the boy went out, he was soon in again, but with what appeared to be another little boy beside him. Mr. Brown had driven off to the stable (it was no night to stand outside), and good Mrs. Brown was dumbfounded. What was he bringing a little lad like that home for? Would it be a soldier's orphan or the child of parents who had died of the "flu?" But she did not stop long to speculate. All the time she was busy hauling off the little coat, and getting the youngster up to the fire, and when finally she pulled off the aviation cap she was surprised to see a mass of brown curls and a bright red hair ribbon. "Oh," she ejaculated, "you are a little girl!" and the child nodded and smiled. Soon Mr. Brown and the boy came in, and Mr. Brown told his story, then they all sat up and had supper, but not before a 'phone message had been sent back to town to tell the authorities of the lost child, and asking them to try to locate the parents. After supper Rosie was ready to go to bed and as she had got well warmed and appeared to be none the worse of her experience, and also appeared to feel right at home, that was where she was put.

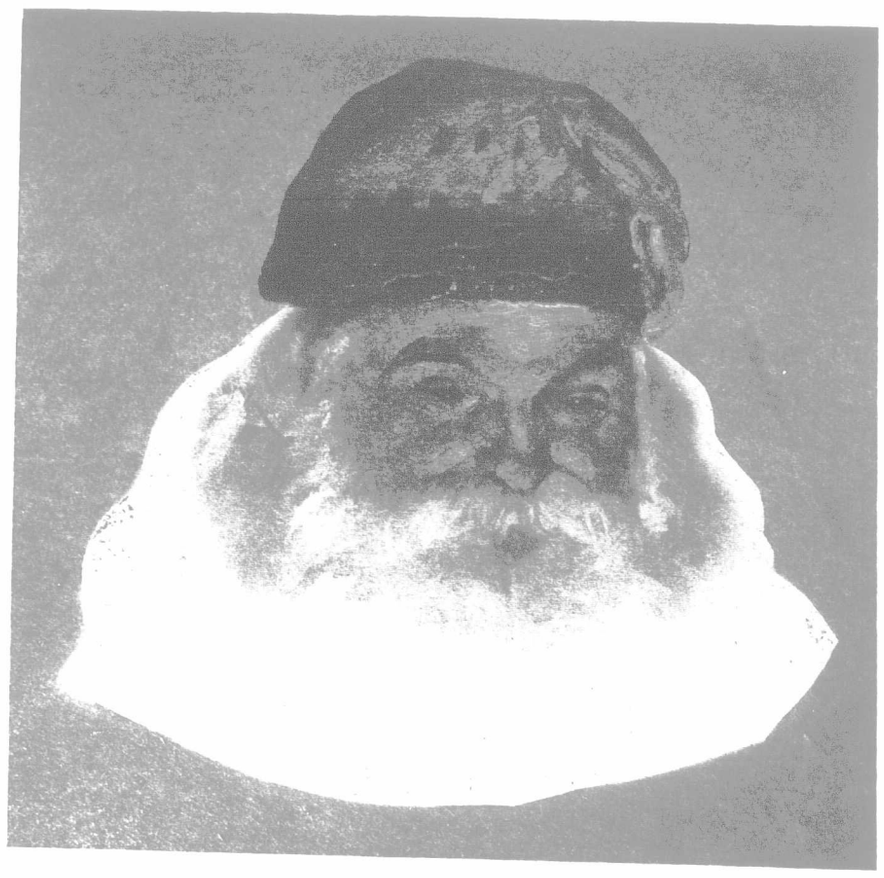
In the meantime there was consternation and anxiety in her home in town. Winnie came home from school, but no Rosie with her. "Did Rosie not come in?" the mother asked. "I never saw Rosie," Winnie replied. "Then run out and look for her, and bring her in," said their mother, "The night is getting stormy, and she has been out long enough." But search and enquire as they did, they could not find Rosie. After a while the father came home and there was more searching, until finally he came across some one who had seen her on a farmer's sleigh.

Now it was bad enough not to know where Rosie was, but it was not much better to know she had gone off on a farmer's sleigh. Where would she be now? She was not warmly enough clad for a long journey on such a night, and where would he take her to anyway? Such were the speculations that went through their minds, and they were all in perfect misery. In the midst of it all the Mayor's man came in. There was a child, he said, away up on the mountain at the home of Farmer Brown. Then a minister who had heard of their trouble came in. He knew the Browns, he said, and assured them that Rosie would be all right. If he knew that his little girl was there, he said, he would feel quite contented, but not so were Rosie's parents. They got a horse and rig and started to go after her, but were forced by the storm to return. Rosie was perforce obliged to remain where she was for the present, but that did not trouble her, for in Mrs. Brown's good warm bed she slept the sleep of the just and the tired.

For three whole days the storm raged and Rosie did not get home again till the fourth. After she began to get acquainted with her new friends she had plenty to say, and saw lots of wonderful things. On the day after her arrival Mrs. Brown churned and baked bread. Rosie had never seen any of those processes before, but she thought she would have to watch well so she could tell her mother how it was done, because they just got all of their bread and butter at the little grocer at the corner. In recounting how the butter was made she told of how you just take a big thing called a churn and whirl it around and around, then you put lots of water in it, also some salt, and it is butter; she had not noticed the cream, going in at all. When Mrs. Brown printed the butter and put the papers on, she enquired "Is you a store-keeper?"

When the storm abated she was taken to the barn and saw the horses and cows and "tuckees," and piggies, and to her all the wonderful animal life. But her self-imposed visit was all too short, for as soon as the roads were fit her father came after her, and the first words he said, after he had kissed her, were: "My girl, there's a good hot dinner waiting for you at home." Now I have often heard parents tell their children, when they were naughty, that they would give them something that would warm them up. So what do you think Rosie got? I think she really did get a good dinner, and, best of all, she was home in time to hang up her stockings for Christmas. Good and overflowing they were too, I can assure you, when Rosie got out of bed on Christmas morning, and among the parcels was one which contained a nice big blue-eyed doll which had a card tied to it with a red ribbon. Rosie spelled the words out and they said, "To little Rosie, with love from Mr. and Mrs. Brown."

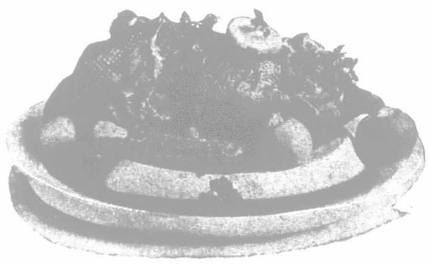
How in the world did that parcel get among all the other things Santa Claus brought? Rosie came to the conclusion that Santa Claus must have called for it.



"Merry Christmas."

A Cork Trick.

Much amusement can be got from this trick, for which a tub of water and seven corks are wanted. When the corks are thrown into the water they will float on their sides. The trick is to make them float in an upright position. When the excitement is at its height step to the tub, and, gathering the corks together, hold them firmly, and dip them under water till they are thoroughly wet. Now, keeping them in an upright position, leave go of them quietly, and if they are brought slowly to the surface the seven corks will float together in an upright position.

Christmas  Dinner.

A TOAST:—Here's to a' your fouk an' a' our fouk, an' a' the fouk that's been kind to your fouk an' our fouk; an' if a' fouk had aye been as kind to fouk as your fouk's been to our fouk, there wad aye hae been guid fouk i' the warld sin fouks bin fouks.

DURING the greater part of the year the farmer's wife has little time to spend on decorating the table; a few flowers in a vase or a plant growing in a little pot must be sufficient. But Christmas is a rare day. From morning until night it should suggest quiet happiness, therefore it is quite in keeping that the dinner table, at which all the family is gathered if at all possible, shall be made as beautiful as loving hands can make it. Nowadays people who make a study of foods and their use to the body lay great stress on the "psychic" value of attractively served meals; it is an actual fact, they say, that a dish that is beautiful to look at, and flavored or seasoned with the nicety known to the real artist in cookery, is better assimilated by the digestive apparatus than the one carelessly turned out. The mouth *actually* "waters" at sight of it, and the stomach does likewise. This "water" is really a digestive juice—hence the benefit. But putting all this aside, surely there are reasons enough for having things as beautiful and harmonious as can be on Christmas Day.

The arrangement and decoration of the table, then,—the one feature of it that rises to the aesthetic—should receive especial attention. First have your table-cloth as smooth as it can be made; running a hot iron over it will make sure of this. Next see that your knives and forks are absolutely parallel; a little tilt may not seem to matter, but it does, for there is nothing in the world that a person of orderly mind feels more inclined to do than to rush about and straighten up knives and forks that are "off the plumb." . . . The tray cloth and embroidered centre-piece come next; and now for the decoration: Use your own originality about this. It is so much more interesting and *personal* to work out one's own ideas, and besides you need have no fear if you remember to keep clear of having things too ornate—which always suggests vulgarity. Don't have the decoration so high that people on one side of the table can't see those on the other side; and don't trail things from the hanging lamp so that the "opposites" have to keep dodging their heads to see past them,—the dinner table isn't the place for "beauty excises" of the neck. Perhaps a low bowl of red-berried holly, with some more bits strewn about the centre-piece, may seem enough. Poinsettia is also a Christmas plant, and so is the little red-berried Jerusalem cherry. If one can't get these, however, there is no need to be without the bit of green needed for the festival: pigeon-vine from the woods, with its red berries may be got, if the snow is not too deep; a red-flowered begonia from the window will look quite new if the pot is surrounded by green crinkle paper gaily tied with red baby-ribbon; while, failing any of these, pine or spruce twigs interspersed with wild sweet-briar hips, which are still to be found on the bushes, may be made to do duty. A quite novel idea, which has the merit of being very Christmassy, is to have a Santa Claus in the middle of the table. Make his body of a rosy apple. Stick matches into it for arms and bore holes in it in which to insert macaroni-stick legs. The head may be a large walnut decorated with an absorbent cotton beard, lips of red flannel, and eyes of apple-seeds looking out from beneath absorbent cotton brows. If you put a white dot on each apple-seed, with a bit of chalk, the eyes will look quite life-like. Lastly put on a toque of red flannel and shoes of peanut-shells. The children will love this Santa, especially if you place beside him a wonderful reindeer made of a potato with antlers of raisin stalks.

Nothing more will really be needed except (if the dinner is at night) tiny red candles, which can be bought for a trifle at any Woolworth store. They may be fixed upright in tiny holders made of pieces of potato covered with green crinkle paper tied with baby-ribbon, or any other way your ingenuity suggests. Of course, if you have pretty candle sticks for larger candles your problem is solved; you can use those, but be sure to tie a bit of green, with red baby-ribbon to each candlestick. Keep up the red and green *motif*.

The rest of the decoration will be confined to the viands, and-again, your own originality will suggest many ideas. . . . One suggestion is to place half a grapefruit, sprinkled with sugar, and with a preserved cherry in the centre, at each place. A bit of holly or pigeon-berry vine may be placed on the edge of the little plate. If grapefruit is impracticable have an apple salad served in red apple shells. Waldorf salad is the best for this. It is made of equal parts of the scooped-out apple, chopped celery and nuts, all mixed with a very little salad dressing. On top of each filled apple place a teaspoonful of thick dressing that will not run.

If the grapefruit is used it should be the "appetizer" or first course. If the apples are chosen they may be placed on the table at first, because they are so pretty, but should be left untouched until the salad course comes round. In this case the menu may be as follows:

Grapefruit

or

Consomme. Wafers.

Roast Turkey or Goose — Creamed Cabbage

Mashed Potatoes — Cranberry Jelly

Waldorf Salad: Cheese Balls.

Plum Pudding (with a sprig of holly set upright in each serving)

Coffee — Tea.

Of course, the vegetable may be anything else you choose—creamed celery, Hubbard squash, canned peas, creamed artichokes, etc., and the pudding may be "carrot," "fig" or any other steamed kind particularly liked. Also, it is scarcely necessary to remark, a fish course may be introduced after the soup. Pickles, catsup, bread and butter, may be on the table before anyone sits down, and should be removed, later, when the debris of the meat course is taken away, little dishes of salted nuts and olives taking their place.

The following are a few recipes that may prove useful if anyone chooses to follow the menu given above.

Consomme.—Take one soup bone and crack it. Cut up one carrot, one onion, a piece of turnip and some celery. Add 2 cloves, 4 whole peppers and the whites of 3 eggs and their shells. Mix all together, add 4 quarts water, place on fire and simmer slowly for 3 hours. Before removing add salt and pepper to taste. Strain through a cheesecloth, reheat and serve very hot.

Turkey Stuffing.—Take 1 quart breadcrumbs. Rub in a large tablespoon of butter, and add 1 tablespoon mixed herbs, a pinch of ground mace, a heaping teaspoon of salt and half as much pepper. You may add 12 canned mushrooms or 12 chopped oysters if you like. Add a beaten egg to hold all together. The secret of good roast turkey is to sear it quickly in a very hot oven, then lower the heat and cook more slowly until done. The searing keeps the juices in. About 15 minutes for every pound will be required for baking.

Cranberry Jam.—Cook 1 quart cranberries in just enough water to float them. When all the berries are broken and the whole a thick mash, measure and add as much sugar, the pulp of 3 oranges, grated peel of 1 orange, and 1 cup raisins. Cook until thick, then pour into a mould.

Stuffing for Goose.—Take ¼ cup beef drippings or bacon fat; 1 teaspoon grated onion; 2 cups soft stale bread crumbs; ½ teaspoon salt; ¼ teaspoon pepper; 2 teaspoons poultry seasoning, or sage, to taste; ½ cup boiling water. Melt the fat in the frying pan, add onion and crumbs, and stir until the crumbs begin to brown; add seasonings and boiling water; cool slightly and press into the goose. Always serve apple sauce with roast goose. The very nicest is made of tart apples, peeled, quartered and boiled to a pulp. A little time before taking it off the fire add sugar to sweeten, and let it cook until the sugar is well incorporated with the apple.

Creamed Cabbage.—Cut a cabbage in four, after trimming off outer leaves; soak in cold water, then drop into boiling salted water and cook until almost done. Drain, chop fine, seasoning with butter, pepper, and more salt if needed. Cover with rich creamy milk and bake.

Plum Pudding.—Mix 1½ pint soft breadcrumbs with 1 pint chopped suet, 1 pint mixed stoned raisins and currants, ½ pint chopped figs, all slightly floured, ½ cup sliced candied citron, 1 small cup sugar, ½ teaspoon salt; ½ teaspoon grated nutmeg, 5 slightly beaten eggs, 2 tablespoons flour mixed with ½ cup milk. Butter cups or tin moulds, half fill them and steam steadily for 3 hours—or less if cups, one for each person, are used. Stick a bit of holly in the top of each and serve with hard sauce. This pudding is more digestible than one made of flour without the breadcrumbs.

Hard Sauce.—One-quarter cup butter, 1 cup powdered sugar, 1 teaspoon milk, 1 teaspoon vanilla or ¼ teaspoon nutmeg. Cream the butter, add sugar and milk gradually, and beat until light, then add flavoring. Chill before serving.

The Ingle Nook----Christmas Masques and Jolly Parties.

EVERY winter a number of young folk write us asking for ideas for "parties," to be given at home, in the Sunday School room, and elsewhere. Within the last few weeks the requests seem to be increasing in number. The War is over, and, partly perhaps because of the reaction, people want to be merrier than usual. So this time the Ingle Nook instead of being devoted to the usual Christmas greetings and reflections, will be handed over to these young people.

To begin with, it must be said that the games, etc., that call for some originality or thought, are nearly always sure to be more popular in the end than those that are just silly. People may laugh at efforts to gather up potatoes with a spoon—a stunt they have seen fifty times before—simply because they are expected to laugh; a game of twirling the pan and changing seats may have an appearance of producing great hilarity; so, also, may the old-time performance of "Old Mother Grimes died doing this,"—but, unless the party is composed of of young children, the "crowd" must go home feeling that an evening has been rather foolishly spent. It is much better for young folk from "fourteen up" to choose entertainment that will call for some sort of real skill or inventiveness, a few hints for which are given below.

The Masquerade.

OVER and over in these columns has the masquerade been suggested as "fun" for a winter's evening, and yet it must begin the list again, for there is nothing else that can so well afford opportunity at once for exercise of ingenuity, "mixing the crowd up," and stimulation of interest. Let us picture a successful event of the kind.

Mollie L. is giving the party and it is to be a masquerade. At the appointed time, Christmas Eve, her house is all in gala array, Christmas greenery tied with red crinkle-paper everywhere, lamps shaded with pink to cast a soft glow, red candles all alight. The dining room table is ready, spread with a white cloth, and dotted with doilies, a centerpiece in the middle being the favorite Christmas design—a small Christmas tree with gifts. She hesitated long between that and a Santa Claus with a pack on his back, but decided upon the tree since it required less time to prepare. . In a convenient place the eatables are all ready to be laid on—sandwiches of two kinds, two kinds of cake, small drained pickles, olives, salted nuts, and candy.

Upstairs Mollie herself is putting the finishing touch to her toilette, and as she looks at herself in the mirror, she sees a very bright-eyed, "old" lady, with snowy cap, powdered hair, "patches", full skirt, fichu, lace gauntlets and "reticule" she pins a big bunch of holly on her fichu, puts on her black velvet mask, and laughs as she hears the first knock at the door.—Mother and Aunt Christine are receiving, for Mollie and brother Jack are to slip out of doors by the back way, then come in and mingle, all unknown, with the guests, until time for unmasking arrives.

There is much laughing and chatter downstairs, and Mollie peeps over the banister, then taps at Jack's door saying "Hurry, Jack! About half of them have come together," upon which Jack steps out fully arrayed as Santa Claus.

Down the back stairs they go, appearing presently in the front hall and greeting mother and Aunt Christine with elaborate courtesy. Immediately afterwards the rest of the party arrive, and what a scene it is! Here is Queen Elizabeth, with ruff, high head-dress and stomacher; there is surely her favorite, Dudley, Earl of Leicester, with knee-breeches, buckled shoes, ruffle and plume! Here comes a demure little shepherdess, with short skirt and crook, while there goes—yes, Mephistopheles, red tights, red tunic, red cap (the horns just suggested) and all! . . Ah, a whole "bed" of flowers (crinkle-paper):—a "sunflower" with green skirt, covered with yellow petals and a sunflower hat; a "poppy" in red, with a wreath of poppies about her head; a little dream of a girl in white covered with sweet peas; and another who evidently wishes to suggest a hollyhock, albeit its pink petals turn downward over her skirt. . Here comes Red Ridinghood arm in arm with the Wolf (his coat a black *sheepskin*! Aha!); and there goes a Robin Redbreast who remembers that robins walk, not hop. Beside him, however, is a little Brown Wren who, actually does hop. . What a medley! —Portia and a Maid of Athens; a big yellow pumpkin, and a "teapot" (a huge one made of pasteboard, from which protrude two legs); a Pierrot in black and white, rivalling a Jester in cap and bells; "Old Mother Hubbard" hobnobbing with a girl who looks like "The Press," so bedizened with newspaper is she; and a very onimous "witch" plotting dire intrigue with a gaily arrayed little Gipsy fortune-teller. . And there—how *did* it get there, all unnoticed? —a stiff gray scarecrow in the very middle of the room! Its arms are extended, stiffly as the proverbial poker. It doesn't move. The Jester and the Pierrot go up and pinch It, and discover that there is real "flesh" under the rags. Presently It whirls about, as though on a pivot, and shrieks of laughter arise.—Afterwards it turns out that it is none other than that mischief, Hazel Delong, with her arms quite comfortably at her sides and a long stick bound across to form the scarecrow arms.

Everybody except the Wolf and Pierrot wears a masque made of old black velvet or cloth, just a little longer than those usually seen—perhaps to the upper lip—because all these young folk know one another so well. They find it necessary, also, to mask voices as well as faces, and much is the merriment over this. The Wolf, of course, has a false face, and Pierrot simply has his own whitened, with very red cheeks, and very black eyebrows.

A very notable thing is that no costume has been chosen for its sheer ugliness, under the mistaken idea of producing something funny. Evidently these young people have followed the advice of the man who said to his son "If you can't be really funny, at least you can keep from buffoonery." There isn't a "tramp," there isn't even one vulgar clown; Mutt and Jeff are conspicuously absent. The nearest approach to a clown is the Jester, and he with his cap and bells, jester's stick, and costume blue on one side yellow on the other, is really quite picturesque. Pierrot, too, with ruffles, pointed cap, black and white outfit with big buttons, is comical enough, because of what he says, but does not suggest in the smallest degree, vulgarity. Of course the scarecrow is killingly funny, but It doesn't seem human until It condescends to stop being a scarecrow and mingle with the crowd.

There may be games, there may be dancing, if approved, then at lunch time comes the unmasking. It is a buffet luncheon, and the "boys" serve the "girls." Afterwards Jack—who is now revealed as one of the hosts of the evening—distributes "gifts" (jokes) from the little tree in the dining room. One gift, labelled "Never Give Up," proves to contain an "all-day sucker"; another which bears the mysterious information "The Light That Failed" reveals a half-burned cigarette; a package with "An Ill-mated Pair" is made up of a little old glove and a big old mitten—so the list goes. In addition, of course, a "nice" trinket, or "favor", is given to each; and prizes are awarded, after votes have been taken, to the wearers—"gentleman and lady"—of the two best costumes.

A Christmas Party.

IT wasn't a real children's party at all—"grown-ups" were every Jack and Jill of them—but they were all asked to come dressed as children, they played children's games, and sat down to a real "high tea" of which the courses were contrived, somehow to suggest children's dishes. The table was beautifully decorated with flowers and greenery, and along the tablecloth was laid a long strip of pretty crinkle-paper painted with "staffs" of music upon which conversation lozenges were laid for notes. Between the courses popular songs were sung; afterwards were toasts and speeches, and then all went home declaring they had had "no end of fun." At such a party, if held on Christmas Eve, Christmas carols should have a prominent place on the programme.

Some Quiet Games.

AMONG games that might be more acceptable to people who like quciter amusement is the one in which each player is given the first and last words of each line of a short, well-known poem and asked to complete it. . In another each draws several words from slips in a hat and must make a short poem or story containing them. . . Or the company is divided into "partners" and each must write a couplet or poem about his or her partner, all to be read at the end and prizes given for the best. Among the "artistic" games is the one in which everyone is asked to draw a picture representing the name of a book or poem; afterwards the pictures are numbered and passed about and each tries to write (on a separate paper) the titles depicted. . . Another drawing game is for each to draw a picture of his or her partner. The pictures are "mixed up" then pinned to a curtain and the company try to guess whom each represents.

The Storm.

From Copley Print. Copyright by Curtis & Cameron, Boston.
By Pierre August Cot.

Thank You.

Last Monday night (Dec. 2), we visited the wife of the soldier in the Military Hospital of whom I wrote a few weeks ago. We have sent her a ton of coal (all there is room for in the shed), out of the fund which you, readers, have so kindly contributed to. There is still on hand more than enough to buy another ton of coal when that is used, besides providing some Christmas Cheer for the children, as some of you requested. Acknowledgements are due this time to: A Friend, Massie, Ont., $1.00; R. A. G., Kingston, Ont., $1.00; A Friend, Phelpston, Ont., $1.00; W. A. Barnet, R. 1, Arner, Ont., $1.50; E. V. King, Dunnville, Ont., $5.00.

The Christ Cradle.

Little taper set to-night,
Throw afar thy tiny light;
Up and down the darksome street,
Guide the tender wandering feet
Of the darling Christ Child sweet.

He is coming in the snow
As He came so long ago,
When the star set o'er the hill
When the town is dark and still,
Comes to do the Father's will.

Little taper spread thy way,
Make His pathway light as day;
Let some door be opened wide
For this guest of Christmastide,
Dearer than all else beside.

Little Christ Child, come to me,
Let my heart Thy shelter be;
Such a home Thou wilt not scorn,
So the bells of Christmas morn
Glad shall ring, "A Christ is born!"

Beating Father to It.—"What did your little ones say when you told them there is no Santa Claus?"

"They asked me if I was just finding it out."—Washington Star.

N Woman Farmer in South Alberta.====By Jean Laidlaw.

Miss Jean Laidlaw.

AS a preface to this chapter from life in the West I should say that I spent the first eight years of my life on a farm, and, "away down," always hoped to go "back to the land."

However, I had spent twenty years in educational work, most of it in the kindergarten, before I bought my farm and faced West. A homestead was not available for a woman unless she was a widow with children under twenty-one. I tested this (at the suggestion of Dr. McMurchy) and was told that the policy of the Government was to encourage the making of real homes, *therefore*, they did not furnish homesteads to women. Consequently my farm was purchased, belonging earlier to the Peigan Reserve. I had one quarter-section to start with, but three years ago found it desirable to acquire the adjoining quarter, partly for pasture and partly to enable me to summer-fallow a sizable field each year. There is half a mile of Beaver Creek on the second quarter, but there are so many dams higher up the creek that this dry year there was no running water for three or four months. Some of the dams have been broken up and the water runs again.

My farm being still unfenced and unbroken when I came out in 1911, I taught in rural schools from September to February.

In the first district the only boarding place available was four miles distant from the school, so, of necessity, I learned to ride—and wept when I said "Goodbye" to that first cayuse.

In April and May a hundred acres were broken, disced, harrowed and seeded, and my buildings were begun. When my barn was nearly finished I decided to move in and occupy it until the house was finished. I had been boarding nine miles away and riding over two or three times a week. The horse stable and feed-lane had a plank floor and became habitable when a cot, a screen, a cupboard, a table and chairs and a range had been put in.

As soon as the range went in the two carpenters working on my house implored me to board them as it was such a waste of time to walk a mile night and morning to the nearest neighbor's and said they could sleep in the loft with the hired man and would give no trouble. So I started in by catering to three men, baking my first bread and doing my first independent churning for their enjoyment. Fortunately, both were successful, and I have a fair reputation as a cook. At that time the nearest neighbor was a mile away. When the men were away overnight, as sometimes happened, I was not afraid, although I was the only person on the section, and there was no one for miles to North, or South or East, —which is a very good reason for not being afraid. It is not a highway for tramps. Now, my nearest neighbor's house and barn are in plain view of the North, less than half-a-mile away, and there is another neighbor little more than half-a-mile South, although mine is still the only home on Section 7.

I had not been very long on the farm until I began to realize that "the critters" are just the farmer's enlarged family. Cats and dogs are necessary to kill mice and gophers, but they also companion the humans about the farm. When one feeds a calf and watches it grow, and laughs over its friskiness, as any farm person knows, it isn't just a calf, but something of one's own, and *lovable*. We've had considerable fun over the naming of my family. We gave the first sows simple names—Mary, Martha, Eliza and Maria— (nothing as high-sounding as Beatrice and Verbena.) One of the hens was called "Corinna Elizabeth" after a kindergarten child, the whitest calf was Blanche and the brindled one Tillie Anne.

There are no pigs on the place now, and none likely to be. A neighbor stated the case recently when he said, "I'm feeding a bunch of hogs. I got a hundred dollar's worth of fed yesterday, and am putting three dollars into them for every one I'll get out, and giving my work besides." For the same reason my flock of hens will be limited to what I need myself for food and eggs. We are still a little too far apart, and too short of time for egg-circles and the local price of eggs has varied since Christmas from 35 cents to 75 cents. Butter has been as low as 35 cents and as lard and butter-subttitutes are 45 cents, I use butter for practically all my cooking. There is the beginning of a co-operative society in the district (U. F. A.), to buy salt, flour, feed, potatoes, and to market grains and cattle. That the farmer's wife would benefit from a co-operative organization can be realized when one hears of a buyer taking a load of eggs and butter in his car to "the Pass" (Crow's Nest), and clearing $150 on his load.

As to crops. It is quite safe to say that, with abundant moisture, no country in the world can raise better. In 1915 I harvested 3,200 bushels of wheat and 1,680 bushels of oats from 98 acres. Oats (in stubble) averaged 81 bushels and wheat (stubble and summer-fallow) averaged 41 bushels. The following year summer-fallowed land in the neighborhood yielded 65 bushels of wheat, and 26 bushels of flax. But as has been told again and again, this is the third dry year each worse than the last. This year I had nearly 150 acres in crop, 65 summer-fallowed and nearly 25 fall-plowed. The wheat, oats and flax sprouted well with plenty of moisture, before we had any wind storms. Last year was notable as having more high winds than I had seen in all the years before, but this year's wind and sandstorms made those of last year seem like gentle zephyrs. The first windstorm browned the sprouted grain and blackened buck-brush and other vegetation not sheltered. The second storm, a week later, shaved the wheat and oats level with the ground, and cut off the grass the previous storm had dried. In the following dry-spell the roots of the wheat and oats died out, as did half of the flax plants, while the rest did not grow high enough to cut. The early rains in this district, when the drought was broken were not heavy enough to greatly improve the feed situation as they did in districts where the crops had not already sprouted. So a good many hundred head of cattle have been sold from this district, where everyone was making a start in mixed farming. And they have gone at half the price one could have had for them last winter. Half the men of the district have gone elsewhere for the winter; north for hay, or to city, mine and forest. One married woman of the neighborhood has left her husband and small son to care for each other while she earns a stenographer's salary in Calgary. Other married women who were teachers are back in the schools, as there is a shortage of teachers in the schools to match the shortage of money on the farms. And, wherever possible, the people are trying to secure irrigation to prevent the recurrence of any such failure.

So much water wastes in spring and fall freshets that it seems as if something might be done in many places, at not too great cost. It is likely that some of the wonderful pumps invented for emptying trenches will be tried here to irrigate the land. They tell of a pump that raises water 500 feet, and with its hose carries it half a mile. That ought to help many here and should secure moisture for some of the fruit crops in the Hamilton-Niagara district.

The main problem on a woman's farm is the hired help. I expected to keep a man continuously, but had four different ones in the first six months. The one I got in September was planning to spend the winter with me, but brought home three quarts of whiskey one day when we had been to town, and half an hour after we reached home he was incapacitated, and I did my own chores that night. Tom departed as soon as he recovered. My mother had joined me in July, and spent fifteen months with me. We spent that first winter alone, except for a man who came twice for four days to haul straw and do odd jobs. In March I got a man who stayed for three years, and then married and settled acrossed the road from my far quarter. He still assists if I have a green man. In the fourteen months after he left I had Joseph, Louis, George, Hermann, Tom, Michael, Albert, Charles, "Uncle Tom" and John. They were Scotch, French-Cree, Ontarion, Salt Lake, American, Russian-Polish, Swedish, Manitoban and Italian. The Russian-Polander was pro-German and had to report as an alien. The Italian had spent the years between fifteen and eighteen in the Krupp works and was likewise pro-German. I have spent the last two winters entirely alone. It takes little more time to do my chores than to the extra cooking for a man, and I would rather do the chores than cook for hired help.

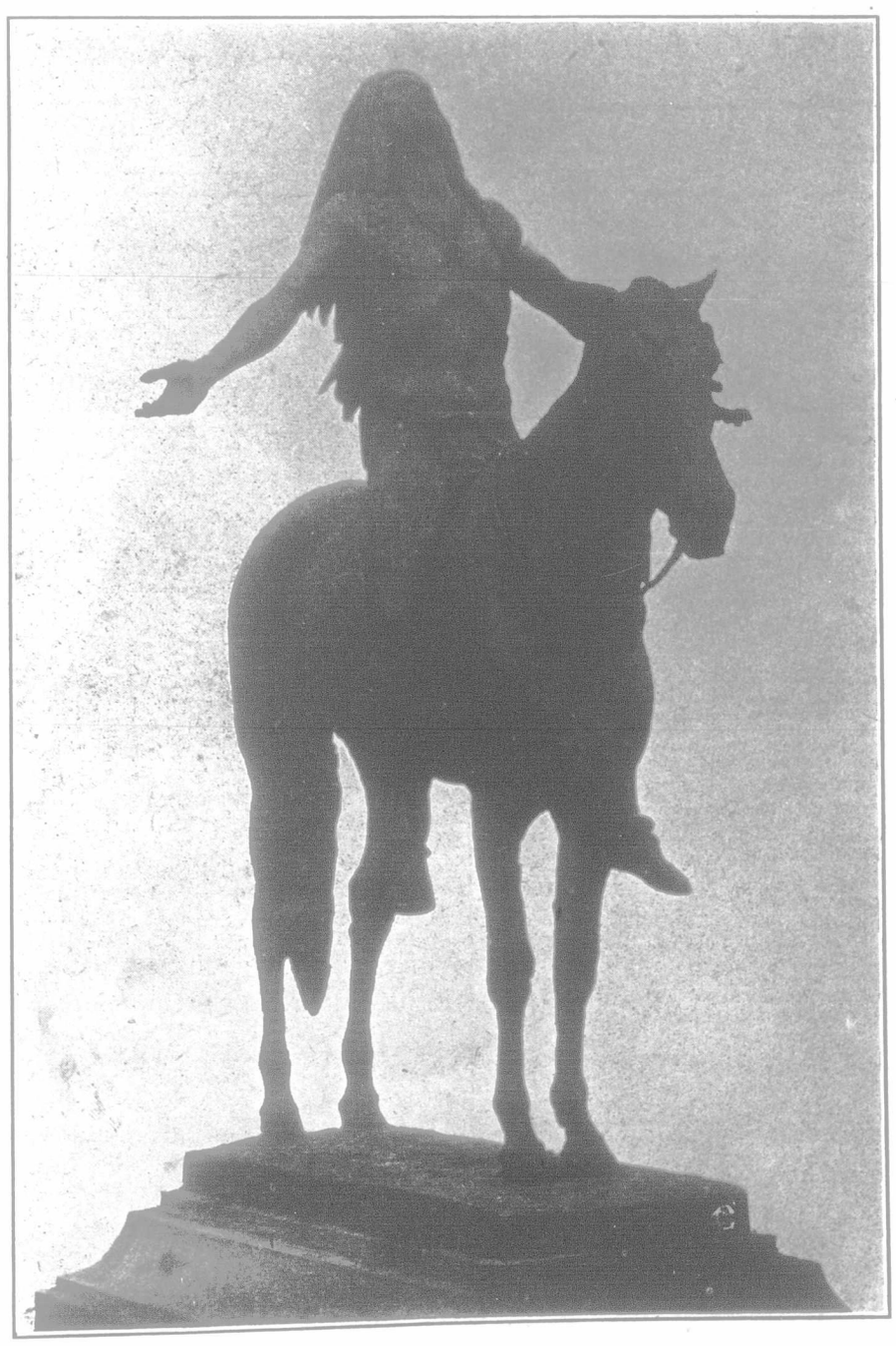
In the spring of 1918 I wrote for and secured a farmerette. But I was unfortunate in my sample and I let her go after six weeks. My nephew from Toronto University spent that summer with me and did my summer-fallowing. Since then I have had Indians to do my work, except this summer's plowing, when I had a white man for three weeks.

We are fortunately placed in being able, any year, to get Indians (men and women) to stook the grain and to dig potatoes. They ask the highest wages given in the neighborhood, and the women are paid the same as the men. These Indian women are the original suffragettes and trades-unionists. They won't work for anything less than three dollars a day, as a rule. I got one to pull weeds for me last year at less than that wage, but two who were with her went home rather than work for less than the usual rate.

The Peigans are a part of the Blood tribe, and thirty or forty years ago were amongst the most savage of the Western Indians. Now they are quite "tame" and dying off rapidly. This year there are thirty fewer than last year, partly owing to the "flu." Three went to France, one of whom did not return.

Some of the names are picturesque, some ludicrous— Little Leaf, Grassy Waters, Nathan Many-Feathers, Sidney Wolf-Talk, Philip Big Swan, Little Moustache, Lame Man, Four Horse Jim, Little Girl. The second generation has the Christian name; the older ones having only the Indian name.

There are two missions and mission



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schools to minister to the people. Neither of these reaches all of the children. There are children of both sexes and all ages growing up without being taught to speak English or to read and write. The memorial sent recently by the Methodist Church to the Federal Government requesting compulsory education on Indian Reserves is needed. Personally, I think the Catholic Church best adapted to training the Indians. This Church says "If you do so and so you'll be damned," and the Indian doesn't do it. The Protestant Church says, "You mustn't do that. It isn't right," and the Indian does it. I asked an Indian working for me what the Protestant missionary (an earnest self-sacrificing man)said about the Sun Dance—the great annual tribal festival for which wonderful new deerskin frocks and beaded vests are made. He replied gravely, "He doesn't like it." "Does he preach against it?" "Oh! yes, the Sunday before he warns us not to go." "Do you go?" And this time he grins and says, "Oh, Yes." I think the priest leaves it alone, which is just as well when there isn't an Indian on the Reserve willing to stay away. When the Indian boys at the Catholic school are twelve or thirteen they are sent to the Calgary Industrial School, where they receive a thorough practical training. I have had three working for me who had spent several years there and they are entirely familiar with all the farming operations and machinery, besides being able to handle several horses. which many of the white men cannot do successfully.

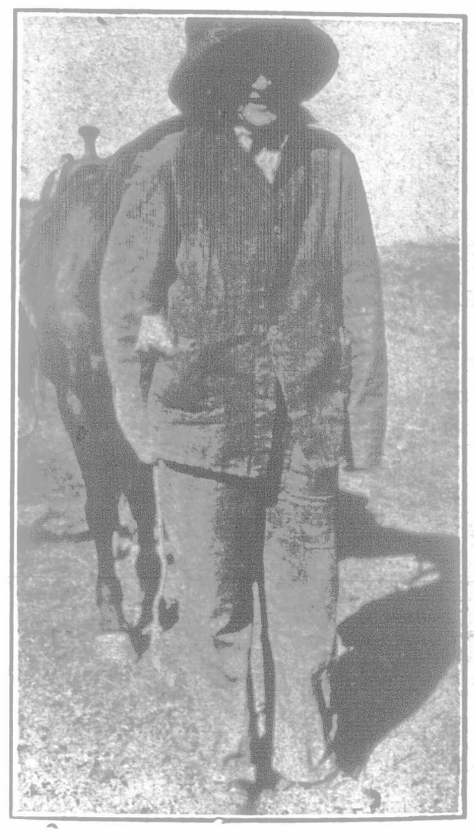
School teachers, bachelors and dances "sort of hang together" in one's mind, and one suggests the others. The school teacher is the official belle of the community, and when a new one arrives there is generally some rivalry for favor. In most districts there is at least one bachelor with the reputation of being "a great one to go after the school teachers." A "flivver" is a great help. When a young man can scrape together enough money he usually gets a car, be he homesteader or hired man. In most districts a young and pretty girl, fresh from high school and without normal training, will be chosen in preference to an older-trained teacher not so likely to attract young men to dances.— Which is one of the reasons why rural education lags, and one of the conditions the Alberta Teacher's Alliance aims to change. The teacher often marries some young farmer. If she doesn't like her district she changes to another, and the school has another new teacher. Before the war Alberta held one hundred thousand more men than women, which means there were many men wanting wives. For most of these, far from home and out of touch with women, there is only the local choice. To illustrate the trials of a "seeker," I may describe the efforts of an acquaintance to find a wife. A fellow-laborer in the lumber camp had found favor with the cook's daughter. When Gene enviously congratulated him the happy man said she has a sister in Seattle, "Why don't you try for her?" So a correspondence was begun, and soon the lady expressed her willingness to solace his loneliness. But before she came to Alberta she must get her "teeth fixed" which would cost fifty dollars. To hasten matters the fifty dollars was forwarded—and she married some one in Seattle. His next flame was a young but very angular member of a large family. On one of his evenings the lady took a fit which ended that chapter. Then came a trip to the coast where our bachelor hoped to meet some one young and willing—But his relatives were old and has no circle of young acquaintances for him to meet and he returned, still a "seeker". Leaving his bag at a house near the station to be called for, he was met by the daughter of the house fresh from school. The native Canadian blood was no bar, and in six weeks they were married—and lived happily afterwards.

The dance is the one amusement of the west and men ride or motor from twenty miles away to attend. Usually the men pay a dollar and the women bring cake or furnish boxes of eatables, if it be a box social. It is by means of dances that money is raised in most school districts to build a stable, buy an organ, give Christmas treats to the children or contribute to patriotic and charitable purposes. There are one-steps, two-steps, waltzes, quadrilles, fox-trots, as well as Spanish waltzes, rye waltzes, Circassian circle and Variations of these dances.

It must be understood that when young married people attend the dances, as they always do, the whole family attends, and towards morning there is usually a regiment of babies (from three weeks to four or five years) stretched on rugs and overcoats on desks at one end of the room. It is also to be remembered that a dance lasts until three, four, five o'clock, or sometimes until daylight.

Much has been said and written about the number of cars sold in the West. They are a luxury to some, but a car saves the time of an exta hired man to many who own them. When one lives, say twenty miles, from the nearest town where repairs to plows, discs, mowers, binders and engines may be had, it takes little knowledge of "the inner cussedness of inanimate things" to realize that a man with two or three men on his farm would have one always on the road for supplies and repairs. Without a car one can see little of any but one's nearest neighbors. Cars have not supplanted horses, by any means, but they certainly do away with much of the solitariness of life in prairie countries.

As to politics—The West was first to see that the Government should be non-partisan—for the good of the common people instead of for politicians and corporations—and there is widespread rejoicing over election results in Ontario. That the Western farmer has real burdens (apart from crop failures) can be under-



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The woman farmer at work.

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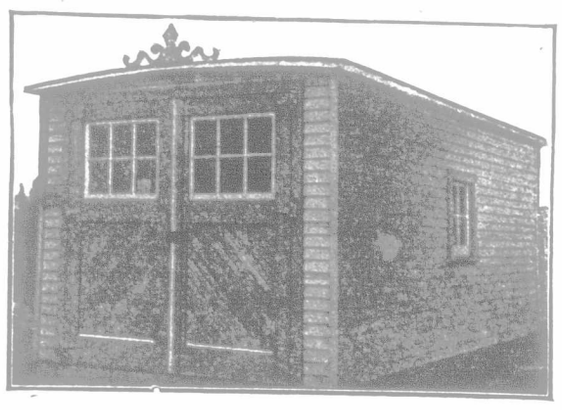

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stood when one knows something of the price of implements, out here, and something of the price we get for grain. Seven years ago when a binder in Ontario cost a hundred and twenty-five dollars the Alberta farmer paid one hundred and sixty-five. There is no slogan here, "Buy Machinery Made in Canada." It is all the other way. Every one who can, buys American made machines so that the tariff is collected by the Government instead of by Eastern manufacturers. In selling grain the freight to Fort William is always taken off the price at the elevator, as well as a few cents for handling and to protect against a drop in prices. The elevator price here was $2.01 last year.

Wheat in 1913 sold here at 60 cents, when the Winnipeg quotation was 78 cents. It need hardly be said that wheat at that price did not pay, nor did barley at 26 cents, (1912). This year I sold what flax I had on hand after seeding. I got $4 at the elevator, although the Winnipeg quotation was $5. When I protested that it wasn't a fair price the manager said that they only handle a few hundred bushels each year and have to have a good "spread" to make it pay. Toronto headlines of the week before had quoted the salary of the President of the Company at from sixty thousand to a hundred and ten thousand per annum. That extra dollar would help.

In districts where several women live reasonably near together branches of the U. F. W. A. are being organized. There are also more than a hundred Women's Institutes in the Province. The U. F. W. Associations schould prove very helpful in educating the women for intelligent citizens, and should be especially valuable in training the younger women.

As to the "holt" of the West, I came West intending to make my home here, and I have never wished to be elsewhere. Except in the coulées and river-bottoms it is a treeless country, but my South windows give a wonderful view of "the delectable mountains," which, on clear days, seem to be not more than a mile away. Perhaps I miss the green of Ontario and the flowering fruit trees and abundant flowers, but I should probably miss my mountains if I were long away from them. After seven years as a working farmer there is no question that, for me, at least, happiness is to be found in life on the farm.

Politics, Woman and the Boon She Will Crave.

Continued from page 2234.

Education which will remedy this evil is demanded. To be effective, such education must have a wider scope than was at first expected. Women know that there is not only need to educate our boys back to the farm, but there is need to educate our girls back to an appreciation of woman's greatest work, that of motherhood. That something along this line be placed on the curriculum for girls will be a point on which our women will lay some emphasis.

Are we just, when we blame the schools and the Government for rural depopulation? Is not the spirit of the times to bear some of our censure? When fall fair directors offer a prize of three hundred dollars for the best race horse and a prize of three dollars for the best baby, they are merely representing public opinion. When the young mother stays away from church because she feels that her baby is a nuisance, when owners of apartment houses put up a sign which reads, "Dogs and babies, not allowed," we can see plainly the attitude of our day and generation.

It is true that there is a steady stream of young people flowing from the farms to the cities. We shall be sorry for our country when this ceases to be a fact. For the race dies at the top, and the cities, with their large educational centres, are our highest point of civilization. When new, virile blood from the rural communities ceases to flow into the cities, when farm boys are all educated to stay on the farms, where, oh! where, shall we get our leading men? What a loss the world will sustain! (Might we not find a percentage of them *on* the farms? But perhaps the writer refers to specialists. —Ed.).

We must strike deeper than educating our young people to stay on the farm. The white race is dying out and there is

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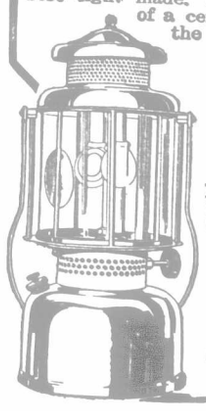

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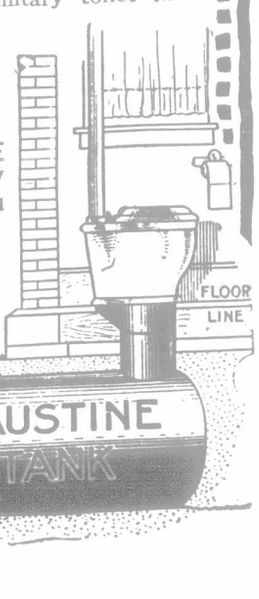

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helps keeps down the *HIGH COST OF BAKING*, because, first, it is sold at a reasonable price, and second, its double acting qualities absolutely assure perfect baking at all times. Always follow the directions on the label, you use less powder.

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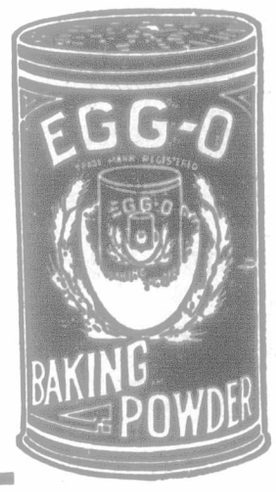

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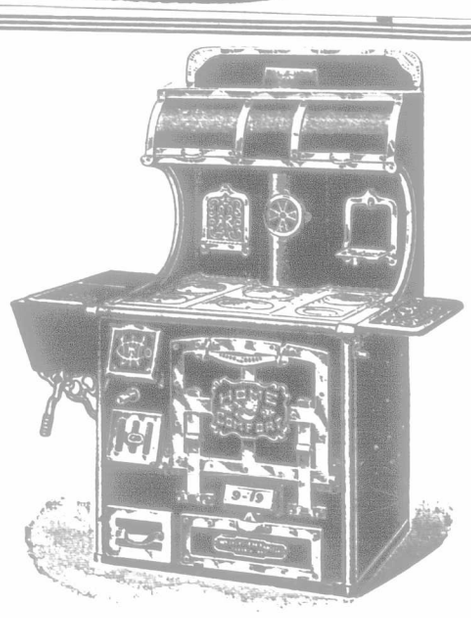

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This machine is especially suitable for small jobs. It is built to last a lifetime. Saves the price of itself in thirty days' use. Write for catalogue No. 1-K.

London Concrete Machinery Co., Limited
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World's Largest Manufacturers of Concrete Machinery.

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This wonderful vacuum washer will pay for itself the first wash day you use it—we guarantee satisfaction or refund your money. It will wash a tubful of clothes in three minutes. It will wash anything from the heaviest blankets or overalls to the finest laces.

It prevents the wear on clothes—prevents back ache and does away altogether with the old drudgery of washdays.

No more rubbing—throw away your washboard.

This washer can be used for washing, rinsing, blueing or dry cleaning with gasoline.

Send this advertisement and only $2.00 to-day, and we will send the $4.00 Vacuum Clothes Washer, complete with long handle and exhaust protectors, postpaid to any address. We want to prove to every woman that this is the best Vacuum Washer. **Don't Wait—Order one to-day. Agents Wanted.**

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need that we strike deep, so that this cancer which is hidden in the heart of our national life may be destroyed. Let us ask ourselves soberly, whether education and the cities are depopulating the rural communities or whether the real answer is to be found in the fact that there are not as many children in some school sections in Ontario as there are to be found in the home of some foreigner in the slums of Toronto. There is need for education.

These things indicate in a small way what woman shall crave as she stands with the Child of the race in her arms. And who can refuse her requests or turn a deaf ear to her pleading?

Serial Story

"His Family."

BY ERNEST POOLE.

(Serial rights reserved by The Farmer's Advocate and Home Magazine.)

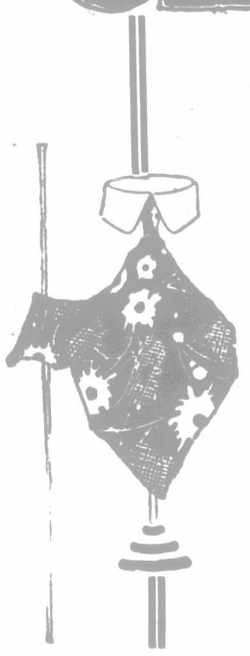
Synopsis of Preceding Chapters.

The central figure in this story is Roger Gale, sixty years of age when the story begins. He had grown up in the country, but at seventeen had drifted to New York, where he finally got into business, became fairly prosperous, married, and became the father of three daughters: Edith, who, when the story opens, has been married for some years, and is the too-devoted mother of four children; Deborah, a teacher, principal of one of the big schools of the city; and Laura, the wild, capricious one, who announces her engagement to a young man named Sloane. With time, at last, to rest somewhat on his oars, Roger Gale finds himself, at sixty, a somewhat lonely widower living a life apart from that of his children. He realizes suddenly that he does not even know them. He determines to "find them out", and the story is carried on in a fascinatingly interesting way. Chapter IV gives a conversation between Deborah and her father, in which her suspicion of young Sloane as a suitable life-partner for Laura is unconsciously intimated. Chapter V-VIII tell of the birth of Edith's child and Laura's very fashionable wedding which has almost taken all of Roger's bank deposit, so that he has to go to work harder than ever in his Clipping Bureau. Looking into the character of his children he sees his youthful self in Laura's burning curiosities and venturesome spirit, his later self in Edith's dropping of all outside interests for the sake of her family, and he realizes the truth of his wife's words, "you will live on in our children's lives." In Chapter IX through Deborah's distress over the execution of "Joe", a hot-blooded Italian lad who had been one of her pupils, Roger begins to see that there is much that is "personal" in his daughter's work, and to endorse her idea that the solution for most of the woes and mistakes of life is a good education for every child. She invites him to visit her school, and he consents. He is astounded at the great, surging institution over which his daughter presides, settling disputes and solving problems not only in the school but in all the strange, foreign, tenement district besides. Chap XI introduces John, the brave cripple boy (who is living in a house reeking with tuberculosis), and Isadore Freedom, "the flame," who has found a position as librarian.

CHAPTER XII.

Roger awoke the next morning feeling sore and weary, and later in his office it was hard to keep his mind on his work. He thought of young Isadore Freedom. He was glad he had met that boy, and so he felt toward Deborah's whole terrific family. Confused and deafening as it was, there was something inspiring in it all. But God save him from many such evenings! For half his life Roger had been a collector, not only of rings but of people, too, of curious personalities. These human bits, these memories, he had picked up as he lived along and had taken them with him and made them his own, had trimmed and polished every one until its rough unpleasant edges were all nicely smoothed away and it glittered and shone like the gem that it was. For Roger was an idealist. And so he would have liked

For a Man's Christmas!



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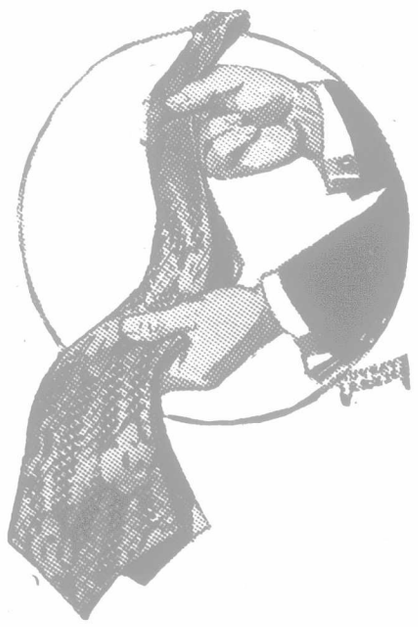

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Instead of huddling around stoves in two or three rooms this winter—instead of shutting off half or more of your rooms because of cold—install a Findlay Pipeless Furnace, and on the coldest winter nights enjoy the comforts of a well-heated home, moist, healthful air, with the pleasant thought that you are saving one third or more on fuel. But be sure it's a

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THOS. A. EDISON, INC., - ORANGE, N. J.

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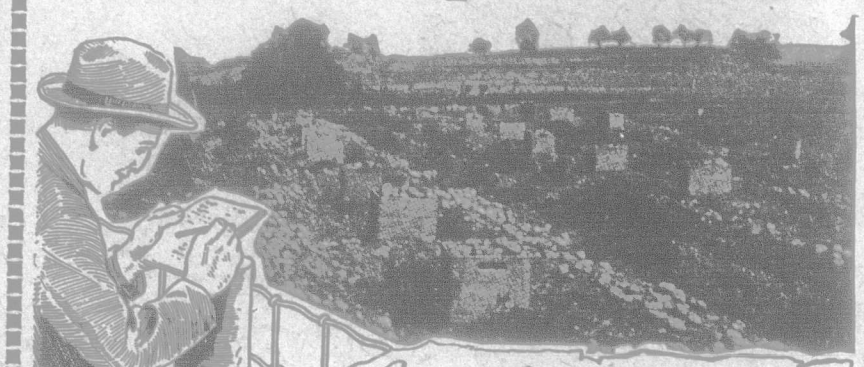
Potatoes at 36 cents per bushel



Records from Mr. Jas. Loughlin's Potato Book. Dundas Co. 1919.

Potatoes 1919

Cost Items:-	
Plowing	*$ 2.50*
Discing and Harrowing	*3.20*
Fertilizer 500 lbs 4-8-4	*18.00*
Cutting + Planting	*5.00*
Weeding, Spraying and Cultivating	*9.75*
Seed	*30.35*
Digging	*8.35*
Rent of Land	*8.35*
	85.50

Yield = 237.5 bus.
Cost per bus = 36¢

Per Acre Figures:-	
Yield in bus	*237.5*
per bus	*$ 2.00*
Return per acre	*$ 475.00*
Cost	*85.50*
Profit	*$ 389.50*

How do your yields and costs match these?

Did you use fertilizers on your potatoes?

Mr. Loughlin's yield without fertilizers was 80 bushels per acre.

How much more potatoes would YOUR crop have yielded at his rate of gain from fertilizing.

We discuss potato growing fully in our Bulletin No. 4. Write for it.

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to do here. What a gem could be made of Isadore with a little careful polishing.

But Deborah's way was different. She stayed in life, lived in it close, with its sharp edges bristling. In this there was something splendid, but there was something tragic, too. It was all very well for that young Jew to burn himself up with his talk about freedom, his feverish searching for new gods. "In five years," Roger told himself, "Mr. Isadore Freedom will either tone down, or go stark mad." But quite probably he would tone down, for he was only a youngster, these were Isadore's wild oats. But this was no longer Deborah's youth, she had been at this job ten years. And she hadn't gone mad, she had kept herself sane, she had many sides her father knew. He knew her in the mountains, or bustling about at home getting ready for Laura's wedding, or packing Edith's children off for their summer up at the farm. But did that make it any easier? No. To let yourself go was easy, but to keep hold of yourself was hard. It meant wear and tear on a woman, this constant straining effort to keep her balance and see life whole.

"Well, it will break her down, that's all, and I don't propose to allow it," he thought. "She's got to rest this summer and go easier next fall."

But how could he accomplish it? As he thought about her school, with its long and generous arms reaching upon every side out into the tenements, the prospect was bewildering. He searched for something definite. What could he do to prove to his daughter his real interest in her work? Presently he remembered Johnny Geer, the cripple boy whom he had liked, and at once he began to feel feel himself back again upon known ground. Instead of millions here was one, one plucky lad who needed help. All right, by George, he should have it! And Roger told his daughter he would be glad to pay the expense of sending John away for the summer, and that in the autumn perhaps he would take the lad into his office.

"That's good of you, dearie," Deborah said. It was her only comment, but from the look she gave him Roger felt he was getting on.

One evening not long afterwards, as they sat together at dinner, she rose unsteadily to her feet and said in a breathless voice,

"It's rather close in here, isn't it? I think I'll go outside for a while." Roger jumped up.

"Look here, my child, you're faint!" he cried.

"No, no, it's nothing! Just the heat!" She swayed and reeled, pitched suddenly forward. "Father! Quick!" And Roger caught her in his arms. He called to the maid, and with her help he carried Deborah up to her bed. There she shuddered violently and beads of sweat broke out on her brow. Her breath came hard through chattering teeth.

"It's so silly!" she said fiercely.

But as moments passed the chill grew worse. Her whole body seemed to be shaking, and as Roger was rubbing one of her arms she said something to him sharply, in a voice so thick he could not understand.

"What is it?" he asked.

"I can't feel anything."

"What do you mean?"

"In my arm where you're rubbing—I can't feel your hand."

"You'd better have a doctor!"

"Telephone Allan—Allan Baird. He knows about this," she muttered.... And Roger ran down to the telephone. He was thoroughly frightened.

"All right, Mr. Gale," came Baird's gruff bass, steady and slow, "I think I know what the trouble is—and I wouldn't worry if I were you. I'll be there in about ten minutes." And it was hardly more than that when he came into Deborah's room. A moment he looked down at her.

"Again?" he said. She glanced up at him and nodded, and smiled quickly through set teeth. Baird carefully examined her and then turned to Roger: "Now I guess you'd better go out. You stay," he added to Sarah, the maid. "I may need you here awhile."

About an hour later he came down to Roger's study.

"She's safe enough now, I guess," he said. "I've telephoned for a nurse for her, and she'll have to stay in bed a few days."

"What's the trouble?"

"Acute indigestion."

"You don't say!" exclaimed Roger brightly, with a rush of deep relief. Baird gave him a dry quizzical smile.

"People have died of that," he remarked, "in less than an hour. We caught your daughter just in time. May I stay a few moments?"

"Glad to have you! Smoke a cigar!"

"Thanks—I will." As Baird reached out for the proffered cigar, Roger suddenly noticed his hand. Long and muscular, finely shaped, it seemed to speak of strength and skill and an immense vitality. Baird settled himself in his chair. "I want to talk about her," he said. "This little attack is only a symptom—it comes from nerves. She's just about ready for a smash. She's had sighter attacks of this kind before."

"I never knew it," Roger said.

"No—I don't suppose you did. Your daughter has a habit of keeping things like this to herself. She came to me and I warned her, but she wanted to finish out her year. Do you know anything about her school work?"

"Yes, I was with her there this week.'

"What did she show you?" Baird inquired. Roger tried to tell him. "No, that's not what I'm after," he said. "That's just one of her *usual* evenings." For a moment he smoked in silence. "I'm hunting now for something else, for some unusual nervous shock which she appears to me to have had."

"She has!" And Roger told him of her visit up to Sing Sing. Baird's lean muscular right hand slowly tightened on his chair.

"That's a tough family of hers," he remarked.

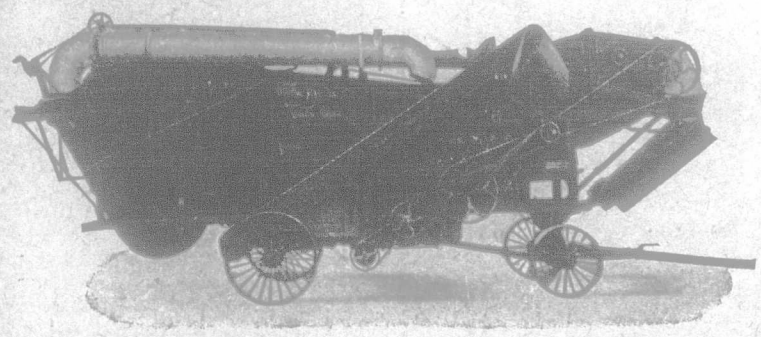
"Yes," said Roger determinedly, "and she's got to give it up."

"You mean she ought to. But she won't."

"She's got to be made to," Roger growled. "This summer at least." Baird shook his head.

"You forget her fresh air work," he replied. "She has three thousand children on her mind. The city will be like a furnace, of course, and the children must be sent to camps. If you don't

Waterloo Threshing Machinery



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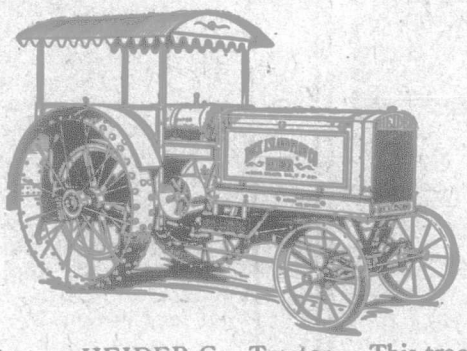

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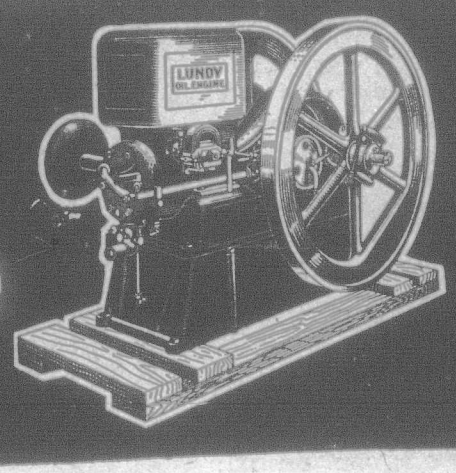
THE NEW HIRED MAN



A Hired Man is an expensive luxury compared with the cheap cost of doing heavy work with a reliable Kerosene Engine. All up-to-date farmers are getting a New Hired Man—his name is the Lundy Engine. The Lundy Engine has FIFTEEN new improvements, made after years of operating experience. We have added smooth running, quick starting, fuel economy, ease of adjustments and other conveniences. Powerful and steady, free from weaknesses which cause delays and repairs in other engines. It generates full power rated. It runs with Coal Oil, costing only from 3c. to 14c. per hour, according to horse power. Adjustable speed; will run all day without balking.

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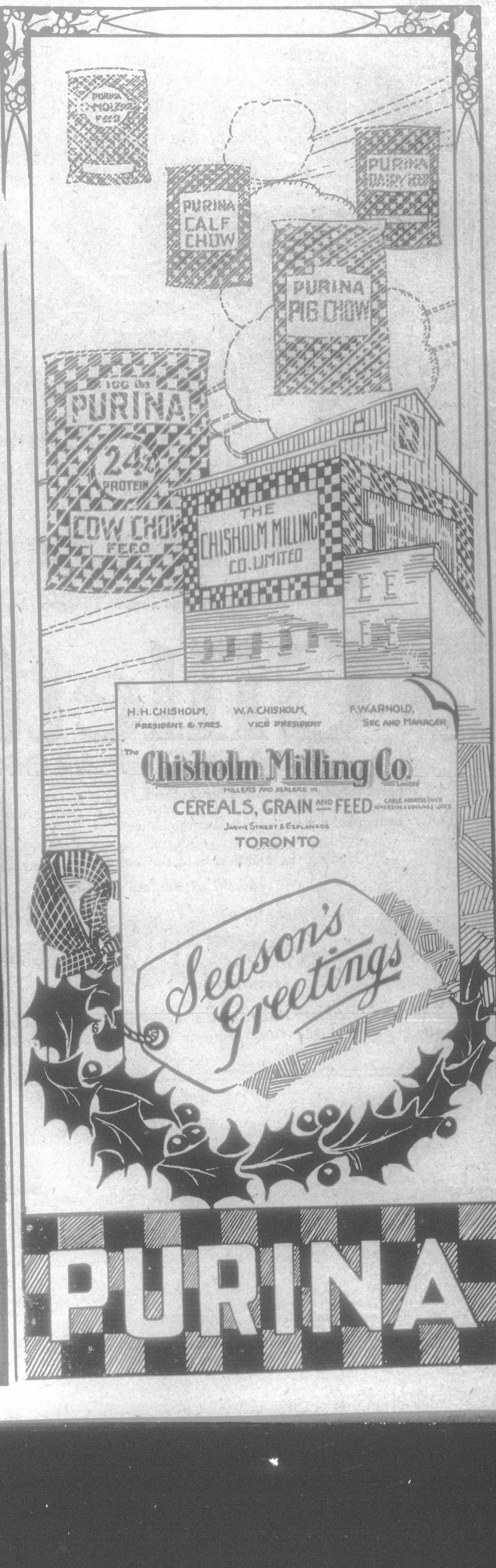

EASING UP

The earth has delivered her bounty—provided for her own. Contented, she sleeps the winter months.

And the men who worked with her, who toiled in her furrows and delivered the harvest—they, too, have earned a rest. Thoughts may turn to hospitality and social evenings. The

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plays its part in the warm-hearted social life of the country and in the more formal functions of the city. Wherever a particularly clean shave is demanded Gillette service is commissioned.

Gillette Service means shaving comfort, No Stropping—No Honing, the elimination of the unnecessary, the saving of time.

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The Gillette Safety Razor makes a very acceptable and serviceable Christmas gift. You get the full, pre-war value for every dollar you spend on it.

589

see the necessity, go and talk to her, and then you will."

"But you can forbid it, can't you?"

"No. Can you?"

"I can try," snapped Roger.

"Let's try what's possible," said Baird. "Let's try to keep her in bed three days."

"Sounds modest," Roger grunted. And a glimmer of amusement came into Baird's impassive eyes.

"Try it," he drawled. "By to-morrow night she'll ask for her stenographer. She'll make you think she is out of the woods. But she won't be, please remember that. A few years more," he added, "and she'll have used up her vitality. She'll be an old woman at thirty-five."

"It's got to be stopped!" cried Roger.

"But how?" came the low sharp retort. "You've got to know her trouble first. And her trouble is deep, it's motherhood—on a scale which has never been tried before—for thousands of children, all of whom are living in a kind of hell. I know your daughter pretty well. Don't make the mistake of mixing her up with the old-fashioned teacher. It isn't what those children learn, it's how they live that interests her, and how they are all growing up. I say she's a mother—in spirit—but her body has never borne a child. And that makes it worse—because it makes her more intense. It isn't natural, you see."

A little later he rose to go.

"By the way," he said, at the door, "there's something I meant to tell her upstairs—about a poor devil she has on her mind. A chap named Berry—dying—lungs. She asked me to go and see him."

"Yes?"

"I found it was only a matter of days." The tragic pity in Baird's quiet voice was so deep as barely to be heard. "So I shot him full of morphine. He won't wake up. Please tell her that."

Tall, ungainly, motionless, he loomed there in the doorway. With a little shrug and a smile he turned and went slowly out of the house.

To be continued.

Willie's Dark Future.—"Reggie," said her husband's wife, "I don't believe you have smoked one of those lovely cigars I gave you last Christmas."

"No, my dear, I haven't," replied the wife's husband. "As a matter of fact, I intend to keep them until our little Willie grows up and wants to learn to smoke."—Edinburgh Scotsman.

Gossip.

The Ayrshire Herd at Springbank.

In giving here this short summary of the Springbank herd of pure-bred Ayrshires, owned by A. S. Turner & Son, Ryckman's Corners, Ont., it is quite unnecessary to include all the heavy producing cows which have qualified in the Record of Performance and now make up the breeding herd. Sufficient it is to say that cows from this herd have at sometime in the past decade, held Canadian championships in all divisions from two-years to mature age. It is also pleasing to note how often the daughters of the present ten-year-old sire, Netherton King Theodore (imp.), have figured in these records. Fifteen daughters of this bull have already qualified in the R. O. P. and all have made their records at Springbank. More pleasing still, all were run at the age of two years and the average for the fifteen at this age is over 10,000 lbs. of milk. Springbank White Rose, the highest of these heifers, holds the present two-year-old R. O. P. championship with 12,209 lbs. of milk and 546 lbs. of butter-fat for the year. Next in line comes Floss of Springbank (same age) with 11,230 lbs. of milk and 453 lbs. of butter-fat. Several of these daughters now have young bulls, all of which are under thirteen months, and figure prominently in the present sales' list. Still other cows in the herd which have bulls for sale at present are Springbank Myrtle, a 13,210-lb. three-year-od, which averaged 4.28 per cent. for the year; Tanglewild Princess 3rd, a 9,000-lb. three-year-old and Springbank Daisy Star, a 13,621-lb. cow with 590 lbs. of fat for the year. We might add that these cows mentioned are not the highest record cows now in the stables, but are referred to only as the dams of the bulls which make up the present offering. There are other females among the breeding cows which are holding records from the figures given, all the way up to the 19,000-lb. record held by the noted champion, Lady Jane, which has not only reached this splendid figure in production, for one year, but in four consecutive years, has produced 64,889 lbs. of milk and 2,506 lbs. of fat or an average of 16,222 lbs. of milk for each of the 4 years. Lady Jane has not only been a record producer but has also been a presistent breeder and much of the younger stuff are descendants of hers or bred much along the same lines. That they are bred not only for production, but also for type and individuality, is evidenced to, by their successes in this and other years at Exhibitions, such as Toronto and London, where for years they have held their own, meeting all competitors. At the recent London show, for instance, with a half dozen full herds showing, the records show the Springbank herd as by far the largest winner in the individual classes, as well as taking away the premier honors of first in both the herd prizes. These winnings each year, along with the many championships won in the Record of Performance tests, perhaps best illustrates the sterling worth of the Springbank herd.

Questions and Answers.

Miscellaneous.

Teacher and Pupil.

1. Is there any law stating where a teacher has to whip a child, and if so where found in the School Act?

2. Has the teacher any authority over the children once they leave the school grounds at four o'clock?

Ontario. W. S.

Ans.—1. We do not think that there is any such legal provision—certainly there is none in the Public Schools Act.

2. No.

Feed for Cow.

What is the proper amount of hay to feed a milch cow, and should it be fed two or three times a day? What amount of concentrates should be fed? J. L.

Ans.—1. The amount depends a good deal on the size of the animal and upon the amount of milk which is being produced. An ordinary cow will possibly eat from 12 to 15 pounds of hay per day, but it will depend upon what other roughage is being given. It is a very good plan to give a cow all the roughage she will consume, and then feed about a pound of cencentrates for each four pounds of milk produced.

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EARL COWARD, Manager.

Canada's Horticulture Heritage Harvest.

Continued from page 2227.

of the most reliable fruits and many a fruit grower in Ontario has had to depend mainly upon his grapes to tide him over a year when the crop of other fruits was poor.

The strawberry is one of the most cosmopolitan fruits in Canada, being grown successfully in every province and its culture extending northward to the Lower Peace River and possibly further. Ripening in early June in the warmest sections, its season extends into August on the Lower St. Lawrence and Prince Edward Island, and with the everbearing varieties to follow, gives a strawberry season in Canada until November. Few persons can resist strawberries and cream if they felt inclined to do so and still fewer desire to resist it. There is no better fruit.

Space fails us to write about the raspberries, the gooseberries, and the currants which are grown successfully in every province of Canada. These are typical northern fruits and are found wild in Canada to the Arctic Circle or beyond. The great hardiness of these fruits ensures the settlers in the far North an abundance of cultivated fruits if this were needful, but the wild fruits grow so luxuriantly in the colder parts of Canada that cultivated kinds are really not necessary. He can understand this who saw the wonderful crops of blueberries this year in the northern parts of Ontario and Quebec, the Saskatoons in the Peace River District, of a size and quality never seen by the writer before and suggestive of glorified huckleberries because of their great size and flavor, the abundant crops of wild raspberries and strawberries also in that district, the great crops of wild plums in Northern Ontario and Manitoba, and the chokeless choke cherries of Manitoba. But far north in the Peace River District at Fort Vermilion, nearly six hundred miles North of Edmonton and on the Grand Prairie, the cultivated varieties of small fruits are being grown successfully so that it is not necessary to go to the wilds even if there is fruit in abundance there.

And now as we sit beside the fire in the holiday season, though real holidays are rare in the farm, and beside us a basket of Tompkins King, Fameuse, McIntosh, Jonathan, Grimes or Delicious apples, depending on the part of Canada in which we dwell, and scattered through, a few Spy and Spitzenberg, though perhaps not yet mellow, as a promise of what delights await us later on, and as we crack our butternuts and hickories, and our jokes, is it any wonder that we are lead to exclaim "Surely this is a Goodly Land in Which we Dwell!"

Stabilizing the Canadian Poultry Industry.

(Continued from Page 2226).

possible. Eggs are readily perishable, and consequently conditions under which they are produced should be greatly improved. Avoid feeding the fowls unwholesome feed, which affects the odor and flavor of eggs; avoid dirty nests and dirty houses; keep the males out of the flock, except during the breeding season; collect the eggs regularly and store them in a cool, dry room before taking them to market. Study the Canadian standard classes and grades of eggs, and try to produce "Fresh Gathered Specials." Insist on selling eggs on the loss-off principle, which will tend to eliminate much of the present enormous wastage of the egg crop.

The poultry business is a sound business, as has been shown from returns from many farm flocks and also from a recent investigation of the returns from poultry farms as compared with dairy, potato, and general farms in New Jersey. The poultry industry is a national necessity, since the egg is one of the most important articles of the diet of the nation. "All cookery rests on an egg, which is indeed a complete food," and since Canada now has the opportunity of developing a valuable export trade, it is to the advantage of every farmer to increase his egg production to the greatest extent possible.

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Pennsylvania	35	13.4	25.7	12.3
Rothamsted, Eng.	63	12.6	30.5	17.9
Virginia	8	7.83	14.65	6.82
Indiana	27	not given	not given	12.9
Ontario	5	"	"	5.2 to 8.3
Ohio	20	10.70	22.46	11.76

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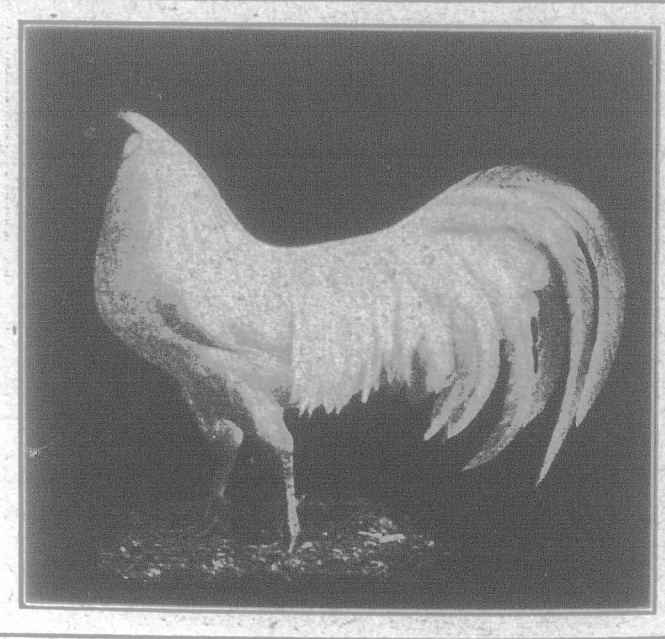

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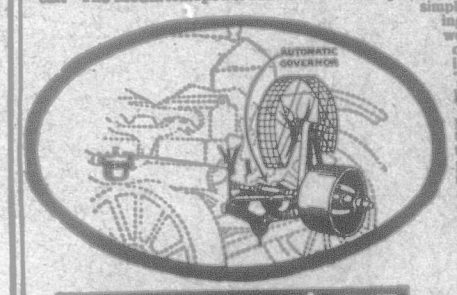

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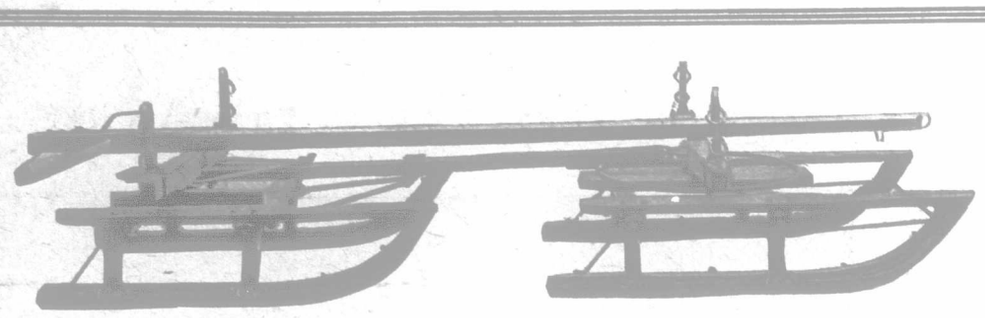

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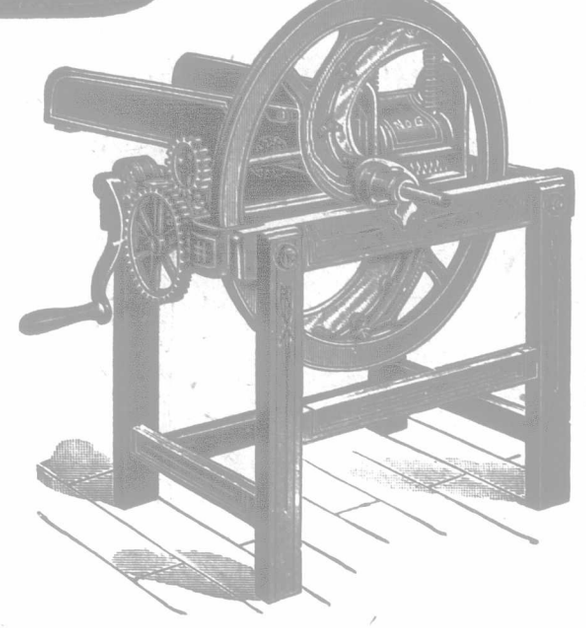

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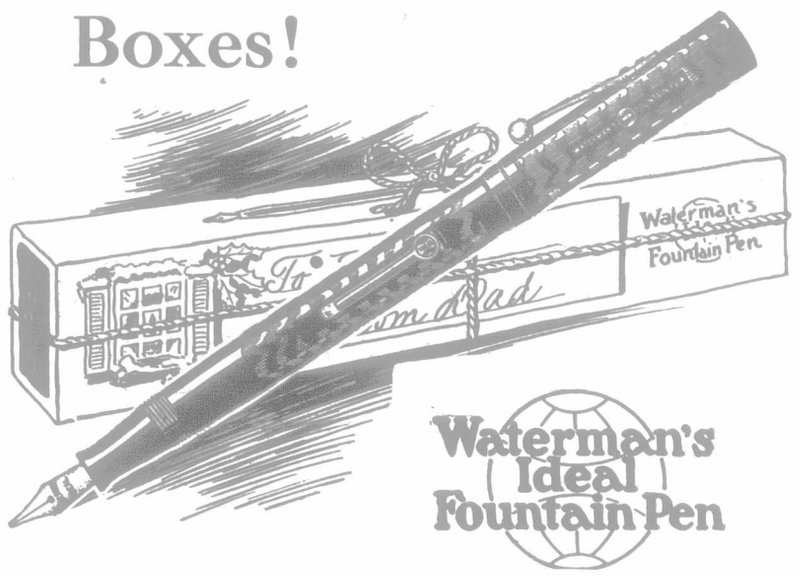

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Shock Troops of the Northern Frontier.

Continued from page 2225.

dinner—not the kind they make out of carrots but the real thing. I understand the pumpkins were not very big nor quite ripe, but they were grown in the open and the pie tasted good. Out here in the bush, away from the Lakes and nearer the Mountains frost will be more troublesome for awhile but will diminish in time.

"Fuel is no problem while poplar lasts and the lignite coal mined by settlers along the Banks of the Red Willow is next thing to anthracite. Water powers will generate electricity to light our homes and drive our farm machinery, and direct rail connections with the Coast will place us in a most enviable position as time goes on. Yes, it's a young man's country all right—a country for the courageous, the plucky and the strong. We're shock troops of the Northern frontier. I often think of Service's line on the Law of the Yukon. They apply to the North generally:

"Send me the best of your breeding; lend me your chosen ones;
Them will I take to my bosom, them will I call my sons;
But the others, the misfits, the failures—I trample under my feet."

"I like your optimism," said Betty. "I never like to hear a croaker." Conversations grew more frequent and intimate after that. He was full of enthusiasm, hopes and plans. She shared them secretly but affected scepticism, perhaps the more effectually to draw out his discourse. It seems ever to be the way of a maid with a man.

"The trouble with this country," she rallied him one day, "is that you are liable to have summer in winter and winter any old time. You remember how cold it was the night you took sick? It was cold and stormy by turns for a long while after that with a day of Chinook sandwiched in now and then for a tantallizing change. I never saw the like. It seemed as if it never would let up."

"Yes," admitted Jim, "this climate can do things when it takes the notion. But the same irregularities occurring in an old-settled district would be attributed to sunspots or the vargaries of the moon or the conjunction of the planets. In a new country there is a general apprehension lest they prove to be typical.

"There was something coming to us after that fine September. Around the Lakes this fall, I saw potatoe-tops untouched by frost until near the end of September and magnificent sweet peas."

"I love sweet peas," said Betty. "Sweet peas and pansies are two of the prettiest flowers, I think, and two of the easiest to grow. They say both do splendidly up here."

"I believe, Jim," she observed on another occasion, "there's a life story circling around almost every one who has found his way up here. Now, for instance, what turned your attention to the Peace River Country?"

"First tell me your own story."

"Oh, ours is simple. Left without much strength or means, father fell back on the Soldier Settlement Plan, and having read much about the Peace Country, we decided to come out here and try it. Both father and Ben, you see, get soldier grants as well as homesteads. We're depending largely on Ben to see us through with the improvements. Now, will you answer my question?"

"I was an Ontario farmer's son, as you already know, drifted to the city and became a gas-engine expert, travelling for a leading Canadian firm. After we finished the job 'over there' I kind of felt I wanted a change—to farm the land in place of farming the farmers. I wanted to own, develop and idealize a little patch of Nature's surface—to write my character on a piece of land. I though I would be a soldier of the soil."

"And is realization equalling anticipation?"

"Well, yes, so far, in the main. Only I am convinced our unit needs reinforcements. Looks to me as though I require a nursing sister."

"There are two or three in the hospital at Grande Prairie and another coming here in connection with the District Hospital that is being organized," said Betty archly.

"Yes, but Grande Prairie is too far away and the other won't take cases.

Concluded on page 2255.

TENDERS FOR SUPPLIES, 1920

The undersigned will receive tenders up to noon on Saturday, 20th December, 1919, for supplies of flour, oatmeal, potatoes, etc., for the following institutions for the year 1920, viz.:—

At the Ontario Hospitals in Brockville, Hamilton, Kingston, London, Mimico, Orillia, Penetanguishene, Toronto, Woodstock, Whitby; the Mercer Reformatory, Toronto; the Brick Works at Mimico, and the Industrial Farms at Fort Williams and Burwash.

A marked cheque for five per cent. of the estimated amount of the contract, payable to the order of the Honorable the Provincial Secretary, must be furnished by each tenderer as a guarantee of his bona fides, and two sufficient sureties, or the bond of a guarantee company authorized to do business in the Dominion of Canada, will be required for the due fulfilment of each contract. Specifications and forms and conditions of tenders may be obtained from the Inspector of Prisons and Public Charities, Parliament Buildings, Toronto, or from the Bursars of the respective institutions. The lowest or any tender not necessarily accepted. Newspapers inserting this advertisement without authority from the department will not be paid for it.

H. C. NIXON,
Provincial Secretary.

Parliament Buildings Toronto,
December 2nd, 1919.

AUCTION SALE REGISTERED

Clydes and Shorthorns

ON

Wednesday, December, 17th, 1919

Included in sale is the celebrated Imported Clyde Stallion, Sir Jas. of Alton [17503] (17283). A 1 premium inspected, besides 8 head good Scotch-bred Shorthorns, 1 grand team geldings, 3,100 lbs. (well matched), good team Clyde mares, 3,200 lbs., and one excellent set brass-mounted double show harness. At the same time and place the full stock of farm stock and implements will be sold without reserve. Sale at ten o'clock sharp. 1¼ miles from Radial Railway. 5 miles south of Aurora.

SAIGEON & EAGN, Auctioneers

T. H. LEGGE, Proprietor

Temperanceville Ontario

I'm liable to need a bedside nurse again, you see. Are you open to engage? Will you share a settler's home with me?" as, dropping then indirection behind which the sentiment of a strong nature was wont to entrench itself, he raised his clear grey eyes to her soft brown ones in a plea of passionate appeal.

The cadence of the Song of Songs intoned her simple "Yes."

Our Law-Makers and Their Habits.

(Continued from page 2229.)

Senate is the nearest Canada has yet come to the British House of Lords. It is the Upper House of Parliament, where the Royal Assent is given to all legislation; where the speech from the Throne is read by His Excellency the Governor-General at the beginning of each session; where the political discards from all over the country are given reserved seats for life with the tail end of the country's business to look after, and where the Dear Old Public is politely told to mind its own business. "Really, there isn't much more to be said about the Senate, except that some of the Senators take snuff and carry two canes, and that this body has to sanction all bills passed by the elected representatives, before they can become law. It might almost be said of the Senate as a medical author once wrote humorously of himself:

"When people's ill, they comes to I,
I physics, bleeds and sweats 'em;
Sometimes they live, sometimes they die;
What's that to I? I lets 'em."

Have your furnace this winter

Here is a furnace you can put in NOW as well as any time. It is hardly a day's work

THAT means you can have your furnace NOW when you need it most; that you can make your home cozy and be comfortable for the rest of this winter.

Then why put off enjoying your furnace until next winter?

There's no need to wait until spring to have the work done. With this Pipeless Furnace there is hardly any work anyway. You can do it now as well as any time. There is no cutting up the walls of your home, no muss or trouble, no need for a big excavation, no men tracking dirt through the house. Inside of twenty-four hours your Hecla Pipeless can be installed and the fire started.

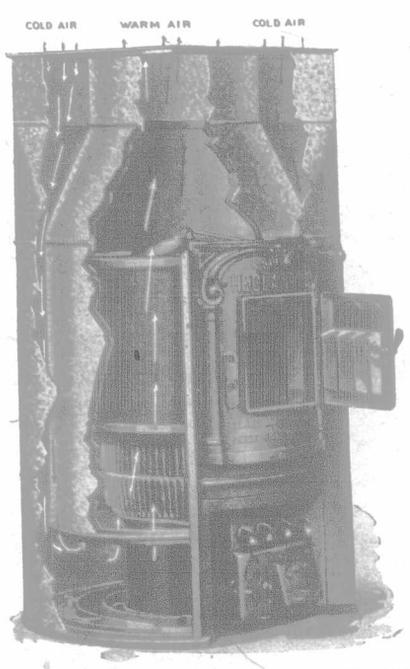
Then why wait? There's a long, cold winter ahead.

THE Hecla Pipeless is the modern style of furnace for a six or eight-roomed house. It circulates heat in a house with less waste than any other style of furnace. One large register directly over the furnace sends out the warm air and draws in the cold air. It is the simplest, most economical, and, as hundreds have found, the best method of heating homes, stores, schools and buildings of all kinds.

The furnace itself is the famous Hecla. It has the same safeguards against gas and dust for the Joints are Fused. It has the large, circular waterpan to supply health-giving moisture. It has the steel-ribbed Firepot that saves one ton of coal in seven.

Wood can be burned as well as coal. The firing door is large. The triangular grate bars heavy and durable. The combustion chamber is made of cast-iron to last a lifetime. The whole construction of the Hecla Pipeless gives assurance of good service and long wear.

Remember, hundreds of these Hecla Pipeless Furnaces are in actual use proving their fuel economy, their clean, healthful heating, and their durability.



CLARE BROS. & CO., LIMITED
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The Best Heating—At Lowest Cost.

You save money too by installing the Helca Pipeless. There are no pipes—and so no expense of putting them in. No carpenters' bills, no costly labor. When you pay for the furnace you have practically paid for everything, for the work of installing should cost but a trifle.

You Can Get Your Furnace Promptly.

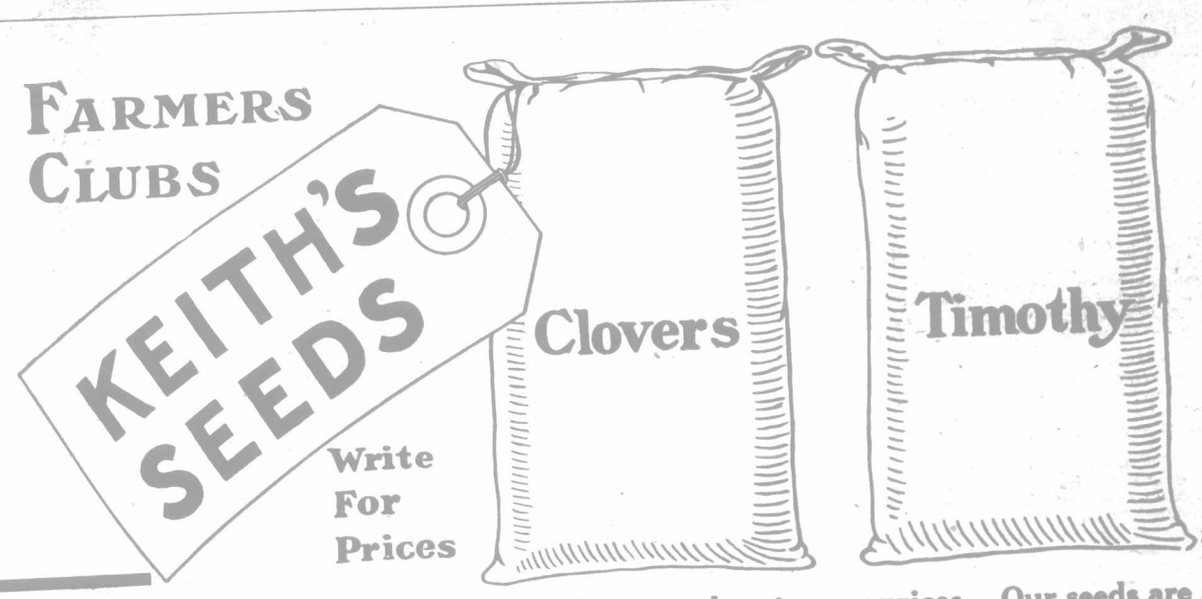
The first thing is to write to us, tell us about your house and find out what the Hecla Pipeless Furnace can do for you. Don't put it off another cold winter's day. We can send you your furnace the day you order, and in a few days later your home will be cozy and warm. Write NOW.

Guarantee.

We guarantee that a Hecla Pipeless Furnace will properly heat your home. We cannot make it stronger than that. You are to be the judge. We stand back of our product—absolutely.

Hecla PIPELESS Furnace

FARMERS CLUBS



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Every farmer should have our 1920 Catalogue and note our prices. Our seeds are of highest quality and the most reasonable on the market. We buy direct from the growers and sell direct to YOU—no middleman's profit.

Our 1920 Catalogue will soon be completed. Send in your name for a copy—mailed free on request.

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Seed Merchants for 54 years

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Make 1920 prosperous
by increasing your production

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Capital and Reserves, $9,000,000.00

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If your finances make the purchase of more stock and better implements and the employment of more help seem impossible, consult the Manager of The Molsons Bank's nearest Agency.

He will gladly advise you as to the best way to increase your production.

Banking with The Molsons Bank is the safest and handiest way to keep your money, and when you change from depositor to borrower you have the best banking facilities and ample resources to assist you.

THE MOLSONS BANK GIVES SPECIAL ATTENTION TO FARMERS' ACCOUNTS

A REAL COAL OIL - ENGINE -

YEARS IN ADVANCE OF ALL OTHERS. **No Carburetor. No Batteries. No Spark Plugs. No Magneto. No Wires. Fully Guaranteed.** The perfect oil engine. Runs on coal oil, fuel oil, or crude oil. USES NO GASOLINE—NOT EVEN TO START. The saving in amount of coal oil used over old style of engines will pay for this engine in a few months. Starts easily on coal oil in coldest weather. Its principle is purely compression. No electrical devices to loosen or get out of order. You should investigate. THE HOAG OIL ENGINE is in a class by itself and is the farmer's real friend. Do not accept anything else. Write us to-day for booklet and information. Mention size you are interested in.

Dominion General Supply Co., Limited
Dept.
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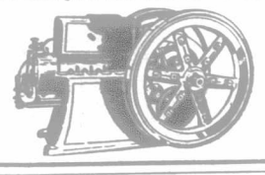

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SALES NOTES

Don't hold your sales notes until they mature. Any Branch of this Bank will advance you money on them. If you prefer, place your sales notes with us and we will collect them when due, and credit your account.

221

IMPERIAL BANK OF CANADA

180 Branches in Dominion of Canada.

What's Your Dollar Worth in Foreign Markets?

Continued from page 2219.

export gold. However, since the early years of the war the nations of the world have been anxious to retain possession of their gold supplies, and so exportation has been prohibited. Lacking this natural corrective, the fluctuation in exchange rates has known no limits except those imposed by the law of supply and demand.

Thus on November 6, sterling exchange was selling in New York at $4.15½, a discount of nearly 15 per cent. on English money. On the same day there was a discount of 42 per cent. on the French franc, of 58 per cent. on the Italian lire, and of 88 per cent. on the German mark. But still further depths of degradation were reached by the Russian ruble, which was worth only one-tenth of its face value, and by the Austrian krone which could be bought in New York at five cents on the dollar. The cause of these abnormal discounts are not far to seek. They are due chiefly to the fact that America's total exports of goods, services, etc., to Europe were very much greater than the return flow sent by war-stricken Europe. Taking goods alone, the excess of Uncle Sam's exports over imports amounted to over four billion dollars in the year ending June 30, and to nearly eleven billions in the last three years. In the single month of June last, the excess amounted to the undreamed-of sum of $500,000,000. In addition to this, the United States has in the last three years bought back from Europe most of her securities formerly held abroad, and in the same time has loaned to the Allied countries almost ten billion dollars. This means that the several hundred million dollars' worth of interest payments which the United States formerly made each year to Europe will, in the future, run the other way. Is it any wonder that European bills should flood the New York market and sweep exchange rates downward past all the familiar landmarks!

What of Canadian exchange? What is our dollar worth in in foreign markets? The amount of pure gold in our gold coins is exactly the same as that in Uncle Sam's gold coins but a New Yorker, who had a claim to 100 Canadian dollars in Montreal could only sell his claim on November 6 for $95.94—in other words Canadian currency was at a discount of 4 1-16 per cent. Throughout the year this discount has prevailed, varying in amount from two to five cents on the dollar. The cause is to be found in the triangular nature of Canada's trade. Canada *buys* mainly from the United States, and buys much more than she returns—over $272,000,000 more in the fiscal year 1918-19, and $136,000,000 in the five months April to August last. On the other hand, Canada *sells* mainly to Great Britain; in the fiscal year 1918-19, she exported to the Mother country $479,000,000 worth more of goods than she bought back and in the five months April to August $201,000,000 more. To-day as everyone knows, we have to sell to Great Britain chiefly on credit. That is one of the main purposes of our Victory Loans. Canada is, therefore, in the position of selling largely to a buyer who cannot pay cash terms, and of buying largely from a seller who demands cash terms. The discount on Canadian money in that seller's market is the inevitable result.

But though at a discount across the line our dollar is worth more than its face value in practically all other countries. As New York is the exchange centre on this continent, quotations for foreign currencies in Montreal differ from those in New York only by the discount or premium obtaining on New York funds in Canada. Thus because of the four per cent. premium on New York exchange in Montreal, sterling exchange was quoted on November 6 at $4.32 in Montreal. Roughly speaking on that day a claim to a Canadian dollar would be worth $1.11 in London, $1.38 in Paris, $1.54 in Rome, $1.84 in Berlin, $1.86 in Petrograd, and $1.91 in Vienna.

What effect have these abnormal rates on prices and trade relations? Fortunately they are both the symptoms of abnormal conditions, and the remedy provided by nature to correct those abnormal conditions. Bitter medicine though it may be, a discount on a country's currency tends automatically to correct the unbalanced state of trade, of which it is a

THE ROYAL BANK OF CANADA

wishes its many friends and customers a very Happy Christmas and a Prosperous New Year.

620 BRANCHES

Capital Paid Up - $17,000,000
Reserve Funds - - $18,000,000
Total Assets - - $505,000,000

1869 - 1919

Protection and Profit

When money is in a Savings Account in The Merchants Bank, it is absolutely safe from loss, as far as you are concerned. All the time it is here, it is earning interest—so that the bank actually pays you to let it take care of your money. Don't carry unneeded sums on your person or hide them at home. Protect them against loss, theft and fire by opening a savings account.

THE MERCHANTS BANK OF CANADA

Head Office: Montreal. Established 1864.

With its 131 Branches in Ontario, 42 Branches in Quebec, 1 Branch in New Brunswick, 2 Branches in Nova Scotia, 30 Branches in Manitoba, 44 Branches in Saskatchewan, 74 Branches in Alberta and 9 Branches in British Columbia, serves rural Canada most effectively.

WRITE OR CALL AT NEAREST BRANCH.

The Farmer's Financial Friend

We have large resources and the vast experience of 87 years to draw upon to serve you; but we have something even more important—we have the earnest desire to do so.

We cash your produce and personal cheques, collect your drafts—all by mail if required—and gladly give you impartial advice on any financial or business matter.

Paid-up Capital $ 9,700,000
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298 branches. General Office, Toronto.

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SHORTHORNS—Herd headed by Clarewood Chieftain (112221) a son of "Right Sort" Imp. Present offering five young bulls from seven to eighteen months; reds and roans. Special prices for immediate sale.

E. W. GOWAN R. R. 1, JARVIS, ONTARIO

A Suggestion for Saving

CASH in the pocket encourages careless spending.

You will find it a much easier task to save if you keep your "Spending" money in a Savings Account with The Bank of Toronto. There it is safe and can be drawn upon when really needed.

A reluctance to draw from that account will grow upon you, and protect you from many needless expenditures.

Once the saving habit is acquired, the account, with its earnings of interest, will steadily grow to a substantial amount.

Many young men and women are working out this scheme with us to advantage.

It is a plan worthy of a trial.

25

THE BANK OF TORONTO

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symptom. An example will make this clear. If Italian exchange is at a discount of 58 per cent. in New York, it will cost an Italian $15.80 (plus transportation charges) to import a $10.00 article from the United States. Hence exports from the United States will be greatly discouraged. Conversely an American can buy $10.00 worth of lemons in Italy for $4.20 (plus transportation charges) and is therefore encouraged to import. Thus, at the present time exports from the United States and Canada to Europe are discouraged while there is a heavy premium on importation from Europe. The same principle applies to loans as well as to goods. Obviously these forces will continue to work until the distorted balance of Europe's trade is brought back to equilibrium. Similarly Canada's adverse rate of exchange with New York will in time bring about an adjustment of our trade relations with our Southern neighbors. Canadian business men and the consumers of luxury commodities find themselves penalized from 2 to 5 per cent. in making purchases across the line while the discount on English money places a premium upon buying in England. So the state of the exchanges is making us do exactly what we should do—transfer a large part of our imports from United States to Great Britain and the other countries which owe us gold and which will thereby be enabled to pay us in goods.

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Imperishable Silos

Built of Glazed, Hollow Blocks to last for generations without repairs or added expense and whose air pockets insure warm, dry, vermin-proof walls. It can't blow over—we guarantee it. Ensilage is precious stuff. You can't afford to waste it, or your money.

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Hard Burned Clay Tile in all sizes for shipment now and while the sleighing is good.

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That build houses, barns, milk houses, garages. The cheapest form of permanent masonry construction. Warmer in Winter—Cooler in Summer.

Catalogues Free—Prices on Request.

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Agricultural Dept. - Hamilton, Ontario.

THE UNITED FARMERS' CO-OPERATIVE COMPANY, LIMITED
Live-Stock Commission Dept.
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SERVICE - SYSTEM IN SELLING - STOCK

The co-operation method of marketing live-stock is a straight-forward business system.

The staff is composed of men of wide experience in the handling of co-operative shipments and have secured the confidence of a very wide range of shippers by individual service to the owners in each shipment.

By this method all live-stock is sold entirely on its merits and each owner receives the real market value at the time of sale less the actual cost of handling.

The above two factors have developed a large business in a comparatively short time regardless of very keen competition. The greatest advertisement of any firm is the volume of trade handled.

All enquiries regarding trade conditions, market prices and general information given special attention. Write for our circulars and special equipment.

United Farmers' Co-operative Co., Ltd.
Union Stock Yards
West Toronto

Mention the "Farmer's Advocate" when writing.

Buy Fence as you'd Buy Live Stock!

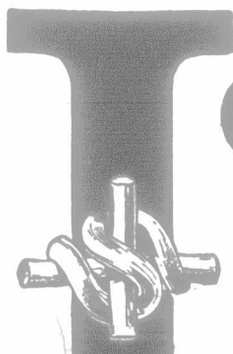
SEE THAT the fence you select has all the "points" that indicate quality. Investigate its "records" and its "past performances".

The REAL cost of a fence depends upon how many years of good service you get out of it.

Our policy always has been—always will be—to make "IDEAL" Fence up to a high standard, not down to a price, and we have found that the average farm-owner demands and appreciates the best of material and workmanship in the fence he buys.

Made in Canada

Ideal Fence



GUARANTEE We guarantee "IDEAL" Fence to be exactly as represented. If you are not satisfied with "IDEAL", send it back at our expense and we will return your money. This guarantee covers everything—no conditions, no loopholes.

You can always tell "IDEAL" Fence by its lock!

Look for it—the mark of quality—your guarantee that the fence is "IDEAL" in name and in service.

THE "IDEAL" LOCK

"IDEAL" Fence is different in ways that mean much to you as a fence-buyer. Send for free illustrated folders telling how it is different.

You owe it to yourself to be in possession of these facts before parting with your money for any fence.

IDEAL FENCE AND SPRING COMPANY OF CANADA, LIMITED, - Windsor, Ont.

Holstein Past, Present and Future.

Continued from page 2222.

grades. Veal is also an important source of revenue to the dairymen of North Holland and Friesland. They supply vast quantities to the English markets. Cows of this breed make an excellent quality of beef. Whatever the breed, in no country does a dairy herd last longer than from six to ten years; age, accidents and failures to breed constantly deplete it. If the cow thus dropped out cannot be profitably turned to beef, the capital in the herd is totally lost every period of from six to ten years. Cows of this breed put on flesh rapidly when dry and their beef commands a high price.

Owners of Holsteins base their claims for the superiority of the breed over all other dairy breeds mainly on the following points: that she is a large vigorous cow, full of energy and abounding in vitality; that her physical organization is such that she is able to turn to the best advantage the roughage of the farm, converting the same into merchantable products; that she yields large quantities of most excellent milk, fit for any and all uses and especially well fitted for shipping purposes; that heredity is so firmly established through her long lineage that she is able to perpetuate herself through the production of strong healthy calves; and that, when for any reason her usefulness in the dairy is at an end, she fattens readily and makes excellent beef.

What shall we say of the future? Our export trade in dairy products seems to promise exceedingly well. Mr. Arkell, who has had unusual opportunities for investigation tells us that: "As regards dairy products, butter is everywhere at a premium and Canadian cheese holds a similar reputation to Canadian bacon. The shortage of milk and dairy products in Great Britain is unprecedented. The same is true of Europe. Partly this is due to the scarcity and high price of concentrated feed. It is a condition that is so general as not quickly to be remedied. This condition, in fact, is regarded with the gravest concern by those who have in hand the difficult task of agricultural reconstruction. It is retarding also the increase of swine production and the restoration of the normal requirements of fat. The consensus of opinion is that the future of the export trade in dairy products is assured."

When I think of the enormous development at home in recent years of the trade in city milk, ice cream, condensed milk and powdered milk, I have no fears for the future. The researches of Dr. E.V. McCollum have established beyond a doubt that milk and its products are indispensable to the development of mankind, and the National Dairy Councils of both Canada and the United States are preparing to spend thousands of dollars to educate the public along these lines. Keeping all these facts in mind, I feel safe in predicting greatly increasing popularity for the Black-and-White cow, the true fostermother of the human race.

Questions and Answers.

Miscellaneous.

Master and Man.

A hires B for the term of one year, agreeing to pay $550.00 with house rent free, B boarding himself. At the end of one month B asks A "if he is satisfied." A saying "No," B asks A if he would give him $135.00 and call the bargain off. A said he would see. At the end of five days B asks A what he intends to do about it. A said he would give him no more than $45.83 per month. B said rather than take that he would stay his term out. A saying he would not let him as he had hired another man.

1. Can B collect $135.00, being $67.50 for one month, the two of the busiest months, as the price of everything is high and winter coming on?

2. Can B be forced out?

Ontario. A SUBSCRIBER.

Ans.—1. No, he should explicitly tender his services for the balance of the year; and then, if he refuses to accept same, bring action against him for damages on account of repudiation of contract.

2. Not without recompense.

A Sure Grip Saves Gas

YOU gain power and save gas if your tires grip. Then, if you do much driving in snow or on muddy roads or slippery pavements Dreadnaught Tire Chains soon pay for themselves.

Dreadnaughts are the chains with the Long-lever Fastener—the ones that are quickly put on. They have a sure grip. Yet they creep on the tire and avoid damage to the tread.

The links are electric-welded and case-hardened for strength and long wear; the rim-chains rust-proof.

Make your car safe and economical to drive in all seasons and on every road. Ask your garage man to supply you with Dreadnaught Tire Chains—or write us direct for information.

Dreadnaught

TIRE CHAINS

McKINNON COLUMBUS CHAIN LIMITED

St. Catharines, Ont.

16

Electric and Fire Weld Chains

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SOW SIMMERS' SEEDS

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Our handsome Spring Catalogue now ready. A copy will be mailed free on request.

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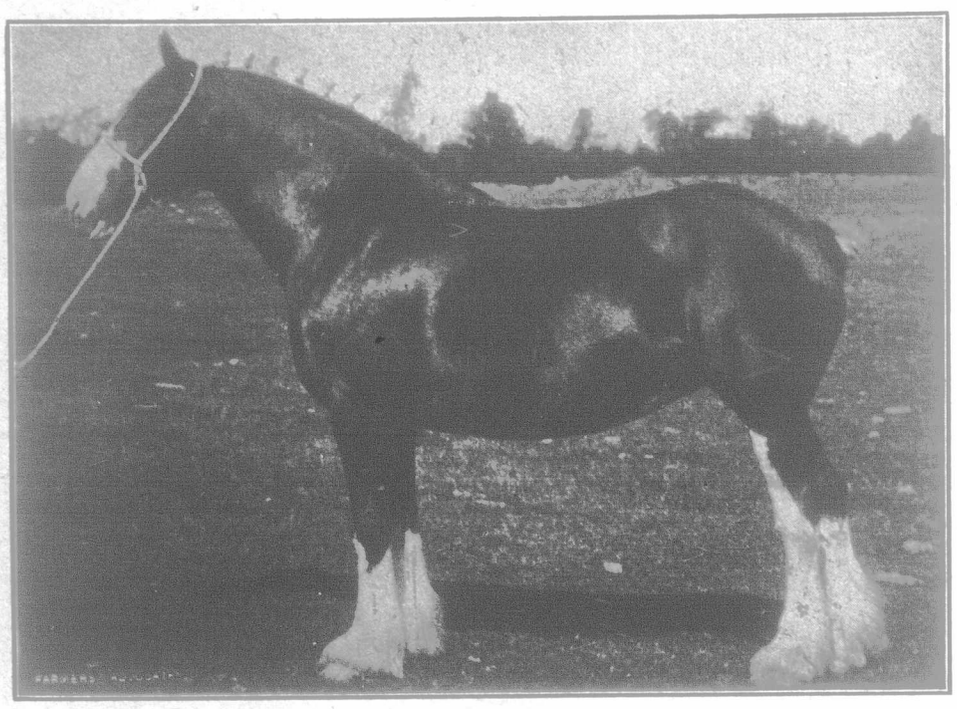
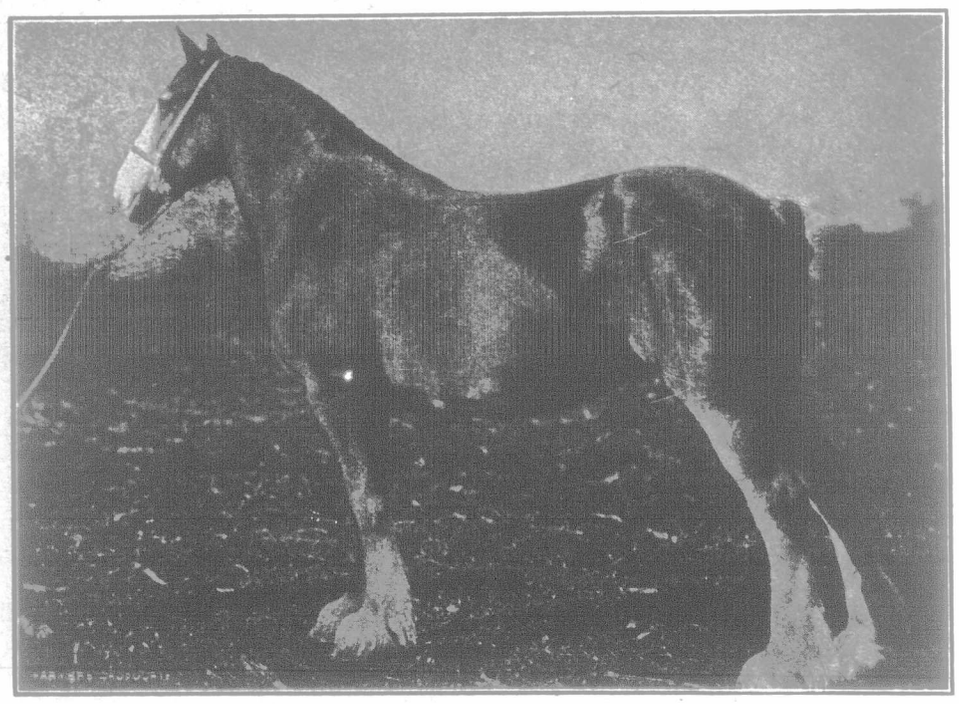


Syringa 33216—Am. Clydesdale Stud Book 21271.

Sire, Sir Spencer (imp.), dam Marchioness (imp.) by Marcellus, winner of championships since her second-year-old form, 1st yeld mare Canadian-bred champion and reserve grand champion to her stablemate Margery Daw, Ottawa, 1919.



Marchioness (Imp.) 18523 (22392)

Sire Marcellus, dam Lily of Culhorn by Moncreiffe Marquis, grandam Maggie Stewart by Craichmore Darnley, and tracing back through her 5th dam Nancy (82) to the famous brood mare sire, Victor (892). Marchioness has been an outstanding winner in the show-ring, being champion in her class and grand champion female at Central Fair, Ottawa, for both years 1910 and 1911. Is dam of Syringa, Mazeppa, Vanity Fair and others. One of the foundation mares at Hillsdale Farm.

Margery Daw 36589—4 yrs. Am. Clydesdale Stud Book 21273.

Sire Dunnottar (imp.), dam Manilla (imp.) by Bonnie Buchlyvie, a winner at the big shows since her foal form, champion in open class and grand champion female at Central Fair, Ottawa, for both years 1918 and 1919

"HILLSDALE" CLYDESDALES

The Quality Stables of Canada

From the editorial columns of "Farmer's Advocate," issue of November 27th, 1919:

Experimental Farms Purchase Noted Show Mares

A sale of more than ordinary significance in the Clydesdale world took place recently when Prof. Archibald, Director Dominion Experimental Farms, purchased from Hillsdale Farm the two well-known brood mares, Manilla and Syringa. Probably no two mares have been more conspicuous in the public eye in the last semi-decade, and certainly none more deservedly popular. Manilla (imp.) was foaled in 1911 at the famous Seaham Harbor Stud, the property of the late Robt. Brydon, and imported to Canada in her yearling form by B. Rothwell Hillsdale Farm, Ottawa, Ont., in whose hands she has been abundantly successful, having produced to the cover of Dunnottar five foals in five consecutive years. Her first foal, Margery Daw, has been a consistent winner at Toronto and Ottawa from her foal form onward, winning grand championship honors at the Central Fair, Ottawa, for the past two years, 1918 and 1919. Dunlevie and March Past followed the latter colt, winning the Canadian-bred championship and reserve grand championship at the last Central Fair. Her fourth foal, the yearling filly, Queen O'Beauty, stood first in the open class for yearling mares at recent Central Fair. Manilla was sired by the Cawdor Cup and Brydon Challenge Shield winner, Bonnie Buchlyvie, sold in his ten-year-old form at the Seaham Harbor dispersion sale for 5,000 guineas. Her dam Mimosa, a Royal winner, and a full sister to the champion mares, Pansy and Mayoress, was sired by the Great Silver Cup, three times, first at the Royal and twice first at the Highland Shows. Her third dam was the outstanding mare, Muriel, by Gallant Prince, one of the biggest and handsomest sons of Prince of Wales. Manilla won many prizes prior to importation. At Toronto and Ottawa she has invariably been successful in the open brood-mare class, winning first at Ottawa for the last four years. Manilla has the outstanding wearing qualities of her race, qualities that made her sire famous, and is as fresh on her legs to-day as in her year-old form. She has been bred and is believed to be with foal to Dunbar.

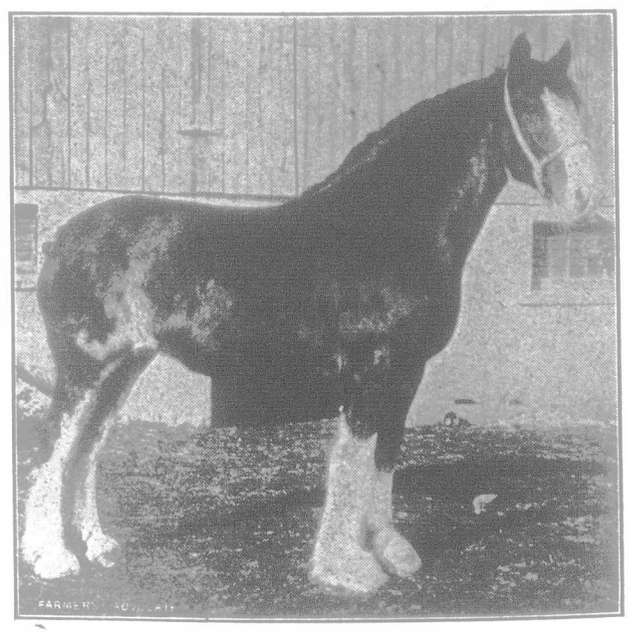
The six-year-old brown mare Syringa was foaled at Hillsdale Farm, and is by the good breeding horse, Sir Spencer, a son of the famous Sir Hugo. Her dam, the (imp.) roan mare, Marchioness, is a daughter of the great brood-mare sire and Cawdor Cup winner, Marcellus. Her second dam was by Moncrieffe Marquis, also a Cawdor Cup winner, and her third dam by Craichmore Darnley, a noted brood mare sire, and one of the biggest sons of the epoch-making Darnley. She has produced two foals at Hillsdale Farm, her filly of 1918 being the unbeaten foal of its year. Syringa began winning grand champion honors in her two-year-old form and has placed many honors to her credit in the interim, and carries her 2,050 lbs. with the gayety of a three-year-old. She is due to foal in March to Dunnottar.

The management at the Experimental Farm may well feel proud of their purchase from Mr. Rothwell.

Present Offering:

A few young stallions and mares of breeding age, and out of such mares as Manilla and Seaham Bonnie, by Bonnie Buchlyvie; Marchioness, by Marcellus; Mimosa, by Silver Cup; Sweet Mary, by Squire Ronald, and others, for sale.

B. Rothwell, Hillsdale Farm R.R. No. 1 Ottawa, Ont.



Manilla (Imp.).

Foaled 1911 at Seaham Harbor, the property of the late Robert Brydon. She was imported as a yearling by Mr. Rothwell, and was first in the brood-mare class and grand champion Clydesdale female at Central Canada Exhibition, 1917. She is also the dam of Margery Daw, the grand champion winner at the same exhibition this year.

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Ayrshires—Industrious Servants of Humanity.

Continued from page 2224.

hardiness and thriftiness must have fair treatment to produce maximum results.

Next to its adaptability, one of its strongest characteristics is its ability to stamp not only its type but its foraging and active disposition on whatever breed it may be mated with, this making it a wonderfully successful medium through which to grade up. No class of cow is in keener demand to-day than a good grade Ayrshire, especially for dairies producing certified milk, for children and hospitals, and as people get more educated to the differences in milk we can look for this demand to increase.

As I mentioned previously in this article, Ayrshire men can look to the future with confidence; nevertheless, it is a fitting time to set our house in order and adopt a more aggressive attitude, both in the management of our herds and our Association. If you are not supporting either the show ring or the R. O. P., get busy right now and prepare for at least one, but preferably for both of them. If only one is possible, keep the other in your mind's eye, for it is only by keeping both ideals in mind that lasting results can be obtained. The first move to be made should be to place a bull of show-ring calibre, and from R.O.P. ancestry, at the head of your herd, and if he makes good as a sire don't discard him when three or four years old. Ayrshires are one of the healthiest breeds in existence, but no breed is immune to disease, so satisfy yourself that your foundation is healthy. Apply the tuberculin test and be true to your own interests as well as those of the breed, and consign all reactors to the slaughter-house. It may be possible for a millionaire to maintain a reacting herd and raise healthy calves, but it is a dangerous experiment for an average breeder.

Turn over a new leaf and feed more liberally. Feeds are high, but the difference between a fully-developed animal and a stunted one is greater. Don't breed your heifers too young. Next in importance is to adopt a healthy, optimistic attitude of mind and become a booster, either at the pail, the show or the sale ring.

Boost and the world boosts with you,
Knock and you're on the shelf;
For the world gets sick of the one who kicks,
And wishes he'd kick himself.

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Questions and Answers.

Miscellaneous.

School Taxes.

Can the council compel me to pay a direct school tax when the property is over three miles from any school? If so do I have to pay to the one the nearest, or can they put me in any school section?

Ans.—Sec. 70 (5) of the Public Schools Act provides that "where children attending a neighboring section reside three miles or more by the nearest public road from the school-house in the section to which they belong, the board of the section in which the children reside shall remit so much of the taxes payable by the parents or guardians of such children for school purposes as equals the fees paid to the board of the neighboring section."

Dominion Income Taxation.

1. Is there a law to compel a farmer on a one-hundred-and-fifty-acre farm to fill out three sets of income tax papers with about one hundred questions each on them?

2. As they are to be filled for 1917 and 1918, how is one who has never kept farm accounts going to fill them out?

Ontario. P. McT.

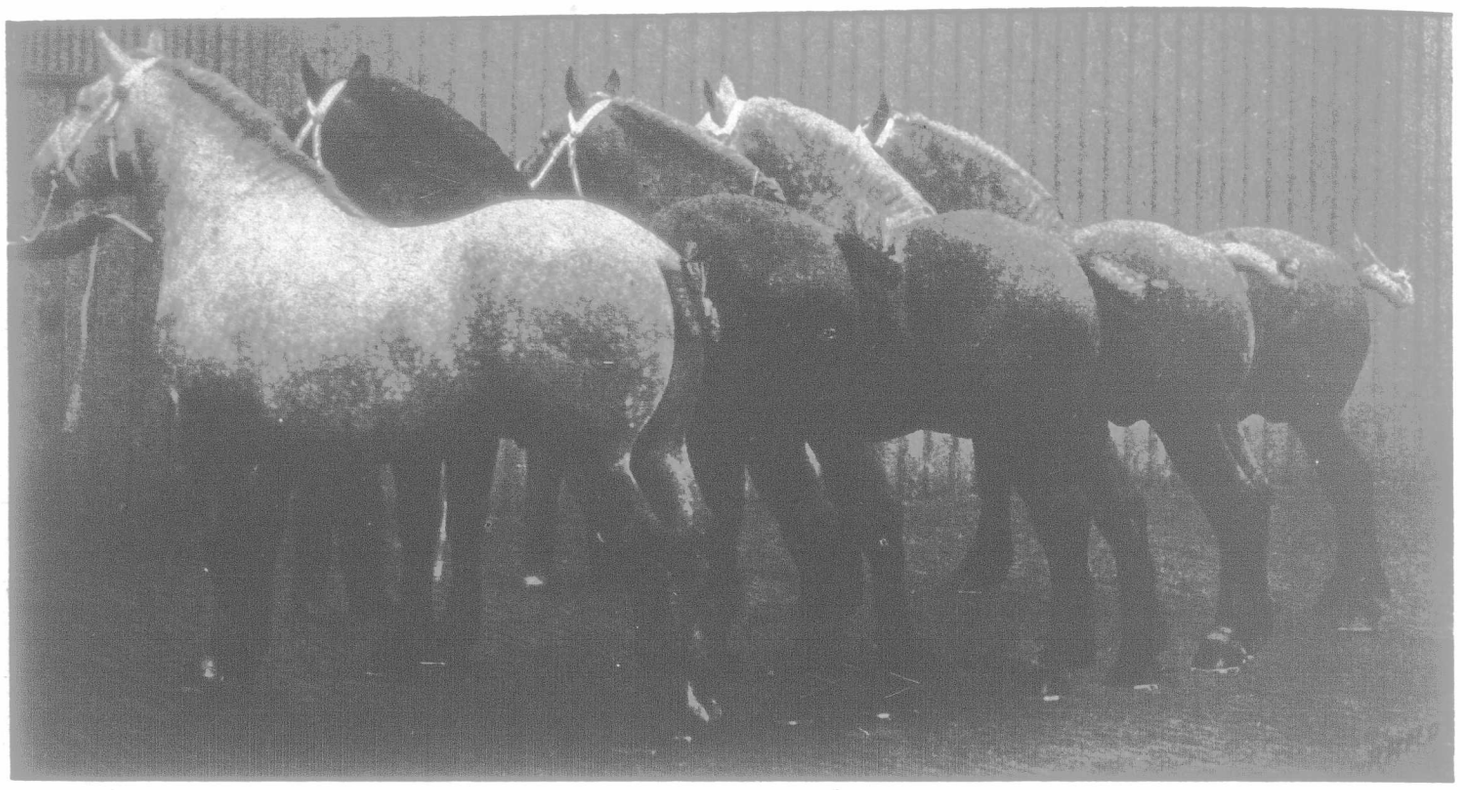
Ans.—1. He is legally liable to a heavy fine in the event of failure on his part to complete and deliver the regular income declaration (in triplicate) as called for by the Dominion Government.

2. He can only do his best. Of course, the Inspector of Taxation will assist him in the filling in of the forms if requested to do so.

Percherons and Belgians

The Popular Breeds

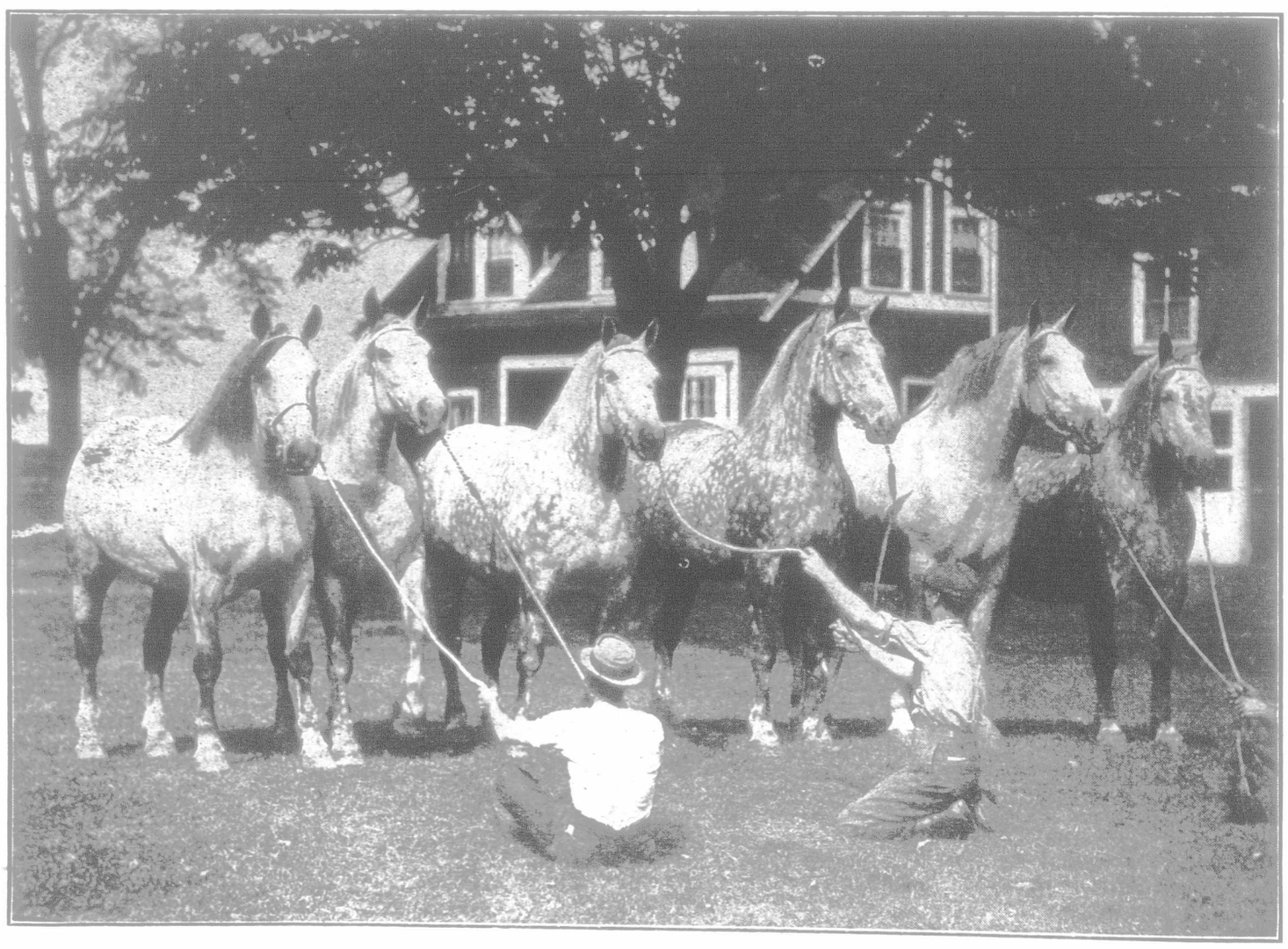
Stallions and Mares



In our stables at Fair Grounds, in London, we now have 25 head of Percheron and Belgian stallions and mares, and can suit the most critical buyer. Below we give you summary list of prizes these horses won at the Western Fair, London, 1919. Percheron stallion, aged class: First, third and fifth. Three-year-old class: First and second. Two-year-old class: First and second. Aged Percheron mares: First. Three-year-old mares: First, third and fifth. Two-year-old mares: Second. Aged Belgian stallions: First and second. Two-year-old Belgians: First. Champion Percheron stallion, Champion Percheron mare and Champion Belgian stallion.

They are pronounced by all parties who have seen them to be the best lot of stallions and mares that were ever seen together in Canada. The stallions weigh from 1,900 to 2,200 lbs., and the mares weigh from 1,750 to 2,000 lbs. All guaranteed, and will sell on time to responsible parties.

If you are in the market for a good stallion or mare, come and see us. Don't wait until they are all sold.



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I have used GOMBAULT'S CAUSTIC BALSAM for ten years; have been very successful in curing curb, ringbone, capped hock and knee, bad ankles, rheumatism, and almost every cause of lameness in horses. Have a stable of forty head, mostly track and speedway horses, and certainly can recommend it.—C. C. CRAMER, Training Stables, 990 Jennings Street, New York City.

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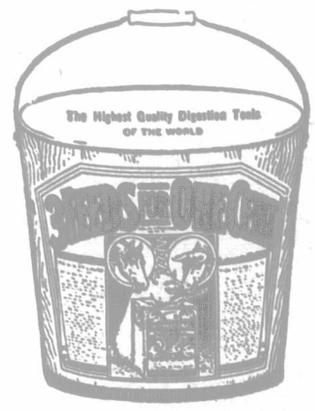

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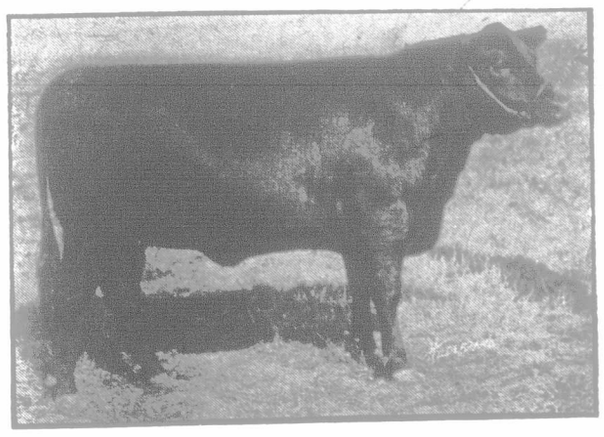
Gossip.

The Berkshire Herd at Elmhurst.

Visitors at Elmhurst Farm to-day will note a considerable change in this establishment if they, like the writer, have been in the habit of paying annual visits to this well-known stock-breeding institution. For years Shorthorn cattle and Berkshire swine have held dual positions at Elmhurst, but in the past year the management has found it necessary to dispose of the entire Shorthorn herd to make room for increased business in the Berkshires. When disposing of the Shorthorn herd in midsummer, it was Mr. Vanderlip's intention to leave shortly for England for the purpose of bringing out a large importation of Berkshires which would land at the farm early in November. The embargo, however, which has held up importations this fall, made a change in the plans necessary, and for the present at least, he is continuing on with the imported sires and dams which have made up the breeding herd for the past three years. Many of these although somewhat past their prime, are still breeding exceptionally well, and at no time in the past ten years have we seen a better offering of young sows at Elmhurst. The sixteen 6-months sows, all the get of Suddon Torredor imp., were by far the most outstanding lot we have seen carried over by one breeder for some time. Like all the get of Suddon Torredor, these show remarkable uniformity and as ordered, they will be bred to Augusta 3rd (imp.) if desired. There is also one splendid litter of a dozen six-weeks youngsters which are sired by Suddon Torredor (imp.), and these, like the older ones, carry sufficient quality and type to justify the retention of their ten-year-old sire. It is certain that he looks exceedingly fresh for a boar of this age, and one can well believe Mr. Vanderlip's statement in which he says that Suddon Torredor has been the greatest money-maker which ever came on the farm. It might be only fair to add here, however, that at all times he has had exceptional females to work on, as the entire herd of breeding sows is made up of the famous Highclere's and Augusta families, all of which are imported. Mr. Vanderlip states that he is in a position to fill orders for pairs and trios, not akin and that every order is sent out with all express charges paid, and satisfaction guaranteed.

Sunny Acres Aberdeen-Angus



TIP TOP LASS OF SHAMROCK —18143— 271258.

A typey Angus heifer imported by G. C. Channon.

We have at present young bulls sired by one of the Sunny Acres herd sires, **Kinnaird Lad (Imp.) —7304— 168262, Elm Park Pat —8220—.**

These are the best lot of youngsters we have ever bred, and are priced for immediate sale. We also have females bred to these sires.

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Forty-Eight Fresh Cows at Brantford.

At the time of writing the facts we have on hand regarding the various consignments now being catalogued for the Brant County Sale of Holsteins is very incomplete. Of the fifty-two head consigned, however, it would be of interest to many to know that included in the number are thirty cows that will be fresh or still in full flow of milk at sale time, with eighteen more that will be due to freshen around sale day or shortly after. As there are only four bulls selling, it will therefore, be noted that forty-eight out of fifty-two lots listed, are fresh cows. This probably is the largest number of fresh cows ever sold in Canada in a sale of this size. In reviewing the pedigrees which are to hand, the more noticeable among them include such cows as a five-year-old sister to the 34.06-lb. cow Pauline Colantha Posch; a 14.29-lb. two-year-old daughter of Prince Fayne Harland, which made her record at one year and ten months of age; a nice typey untested four-year-old, whose sire is a brother to Segis Fayne Johanna the 50-lb. cow; two two-year-olds, and one three-year-old, all three of which are sisters to the three heifers which sold in this sale last spring for an average of $390, and all three are due to freshen within a week of the sale date. There is also an exceptional promising two-year-old heifer, which is a daughter of Woodland Schuiling Sarcastic, whose two direct dams have an average of 19,373 lbs. of milk and 758.65 lbs. of butter in one year. Of the four bulls listed the most noticeable is a nine-months' youngster sired by Avondale Pontiac Echo, a son of May Echo Sylvia and a brother to the $106,000 bull, Champion Sylvia Johanna. All requests for catalogues should be addressed to N. P. Sager, St. George, Ont. The sale will be held as usual in Hunt & Coulter's Feed Barn in the City of Brantford, on Thursday, Dec. 18, 1919.

A HORSE CAN TRAVEL WHERE AN AUTOMOBILE CANNOT GO

Often in the deep snows of winter an automobile cannot get through the drifts, but the horse can travel anywhere if he can secure footing.
There is just one thing will insure safe footing on any road anywhere any time, no matter how icy or slippery, and that is the

Neverslip Red Tip Horse Shoe Calk

Whatever the occasion; a hurried trip to the doctor, an important call to town, a load of produce to be delivered—your horse is ready when you are ready. The wise horse owner will go to his horse shoer early and have the safe, reliable RED TIP SHOES put on. Then he can laugh at the weather. No sleet storm, no sudden freeze will hold him back. His sharp, strong RED TIP CALKS can be adjusted in 20 minutes, and he is ready for the road.
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Sunny Side Herefords—Choice bulls and heifer calves, young cows with calves at foot. Reg. Shropshire rams ewe and ewe lambs. Inspection invited. All are priced to sell.
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Aberdeen-Angus Cattle—Sired by Middlebrook Abbot 2nd, (won 1st prize when shown at Toronto and Ottawa). Apply to A. Dinsmore, Manager, "Grape Grange" Farm, Clarksburg, Ontario. 1½ miles from Thornbury, G. T. R.

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Offers for sale good young bulls and heifers up to 14 months. A grand chance to start a herd at small cost.
ARNOLD McKINNON, - Hillsburg, Ont.

When writing please mention Advocate.

Gossip.

Oxford County Holsteins Dec. 17

There is probably no pure-bred live-stock club that has been more conspicuous in the public eye for the last ten years than the Oxford County Holstein Club, which is again advertising a public sale of fifty females and fifteen young bulls for Wednesday, Dec. 17. The sale will again be held in the City of Woodstock and a summary of the various lots listed shows that nearly all of the more prominent breeders of the Oxford District are uniting in making this their premier sale. Like most other clubs they are acting on the experience gained in past sales, and this year are consigning very few females which are not close up to calving or still in full flow of milk. The records too this year are perhaps more pleasing than ever before. McGhee Bros. are opening the sale with the 30.82-lb. cow, Helena Mercena Posch. She is mentioned as being one of the best individuals in the district, and also has a thirty-day record of 2645.1 lbs. of milk and 127.64 lbs. of butter. This cow is due to freshen right at sale time to the service of Prince Mercena Sylvius, which is also the sire of two young bulls which are selling in this consignment. Still another cow, which is almost in the 30-lb. class, is found in one of the three females consigned by Arbogast Bros. of Sebringville. This is Cherry Grove Spotty the exact figures of her production being 29.18 lbs. of butter and 640 lbs. of milk in the seven days. She is also a sister to Cherry Grove Meta Faforit, 31.14 lbs. of butter 771.6 lbs. of milk in the seven days. A 16.65 lb. two-year-old granddaughter of King Segis Pontiac Alcartra, and another 24.39-lb. mature cow complete this offering, and all three cows are bred to Dutchland Pontiac Colantha, which is a 30.96-lb. bred grandson of Colantha Johnna Lad. Peter S. Arbogast of Mitchell with four selling, has three two-year-old daughters of King Segis Alcartra Calamity The latter is a 35-lb.-bred son of King Segis Pontiac Alcartra. All three females mentioned will be freshening around sale time. Martin McDowell, with four entires, has two bulls and two females, of these one twelve months' bull, and one two-year-old heifer are sired by Pontiac King Walker, whose two nearest dams average better than 36 lbs. of butter in seven days, and the four nearest dams averaging 29 lbs. The other bull is also sired by Pontiac King Walker, and the other female is also a two-year-old with a 15-lb. seven-day butter record. Haley & Lee of Springford, who have met with such great success at the season's past shows, consigns three females and two bulls, two of the former are young cows freshening just at sale time, and the two bulls are both sons of May Echo Sylvia's daughter's son May Sylvia Pontiac Cornucopia. M. L. Haley has only two listed, an eight months' son of Prince Mercena's Sylvius, and an eight-year-old show cow, due Dec. 28 to Ormsby Bonerges Hartog. Jacob Mogk & Son, Tavistock, are one of the largest consignors with five head selling, three females and two bulls. The latter are thirteen months' sons of King Lyon's Colantha, one being from a 12,000-lb. R. O. P. cow on twice a day milking, and the other being from a 12,865-lb. R. O. P. two-year-old. The females include a 16,900 lb. R. O. P. cow, which has averaged over 15,000 lbs. for three consecutive years. B. D. Smith of Springford also has five head selling, all of which are females freshening in December and early January. Other consignors include Andrew Dunn, Ingersoll; George Oliver, Bright; W. E. Thompson, Woodstock; W. C. Prouse, Tilsonburg; A. T. Walker, Burgessville; Charles N. Hilliker, Burgessville; Walburn Rivers, Ingersoll; S. R. Lee, Otterville; T. J. Lammiman & Son, Curries; George T. Prouse, Tillsonburg and others. Requests for catalogues should be made to the Secretary, W. E. Thomson, Woodstock.

Payment for Poultry.

I sold a number of fowl to a storekeeper. When I delivered them he wanted me to take trade, but I wanted cash. However, he refused to pay cash. Am I obliged to take trade, when nothing was said at time of sale regarding the method of payment?
Ontario. W. B.

Ans.—No.

Tapatco Stapling Device for attaching hooks gives a firm hold long after the fabric itself has become weakened by use.

PAD HIS NECK AND HE WILL DO MORE WORK

Aside from the humane consideration, there is sound reason for the use of Collar Pads, in the fact that efficient service is only to be expected from a **comfortable** horse. It is but adding insult to injury to whip a horse that has a bruised, galled or chafed neck. You can ensure his neck-comfort by the use of soft springy

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Canadian Patent April 6, 1915

These Pads have earned a high reputation among Canadians. They are exceptionally well-made and fitting perfectly, are held firmly in place under the collar by our specially-designed hooks. By outfitting your horses with Tapatco Pads it is possible to get more service out of the collar itself—its use may be continued long after its worn condition would otherwise necessitate the discarding of it.

The TAPATCO Pad is made of a splendid grade of drill—with composite stuffing made by our own process. These Pads are sold by practically every merchant who carries harness or hardware. Do not take substitutes. Insist on "The Pad with the felt washer under the hook staple."

THE AMERICAN PAD and TEXTILE COMPANY
CHATHAM, ONTARIO
"Thirty-eight years making pads."

COMPLETE DISPERSION SALE
Twenty-two Pure-bred Holsteins
The entire herd belonging to Arba Johnson selling at the farm, in the Village of
Straffordville, Ont., Tuesday, Dec. 16th, 1919
In addition to the cattle, all the farm machinery and general farm equipment will also be sold.

This herd is one of the select small herds in Western Ontario, and in the lot are four daughters of that great sire, Correct Change; two daughters of Findern King May Fayne; a 33.95-lb. son of King Hengerveld Aaggie Fayne, and also several granddaughters of Findern King May. The cattle are a choice lot, all young, and are without doubt one of the most important small offerings catalogued for a sale this year. The catalogue will be sent, but at this late date it will be necessary to wire your request for same. If you want rich breeding and choice young individuals, attend this sale.
Straffordville is on the C.P.R., five miles south of Tillsonburg.
ARBA JOHNSON Straffordville, Ontario
MOORE & DEAN, Auctioneers.

NORTHERN ONTARIO
A vast new land of promise and freedom now open for settlement to returned soldiers and sailors FREE; to others, 18 years and over. 59 cents per acre. 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
H. A. MACDONELL, Director of Colonization,
BENIAH BOWMAN, Minister of Lands, Forests and Mines,
PARLIAMENT BUILDINGS, TORONTO.

MARTINDALE GUERNSEYS
"THE QUALITY HERD OF THE QUALITY BREED"
A Guernsey sire on your farm will raise the standard of your herd in way of production—both milk and butter. The records of our breeding cows run as high as 17,104 lbs. of milk and 1,100 lbs. of butter for the year.
WE HAVE A FEW YOUNG BULLS. PRICES RIGHT.
McSloy Bros., Martindale Farms, St. Catharines, Ont.

ESPAIR MARSHALL 18156.

Half the Herd

The bull is generally conceded to be at least half the herd, and at the head of the

MEADOWDALE FARM HERD OF

Aberdeen-Angus Cattle

IS ESPAIR MARSHALL

There was nothing left to chance in laying the foundation for this herd. The best were selected, regardless of price, from the leading herds in Canada and the United States. The breeding females are show-winners, and they are producing the same kind.

Our policy of building from the best material is proving a sane one, and we commend it to others.

He was grand champion at Toronto and London this year, and junior champion at the International, Chicago, last week, in exceedingly keen competition.

Refer again to the awards at both the Canadian National Exhibition, Toronto, and the Western Fair, London; you will find there some indication of the quality of our herd.

VISITORS WELCOME.

CORRESPONDENCE SOLICITED.

MEADOWDALE FARM - **FOREST, ONTARIO**

ALONZO MATTHEWS, Farm Manager

H. FRALEIGH, Proprietor

To Banish the Scrub Bull is an

Important National Act

But, think well how you replace that scrub bull, for on that act de[illegible]

Your Perso[illegible]n

HEREFORD CATTLE

are Nature's rugged, rustling, beef makers.

Think - - make no mistake - - start right

BETTER BEEF AND MORE OF IT

Write:

CANADIAN HEREFORD BREEDERS' ASSOCIATION, Ancaster, Ont.

Aberdeen-Angus Cattle

Shropshire Sheep

Southdown Sheep

LARKIN FARM

JOHN D. LARKIN Queenston, Ontario

BROOKDALE HEREFORDS No matter if you want bulls or females, see the get of Bonnie Ingelside 7th, before buying elsewhere. We have the best of breeding and good individuals, priced right. Visitors welcome

W. READHEAD, - - MILTON, ONT.

FORCED SALE

30 SCOTCH TOPPED and PURE SCOTCH SHORTHORNS

The entire herd belonging to S. J. McKnight to be sold at the farm near

EPPING, ONTARIO

Wednesday, December 17, 1919

Owing to ill health, Mr. McKnight has for more than a year been forced to reside in California. From there he has forwarded instructions to Mr. Thos. Mercer of Markdale to dispose of the entire herd of Shorthorns on his farm at Epping, Ontario. This herd, although numbering only 30 head, is one of the most noted Scotch-bred herds in this part of the Province. Everything sells in good field condition only and it is reasonable to expect that breeders will find each lot selling well within their value on sale day. The breeding cows have been persistent breeders and fifteen of their number will have calves by their side in the sale ring. The families are Cruickshank-Elizàs, Crimson Flowers and Emeralds. The females are again bred to the Shepherd-Rosemary herd sire Blossom Hero No. 116058 who will also be sold.

All requests for catalogues should be addressed to

THOS. MERCER, Markdale, Ontario

Auctioneers: Capt. T. E. Robson. J. A. Myles.

Trains met at Markdale C.P.R.—Thornbury G.T.R. on day of sale.

A 12 MONTHS' OLD ROAN WIMPLE BULL FOR SALE Others coming on. Also Lincoln lambs, rams and ewes, got by an imported ram, out of heavy shearing ewes.

J. T. GIBSON, Denfield, Ontario

ROBERT, MILLER, Stouffville, Ont, Has EIGHT of the best young bulls that he has owned at one time, good ages and beautifully bred. Also several cows and heifers, some of them with calves at foot, others in calf to Rosemar's Sultan, the Grand Champion bull at head of the herd. Everything of Scotch breeding. The prices are very reasonable, and though the freight is high, it will be paid.

SHORTHORNS SHROPSHIRES COTSWOLDS

Blairgowrie Stock Farm

Cows in calf and calf by side Also heifers in calf and others ready to breed. Bulls of serviceable age.

JNO. MILLER (Myrtle Stations, C.P.R., G.T.R.) ASHBURN, ONTARIO

Irvin Scotch Shorthorns —Herd Sire Marquis Supreme—by Gainford Marquis (imp.) We have at present three young bulls of serviceable age and one younger, all sired by our herd sire and from Scotch bred dams. Good individuals and the best of pedigrees. Also pricing a few females.

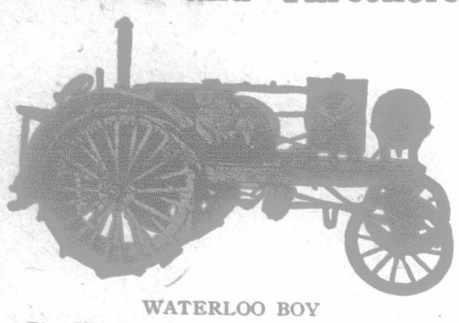
J. WATT & SON, ELORA, ONT.

SCOTCH BRED SHORTHORN FEMALES

I have a number of nicely-bred Scotch heifers (reds and roans), in nice condition, and a number are safely bred. These are priced to sell. I also have a couple of ten-month bulls, thick, sappy youngsters, —just the herd sire sort. Inquiry invited.

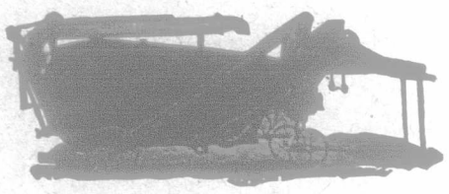
George Ferguson, Elora, Ontario.

Tractors and Threshers



WATERLOO BOY

The Simplest, most Accessible, most Powerful 3-plow Tractor on the market.
Suitable for hauling 3 plows, Threshing, Silo Filling and General Farm Work.



Individual Farmers' Threshers, suitable size to be driven by small Tractors and Gasoline Engines.
Do your own threshing. Keep your farm clean and save expense.
Write for free catalogue, prices and any information wanted.

THE ROBT. BELL ENGINE & THRESHER COMPANY, LIMITED Seaforth Ontario.
Also Steam Tractors, and large size Threshers

Melody 13, bred by R. W. Hobbs & Sons
A Prize Winner at the London Dairy Show and a 1,400-gallon cow.

The Kelmscott Herd of
PEDIGREE MILKING
Shorthorns, Flock of Oxford Down Sheep and Stud of Shire Horses
THE PROPERTY OF
Robert W. Hobbs & Sons
Kelmscott Lechlade, Gloucestershire England.

SHORTHORN CATTLE

One of the oldest and largest pedigree herds in existence. Milk, Flesh and Constitution studied. Daily milk records kept. Numerous prizes won for inspection, milking trials and in butter tests.
The Gold Medal Spencer and Shirley Challenge Cups were won at the London Dairy Show in 1914. The fifty Guinea Challenge Cup for the best group of Dairy Shorthorns at the Royal Show was won for the third successive year at the last exhibition at Manchester in 1916, also two firsts, one second and one third prize. All cows in milk and the stock bulls have passed the tuberculin test. Bulls and bull calves on sale at prices to suit all buyers.

OXFORD DOWN SHEEP

The flock was established in 1868 and consists of from 1,000 and 1,250 registered Oxfords. Numerous prizes for many years have been won at the principal Shows. At the last Royal Show first prize was taken for a single Ram Lamb and first prize for pen of Ram Lambs. Rams, Ram Lambs and Ewes always on sale.

R. W. HOBBS & SONS *are breeders of high-class Shires. Sound active colts and fillies always on sale.*
TELEGRAM HOBBS, LECHLADE
Inspection cordially invited.

FOR SALE
Flock of 62 Grade Ewes, 4 Pure-Bred Suffolk Ewes and 2 Pure-Bred Suffolk Rams
All black faces, young and in first-class condition. Apply:
W. H. LITTLEFIELD
Kerby House, - - Brantford

Woodburn Shorthorns
Two young bulls of serviceable ages. Priced to sell.
W. S. BRAGG, Box 11, Bowmanville, Ont

Shorthorns and Oxfords For Sale
Two young bulls, one a choice roan grandson of Right Sort: also ewes and lambs, either sex.
GEO. D. FLETCHER, R.R. No. 1, Erin, Ont.

ELM VIEW STOCK FARM
Scotch Shorthorns and Oxford Down Sheep, one red Shorthorn Bull, 1 yr. old. Special offering in Yearling Flock Headers and 15 Yearling and 2-year-old Breeding Ewes. Priced to sell. Write:
Bruce A. McKinnon, - Hillsburg, Ont.

Nature Study on the Farm

BY A. B. KLUGH, M.A.

(Continued from Page 2208).

sod-traps, which proved decidedly efficacious. Such instances as the above could be multiplied almost indefinitely, and each and every instance cries aloud the practical value of nature study.

Either on every farm, or in fairly close proximity to it, are varied plant and animal habitats, and opportunities for nature study are close at hand. In the wood-lot the white-hearts, trilliums, Canada violets and other flowers bloom in early spring, the woodland birds send forth their blithe carols, and the first butterflies flutter forth into the sunshine. During the spring migration, band after band of gaily-attired warblers pass through the woods, flitting from tree to tree, some strikingly colored in yellow and black, others with breasts of flame. Later in the season, in the low woods where sufficient moisture remains, the fronds of the ostrich fern stand like huge vases, and other ferns with delicately-cut fronds abound.

In the orchard is a wealth of life. The bluebird on azure wings carries his light load of song, the yellow warbler flashes in and out among the branches like a golden sunbeam, the kingbird builds its nest in the highest branches of an old tree and makes frequent sallies to drive crows and hawks from his domain, and the flicker takes up his abode in a hole in a stub. Insects of numerous species appear and feed on foliage and fruit and other insects come to parasitize them.

In the damp meadows the marsh marigolds raise their golden heads, and in the temporary pools there are numerous aquatic animals—the little spring peepers who pipe long and loud, little crustaceans, and the larvae of many insects.

Along the roadsides bloom many beautiful flowers, from the shy violet peeping forth in the early spring to the brilliant golden-rods, and the rough-leaved aster visited by the bumble-bee in the fall.

These are but a few of the many habitats such as abound in any part of the country, the denizens of which will provide interest enough for a life-time.

It has been said of the child that "He comes to his teacher with his eyes filled with a thousand pictures, but these are ignored, and he is robbed of them one by one, until the beauty of this world fades from his sight, and it is changed into a vale of tears." Let us see that the children of our farms are not robbed of their pictures, but that through nature study the beauty of the world instead of fading from their sight is increased a housand-fold.

The Needs of Modern Clydesdales.

Continued from page 2210.

it be practicable at this stage, as registration would naturally be lost and the cross-bred produce could have no higher value than ordinary grades. Individual geldings produced this way, however, would doubtless have considerable merit and market value. There is, I believe, within the Clydesdale families existing to-day sufficient material for the production of a heavier, stronger, better type of horses than we have with us at present. Breeders, however, must be fearless and independent. They must have both faith and patience, and I believe that those who exercise good judgment in the selection of their breeding stock and follow along the lines I have indicated will not only reap a financial reward eventually but will prove real benefactors of the grand old Clydesdale, a breed that in his highest estate is, after all, the very soundest and best in the world.

Questions and Answers.

Miscellaneous.

Dog Killing Hare.

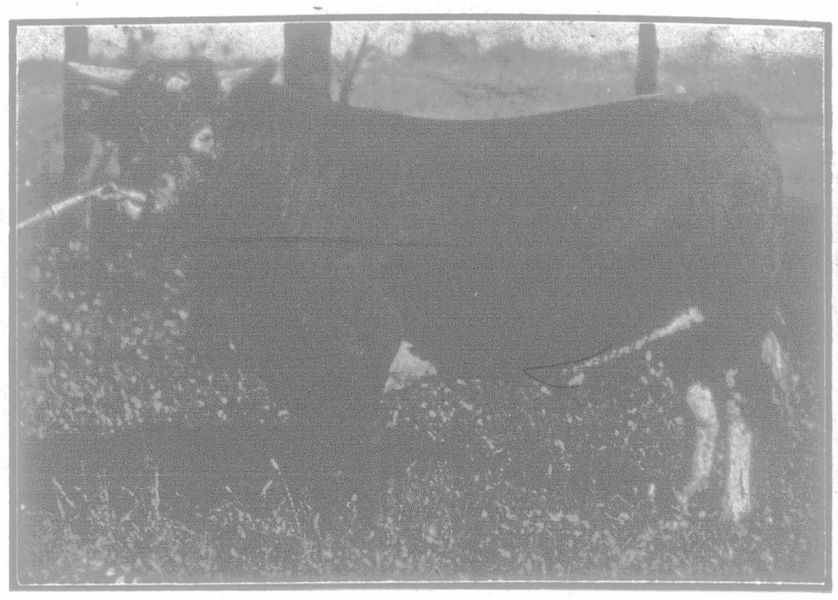
A few weeks ago a dog came into my drive shed and put out of the hutches two valuable Belgian hares. The buck I paid $7.00 for. It was a prize animal. A fortnight after back it came again in the middle of the day and killed the only buck I had, which was a very good one that I was keeping for breeding. Can I claim damages?

C. W.

Ans.—Yes.

WELDWOOD FARM

Dual-Purpose Shorthorns



DOMINATOR =106224=

This herd of fifty Dual-purpose Shorthorns is headed by Dominator, whose two nearest dams averaged 12,112 lbs. of milk in a year. The mature cows have records from 7,000 lbs. to 13.891 lbs., and the daughters of Dominator are promising, both from a standpoint of milk and beef.

Write for prices. *Inspection of herd solicited*

WELDWOOD FARM
Farmer's Advocate **London, Ontario**

Spruce Glen Farm

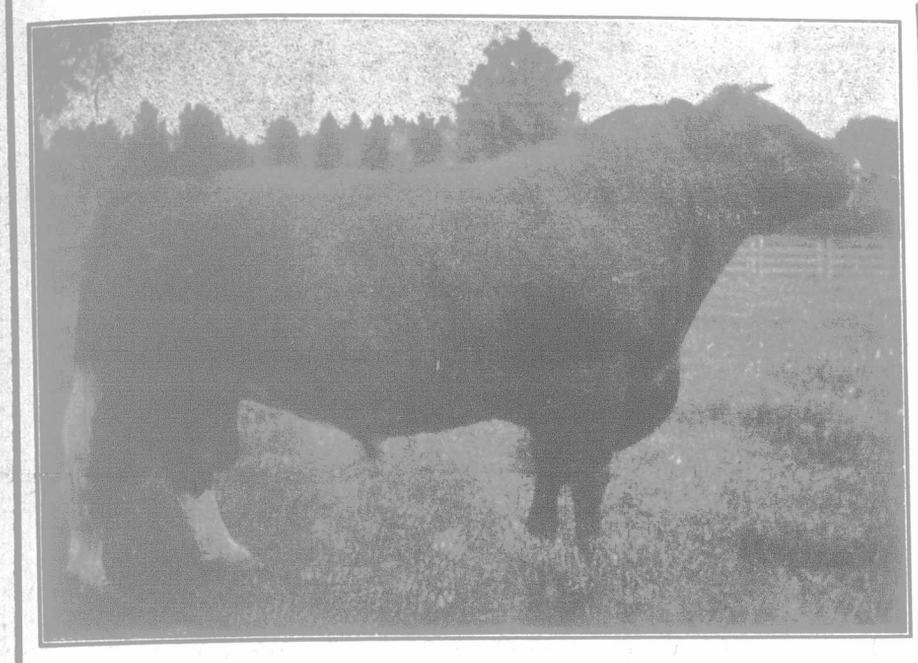
Shorthorns

This herd comprises
Eighty Head

Made up largely of Bruce Fames, Florences, Minas and Emilys, daughers of the great imported bulls, Cyclone, Lord Roseberry, Choice Coral, and sons of imported bulls, Bromwell (by Premier Earl), Lord Williams (a grandson of Indian Chief), Lord Cecil (by Lord Kintore), and Earl Derby Imp. (by Derby Imp.).

Our present offering consists of 12 young bulls, from 8 to 10 months old, sired by our stock bulls in service. Royal Red Blood, by Blood Royal Imp., is a high-class show bull, and is leaving many prizewinners. Nonpareil Ramsden is a show bull that is hard to beat. Some of the females of our herd may interest you also. Call and see this herd before you buy.

JAMES McPHERSON & SONS
Spruce Glen Farm, Dundalk, Ontario



SENIOR HERD SIRE RED ROBIN - 100810 -

MACLAREN HERD
OF
DUAL PURPOSE
SHORTHORNS

Alexander Maclaren
Buckingham, P.Q.

HERD FOUNDED 1917

Object: "Quality not Quantity"

HERD SIRES

RED ROBIN No. 100810—Weight at 4 years of age 2,500 lbs. Sire, Robin (imp). Dam, Octavia. His sire imported by Macdonald College, was without doubt the greatest dual purpose sire ever exported from England. Octavia was a 55 lb. per day cow weighing 1,650 lbs.

ROYAL SIGNET *666829* =122769= This young sire now weighing 1,830 lbs. at 2 years and 3 months is got by Glenside Dairy King and his dam (imp) White Queen has a yearly milk record of 10,430 lbs. She sold in the 1917 Ottis sale for $3,000.00

LISTING SEVEN OF OUR FOUNDATION COWS

ROAN ROSALYN, weight 1,440 lbs.
Official test, 12,845 lbs. in 1 year, averaging 4.22% fat.

MARGUERITE, weight 1,550 lbs.
Finishing official test this year with over 11,000 lbs. of milk testing over 4%.

DARLINGTON LIZZIE, weight 1,250 lbs.
Official test, over 12,000 lbs. of milk in 1 year.

MILK MAID, weight 1,600 lbs.
Official test, 12,069 lbs. of milk in 1 year, averaging 4.2% fat.

ROAN FERN, weight 1,460 lbs.
Finishing official test this year with nearly 11,000 lbs. of milk testing over 4%.

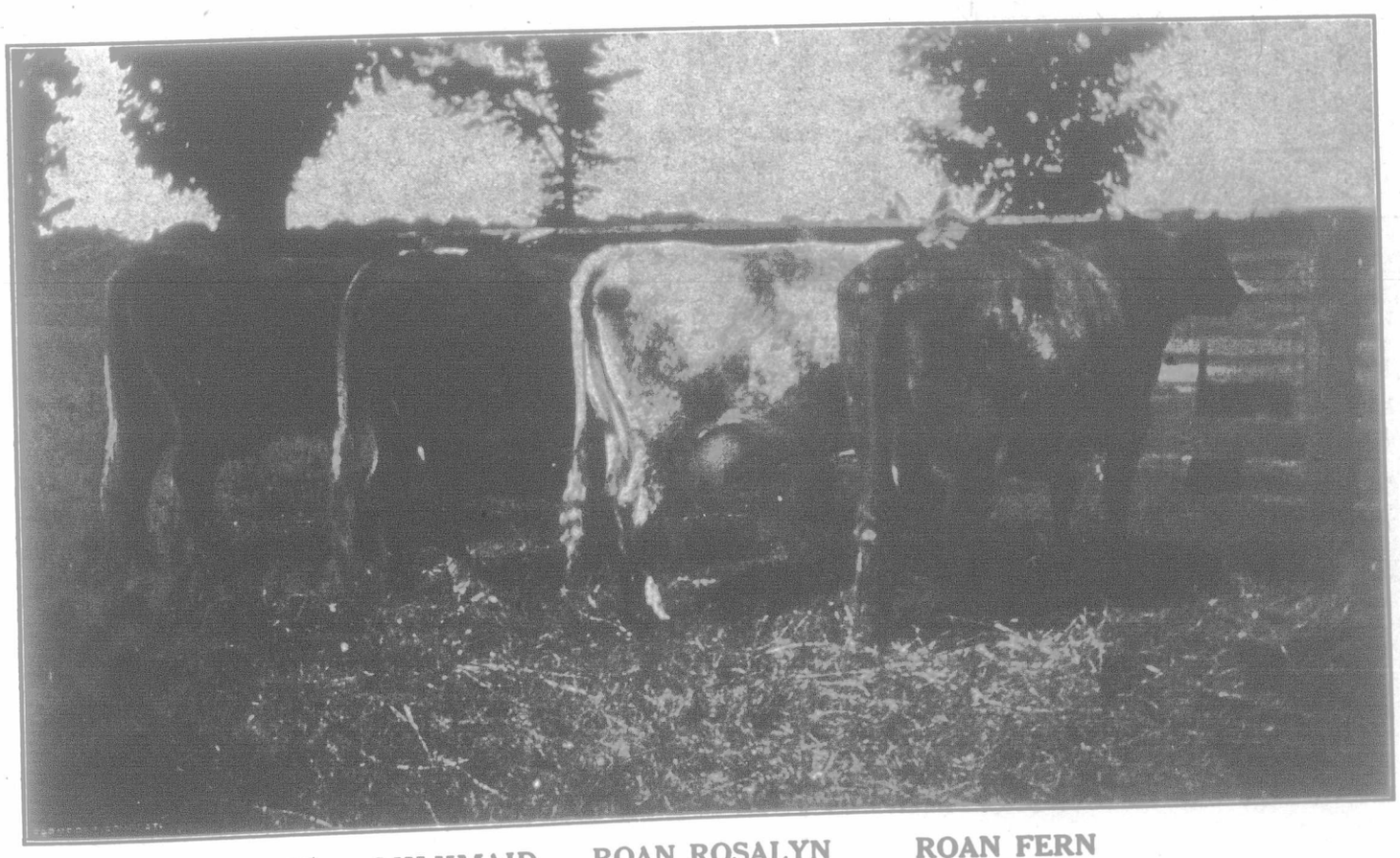
TIT WILLOW, weight 1,300 lbs.
Official test, over 9,000 lbs. of milk in 1 year.

WELCOME QUEEN

Now running in the two-year-old form; will finish her record with over 8,700 lbs. of milk in 1 year.

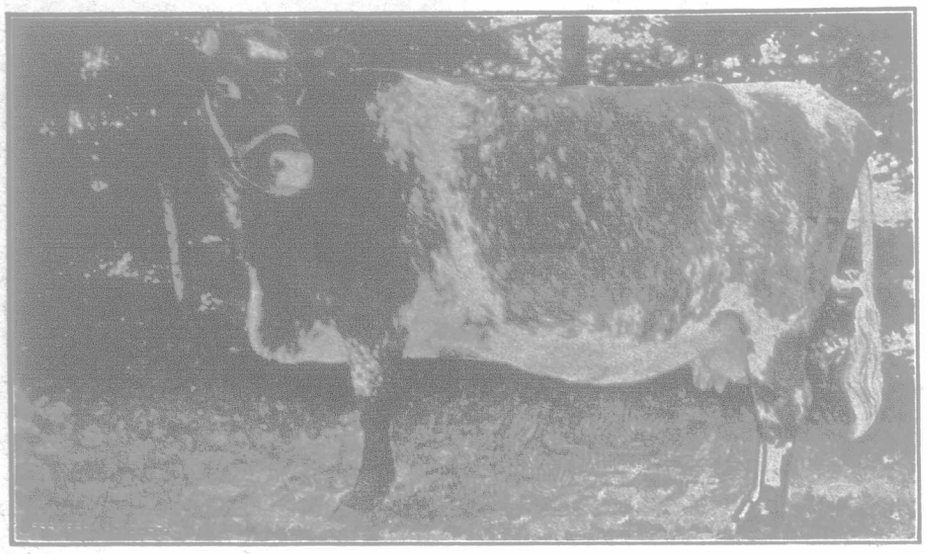
Cows all hand milked. Each milking tabulated. Watch our heifers that freshen this winter.

SEVERAL YOUNG BULLS FOR SALE.



MARGUERITE MILKMAID ROAN ROSALYN ROAN FERN

PINEHURST
DUAL PURPOSE
SHORTHORNS



Buttercup, No. 111906. Champion R.O.P. 3-year-old of Canada. 12,691 lbs. of milk, 482 lbs. of butterfat in one year.

Our foundation cows include such cows as—

BUTTERCUP (R. O. P. at 3 years) 12,691 lbs. of milk, 482 lbs. of butterfat. At four years (one month too late to qualify), 16,059 lbs. of milk, 653 lbs. of butterfat.

ALEXANDRA (R. O. P. at 2 years). 8,147 lbs. of milk, 333 lbs. of butter fat. This is probably one of the most perfect individuals among the milking Shorthorn cows of to-day.

BURNFOOT CHAMPION, No. 106945
(OUR PRESENT HERD SIRE)

He is a son of Jean's Lassie whose record is 13,891 pounds of milk in a year, and is sired by Burnfoot Chieftian whose dam's record is 13,535. He is an exceptionally large well-proportioned individual.

Write for our present sales list. We have both bulls and females.

G. W. CARTER, Pinehurst Farm, ILDERTON, ONT.

Lucerne Ranch
Milking Shorthorns

Of the Pansy, Beauty and Lady Jane families. Herd sire is

Royal Coquette =120153=
By Royalist 94333, he by Royal Winner (Imp.) (103772)

This herd sire's dam, Coquette 2nd, to-day holds the record for both milk and fat in Canada, having given in R.O.P. test 17,725 lbs. milk, 636 lbs. butter in 365 days. She is a big cow, and her dam also was a great milker.

At present we have for sale a number of young bulls, roans and reds, ranging in ages from 7 to 11 months. Among them is a 7-months' roan by Loyal George 104067, whose seven nearest dams average over 10,000 lbs. milk, all official test.

We have some extra good cows to freshen.

Come and see us before buying.

JOHN WALKER, Nanticoke, Ontario

Jarvis or Hagersville R.R. Stations.

Milking Shorthorns

Young Stock for Sale by Golden Duke Imported

Dam's record, 12,401 lbs. of milk out of R. O. P. cows. Daily milk records. All cows hand-milked. Tellurias, Lavinias, Emilys, Kilblean Beautys, Matchless, etc.

Send for our breeding list.

Credit Grange Farm, Meadowvale, Ontario

See Berkshire advertisement this issue.

MILKING SHORTHORNS

AT

SPRUCEDALE STOCK FARM

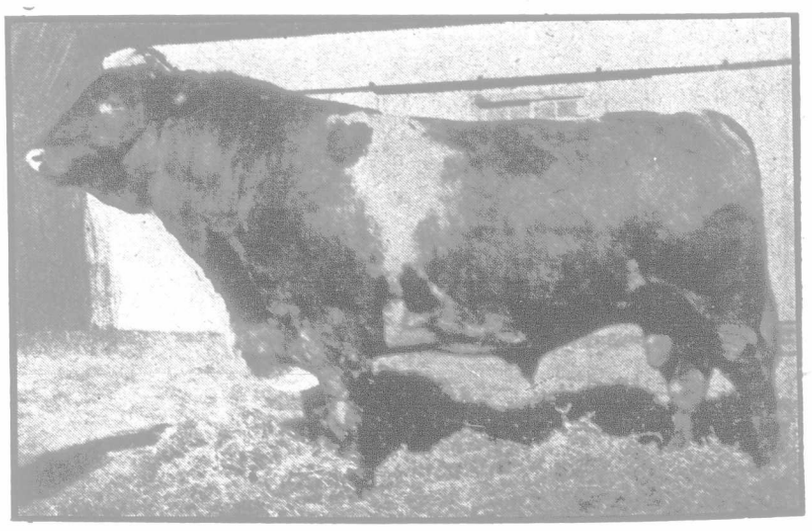
This well selected and high testing herd is headed by a son of "Butterfly King." His dam "Orma of Northland" (a daughter of the R.O.P. bull St. Clair) gave considerably over 10,000 lbs. in one year in her 4-year-old form.

This herd sire has the distinction of having two of Canada's highest R.O.P. bulls at the top of his pedigree and his get from such high producing dams as are in this herd will be well worth looking after. A visit to the farm will convince you. You will also see a fine lot of Berkshires here, a herd noted for producing many winners at the leading exhibitions in past years. Come and see them, or write

Frank Teasdale, - - Concord, Ont.

Mardella Shorthorns

The Dual-Purpose Herd Since 1880



HERD SIRE, THE DUKE =110008=

Dam—Lilly Archer, 13,599 lbs. of butter and 474 lbs. of butter-fat in one year, R. O. P.
Sire—Star of the North, one of the most noted dual-purpose sires of the breed.

The bulls we are now offering, sired by The Duke, are thick and mellow, good colors and have just a little more Shorthorn character than you will find in most dual-purpose herds. The majority of these calves are from heavy-milking dams—the dams that have made the Mardella Herd famous If you need a herd sire we would like to show you these. You will also appreciate our females. We are pricing a few young cows and heifers safely bred.

VISITORS ALWAYS WELCOME.

THOS. GRAHAM, Port Perry, Ontario

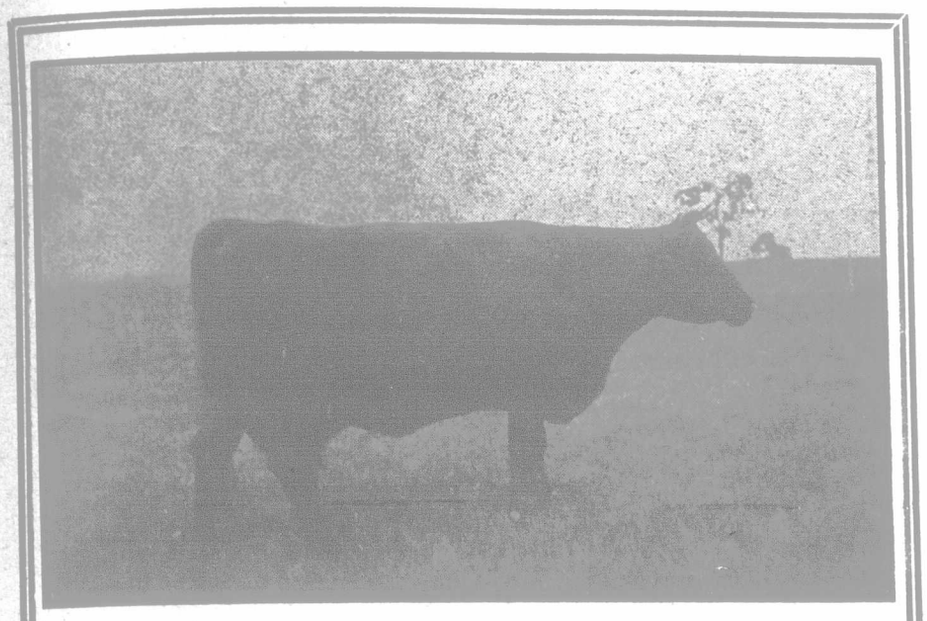


Photo from life of Julia Star =115521=, gives around 60 lbs. milk daily when fresh.

GRAND RIVER STOCK FARM

THE HOME OF

Dual Purpose Shorthorns

Present herd sire is "PRINCE LAVENDER" =104449= whose dam "Buttercup" gave **16,596 lbs.** milk as a four-year-old—He is a bull of remarkable beef type.

We are breeding large, wide, deep bodied cattle carrying grand udders and great producers—All cows hand milked.

When in need of Shorthorns write or come and see the herd, 50 head from which to choose—A few splendid young bulls coming on—Could also spare some females.

Trains will be met at any time.

HUGH A. SCOTT, - Caledonia, Ontario

Plaster Hill Herd

Dual Purpose Shorthorns

Established 1859

Large thick heavy cows of good Shorthorn type with milk records from 8,000 to 12,000 pounds. Herd numbers forty-five head.

HERD BULLS

Green Leaf Record 96115
Sire, Cressida's Hope (Imp) 91426
Dam, Green Leaf 41st. (Imp) 103385

Commodore 130056
Sire, Burnfoot Chieftain 97766
Dam, Burnfoot Lady 102833
His two nearest dams average 12,115 lbs.

Present offering:—ten young bulls eight to thirteen months old.

One red Lavinia bull two years old.

Several cows due to freshen soon, heavy producers.

If you wish to start a herd or strengthen your present herd by a few females or a bull, come and see us or write or telephone.

Visitors always welcome. *Correspondence solicited.*

ROSS MARTINDALE, Caledonia, R.R. 3.

ENGLISH DUAL PURPOSE SHORTHORNS

for both milk and beef are the common sense breed for the general farmer who does not specialize, and to this class belong the overwhelming number of the farmers of Canada.

The **Dual Purpose Shorthorn** is not a strain created by the art of man but on the contrary by the decree of nature, and good breeding follows along the path marked out by nature.

Good business sense on the part of the average farmer will lead him to give preference for profit to the great general purpose strain of Milking Shorthorns.

If you want milk, they will give you milk—if you want beef, they will give you beef. You don't have to veal the calves.

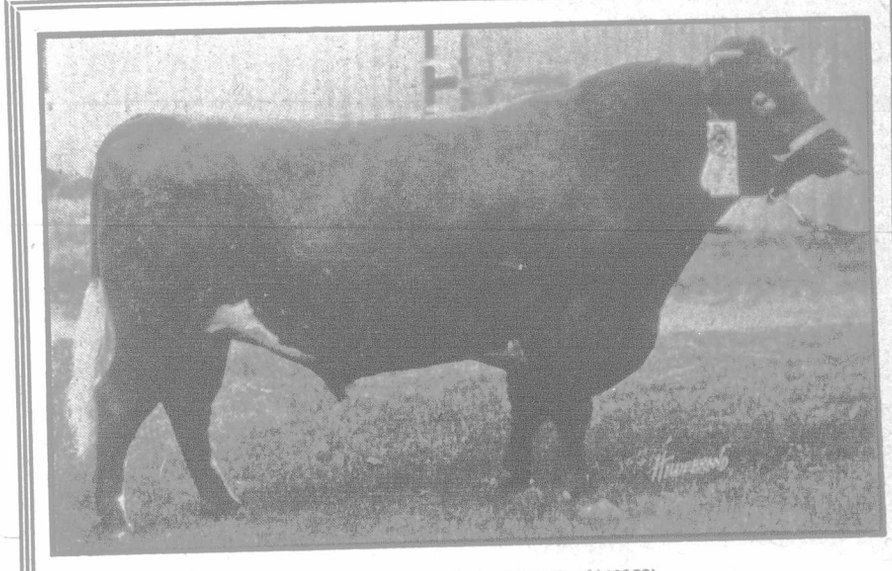
England is the happy home of Milking Shorthorns. We went there for all our foundation animals of both sexes. We brought out fine big cows scientifically bred for milk and beef and sires to mate them, and now offer to Canadian breeders the choice and useful offspring of these splendid animals. We will sell them at much lower prices than you would have to pay in England to-day for individuals of similar breeding.

It is the simple truth to say that a young bull from our herd will give increased value to your calves. Why not consider this and come to our farm and make a selection.

At present we have a good number of fine young bulls for sale.

You can also see at our farm the **English large Black pigs**—a breed of splendid intrinsic merit.

F. W. COCKSHUTT, Lynnore Stock Farm,
Brantford, Ontario.



Herd Sire Victor 3rd = 130268 = (449183).
Champion Bull at Milking Shorthorn Congress and Sale, Erie, Pa., 1919.

Canada's Highest Producing Herd

OF

Milking Shorthorns

All cows officially tested. *Tubercular free herd.*

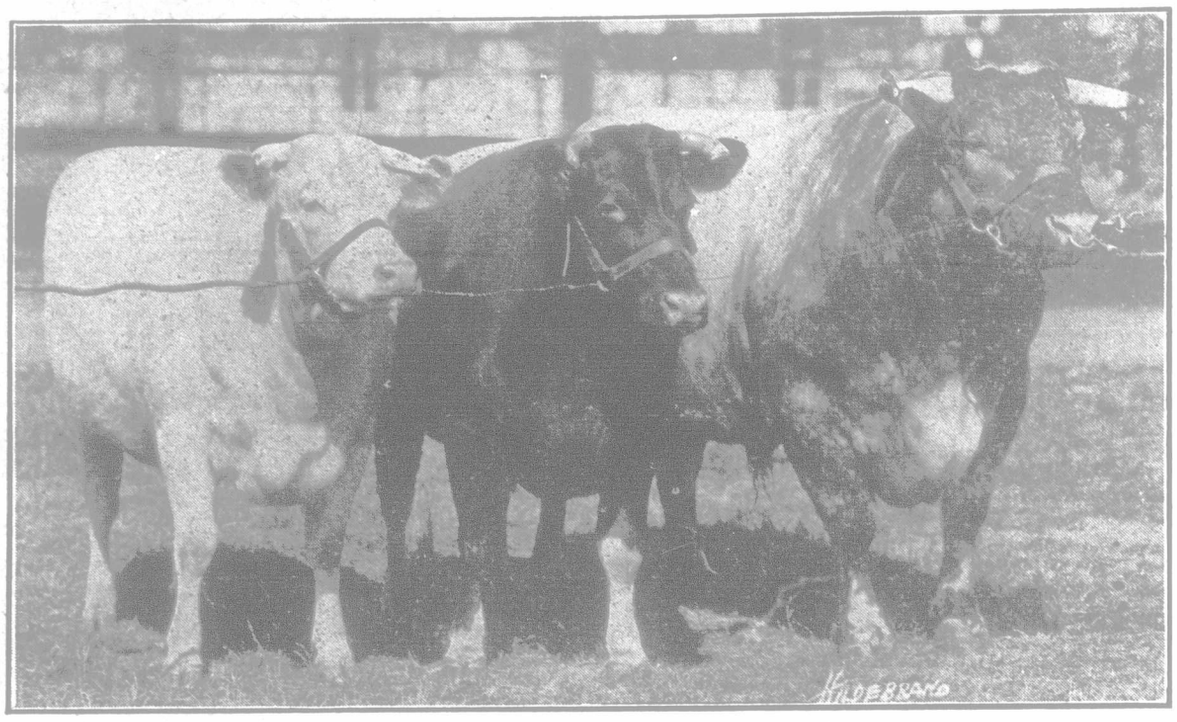
Choice Cows, Heifers and Herd Heading Bulls For Sale.

COME AND SEE OR WRITE

Some of our Records:—
Lily Archer, 13,599 lbs. milk; Rosebud Queen, 11,845 lbs.; Graybird, 11,886 lbs.; Emma, 11,726 lbs.; Dorcan, 10,720 lbs.; Queen Daisy, 10,518 lbs.; Rosebud Queen 2nd, 10,025 lbs., etc.

R. W. Wheaton, - - Thorndale, Ont.

Salem Shorthorns



Get of Gainford Marquis.
Winners of the Shorthorn class—three, get of sire—at Toronto, 1919, for J. A. Watt, Elora, Ont.

The three highest priced bulls sold in Canada this year were all sired by Gainford Marquis Imp. Have for sale at present, young bulls and heifers of this breeding. Our herd was never up to a higher standard than now. Come and see the cattle. You will not be disappointed.

J. A. WATT, - - Elora, Ont.

Maple Shade
SHORTHORNS
A dozen young bulls imported and my own breeding at moderate prices.
W. A. DRYDEN
Brooklin - - Ontario

Maple Shade Farm
Imported Shropshire ewes served by best imported rams very desirable for foundation flocks.
W. A. DRYDEN,
Brooklin, - - Ontario

The Get of Burnbrae Sultan =80325=
Shorthorn Bulls For Sale
1. Successor =127444=, white, born March 29, 1918; dam Rosy Bud =99834=, by Waverley =72804=.
2. Ravenscraig =12745=, roan, twin, born Nov. 19, 1918; dam Meadow Beauty 3rd (imp.), by Ben. Lomond (80468).
3. Meadow Crown, white, twin with Ravenscraig.
4. Royal Sultan, born 15 Feb., 1919, own brother to Successor.
Females in calf and with calves at foot.
A. GORDON AULD
Arkell C.P.R. **R. No. 2, Guelph, Ont.**

DUAL-PURPOSE
Shorthorns
Present offering 6 young bulls, Red and Roans, also a number of females. They have size, quality and breeding from good milking dams. Prices Moderate. Satisfaction guaranteed.
Chas. Graham, Port Perry, Ont.

Shorthorns And Yorkshires—Four red bulls, fit for service, and younger. All sired by Scotch Primrose (Imp.). Young sows of different ages. Prices reasonable,
A. E. KENNEDY, Agincourt, Ont.

SCOTCH SHORTHORNS
PRESENT OFFERING:
6 imported bulls, 4 home-bred bulls, 25 imported cows with calves at foot or forward in calf.
Half a mile from Burlington Jct. 'Phone or telegraph, Burlington.
J. A. & H. M. PETTIT - - Freeman, Ontario

ELMGROVE SHORTHORNS, YORKSHIRES
Owing to pressure of other business I will not hold my anuual sale of Shorthorns this fall but am offering privately a limited number of young cows, several with calves at foot, and also a few choice-bred heifers near calving. The most select offering I ever had on the farm and all showing in good condition.
In Yorkshires I have several bred sows; a few boars of serviceable age and some young litters. **JAS. R. FALLIS, Elmgrove Farm, BRAMPTON, ONT.**

GRAND VIEW FARM SHORTHORNS
Herd headed by Lord Rosewood =121676= and by Proud Lancer (imp.). Have a few choice bull calves and heifers left, sired by Escana Favorites, a son of the famous Right Sort (imp.).
W. G. GERRIE C.P.R. Station on farm. Bell 'Phone. BELLWOOD, ONTARIO

GLENGOW SHORTHORNS AND COTSWOLDS
Six-year-old Cotswold rams These are big lusty fellows and in good condition. I also have four Shorthorn bulls of serviceable age. Write for prices and particulars.
Stations: Brooklin, G.T.R.; Oshawa, C.N.R.; Myrtle, C.P.R. **WM. SMITH, M.P., Columbus, Ont.**

Spring Valley Shorthorns—Herd headed by Sea Gem Pride =96365=. Present offering includes two real herd headers. One imported in dam, the other by Sea Gem's Pride and from a show cow. A number of other good bulls and few females. Write for particulars.
Telephone and telegraph by Ayr. **KYLE BROS, R. 1, Drumbo, Ont.**

20 Bulls—SPRUCE LAWN—100 Females—Clydesdales, Shorthorns, Yorkshires, Herd headed by Imported Golden Challenger 122384. A Rubyhill bred by Earl of Northbrook, by Ascott Challenger, bred by L. De. Rothchild. Special bargains in farmers' bulls. Cows and heifers in calf, yearling and heifer calves. Yorkshires either sex. **T. W. McCamus, Cavan, C.P.R., Millbrook, G.T.R. and P. O. Ontario.**

Newcastle Herd of Shorthorns and Tamworths for Sale—5 choice bull calves, 5 to 6 months old, several heifer calves, all sired by Primrose Duke 107542, heifers and young cows bred to him; good dual-purpose cows. A choice lot of Tamworths of both sex and various ages; young sow or two bred to farrow in Sept. or Oct., all from noted prize winners.
Long-Distance 'Phone. A. A. COLWILL, R.R. No. 2, Newcastle, Ont.

Imported Scotch Shorthorns For Sale—three imported bulls, one yearling, one two-year-old, and our three-year-old herd sire, also a choice two-year-old Orange Blossom of our own breeding and three well bred bull calves about year.old. Would consider exchanging an imported bull for Scotch females.
R. M. MITCHELL, - R.R. No. 1, - FREEMAN, ONT.

MAPLE HALL SHORTHORNS We have on hand at present, four young bulls ready for service (two reds, two roans), that are just the herd sire sort; they are all got by that great sire Flower King No. 90447, and from our Good Crimson Flower and Butterfly dams. **Stations: Claremont, C.P.R., Greenburn C.N.R., Pickering G.T.R.**
D. BIRRELL & SON, CLAREMONT, ONT.

THE HAWTHORNE SHORTHORNS AND CLYDESDALES
Herd headed by "Gainford Select" =90772= by "Gainford Marquis" (imp.). Heifers and cows in calf to him and six bulls, mostly by our former sire "Royal Choice." Clydesdale mares and fillies, imported and Canadian-bred. Leicester sheep. Prices moderate.
ALLAN B. MANN, Peterboro, R. R. 4, Ont.; The Hawthornes, C.P.R. and G.T.R.

Shorthorns and Clydesdales—College Duke 4th in service. Three nearest dams and sire's dam have milk records averaging over 9,000 pounds. Six bulls of serviceable age; also a few females. One extra choice yearling stallion by Imp. Dunure Beaulieu.
Write STEWART M. GRAHAM, Lindsay, Ont.

Some Hints From The South-West.

BY ALBERT MALLORY.

Two little things that came to my attention a few days ago gave me a jolt that started me asking impertinent questions of the farmers of my acquaintance and led me to believe that a great many (in the case of my own limited investigations, a majority) of the farmers in this section of Ontario are unfamiliar with certain fundamental principles of scientific agriculture, a knowledge and application of which would mean an increase of thousands, probably millions, of dollars to the farm wealth of this Province.

The first little thing was a case of a man who had been hired to hoe a field of corn. The owner gave him a hoe and told him where to go to work, and in the middle of the afternoon the man was back in town looking for another job. He said the corn did not need hoeing, there were no weeds in the field and he was not the kind of a man to take good money for wholly useless labor.

The second thing was an item in the farming section of a daily paper in which the writer in a supposedly learned discourse on soil culture stated that beneath the surface of a well-tilled field there were little pockets of water and that cultivation of the surface would cause that water to be drawn to the top. Those are not his exact words, but that is the exact substance of his words.

Now these two things occuring on the same day set me to thinking and I began a quiet investigation to learn, if possible, just what the farmers of this section knew about soil culture. My findings surprised me. I do not mean to insinuate that these Ontario farmers are not good farmers, but I do maintain that they are not so good farmers as they might be.

Right there I had better state that I recently returned to Ontario after spending more than twenty years in California and Arizona. A large portion of that time I was either engaged in farming or was connected with a farm paper in a capacity that brought me in close contact with the farmers. So I had ample opportunity to learn at first hand the things I shall here write of. It is an old saying in the Southwest that California produces the smallest stoves and biggest liars of any place in the known world; also there is a river in Arizona called the Hassayampa of which it is said that if one drinks its water one can never thereafter speak the truth. When I tell folk herabouts of some of the farm conditions out there they frequently look at me in a way that makes me think they know all about that matter in which California is said to hold the record, and that they suspect me of having partaken copiously of the waters of the "old Hassayampa."

Imagine a country in which the average annual rainfall is less than seven inches—a semi-arid country where the only native vegetation consists of sage-brush, cactus and a sparse growth of various kinds of short, tough grass. That seven inches of rainfall occurs usually between November and March and the most of it generally comes in February. A period of seven consecutive months without a drop of rain is not uncommon. The surface of the earth under the blazing sun, shrivels and cracks, bakes to the hardness of cement, or is pulverized to dust which swirls over the landscape in dancing "wind devils".

A poor country to farm in, you say. And a great many people who a few years ago tried to farm it, will agree with you. Given a "wet year" some of them raised a little hay and grain. But about fifteen years ago people out there began to get interested in a new system of soil culture called "dry farming" and to-day that former desert—without the aid of irrigation—produces crops that will compare favorably with those raised any place in North America. Last year in the section where I was there fell only slightly more than six inches of rain in the whole year—the most of that came in one storm and after the first of January there was never enough rain at one time to lay the dust. And yet on fifteen acres I cut twenty-seven tons of hay; in a neighboring field there were produced fifty bushels of wheat to the acre; sugar beets averaged eighteen tons to the acre; tomatoes yielded twenty-five tons per acre and the beans harvested on an acre were in excess of forty bushels. Rich

From The West.

ALLORY.

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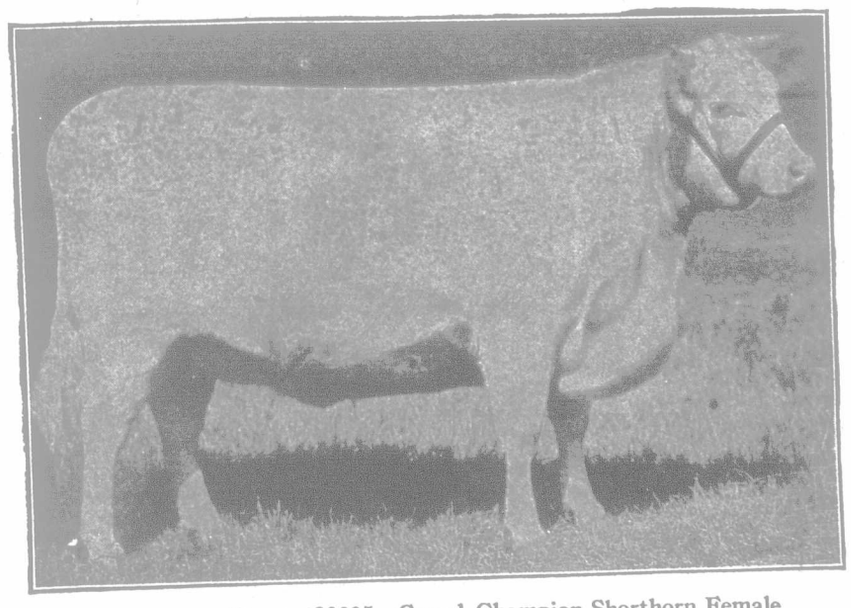
The Farmer's Breed

SHOW-RING successes are not a safe criterion by which to judge the actual merits of a breed.



LAVENDER 47TH = 139095 = Grand Champion Shorthorn Female
Canadian National Exhibition, 1919.
Sold November 20th at Brandon Shorthorn Congress sale for $5,000

The true test of merit is what a breed is capable of doing on the farm and on the open market.

In a test at the Kansas Experiment Station, steers by Shorthorn bulls were the only ones to show a profit.

Shorthorn Steers go to market weighing more for age than steers of any other sort, and command top market prices.

Prominent ranchers have increased the size of their cattle and their profits by using Shorthorn bulls.

Why not increase your profits?

Write the Secretary for free publications and get your name on our free mailing list.

It will pay you

Dominion Shorthorn Breeders' Association

W. A. Dryden, President, Brooklin, Ont. **G. E. Day, Secretary, Box 285, Guelph, Ont.**

soil? No, rather the contrary—rich in some necessary mineral elements, but all soil in the Southwest is deficient in humus.

Forty years ago this land was part of one of those "bonanza ranches" famous in fiction. They raised wheat in California in those days. They plowed four inches deep, sowed the seed broadcast, half covered it with a harrow and then prayed for rain. If it came in sufficient quantities and at the right time they got a crop and made a wagon load of money; if it did not come they leased their fields to the sheep men for pasture and moved into the town house in San Francisco or Los Angeles a little earlier in the season. But the bonanza ranch is no more. The old, wasteful methods could not endure. Wheat every year on a naturally light soil, worked only four inches deep, soon reduced the land to a condition where it was good only for pasture and not very good for that. Yet, that is the same land that is to-day producing the crops I have mentioned. How is it done? Dry farming, or, to be exact, scientific soil culture.

To prepare the soil so that it will absorb every drop of rain that falls, to hold that moisture so that it will be available at the proper season for growing crops—that is the task the modern dry farmer has set himself. And in the Southwest they have developed and perfected a system of cultivation that renders a crop failure from drouth practically unknown.

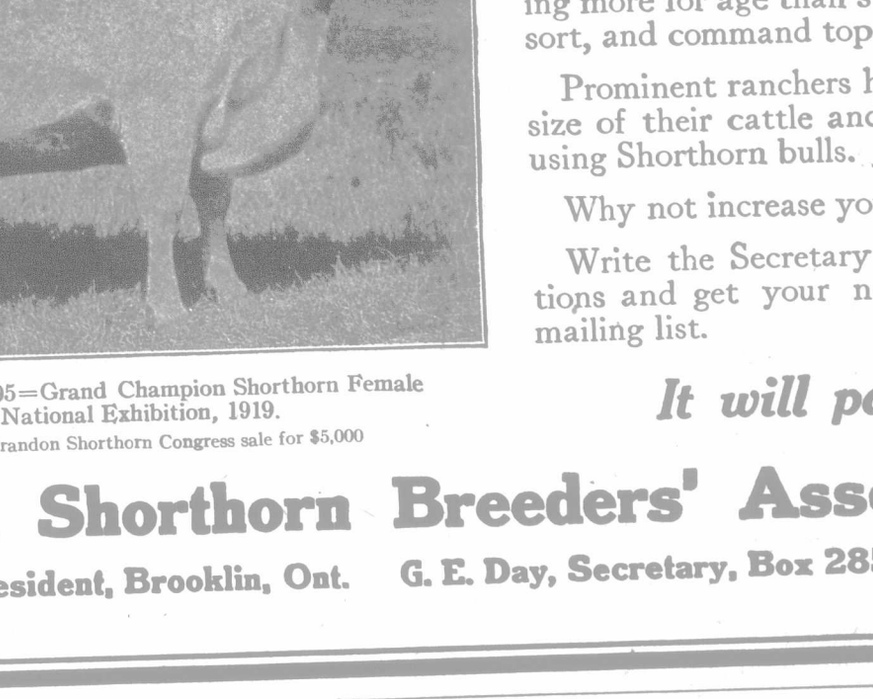
The first operation is to plow deeply, ten, twelve, sixteen inches if possible. And many farmers not content with plowing as deeply as they can set the plow, follow along the furrow with a subsoiler, which is an implement somewhat similar to the plows used by road-makers to tear up an old piece of macadam. The idea is to loosen the hard-packed sub-soil as far below the surface as possible so that it will quickly absorb water and not allow it to run off the surface as happens on a hard-packed field or one with a plow-sole a few inches below the top, to aeriate the soil—let the air in so that by its chemical action new plant food may be realized—and to so loosen he sub-soil that it may be readily penet

THORNHAM SHORTHORNS

GUELPH, ONTARIO

make over

TWO THOUSAND DOLLAR AVERAGE



Golden Lady 2nd and heifer calf from the Thornham herd which topped the F. W. Edwards' Sale, Chicago, June 6th, 1919, at $3,200.00

At the F. W Edwards' Sale, Chicago, Ill., June 6th, 1919, **seven lots** from my herd **made an average of $2,082.00** with Golden Lady 2nd. and calf (shown above) making the top price for the day at **$3,200.00**. I still have others of this sort.

I wish also to announce the purchase of the 13 months bull **Maxwalton Manager,** to be retained as Junior Sire at "Thornham." He is without doubt one of the strongest calves of the year—a son of Revolution, by Avondale, he by Whitehall Sultan.

You will appreciate this herd if you li ke good Shorthorns

J. J. ELLIOTT, Thornham Farm, GUELPH, ONT.

trated by tender plant-roots in search of water. Most plants get their food from near the surface, the lower roots usually supply the water.

Any farmer knows, however, that a soil so broken up, if left in that condition, will soon dry out. Now the water in soil is not held "in little pockets beneath the surface" as one writer stated. When you have a field where the water is in little pockets you have a swamp that needs draining. Moisture in well-tilled soil is not held in the spaces between the granules but in suspension around those granules or soil particles. If it were held between them a seed bed consisting of large lumps or clods would contain more moisture that one finely tilled. The smaller particles the soil is broken into and the closer together they are packed the more water will the soil contain. The best way to illustrate this fact is to take two bottles of the same capacity, fill one with buck-shot and the other with fine bird-shot, then put all the water you can into the bottles with the shot. Now invert the bottles and let the water run out. More water will come from the bottle containing the buck-shot than from the one filled with small shot. The water, being held in suspension in the form of a fine film of moisture around the shot, more is retained in the bottle where the shot is the smaller. So with soil.

Our dry farmer knows this, knows, too, how fast the sun's rays will take the moisture out of a newly plowed field, so he follows the plow at an interval of time never greater than half a day not only with harrow or disk, but with a sub-surface packer.

The sub-surface packer is just exactly what the name implies. It is usually a series of wheels with wedge-shaped rims, on a straight axle. These wheels sink through the top soil, pulverize any lumps and firmly packs the subsurface. (Do not confuse the subsurface with the sub-soil.) Without this tool a good crop in the land of little rain would be almost impossible.

This operation of plowing etc. usually immediately follows the harvest. There is always a small amount of moisture left in the ground after the crop is harvested,

FLORA TENSEN 16301. Senior and grand champion female at the Central Canada Exhibition, Ottawa, 1919, and one of our foundation females.

RIDEAUVALE CHAMPIONS

(TWO IN ONE YEAR)

We SHOW OUR WORK COWS
and WORK OUR SHOW COWS

Good in the Show Ring and Good at the Pail

In laying the foundation for the Rideauvale herd we selected only the best and strongest females we could find in Ontario. If they were to come up to "Rideauvale Standards" they were not only to be show individuals with good milk records, but they must be economical producers as well. A study of our daily milk sheets, together with our winnings at the season's past shows, furnish every evidence that they were well chosen, and at all times it pays to buy the best.

To mate with these great foundation females we have selected (also regardless of price), the promising young sire

SIR PONTIAC CLYDE PIETJE, No. 36466

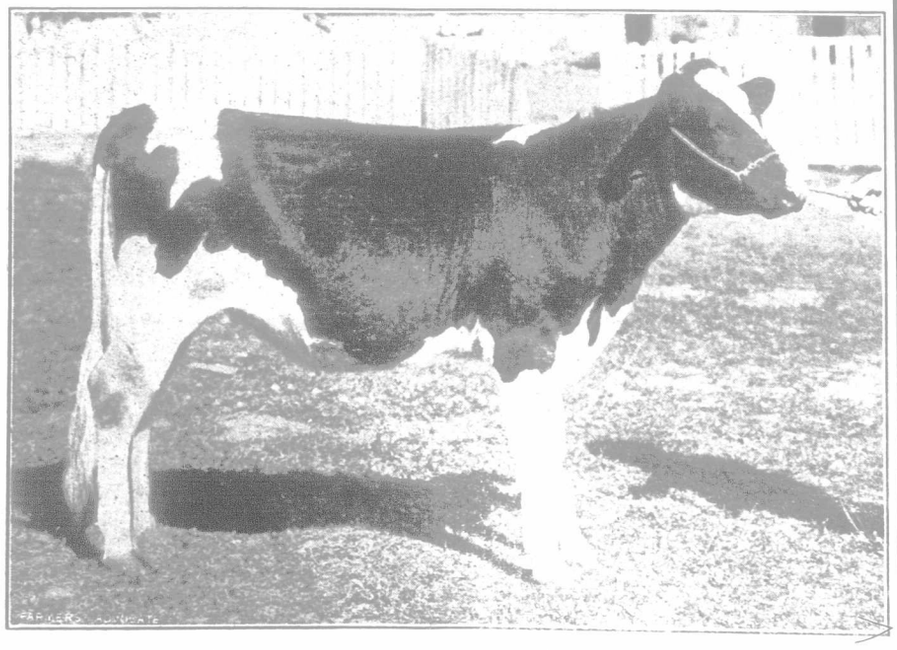
This youngster was second in a strong class of senior calves at the Central Canada Exhibition this fall and his sire Woodcrest Sir Clyde is the senior sire in service at Avondale Farm, Brockville. No further reference should be necessary on this sire's side, but going on to the dam's side his pedigree is equally as pleasing, she being Avondale Pontiac Allie, one of the youngest 32-lb. cows in the Avondale herd. As a five-year-old she made 32.22 lbs. of butter in 7 days, 127.42 lbs. in 30 days. At 4 years she made 29.49 lbs. in 7 days, 113 lbs. in 30 days. At 3 years she made 26.37 lbs. in 7 days and at 2 years she made 22.50 lbs.

SEVERAL YOUNG BULLS FOR SALE

HUGH CARSON, 47 Elgin St., OTTAWA, ONT.

Farms at PORTLAND, ONT.; C.N.R., TORONTO - OTTAWA, MAIN LINE

RIDEAUVALE DUCHESS LADOGA. 1st Prize senior calf and junior champion female at Central Canada Exhibition, Ottawa, 1919. She is sired by Prince Sylvus Ladoga and is a representative "youngster" at Rideauvale.



Senior Herd Sire, RAG APPLE PIETERTJE PONTIAC No. 36248. A. H. F. A. 239942. Born Dec. 9th, 1917. Sire, Rag Apple Korndyke Johanna brother to the 42-lb. cow, Rag Apple Korndyke Pontiac. Dam, Allenvail Pietertje, granddaughter of King Segis and King of the Pontiacs.

MERCROFT HOLSTEINS

for profit---

Just a few figures taken from our daily milk sheets from Sept. 1st, 1918, to Sept. 1st, 1919. (Twice a day milking only.)

Millbrook Audrey, No. 27678	12,921 lbs.	daily average	35.4 lbs.
Colantha Manor, No. 22400	13,787 lbs.	" "	37.8 lbs.
Mercroft Josie, No. 25194	13,870 lbs.	" "	38.0 lbs.
Bessie Wayne of Burlington, No. 26118	11,789 lbs.	" "	32.3 lbs.
Princess Netherland of B., No. 26119	12,519 lbs.	" "	34.3 lbs.
Royalton Canary Queen, No. 17197	13,395 lbs.	" "	36.7 lbs.
Countess Rita, No. 26875	13,067 lbs.	" "	35.8 lbs.
Elmgrove Liz, No. 22021	14,235 lbs.	" "	39.0 lbs.
Black Helena De Kol, No. 26879	19,345 lbs.	" "	53.0 lbs.
Jean Francy Wayne, No. 38262	10,220 lbs.	" "	28.0 lbs.
Bethune Korndyke Segis, No. 21426	12,665 lbs.	" "	34.7 lbs.
Dixie De Kol, No. 26876	10,840 lbs.	" "	29.7 lbs.

This includes only heifers and cows that we have had for over one year, and the averages are made up from 365 days milking in every instance. Our motto is

" Good Individuals, and Production, at the Lowest Possible Cost."

If you want a herd sire that will get you profitable producers, write us.

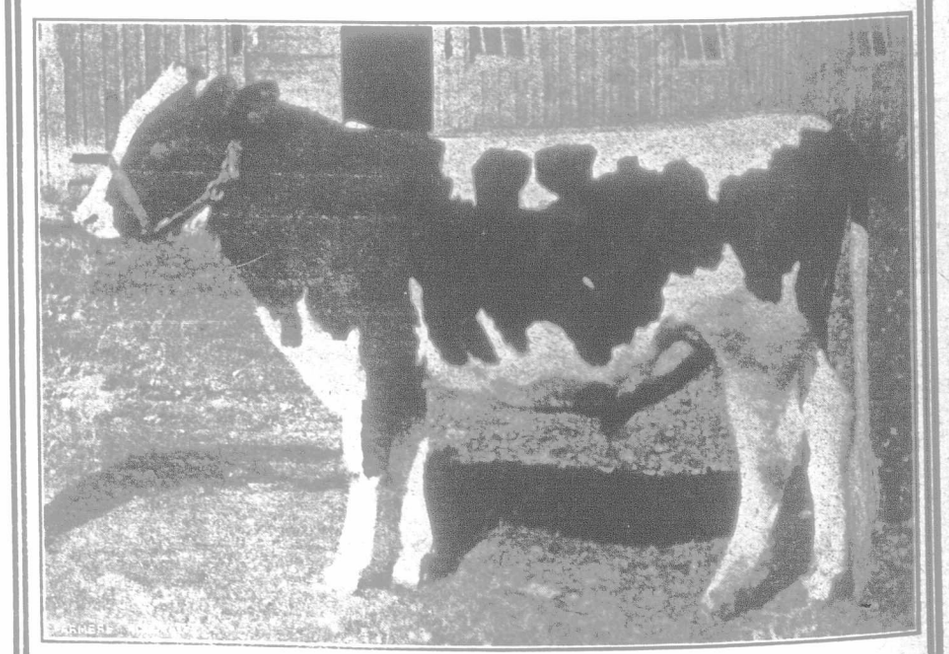
MERCROFT FARMS - MONTREAL, P.Q.

P.O. Box 1568

Office:
319 CORISTINE BLDG.
MONTREAL, P.Q.

Farms at:
DORVAL P.Q., BURLINGTON V.T.

Junior Herd Sire, MERCROFT VICTORY KING No. 38290. This young bull is sired by King Segis Copia, which is a son of Korndyke Queen De Kol 6th, 37.26 lbs. of butter, 781 lbs. of milk in 7 days. His dam is a 29.08-lb. daughter of Canary Mercedes Pietertje Hartog and is one of the best breeding cows in the herd.



and the object is to retain this and to turn up new soil to be sweetened by the sun and air.

Everyone now knows that the dust mulch conserves moisture. But I find that many do not know how it does it. The sun's rays, beating on the surface of the ground, dries it, forms a crust. The moisture is drawn up from below by capillary attraction and so long as that crust remains on the surface the hot sun acts on it exactly as a flame on a lamp wick. The lamp will burn empty, the oil will be all drawn up through the wick by the action of the flame, but extinguish the flame and the oil will remain in the lamp indefinitely. Breaking the crust on top of the ground, keeping it dry and loose, is like blowing out the lamp flame. The capillary tubes—that is the contact of one minute soil particle with another—are broken and the moisture remains in the ground where it is needed by plant roots.

It is only in the last few years that the principle of the dust mulch has come to be understood. Not so long ago the last operation on a newly seeded field in this neighborhood was to go over it with a heavy roller. That roller did good in so far as it packed the sub-surface, but because it also packed the top soil, established capillarity with the sub-surface and caused the ground to dry out it did harm. Our forefathers were good farmers according to their lights, but frequently they raised good crops not because of their methods of procedure, but in spite of them. If the rain did not come when needed they got no crop and threw the responsibility on a Divine Providence.

In the Southwest the aim is to maintain the dust mulch continuously if possible and in the growing of what are here known as hoe crops the dry top layer of soil is maintained as deeply as can be done without interfering with the roots of growing plants. Cultivation does not bring the moisture to the surface, capillary attraction brings it. Cultivation keeps it from getting to the surface and being dissipated into the air in the form of vapor by the action of the hot sun. And the thicker the dust mulch the smaller the amount of moisture that escapes. After every fall of rain—no matter how light— the field is gone over with the harrow or cultivator and in the case of grain crops the harrowing is continued even after the grain is up and until it is of sufficient height to shade the ground and thus help to prevent evaporation.

Now if this system of soil culture will produce the truly marvelous results it has in the land of little rain what would not a somewhat similar system produce if applied here in what, by comparison, may rightly be called the land of much rain?

I believe an understanding and application of the principle of dry farming in this neighborhood would this season have saved thousands of dollars to the farmers. We have had a period of excessively dry weather. It is raining as I write this but the rain has come a little too late to be the benefit to many crops it would be had the seed beds of those crops been properly prepared in the first place.

The wet, late spring caused many fields to be planted in a rush before the soil was properly worked. It is said that the potato crop is almost a failure. My observations have led me to the opinion that potatoes would have yielded normally this year had there been more care and knowledge applied to the land before planting. Here is a case in point: From my window as I write I can see two patches of potatoes. One is practically a failure, the vines small, withered, with many misses. The other has large, thrifty looking vines and a very good stand. The former patch was a heavy sod plowed late about two inches deep and the potatoes were planted when the ground had been lightly harrowed, in shallow holes dug in the sod with a hoe. The other patch was plowed last fall and twice again before planting. Neither piece of ground was, to my way of thinking prepared properly, but the result certainly more than justifies the extra labor that was applied to the second patch.

In proof of my contention that a knowledge of scientific soil culture is essential to good farming in Ontario I could cite dozens of cases of fields right in this neighborhood, but the foregoing should suffice. I am not an expert farmer and certainly do not wish to pose as an instructor. I desire merely

KING SYLVIA KEYES No. 28566, Senior Herd Sire.

PREMIER HOLSTEINS

LISTING JUST A FEW OF OUR FOUNDATION COWS

Maple Grove Hesseltje De Kol No. 28834

Milk, 1 day	110.4	lbs.
" 7 days	755.9	"
" 14 "	1,499.6	"
" 30 "	3,091.4	"
Butter, 7 days	32.66	"
" 14 "	64.43	"
" 30 "	132.49	"

Johanna Mercedes of Riverside No. 10858

Milk, 1 day	101.4	lbs.
" 7 days	678.2	"
" 14 "	1,303.6	"
Butter, 7 days	31.27	"
" 14 "	60.70	"

Edgewood Pride No. 17403

Milk, 1 day	93.5	lbs.
" 7 days	577.6	"
Butter, 7 days	30.09	"

Helbon Beauty Bonheur No. 30294

Milk, 1 day	98	lbs.
" 7 days	638	"
" 14 "	1,267.1	"
Butter, 7 days	31.40	"
" 14 "	60.82	"

Helbon Beauty Bonheur 2nd No. 47257

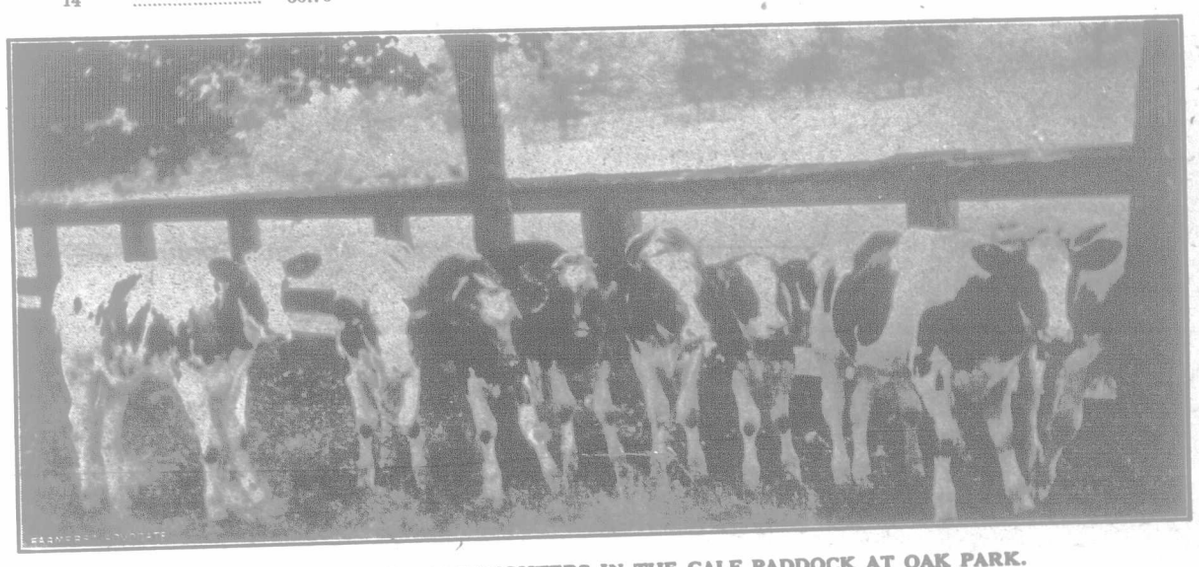
Milk, 1 day	95	lbs.
" 7 days	628.8	"
" 30 "	2,617.5	"
Butter, 7 days	31.35	"
" 30 "	121.28	"

Jess No. 9061 (at 13 years)

Milk, 1 day	87.3	lbs.
" 7 days	548.7	"
Butter, 7 days	29.69	"

Canadian championship for age.

We Are Now Offering Young Bulls of This Breeding



A FEW OF "KING'S" 1919 DAUGHTERS IN THE CALF PADDOCK AT OAK PARK.

OAK PARK FARMS H. H. BAILEY. 'Phone Brantford PARIS, ONTARIO

WE ARE CONSIGNING TO THE

BRANT DISTRICT HOLSTEIN SALE

TO BE HELD IN

Brantford, December 18th, 1919

The following young cows and heifer:

No. 1. Pauline Crown 2nd—A young cow with 19.96 lbs. butter in 7 days and from a 21-lb. cow which is from Lady Schuiling Pauline with 29.60 lbs. butter 7 days. Her sire, Margaret's Sarcastic Lad, has 4 tested daughters and is out of an 18.42-lb. 3-year-old.

No. 2. Hazel Bell Gano—A nice heifer from an 18.16-lb. 3-year-old.

No. 3. Lady Schuiling Pride—A fine young cow that should make good.

We have also for sale a young bull from Pauline Crown with 21.20 lbs. butter 7 days and sired by King Segis Mercena Calamity whose grandam has a record of 35 lbs. butter 7 days.

Attend the Brantford Sale and note particularly my consignment.

NELSON CLEMENT - R. No. 3 . VANESSA, ONT.

Hamilton House Holstein Herd Sires

Our highest record bull for sale at present is a 4 months calf from Lulu Darkness 30.33 lbs. and sired by a son of Lulu Keyes 36.56 lbs. His two nearest dams therefore average 33. 44 lbs. and both have over 100 lbs. of milk per day. We have several older bulls by the same sire and from two and three-year-old heifers with records up to 27.24 lbs. All are priced to sell.

D. B. TRACY, - Hamilton House, COBOURG, ONT.

HOLSTEIN HERD AVERAGES 18,812 LBS. MILK

A herd of 13 pure-bred Holsteins last year averaged 18,812 lbs. milk and 638.57 lbs. fat. Do you realize the money there is in such cows? It is estimated that the average annual yield of all cows in this country is under 4,000 lbs. These 13 cows p oduce as much milk as 62 cows of the 4,000-lb. class.

Why feed, milk and shelter any more cows than you need to produce the milk you require? If interested in send for booklets—they contain much **HOLSTEIN CATTLE** valuable information.

HOLSTEIN-FRIESIAN ASSOCIATION OF CANADA

W. A. CLEMONS, Secretary, - - - ST. GEORGE, ONT.

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

If you want fair grading, highest prices and prompt returns, ship your

RAW FURS

to us. Price list of furs and trappers' supply catalogue free on request.

We are also in the market for

DEER SKINS

Write for prices.

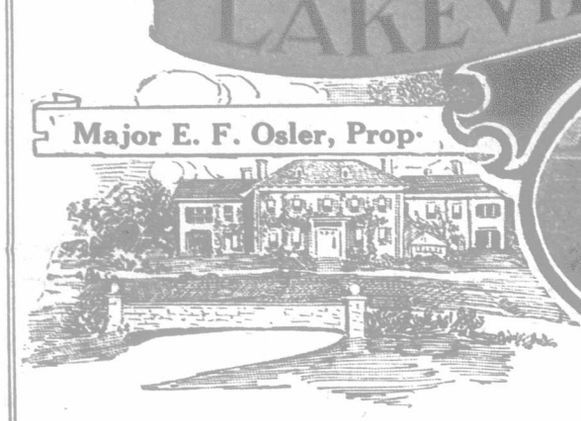
E. T. CARTER & CO.

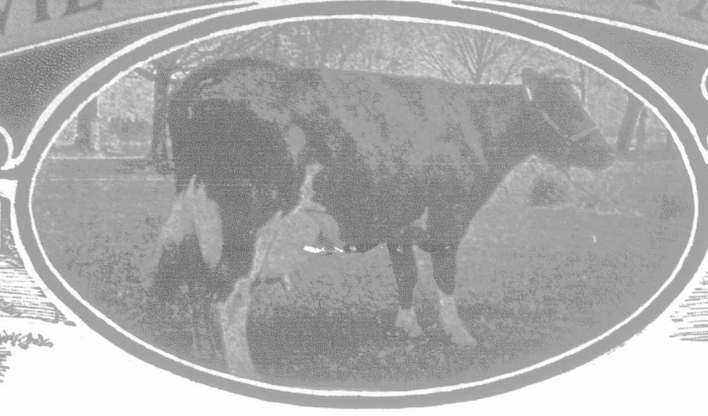
77 Front St. E. Toronto, Can.

LAKEVIEW STOCK FARM

Major E. F. Osler, Prop.

BRONTE, ONTARIO





LAKEVIEW RATTLER shown in the insert was one of the first heifers bred at Lakeview. She freshened as a junior two-year-old, was tested, and increased her record each year until she reached 37.54 lbs. in seven days. In thirty days, eight months after calving, she made 1,412.2 lbs. of milk and 61.20 lbs. of butter.

Other foundation cows include such individuals as:

Lakeview Dutchland Artis—Milk 654.5 lbs.; Butter 43.03 lbs. As a three-year-old she held the Canadian Championship with Milk 567.7 lbs.; Butter 34.66 lbs.

Lakeview Dutchland Queen—Milk 705.8 lbs.; Butter 34.65 lbs. Lakeview Dutchland Calamity Rose—Milk 496.8 lbs.; Butter 31.71 lbs.

HERD SIRES

DUTCHLAND COLANTHA SIR MONA

By Colantha Johanna Lad and selected personally from the F. F. Field herd on the strength of his individuality and that of his dam and sisters. Colantha Johanna Lad has something over 105 A. R. O. daughters and three of these are World's champions in yearly production. Dutchland Colantha Sir Mona's dam is Mona Pauline DeKol, a cow with a 27-lb. record and the dam of Dutchland Colantha Mona with a world's record for her age of 22,645 lbs. of milk and 762 lbs. of butter in official yearly test.

COUNT HENGERVELD FAYNE DeKOL

By Pietertje Hengerveld's Count DeKol, 98 A.R.O. daughters and nearly 50 proven sons. His dam was Grace Fayne 2nd, 26.30 lbs. butter, and the dam of Grace Fayne 2nd's Homestead, the first 35-lb. cow. The Count never had a large herd to work on but produced here over thirty R of M daughters and six proven sons. His best daughter is still with the Lakeview Herd with a 38.06 record; his six best daughters average a fraction under the 30 lbs.

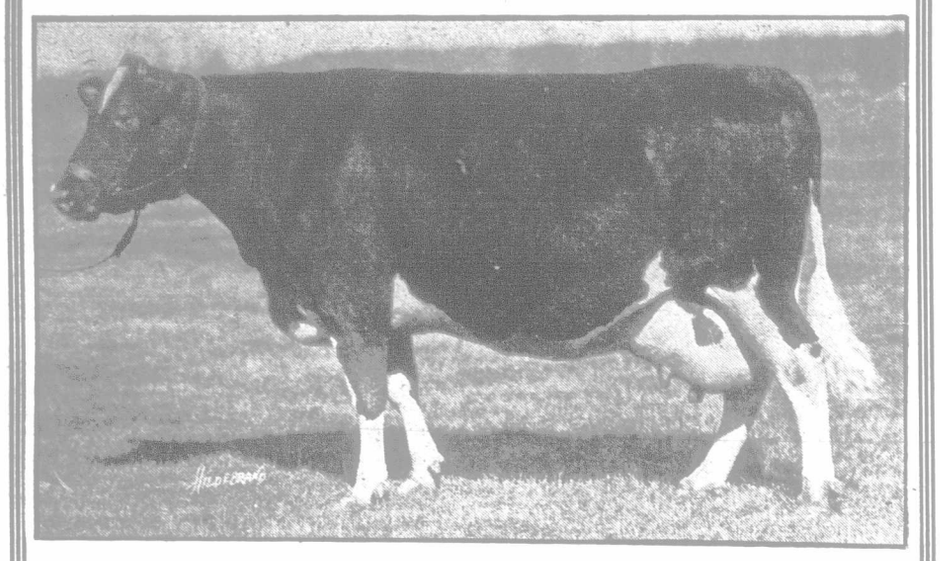
YOU NEED A LAKEVIEW BULL FOR PRODUCTION

Present sales lists, with prices and pedigrees, furnished on application

The farm is situated on the Toronto-Hamilton Highway, one and a half miles west of Bronte. This road is open twelve months in the year; plan to call some time in 1920.

"RIVERSIDE"

where the Champions are bred



JEMIMA JOHANNA of Riverside, Champion R. O. P. Cow of Canada (all breeds)
Milk 365 days 30,373 lbs. Butter 365 days 1,280 lbs.

If you need a Herd Sire Why not come to the Fountain Head?

We have young bulls (nearly all ages) from dams that carry almost 100% the same breeding as Jemima Johanna of Riverside, Canada's greatest producing long distance cow. Among others we have at present, 12 month bulls from the following cows:—

Jemima Johanna Wayne (twice a 30-lb. cow)	**32.32 lbs.**
Lady Tortilla of Riverside	**30.49 lbs.**
Daisy DeKol of Riverside	**29.45 lbs.**

These youngsters are choice individuals, nicely marked and exceptionally well grown. We also have cheaper bulls, from good record heifers—heifers that are equal in breeding to the above cows and prospects for even greater production.

See these bulls, or drop us a line if you need a herd sire.

J. W. RICHARDSON, Riverside Farm, CALEDONIA, ONT.

A Low Banks Bull For Production

SELECT A SON OF

FAIRVIEW KORNDYKE BOY

FOR YOUR NEXT HERD SIRE

Fairview Korndyke Boy is undoubtedly one of the best breeding sons of Pontiac Korndyke. Study this chart and note first, his breeding—then note the performance of his daughters. Compare their records (age considered) with those of any other one sire in Canada to-day, and then ask the man who has seen them about their individuality.

Fairview Korndyke Boy 16342.
13 A.R.O. daughters.

Pontiac Korndyke 25982 — Manor Josephine De Kol 22779; Belle Korndyke 13913

Low Banks Prilly Korndyke at 3 years, 3 days:

	Butter	Milk
7 days	31.85	721.
30 days	126.89	2902.2
At 1 year, 11 months:		
7 days	21.53	502.7

(Canada's only 700-lb. 3-year-old.)

Low Banks Queen Pontiac K, at 1 year, 11 months:

	Butter	Milk
7 days	23.17	535.0

(World's milk and butter record under 2 years.)

Low Banks Lady Korndyke, 4 years, 1 day:

	Butter	Milk
7 days	27.82	568.9
30 days	102.93	2378.5
At 2 years	22.57	444.2

Sire of 2 1-year-olds over 500 lbs., and 2 2-year-olds 600 lbs. milk in 7 days. This can be said of no other sire in the world.

Every one of his daughters have milked over 400 lbs. of milk in 7 days.

Pontiac Mable Korndyke 75236 — Pontiac Korndyke 25982; Pontiac Mable 56968

We have a limited number of his sons for sale, all youngsters, as well as cows bred to him. We also have young bull calves from his daughters and sired by our junior herd sire, Sir Echo, a ¾-brother to May Echo Sylvia. Write us about these.

I would consider pricing a half interest in Fairview Korndyke Boy to some responsible breeder, with farm centrally located to Eastern Ontario District. Correspondence solicited.

K. M. Dalgleish, Low Banks Farm **Kenmore, Ont.**

Special Offering

TWO YOUNG HOLSTEIN BULLS

Fit for service and good enough to head any herd, price $100 each (if taken before New Year).

If you need anything in Holsteins it will pay you to look over our herd and examine our milk records.

W. Fred Fallis

Millbrook - Ontario

Established 1877 "The Old Reliable"

RAW FURS

AND HIDES

WANTED—ALL KINDS

We give expert attention as to grading and price. You get the benefit of any doubt. We pay express charges on all fur shipments.

Write for Market Report, Price List and Shipping Tags.

McMillan Fur & Wool Company

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The Double Track Route

BETWEEN MONTREAL, TORONTO, DETROIT AND CHICAGO

Unexcelled dining car service

Sleeping Cars on Night Trains and Parlor Cars on principal Day Trains.

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

America's Pioneer Dog Remedies

BOOK ON

DOG DISEASES, And How to Feed

Mailed free to any address by the Author,

H. Clay Glover Co. Inc.

118 West 31st Street, New York, U.S.A.

When writing please mention Advocate

to indicate a line of investigation which I think can be profitably followed up by Ontario farmers. There is plenty of literature on the subject easily obtainable and that the knowledge is needed is shown by the action of the man who would not hoe the corn because there were no weeds. He did not know that his hoeing would help destroy surface capillarity and thus conserve moisture.

The Shorthorn's Contribution to National Prosperity.

Continued from page 2212.

ignored much of the utility of the breed is lost. On the other hand, beef must not be entirely sacrificed or the Shorthorn's greatest asset is gone. That the breed produces milkers is evidenced by the R. O. P. records of cows giving from 10,000 up to 17,000 pounds of milk in a lactation, and many of these high-record cows maintain the recognized beef type and form. The progeny of some of these have stood well to the top in fat class competition, thus the "dual-purpose" qualities of the Shorthorn. As in times past the Shorthorn was used to improve native stock, so to-day there is a call for Shorthorn sires, from dams giving a creditable milk yield, to mate with grade herds in general farming and dairy districts. It is impossible for time to blot out the memory of the breed's contribution to Canada's prosperity in the early days, and now, after crossing and re-crossing their herds with other breeds, many are returning to their first love—the Shorthorn—as the shortest road to higher quality stock, with its attendant prosperity.

Outside of districts specializing in dairying, farmers want a big-framed cow that will give six or seven thousand pounds of milk and a square, blocky calf every twelve-month, and that when her usefulness as a breeder is passed will flesh up and be ready for market in a few months. This the Shorthorn has done and will do. Being so constituted as to do this has enabled the breed to be of great value to the average farmer, who does not want to carry all his eggs in one basket.

Brilliant as has been the Shorthorn's past history, the future holds much in store. There are better beef animals and heavier milkers in the breed to-day than ever in the past. These may not always stamp their individuality upon their offspring, but sufficient of them will to enable the breed to progress along the double-track highway of meat and milk to greater heights of usefulness and popularity. The breed whose product meets running expenses of the farm throughout the year, and every twelve-month produces a calf to help lift the mortgage on the farm, is worthy of every consideration. As the breed materially aided in making Great Britain the premier live-stock country of the world, so it is bringing Canada to the fore as a breeding ground of both pedigreed and commercial live stock.

Why Britain Live Stock Remains Supreme

Continued from page 2215.

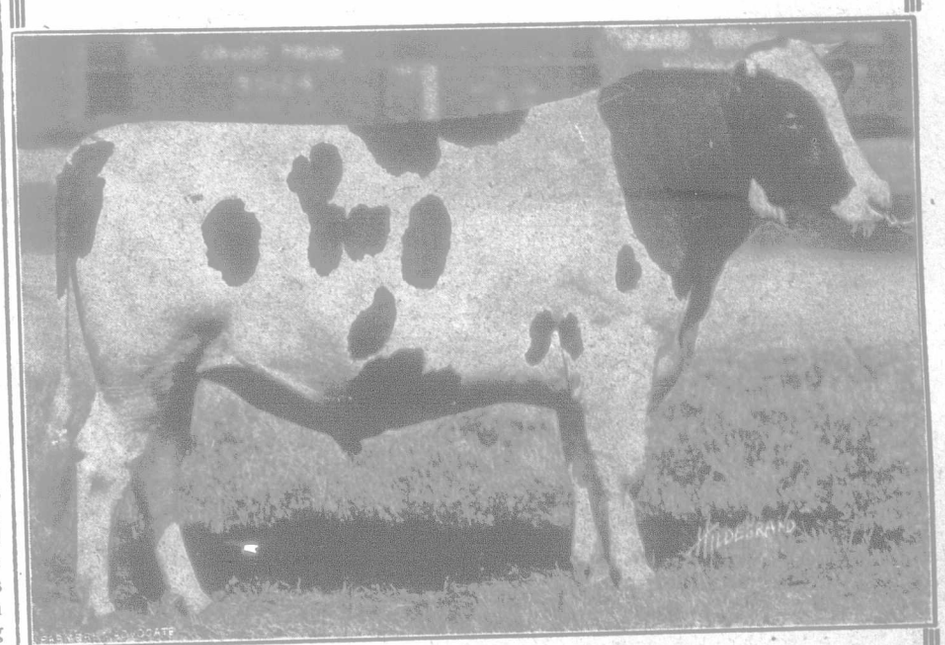
priceless, but the man who owns the stock must himself understand the business.

I have left myself neither time nor space in which to deal exhaustively with the influence of the agricultural methods of Great Britain in developing stock-breeding. The influence is very close and real. The improvement of arable methods preceded the production of improved stock. Jethro Tull and "Turnip" Townshend had revolutionized the methods of cultivation and demanded improved stock to consume the roots, and indirectly produce dung to fertilize the land, before Robert Bakewell set to work to improve the breeds of cattle and sheep. It is not too much to say that Bakewell's work would have gone without adequate reward had not Tull and Townshend and their disciples in England and Scotland developed turnip husbandry with its great corollary, the cleaning and adequate cultivation of land. Strange as it may appear, these improved methods and the principle of crop rotation were adopted in Scotland more readily than in England. The principle holds good to this day. The high cultivation of

FACTS and ILLUSTRATIONS

A STUDY IN BLACK AND WHITE

We don't hope to convince you against your will, but really, where can you beat this individuality and breeding?



Present Herd Sire—SIR KORNDYKE LULU KEYES, No. 32061

SIR KORNDYKE LULU KEYES No. 32061

Sir Sadie Korndyke Segis 106096
Brother to the sire of:
K. K. S. V. Topsy, 3½ year.....40.38
K. K. S. V. Cora, 4 year.....32.23
K. K. S. V. Kate Pontiac, 3½ yr.31.16
By a full brother to:
K. S. P. Ruby.....31.07
His sire has 50 per cent. the same blood as the sires or dams of:
Segis Fayne Johanna, 8 yr.....50.68
Butter 7 days, 6 yr.....35.30
Butter 7 days, 7 yr.....33.29
Butter 7 days, 5 yr.....31.89
Butter 7 days, 3 yr.....30.66
Fancher Farm Maxie, 4½ yr.....46.84
(World's record)
25 others from 30 to 37 lbs.
His sire is from a daughter of Pontiac Korndyke, whose 140 A.R.O. daughters include:

Lulu Keyes 323034
Butter 7 days..... 36.05
Milk..... 785.40
Butter 30 days..... 144.39
Milk..... 3191.80
Milk 1 day..... 122.80
1 A.R.O. daughter
Princess Lulu Keyes, 4 yr..... 27.06
Full sister to:
Lulu Darkness..... 30.33
Her sire is by a brother to the dam of: Star Farm Pietertje Countess..... 32.87
Her dam is by a brother to:
Helena De Kol Artis, whose 16 A.R.O. daughters include
Ruby Walker Pietertje..... 30.22
6 others from 20 to 27.4 lbs.

King Segis De Kol Korndyke 56110
62 A.R.O. daughters,
Mabel Segis Korndyke, 4 yrs.....40.32
(World's record when made)
Butter 30 days.....165.22
(World's record)
King Segis De Kol K. Topsy, 4½ years.....33.10
Korndyke De Kol Clothilde, 4 years.....31.12
Abbekerk Korndyke Segis.....30.42
Korndyke Vale Ormsby, 4 yrs.....31.12

Sadie Cornucopia Mignone 112499
Butter 7 days, 7 years..... 33.37
Milk..... 654.40
Butter 30 days..... 134.40
Milk..... 2600.10
Butter 7 days 6 yrs..... 31.75
Milk..... 574.60
Butter 30 days..... 127.58
Milk..... 2651.40

Sir Inka Darkness Keyes 180923
Lulu Darkness..... 30.33
Milk..... 552.70
Butter 30 days..... 124.59
Milk..... 2637.50
11 A.R.O. daughters
Lulu Keyes..... 36.05
Milk..... 785.40

Disone 2nd's Lulu 2982C
Butter 7 days, 3 yrs..... 13.53
Milk..... 326.50
(R.O.M.)
1 A.R.O. daughter
Lulu Darkness..... 30.33
Milk..... 552.70
Butter 30 days..... 124.59
Milk..... 2637.50

We have a few young sons of this sire, a number of which are now nearing serviceable age, and individually they have every promise of being equally as strong as their illustrous sire. All are from good record cows in our own breeding herd, with records running from 22 lbs. for two-year-olds to nearly 33 lbs. for mature cows. Write for prices and pedigrees.

MANOR FARMS - - CLARKSON, ONTARIO

GORDON S. GOODERHAM, Proprietor

YOUNG HOLSTEIN BULL

FOR SALE

Born April 2nd, 1919, out of Evergreen Keys Triumph 20354, whose record as a three-year-old was 24.46 lbs. milk 7 days, 46.23 lbs. in 14 days and 96.26 lbs. 30 days. His sire is Canary Wayne Hartog 26399, whose dam, Duchess Wayne Calamity 2nd 15514, as a 4-year-old gave 576.3 lbs. milk, 29.28 lbs. butter 7 days and at 2 years 16714 lbs. milk, 846.25 lbs. butter in 1 year.

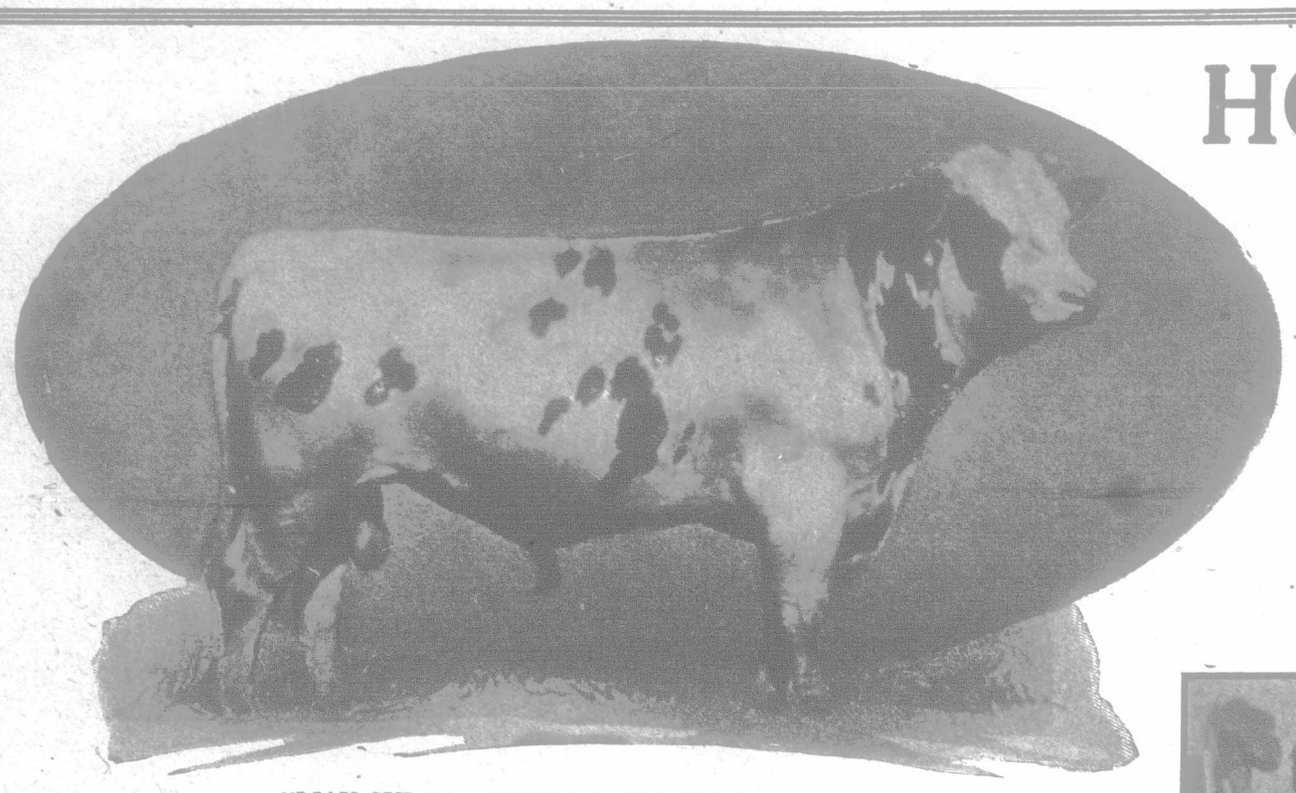
Price for quick sale $100.

GEO. H. McFADYEN, - - SARNIA, ONTARIO

Cedar Dale Farm—The Home of Lakeview Johanna Lestrange, the $15,000 sire—He is the son of the 38.06-lb. cow, Lakeview Lestrange, and is our chief sire in service. We are offering a few females bred to him and also have a few bull calves sired by him at right prices. Other older bulls, sired by our former herd sire, Prince Segis Walker, son of King Segis Walker. A. J. TAMBLYN, Cedar Dale Holsteins (C. N. R. station one mile) Orono, Ontario.

Silver Stream Holsteins—Special offering—Four choice bulls fit for service, sired by King Lyons Colantha, the records of his six nearest dams average 30.10 lbs. butter in 7 days, and from R. O. P. tested dams. Individually as good as their breeding. Write at once for particulars and price, or better, come and see them.
JACOB MOGK & SON, R. R. 1, Tavistock, Ont.

Holstein Cows I need more room and am pricing for immediate sale a number of young cows and heifers, all of which are well forward in calf to the service of Gipsy Pontiac Cornucopia, the 30-lb. grandson of May Echo Sylvia. We also have a few young bulls left which are sired by Gipsy Pontiac Cornucopia and from good record dams. JOSEPH PEEL, Port Perry, Ont.



"MAY SYLVIA PONTIAC CORNUCOPIA" 23382.
From May Echo Sylvia's daughter and the great 44-lb. bull, "Spring Farm Pontiac Cornucopia."

HOLSTEINS
OF QUALITY

The breeding of our herd sire, May Sylvia Cornucopia, illustrated here, is second to none in Canada. He was sire of first, second and third prize senior calves at Toronto, 1919, also of first, second and fourth junior calves and of first calf herd and progeny of cow.

"QUEEN BUTTER BARONESS," 7652
She recently dropped a bull calf sired by May Sylvia Pontiac Cornucopia.

His daughters are just coming into milk, and will make good records. We have now for sale one yearling bull and some bull calves, the get of this sire and out of dams with good records and choice individuality.

Queen Butter Baroness was the first Canadian heifer to cross the 23-lb mark in 7 days, and first cow to make over 33.18 lbs. butter in 7 days. She is dam of two Canadian Champion milk-and-butter producers. We have for sale a bull from her 27.50-lb. daughter, also several of above breeding from yearlings up.

HALEY & LEE (*Inspection is invited.*) **Springford, Ontario**

OXFORD COUNTY
HOLSTEINS
Sixty-Five High-Class Selections

50 FEMALES

Selling under the auspices of the Oxford Holstein Breeders' Club, in their Semi-Annual Fall Sale, Dufferin Hotel Stables, in the City of

15 YOUNG BULLS

Woodstock, Ont., - Wed., Dec. 17th, 1919

Listing the Greatest Array of Breeding Stock We Have Ever Offered, Consigned by the following Breeders:

Martin McDowell, Oxford Centre
G. T. Prouse, Tillsonburg
S. R. Lee, Otterville
Haley & Lee, Springford
T. J. Lammiman & Son, Curries
Walburn Rivers, Ingersoll
Chas. N. Hilliker, Burgessville
McGhee Bros., Beachville
M. L. Haley, Springford
A. T. Walker, Burgessville
Andrew Dunn, Ingersoll
B. D. Smith, Springford
Jacob Mogk & Son, Tavistock
Geo. Oliver, Bright
F. I. Birrel, Burgessville
R. W. Newton, Tavistock
Peter S. Arbogast, Mitchell
Arbogast Bros., Sebringville

For Catalogues Address:

W. E. Thomson, Secretary, Woodstock, Ont.

Auctioneers: MOORE-DEAN.

Annual Consignment Sale of
52 Head **BRANT DISTRICT** **52 Head**
HOLSTEINS

selling at **Hunt & Coulter's Stables,** *in the City of*
BRANTFORD, ONTARIO
Thursday, December 18th, 1919

Four young bulls and forty-eight females

Of the forty-eight females in this sale thirty will be fresh or still in full flow of milk, probably the largest number of fresh cows ever sold in Canada in a sale of this size. Eighteen of the females are due to freshen in December or early in January. Included in this sale are: a five year-old-sister to the 34.06-lb. cow Pauline Colantha Posch; a 14.29-lb. two-year old daughter of Prince Fayne Harland who made her record at one year and ten months; a nice typey untested four-year-old and others equally attractive.

Of the four young bulls listed, one is a nine months' old son of Avondale Pontiac Echo who is a son of May Echo Sylvia and a brother to the $106,000 bull Champion Sylvia Johanna.

Consignors to this sale are:

Nelson Clement, Vanessa, Ont.
W. H. Taylor, Scotland, Ont.
Chester Lee, Kelvin, Ont.
Charles H. VanLoon, Waterford, Ont.
G. B. Robb, Branchton, Ont.
Robert Shellington, Hatchley, Ont.
Elsworth Plant, Burford, Ont.
W. J. McCormick, Hatchley, Ont.
Wilbert Butler, Norwich, Ont.
Louis Kelley, Scotland, Ont.
The Allied Stock Farms, Willsonville, Ont.
J. N. Curriston, Brantford, Ont.
W. H. Shellington, Harley, Ont.
J. H. Shellington, Hatchley, Ont.
E. C. Chambers, Hatchley, Ont.

For catalogues address:

N. P. SAGER, Secretary of Sale, St. George, Ont.

Auctioneers: Almas & Thomas **Sales Manager: J. B. Hanmer**

Hospital for Insane, Hamilton

Holsteins Yes, all bulls of serviceable age are sold, but several of six months and younger, from one of the best sons of King Segis Alcartra Spofford, and our best dams will be sold at reasonable prices.

APPPY TO SUPERINTENDENT

Raymondale Holstein-Friesians

A herd sire of our breeding will improve your herd. We have sons of our present sire, Pontiac Korndyke of Het Loo (sire of $12,750 Het Loo Pieterje), and also sons of our former sire, Avondale Pontiac Echo. Several of these are of serviceable age, and all are from good record dams. Quality considered, our prices are lower than anywhere else on the continent. Their youngsters should not remain long. Write to-day.

RAYMONDALE FARM, Vaudreuil, Que. D. RAYMOND, Owner, Queen's Hotel, Montreal

WALNUT GROVE HOLSTEINS

I am offering a choice lot of bull calves sired by May Echo Champion who is a full brother of world's champion May Echo Sylvia, also a few cows just fresh.

(Take Radial Car from Toronto to Thornhill) C. R. James, Richmond Hill, R. R. No. 1, Ont

Holstein Bulls—A few ready for service, one from a 32.7-lb. dam. He has a 33.94-lb. maternal sister. Baby bulls by "Ormsby Jane Burke" and "Ormsby Jane Hengerveld King" grandson of the 46-lb cow, "Ormsby Jane Segis Aaggie," the only twice 40-lb. cow of the breed. Also females.

R. M. HOLTBY, R. R. 4, Port Perry, Ont.

CLOVERLEA FARM HOLSTEIN FRIESIANS

Our present offering consists of two choice young bulls ready for service. Priced right for quick sale. Write GRIESBACH BROS., Collingwood, Ont. R.R. No. 1

Am all sold out of bulls of serviceable age.

Have Three Bull Calves from two to five months

old the dam of one is a 20.225-lb. cow, and they are out of a 32.92-lb. sire. Also would sell four heifers by the same sire, due to freshen in February. Write for prices.

Archie Muir, Scarboro, P. O. ELDERSLIE FARM

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

NOTICE

1920 SALE LIMITED TO 115 LOTS

Make Your Entries Early

Inspection Begins Jan. 19, 1920

CANADIAN NATIONAL HOLSTEINS

We wish to announce that inspection for the 1920 Canadian National Sale of Holsteins to be held at Toronto, April 6-7, will commence on Jan. 19. Breeders wishing to consign to Canada's Greatest Sale, are asked to make their reservations early.

The cattle to be accepted must be of good individuality, of officially tested ancestry, and guaranteed by their owners to be right in every way. All will be sold subject to the tuberculin test. Full particulars as to rules, etc., furnished on request.

Canadian National Holstein Club
28 Adelaide St., W., TORONTO
Gordon S. Gooderham, President

the Lothians, and Angus would be impossible without well-bred stock to consume the roots and straw, and directly or indirectly to manure the soil. Advanced husbandry has an important influence in fostering the breeding and rearing of well-bred stock. This advanced husbandry is fairly general throughout the British Isles, but as a rule the man who feeds the stock for the butcher is not pre-eminent as a breeder.

The Doddie's Triumphant March.

Continued from page 2213.

gaining in popularity and numbers. This popularity is spreading over a large area not only in the far North, and on the ordinary farm, but also on the range. Wherever Aberdeen-Angus cattle are offered for sale, they are always absorbed by the ordinary farmer at satisfactory prices to the seller. To meet the demand sales of Aberdeen-Angus cattle are being organized all over the country, the idea to offer all districts a chance to buy pure-bred Aberdeen-Angus cattle at their own price and close to their home districts. The business of the Association as a result of the growth of the breed and the new enterprises entered into, have found it necessary to secure a permanent secretary and field man to manage their business and look after their interests At the last meeting of the Directors of the Association it was decided to hire this secretary and field man at the earliest possible moment; with his advent a tremendous impetus will be given to all movements that relate to the Aberdeen-Angus cattle.

In Western Canada the Aberdeen-Angus cattle have found special favor in demonstrating their ability to rustle and thrive under very severe conditions. It is an old story for me to hear men from Northern Saskatchewan and Alberta tell fo the fact that their Aberdeen-Angus grade cows will invariably lead the herd out to the straw pile in severe cold winter days when the inclination of the balance of the herd is to stand on the south side of the barn hunched up an shivering. The result of this is that their black grade cattle will come out in the spring fatter and in better condition than the others.

An Aberdeen-Angus bullock gets fat a little differently from others. He puts on very little fat on the surface, but rather mixes the fat with the lean. The process is called marbling. My father tells of the fact that in the early days of Aberdeen-Angus cattle in Western Canada, a couple of carloads of Aberdeen-Angus bulls were taken into a certain district in British Columbia. Some years later he met the men who bought these bulls, and was interested enough to ask them how they did for them. They replied that they liked the calves from these bulls very much, the only objection they had was that the Aberdeen-Angus steers would look fat in the field, but when they were slaughtered they would show very little surface covering of fat. At that time they did not realize that excess surface fat was waste, and the fact that Aberdeen-Angus put their fat on by mixing it with the lean was a distinct advantage rather than a disadvantage. To-day it is really this fact that makes the Aberdeen-Angus cattle so universally popular with butchers.

An important reason for the tremendous demand for Aberdeen-Angus bulls in Western Canada is the fact that their calves are so distinctive from the others. It has been found that an Aberdeen-Angus bull can be crossed with all colors, shapes and breeds of cows and still leave their calves in practically all cases pure black in color and without horns just like pure-breds. This is a tremendous asset and has encouraged people to buy Aberdeen-Angus bulls if for no other reason than to make their herds uniform. Bulls of other breeds when crossed with nondescript cows to the average unskilled passer-by, leave their calves very little different than the ordinary cattle of the district. On the other hand, use an Aberdeen-Angus bull and their black color and hornless character will come out so uniformly and distinctively in their calves that right away a man will know that a pure-bred bull has been used. They are self-advertisers.

The Indian Industrial School at Brandon, Manitoba, maintains a pure-bred herd of Holsteins. They wished to breed some beef steers and they rented a pure-bred Aberdeen-Angus bull from us. They have had about 80 calves from this cross, and every one has been black in color and without horns. Last year their two-year-old steers brought 14½ cents per pound at Brandon, and sold for eighteen cents on the Chicago market.

The future of the Aberdeen-Angus breed is absolutely assured. The extent of their spread and growth is in the hands of the breeders of the breed. If they are willing to unite behind their cattle with an up-to-date, progressive pushing policy, then just to that extent will success be with them. It is very important to keep good representative Angus cattle before the public at all exhibitions. Advertise them extensively in all farm papers, then follow this up with auction sales in all parts of the country, of good animals of the breed. In this way anybody wanting to buy can secure the best at such places as sales are

Southern Counties Ayrshire Breeders' Club

Eighth Consignment Sale

Rudd's Sale Stables, Woodstock

Thursday, December 18, 1919,

at one o'clock.

50 Pure-bred Ayrshires 50

Young bulls, cows and heifers of outstanding quality and meritorious breeding will be offered to the public. The district is where Jean Armour, Lady Jane, Scotch Thistle, Lenore 2nd., Whitney's Lassie, Holehouse Flirt, and many other great producers were bred and developed. The stock in this sale will be closely related to these noted animals. This is an excellent opportunity to secure representatives of the heaviest milking strains of Ayrshires in Canada at your own price.

Terms of sale: Cash, or credit up to six months to responsible parties at 7 per cent. per annum.

For catalogues and other information, write

F. H. Harris, President, Mt. Elgin, Ontario. John McKee, Sec.-Treas. Norwich, Ontario.

MOORE and DEAN, Auctioneers.

Stockwood Ayrshires Imported and Canadian-bred—Write me for your next herd sire. I have several youngsters at present sired by my own herd sire, Killoch Gold Flake (imp.) 51225, and from imported dams that are still in the herd. Call and see the kind we breed. Also pricing a few young cows safe in calf to herd sire.

D. M. WATT, St. Louis de Gonzague, P. Q.

"SPRINGBANK"

Record of Performance

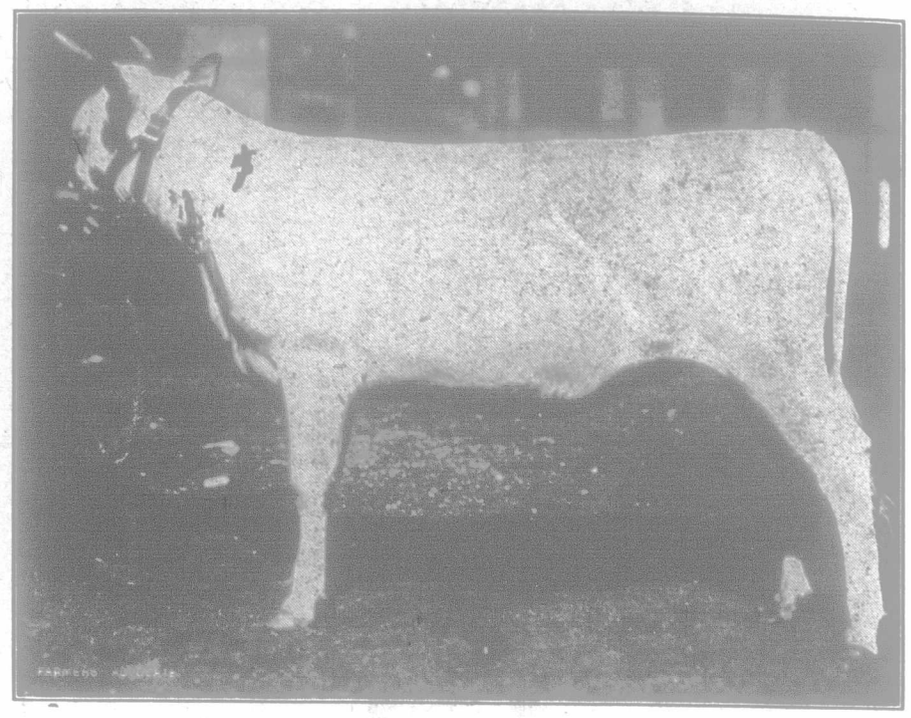
AYRSHIRES

The heaviest producing show herd on the continent

The Springbank herd during the past decade have held more championship records for production in the Canadian Performance than any other herd in the Dominion—and have held at one time nearly as many as all other herds combined.

Springbank Ayrshires are the profitable kind at the pail—and—they win in the show ring. At London this year, the close of the Ontario Show Circuit, our entries won 8 out of 15 firsts in the individual classes, first for both junior and senior herds to say nothing of almost a dozen second and third awards.

We have young bulls for sale, also a few females. All are bred for type and production.



Dainty Lass of Springbank No. 55862 (photo as senior calf) 1st in Dry 2-year-old class at Toronto and London 1919. Freshening in September she produced 1,259 lbs. of milk in October. Sire, Netherton King Theodore (imp.)

HERD SIRES

Netherton King Theodore (imp.) 35757. 11 qualified daughters in the R. O. P. test with an average of 9,572 lbs. of milk.

Humeshaugh Invincible Peter No. 51461 son of Hillside Peter Pan.

Sir Hugo of Springbank No. 60255, son of Netherton King Theodore (imp.) and only son of the late Lady Jane who produced 64,889 lbs. of milk in four consecutive years, R. O. P.

A. S. TURNER & SON SPRINGBANK FARM 3 miles south of Hamilton **Ryckmans Corners, Ontario**

A fine illustration of Scottish show type and production. She has a record of 10,500 lbs. of milk, testing 3.8% in 32 weeks.

This Photograph From Scotland

Only recently received, best illustrates the great style and quality of Mansfield Mains Miss Findlay (43692), which is the dam of our present herd sire,

Mansfield Mains Sir Douglas Haig (Imp.) 16163

This bull is one of the most perfect individuals we have ever used in the herd, and the first of his get now figure in our present offering. These youngsters, we think, are just about the last word in Ayrshire conformation, and on these we are quite willing to stake the entire reputation of the old-established herd of

Glenhurst Ayrshires

Our breeding herd is made up of both show cows and producers, carrying the blood of many of the most noted high-producing and prize-winning families in both Scotland and Canada. We have, for the past 40 years, been specializing in Ayrshires of the sort that make foundation animals. Look up the records of many of the leading herd in America today, and you will be surprised to see how many good ones among them bear the name of "Glenhurst." We invite your inspection at all times. Visitors always welcome. If you find it impossible to come, write for prices.

JAMES BENNING, Importer and Breeder (Bell' Phone Cornwall 78-3) **Williamstown, Ontario**

Springburn Ayrshires

Herd Headed by

Lessnessock Golden Love Imp.

The Grand Champion Bull of 1919, and a bull that is breeding "True to Type." Three of his sons won their classes at Toronto, 1919

If you want one of this stamp get your order in early.

To make room for the increase of our herd, will sell a few females bred to "Golden Love."

Sixty head to select from.

All Tuberculin Tested.

GILBERT McMILLAN, Huntingdon, Que.

Our Present Herd Sire

A son of Humeshaugh's Invincible Peter.

1st at C.N.E., Ottawa and Guelph, 1916.
1st and Gr. Champion at London, 1917.
1st and Sr. Champion at C.N.E. and London, 1918.
Dam's Record over 14,000 lbs.

His Dam

Mountain Lass, 1st Gr. Champion

London, 1917. 2nd in Dairy Test, Guelph, 1916. 3 R.O.P. records in 3 successive years. 11,199 lbs. in 274 days, 1917. Whites are in style. We have them.

JAMES BEGG & SON - - ST. THOMAS, ONT.

Willow Brook Stock Farm

Of Registered

Ayrshires

Offers for sale one choice young bull ready for service, off R.O.P. dam.

R. R. DODDS

333 York Rd., - Guelph, Ont.

Glencairn Ayrshires—Herd established 40 years. Producing ability from 8,600 to 11,022 lbs. If that sort of production appeals to you, we have heifers all ages and young bulls for sale. **Thos. J. McCormick, Rockton, Ont. Copetown Station, G.T.R.**

ATWOOD JERSEYS

Herd headed by Imported Sire; his Dam won first at Toronto, 1919. We are now offering for sale some choice heifers and cows due to freshen soon.

Arthur Simpson, - Atwood, Ont.

FOR SALE

A number of pure-bred registered Jersey heifer and young cows. Also two bulls. Must be sold.

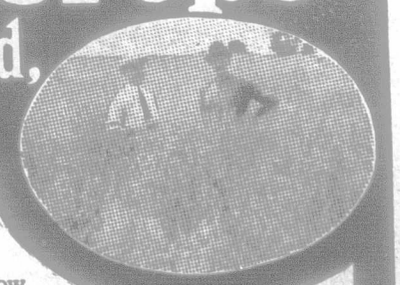
Ernest Winlaw, Heasly, Ontario.

When writing please mention Advocate.

Edgeley Bright Prince—a son of Sunbeam of Edgeley, R. O. P champion, sired by a son of Viola's Bright Prince is for sale. He is 3 years old, sure and active. Won third prize in aged class at Toronto and London, 1919. Write for price.

JAMES BAGG & SONS (Woodbridge C.P.R., Concord G.T.R.) EDGELEY, ONT.

Increase Your Grain Crops without extra land, labor or seed



IT'S purely a question of supplying more—and better—fertilizer. This is not theory. It is FACT. Grain needs nitrogen or ammonia to grow the straw; Phosphoric Acid to hasten ripening and fatten the kernel; Potash to give strength to resist disease and assist in the formation of starch. Harab-Davies Fertilizers possess these plant foods in readily soluble form—the identical plant foods that are supplied to the soil by barn-yard manure, but in larger quantities and in more concentrated form. Experience is the great teacher. There is no substitute. Read, then, of the experience that scores of Farmers in all sections of Canada have had in greatly increasing grain yields with Harab-Davies Fertilizers. "Fertilizer Results by Satisfied Users" is the title of a most interesting booklet along this line. Write for a copy—sent FREE on Request.

Harab-Davies FERTILIZERS

ONTARIO FERTILIZERS LIMITED

Dept. F. A. West Toronto, Ontario

BRAMPTON JERSEYS

The Largest Jersey Herd in the British Empire

At Toronto Exhibition, 1919, we won twenty-five of twenty-seven first prizes. We now have for sale first-prize young bulls from R. O. P. dams, as well as females of all ages.

B. H. BULL & SONS - Brampton, Ontario

Laurentian Producing Jerseys—The oldest bull we have at present is a year old youngster sired by our herd sire, Broadview Bright Villa, No. 5630, and from Brampton Astoria, one of the best imported cows in the herd. We also have others younger of similar breeding, as well as a few bred heifers for sale. **Frederick G. Todd, Owner, 801 New Birks Bldg. Montreal, P. Q.**
Farm at Morin Heights, F. J. Watson, Mgr.

DON HERD OF PRODUCING JERSEYS

We have three young bulls of serviceable age—good individuals and priced right. Could also spare a few choice bred heifers. Visitors welcome.

D. DUNCAN & SON, TODMORDEN, CNT.

organized and at their own price. We have a breed whose record of performance is unequalled. Let us get behind them and put them to the top where they belong.

A Flight in Air.

Continued from page 2217.

a'richt.

As we got up near to the place where ye tak' the car for the city we saw that auld aeroplane up in the air again an' Mac says to me as he looked at it; "I'll bet we'll see the day when we'll be tellin' some o' the younger chaps that we mind the time when we paid ten dollars for the chance to get a ten-minute ride in a thing like that up there."

"The warld is movin' ahead, no mistak'," I replied, "I shouldna be surprised if ye were right."

"I'd juist like to come back to this auld planet in aboot a hundred years from noo an' see how they hae been gettin' alang wi'oot oor help," went on Mac. "It wad be worth seein', the kind o' a tractor they'll hae by that time. Maybe they'll hae wings on it so it can fly over the wet spots. But here's oor car. Wouldn't it hae made oor grandfathers' eyes stick oot to see a thing like that comin' up the track wi'oot horses or onything ye can notice, to pull it?"

Mac is kind o' given to moralizing, when he isna hungry.

Gossip.

The Old Established Glenhurst Herd.

The Glenhurst Ayrshire herd now numbering over one hundred head dates back to the year 1865, the year in which the first foundation females were purchased. For many years however, the herd in numbers did not exceed fifty head but even when it was at its smallest, the records show that only the best of imported sires were used. In this regard probably no herd in Canada has been so fortunate. Mr. James Benning the present owner, and the late Mr. Benning, who founded the herd, were both somewhat of extremists in the way of herd sire selections. A sire which came to Glenhurst must not only be of popular breeding, but also must carry the strongest of individuality on which was the stamp of quality and character throughout. Glenhurst Torrs Mayor, Torrs Master and the present herd sire, Mansfield Mains Sir Douglas Haig (imp.), were all selected with these principles in view, and their get which make up the present offering, furnish every evidence that in each case the sire had been well chosen. The present offering, is of course, chiefly sons and daughters of the latter bull, and as seen recently by a representative of "The Farmer's Advocate", they carry just a little stronger dairy qualities than the get of any other sire which we have seen at the farm in some years. From a resume of the pedigree of Mansfield Mains Sir Douglas Haig, however, this could only be expected. "Sir Douglas," being got by the great Scottish Bull, Low Milton Good Hope, and he by the noted Bargenoch Scot Again, while on the dam's side, he is a son of Mansfield Mains Miss Findlay, which is a daughter of the noted Champion winner, Duncan Ziemere Royal Review. "Sir Douglas" is now rising three years and while he is not overly large, he is without doubt one of the best and strongest individuals in the way of quality and depth that the writer has seen for some time. He is also mating exceptionally well with the great Flos and Torrs Conny tribes that have made the Glenhurst herd so popular in the past. It will be remembered that nearly all of the foundation cows belong to these two families, and it will also be remembered that both were outstanding in the way of good teats and splendid sized individuals, both features having been kept in the foreground at all times since the herd's inception. The present offering includes several young bulls all of which are sired by Mansfield Mains Sir Douglas Haig, and a few young heifers of the same breeding. Added to these Mr. Benning stated that he was also pricing a few young cows to make room in the over-crowded stables. Your correspondence is solicited.

HAZELDEN FARM
Jerseys

An Unusual Opportunity

We offer for sale a young Bull (21 months) half brother to our Herd Bull "Raleigh Prince" (Senior and Grand Champion at London this year). This young fellow is an unusually good individual, fit to head any herd.

Also a splendid lot of animals both sexes and all ages.
Selling by letter is unsatisfactory. We prefer that purchasers should see the animals. Come and look over the herd. It is worth while. We pay return railway fare up to one hundred miles, if you make a purchase.

Write for appointment to

Hazelden Farm Box 529 LONDON, ONTARIO

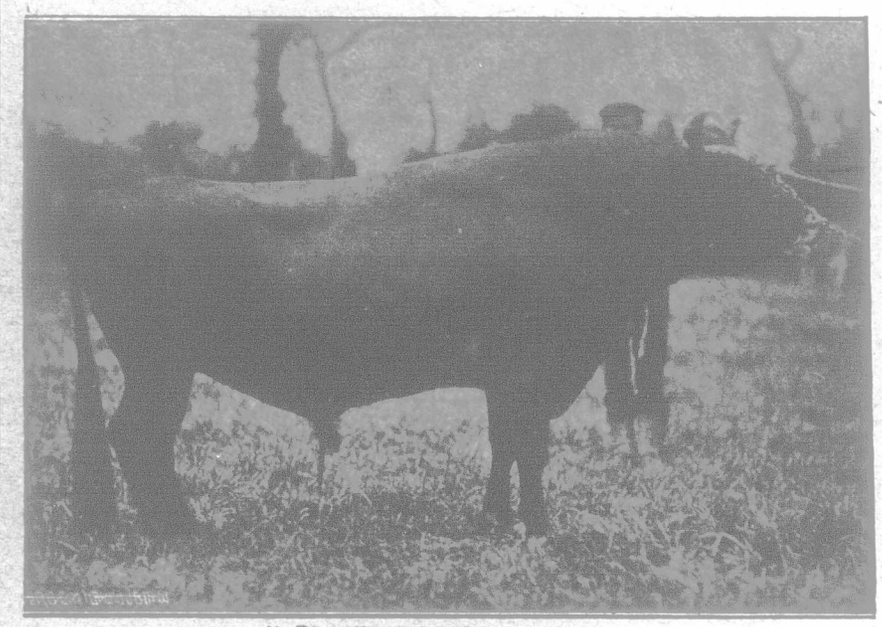
THE WOODVIEW FARM JERSEYS

London, Ont.

Canada's Most Beautiful

JERSEY HERD.

Herd headed by



IMPORTED CHAMPION ROWER.
(Register of Merit Bull)

One of the greatest sires that ever left the Island of Jersey.

First-prize aged bull St. Helier, Island of Jersey 1914, winner of first prize with five of his get on the Island in 1914, second in 1916, and again first in 1917. The progeny prize is the highest honor a bull can win on the Island, and no bull, living or dead, ever equalled the record of Imported Champion Rower in that respect. Note the fact that his daughters are great producers as well as prominent show-ring winners. One of them being world's champion producer in her class, another winning the most coveted prize awarded on the Island.

SIRE OF

ROWER'S PRETTY EMMA.—Sold at auction as a yearling for $425.
ROWER'S MAID.—Sold at auction when three years old for $525. Now owned at Woodview.
ROWER'S QUEEN OF BEECHFIELD.—Sold at auction as a two-year-old for $600.
ROWER'S LADY CARITA.—Sold at auction as a three-year-old for $725.
ROWER'S MILKMAID.—Sold at auction for $1,050.
ROWER'S JUNE LADY.—Register of Merit cow, 10,654 lbs. milk, 541 lbs. fat as a three-year-old. Sold for $800. Now owned at Woodview.
ROWER'S FARINEUSE BELLE.—Register of Merit cow, 368 lbs. butter as a two-year-old. Sold at auction for $540.
ROWER'S GREENFIELD BRAND.—Register of Merit cow, 8,693 lbs. milk as a five-year-old in 324 days. Sold at auction when three years old for $610.
ROWER'S HEATHER COUNTESS.—Register of Merit cow, 13,392 lbs. milk, 788 lbs. butter when five years old. Sold at auction for $785, and now held at a very high figure. First-prize four-year-old cow at New York State Fair 1918.
ROWER'S BELLE CLOVER.—Register of Merit cow, 11,508 lbs. milk as a junior three-year-old, making her imported world's champion of her age. Now held at $3,000.
ROWER'S GOLDEN CREAM.—One of the five daughters of Rower winning first for get of sire in 1917. Island Record 8,340 lbs. milk, 483 lbs. butter in 340 days.
ROWER'S MERMAID DAISY.—Island Record, 8,633 lbs. milk, 509 lbs. butter in 398 days.
ROWER'S LITTLE FANNY.—Island Record, 8894 lbs. milk, 565 lbs. butter in 341 days. Reserve for the Goddington Prize in 1916.
ROWER'S PRINCESS MILLICENT.—Island Record, 7,807 lbs. milk, 496 lbs. butter in 355 days.
ROWER'S FLORENCE ROSY.—Island Record, 7,211 lbs. milk, 430 lbs. butter in 326 days.
ROWER'S SIMONE B.A.—Island Record, 6,539 lbs. milk, 340 lbs. butter in 340 days with first calf.
ROWER'S MONSTER PRINCESS.—First-prize heifer in milk, St. Ouen Agricultural Society, Island of Jersey, 1914.
ROWER'S ZELLINAS FAVORITE.—First prize, class 3, 80 entries, and St. Ouen Parish prize, Royal Show, 1913.
ROWER'S PRIZE MAID.—One of the five daughters of Rower winning first for get of sire in 1917. First prize, special class 1917. First subscription prize 1917. Parish prize, class 5, Royal Show, 1917. Sold for $650. Now owned at Woodview.
ROWER'S CHARM.—First prize, St Helier, Island of Jersey, Agricultural Society, 1916. First prize two-year-old, National Dairy Show 1916. One of the First prize States' Herd of twelve animals at National Dairy Show, 1916. First prize three-year-old Canadian National Exhibition, Toronto, 1917. First prize three-year-old, Senior and Grand Champion, Western Fair, London, 1917. Sold for $825. Now owned at Woodview.
ROWER'S GLORY.—First prize three-year-old cow, Missouri State Fair, Iowa State Fair, Nebraska State Fair, and Dairy Cattle Congress, Second prize three-year-old South-western Cattle Show and National Dairy Show 1918. Sold at auction for $1,900. Now owned at Woodview.
ROWER'S EVENTIDE LASSIE.—Second prize, class 2, 56 entries, and Parish prize, Royal Show, Jersey, 1913, beating Oxford Majesty's Gipsy, twice grand champion at the National Dairy Show. First prize St. Ouen Agricultural Society, young cow class, 1915. Parish prize, Royal Show, Jersey, 1917. One of the five daughters of Rower winning first prize for get of sire 1917. Sold at auction for $1,750. Now owned at Woodview.
ROWER'S DRACONIS.—One of the truly great females of the breed. Note her winnings, 1917. Trinity and St. Martin's Show, Island of Jersey, first prize heifer in milk. First prize in breeders' class for best cow owned by exhibitor, and winner of the Silver Rose Bowl. Championship. Sweepstakes. Royal Island Show, first prize heifer in milk. Bull and progeny class. First prize awarded to Imported Champion Rower and Draconis selected as best cow in progeny group, 1918. Trinity and St. Martin's Show, breeders' class, first prize and winner Silver Rose Bowl. Championship. Sweepstakes. Royal Island Show, second prize over the Island. Reserve for Theatre Challenge Cup. 1919. Trinity Show, first prize. Championship. Sweepstakes. Champion over Trinity and St. Martin's. Breeders' class, first prize and championship, Royal Island Show, first prize over the Island, and winner of the Theatre Challenge Cup, the greatest distinction that can come to a cow on the Island of Jersey.
ROWER'S MORNY CANNON, ROWER'S GOLDEN MAID'S PRINCE, ROWER'S JUDY'S SULTAN.—All bred at Woodview and winners of first, second and third prizes, bulls under six months of age, Western Fair, London, 1919.
ROWER'S MARJORAM. ROWER'S JUDY'S SULTANA.—Bred at Woodview. Winners of first and third prizes, heifers under six months of age, Western Fair, London, 1919. Rower's Marjoram also won Junior Championship.

The foundation of the Woodview Herd is made up entirely of very high class imported cows, practically all of them in the Record of Performance and nearly every one of them prominent prize winners at Canada's largest and best shows. We make the claim that no herd in Canada can show so many really excellent specimens of the breed nor such a high average of quality. Mated to such females we certainly expect Imported Champion Rower to make Jersey history in Canada, and the attention of breeders is called to the winnings of the first five calves sired by him since his arrival at Woodview less than two years ago.

Visitors always welcome whether intending purchasers or not.

JOHN PRINGLE, Proprietor, London, Ont.

Feeds

CUSTOMERS purchasing their Feeds from us do so with the assurance of receiving the best. Purity and quality are the standards that we consistently aim to maintain and as a result our Feeds have made many satisfied customers.

We can fill your orders in small or large quantities for any of the following:

Linseed Oil Cake Meal, Cotton Seed Meal, Gluten feed (23% protein) Bran, Shorts, Feeding Corn Meal, Hominy Feed, Sugar Beet Meal, Barley Chop, Feeding Cane Molasses, Stock Feeds etc.,

WE BUY Hay, Straw, Oats, Barley, Buckwheat, Mixed grain, Clover Seed, Potatoes, etc.

CRAMPSEY & KELLEY

Dovercourt Road, Toronto

SUMMER HILL

OXFORDS

Hold An Unbeaten Record

For America

1st, 2nd, and 3rd Prize, and 1st Pen Oxford Rams, Toronto, 1919
For P. Arkell & Sons, Teeswater, Ont.

We have at present a real Christmas offering in Yearling ewes and rams, as well as rams and ewe lambs. Place your orders now for 1920. Our aim is to Satisfy customers.

PETER ARKELL & SONS

Teeswater :: Ontario

H. C. Arkell **W. J. Arkell** **F. S. Arkell**

Importers and Breeders Since 1879

Gossip.

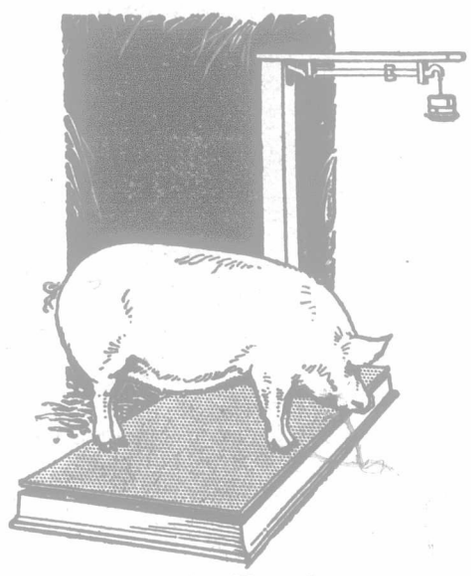
Southern Counties Ayrshire Sale.

The coming event in Ayrshire circles in Western Ontario this month is the eighth consignment sale of pure-bred Ayrshires, held under the auspices of the Southern Counties' Ayrshire Breeders' Club, of which John McKee, Norwich, Ont., is Secretary-Treasurer and Sales Manager. The sale will be held on Dec. 18th at the Dr. Rudd sales' stables, Woodstock, beginning at 1. p.m. The Ayrshire breeders of this district have long been noted for breeding a class of Ayrshires that possess milking qualities of the very highest order. Such noted Ayrshires as Jean Armour, Lady Jane, Scotch Thistle, Lenore 2nd., Whitney's Lassie, and Holehouse Flirt were all bred by members of this Club. An extra choice draft of young cows possessing the very choicest breeding are included in this sale. Many of them are very closely related to the R. O. P. champions of to-day. Eight splendidly-bred young bulls are also included. The list of breeders consigning stock given below is a sufficient guarantee of the quality of the cattle to go under the hammer on the 18th. Consignors: F. H. Harris, Mt. Elgin; J. L. Stansell, Straffordville; R. J. A. Smith, Hatchley Sta.; John A. Morrison, Mt. Elgin; W. W. Ballantyne & Son, Stratford; MacVicar Bros., Belmont; Wm. Thom, Lynedoch; Thos. Dennis, Straffordville; Geo. E. Carter, Aylmer; Geo. Apel, Mitchell, and E. Burpee Palmer, Norwich. If you are interested in Ayrshires do not miss this sale. Send for a catalogue to the Secretary, John McKee, Norwich, Ont.

The Premier Herd at Oak Park.

Of the numerous Holstein offerings advertised elsewhere in this issue, none should be of more interest to those who appreciate animals of the better sort than those listed in the advertisement appearing over the name of Oak Park. The Premier Herd at Oak Park has in the past several years been prominently to the fore, both in the show and sale ring, just a little oftener than most herds of this size in either United States or Canada. As will be seen by the advertisement appearing elsewhere in this issue, the majority of the foundation cows at Oak Park have produced better than 30 lbs. of butter in seven days, and the herd sires used in the past have also won in the show-ring with almost unprecedented regularity. In coming to the youngsters which make up the present offering, the majority are sired by the present herd bull, King Sylvia Keyes, and on the dam side are from the good record cows which are listed among the breeding females. King Sylvia Keyes a bull of great individuality, is sired by Inka Sylvia Beets Posch which is also the sire of the great May Echo Sylvia and his dam Helena Keyes a 29.64-lb. granddaughter of Count Echo DeKol, the famous sire of the famous old May Echo. A resume of his pedigree shows that he is over 62 per cent. the same blood as May Echo Sylvia, or carrying about the same percentage of May Echo Sylvia blood as Champion Sylvia Johanna the $106,000 bull. Among the sons of King Sylvia Keyes in the present Sales' List is a 11-months' bull from Maple Grove, Heseltje DeKol, a 32.66-lb. cow who also produced 755 lbs. of milk in the seven days and 110.4 lbs. in one day. There is also a calf from the 31.36-lb. daughter of Helbon Beauty Bonheur the 31.40-lb. cow sold in the Oak Park consignment to the Philadelphia sale last year. Still another is an 8 months' calf from Rideau Pietertje DeKol a 24.09 lb. sister to Jemima Johanna of Riverside, the present champion R. O. P. cow of Canada. Added to these is a bull calf by a son of the herd sire, and from an untested daughter of a 29.64-lb. cow. The two nearest dams of this calf not counting its own dam, averaged 31.17 lbs. of butter in seven days and the ten nearest dams averaged 27.60 lbs. Besides these young bulls Mr. Bailey is also offering a number of heifers by King Sylvia Keyes and bred to a young sire got by May Echo Sylvia's son, Avondale Pontiac Echo. The dam of this sire has a 34.38-lb. seven-day record and has milked 104 lbs. in one day, which gives an average of 128 lbs. per day for the nearest dams of the sire to which these heifers are bred. All correspondence regarding this offering should be addressed to H. H. Bailey, Oak Park Stock Farm, Paris, Ont.

Feed for the Quality Prices!



The Scales Show the Quality Feeders

HOG feeding has made rapid strides just the same as everything else on the farm. The old-fashioned method of utilizing mill feeds that happened to be easy to get at low prices, or happened to be handy on the spot, is gone forever. Both experts and farmers now know it pays handsomely to feed an accurately and properly mixed ration. Experiment and experience have shown that careless feeding is one of the causes of poor quality bacon. The markets are demanding higher quality standards. There are attractive profits if you can reach the standards required. You can do it with

Monarch Hog Feed

It is a perfectly balanced ration of corn products, shorts and digester tankage—a rich feed, but not too much so to feed alone.

It gets hogs to market in shortest time, at least cost of production. It means heavier hogs sent to market in best condition for selling. It is easily digested. Hogs fight for this palatable feed. Guaranteed analysis: protein 15%, fat 4%.

Mill feeds are often hard to get, but Monarch feeds—ready for use—are always obtainable. Order a ton from your dealer. If he cannot supply you, write us direct, giving dealer's name.

MONARCH DAIRY FEED
has guaranteed analysis of 20% protein and 4% fat. It is a properly mixed combination of Oil Cake Meal and Cotton-seed Meal with the bulky feeds, bran and corn meal. Though very rich, ensuring splendid results, it can be fed alone.

SAMPSON FEED
This general purposes feed is somewhat similar to Monarch Hog Feed, except that oil cake meal is used instead of digester tankage; it gives results for both cattle and hogs. Guaranteed analysis: 10% protein and 4% fat.

The Campbell Flour Mills Co., Ltd., West Toronto 15

Dorsets and Oxfords

I have at present a choice offering in shearling and ram lambs (both breeds). We were unable to show this year, but these rams are the choicest lot we ever bred. Also have four two-year-old stock rams, as well as a limited number of shearling and two-shear Dorset ewes. Prices right.

S. J. Robertson (C.P.R.) **Hornby, Ont.**

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Oshawa all railroads. Long distance 'phone.
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A number of choice young Sows and Boars three months old. At reasonable prices.

F. W. DARBY, FERGUS, ONT.

Berkshire Pigs—Large, quick-maturing, thrifty stock; reared under natural conditions, two imported boars; dozens to choose from. We bred the grand champion boar, 1917, and first prize boar under two years, Toronto, 1919 weight, 630 lbs. at 17 months. Come and see them, or send for breeding list.
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See my advertisement of Shorthorns on another page.

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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.
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Shakespeare Station G. T. R.

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Boars ready for service and boar pigs, rich in the blood of Lord Premier's Successor 161500, Grand Champion 1914, Champion sire of 1915, 1916, 1917. His decendants have won Grand Champion honors at the largest and strongest shows of 1919. The Champion Berkshire barrows of 1918 International were double grandsons of Lord Premier's successor. We have shipped many Berkshires to Canada with satisfaction to customers. Prices on request.
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Offers for sale boars fit for service, sows bred and ready to breed, younger ones coming on. The Crompton and Wandsworth strains, the best strains of the breed.
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Young Boars and sows bred for fall farrow. Express charges prepaid. Registered stock. Write
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Big Type Chester Whites—We cleaned up at London and Toronto Exhibitions, 1919. Now offering pigs from our 805-lb. sows, and sows bred to our 1,005-lb. boar.
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Meadow Brook Yorkshires—We have a choice offering of sows bred and boars fit for service. Also a number of large litters ready to wean. All show the best of breeding and excellent type.
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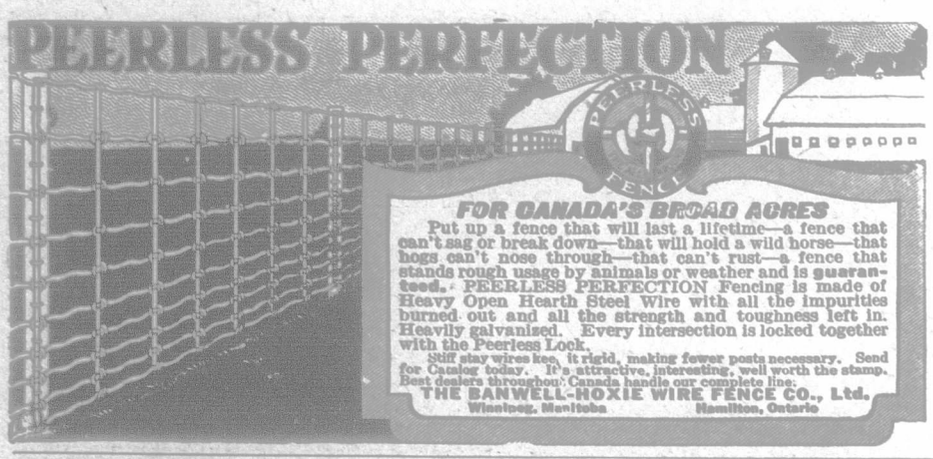

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We will send a Gilson Engine, any size, without charge, to any responsible farmer in Canada to try out on his own farm, at his own work.

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Size of Bale—17″ x 22″.
Capacity—About 2 tons or more per hour.
Power Required—6 H.P. to 8 H.P.
Approximate Weight—4,000 lbs.

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THE "STEEL QUEEN"

is built of best material, and is the most efficient press of its weight on the market to-day.

THIS New Hay Press has been in use a couple of years and is giving perfect satisfaction. Objection in the past to **the heavy weight of the Steel King Press is overcome in the "Steel Queen,"** which weighs approximately 4,000 lbs., although it makes a bale of 17″ x 22″. A decided advantage is that **it requires little power to operate it;** from experience a 6 H.P. Engine can do good work.

Now, a Press is bought probably once in a lifetime, and naturally you want the very best when you do buy, because you expect and ought to have from it long years of satisfactory service. It is money in your pocket to buy the best the first time you buy.

The initial cost is **soon earned first by the saving in pressing your own hay, and opportunity you have by pressing for several of your neighbors at a clear profit of at least $25.00 per day.**

THE MATTHEW MOODY & SONS CO., Terrebonne, Que.

Romance of the Muskrat.

BY E. MIDDLETON.

Almost everyone who lives in the country is familiar with the muskrat, for he abounds in all parts of North America, building his home and rearing his family wherever he can find food and water and sufficient immunity from his enemies. He is not quite so careful and accurate a builder as the beaver, but he manages to construct a commodious winter dwelling from rushes, sticks and mud, rising from three to five feet above the water and with secret entrances at the lowest under water level.

Observant farmers give the muskrat credit for being a good weather prophet. When he builds his house unusually high and plasters it with an extra thickness of mud, it is safe to count on a winter of heavy snow storms. The height of his building is also planned with regard to a possible rise of water in the spring; the muskrat is an excellent judge of what this may be. His food is all around him, for it consists of the aquatic plants growing in the shallow ponds and marshes where he locates and one of his racial characteristics is that he carefully washes these in clean water before eating He leads a happy community life, bringing up such considerable families that the muskrat would threaten to populate the earth, if he were not trapped in such large quantities for his fur.

The fur of the muskrat is very durable and in point of utility it outbreaks most other furs trapped. It can be dyed, plucked, blended, sheared near to the skin, and thereby substituted for almost any kind of fur that fashion calls for. The United States government restrictions in fur seal killing which commenced about twenty years ago would almost have put the seal skin coat out of the market if it had not been for the muskrat.

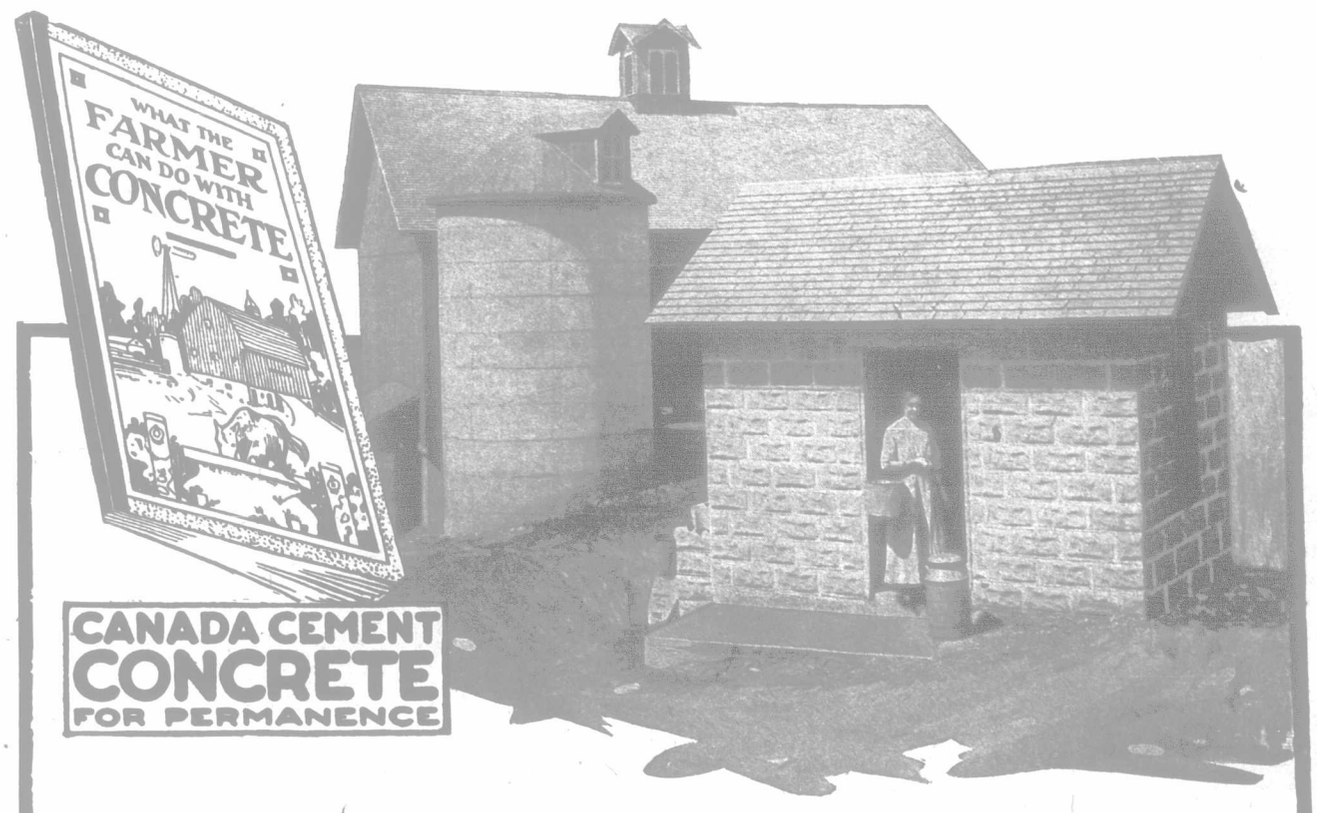
The fur manufacturers realized that they could count on a sale of several million muskrats a year. They picked out the best of these and by a process of "unhairing" got rid of all the long, coarse hairs, reducing the pelt to a soft fur. This was dyed and treated to resemble seal. A beautiful fur was the result, put on the market as Hudson seal. Every one is familiar with the appearance of a Hudson seal coat, but not everyone knows that in its native state the fur was the pretty gray and brown of the native muskrat.

When mole became so very fashionable that it was impossible to catch these little pests of the grass plot in sufficient numbers to answer the demand the muskrat was again utilized. The very soft pelts were selected and these sheared down to the thickness of mole skin and then dyed when necessary.

Of late years fashion has ecouragingly smiled on the natural beauties of the muskrat fur. Muskrat jackets and coats were worn in large quantities last winter, and the indications are that they will be even more popular the coming season. If the muskrat had a reflective mind in place of his very strong instincts he might be gratified at this exhibition of post-humous celebrity.

The natural muskrat fur is very pretty and there is considerable variety in its coloring and marking. The more common muskrats, especially those caught in the south, are a light brown, with gray on the under part of the body. Others—considered more valuable—are a reddish brown, the backs and sides always being darker than the under part, while some specimens are almost black on the sides and back. These are rated higher in value than the brown skins, which they are also apt to surpass in the thickness of the fur and the destiny of the hair. These differences in shades offer a wide choice in the making up of the garments, also a considerable difference in their value. The muskrat pelts present a warm, durable fur particularly suitable to our climate; its use in the natural state is undoubtedly on the increase both for women's garments and as linings for men's automobile coats.

This Isn't Ours.—The famous humorist had partaken too heartily of the Christmas feast. Acute indigestion had laid him low. As his friends gathered about him he smiled feebly. "At any rate," he murmured between spasms of pain, "I am able to keep up my reputation as a humorist." His friends were puzzled. "Di-gesting!" he gasped.—The Forecast.



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In building almost any farm improvement, durability is the paramount requirement; but in its relation to milk production the special advantage of Concrete is that it can be cleaned and kept clean. No cracks to harbor germs and dirt. No openings for rats. Concrete is permanent, and will require no expenditure for painting or repairs.

Write for our free book, entitled: "What the Farmer can do with Concrete." It contains one hundred pages of valuable information, together with plain directions for the use of Concrete.

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Don't Throw Cattle-Profits Away

The feeding, care, milking of cows, are all done to produce profits. Every farmer should see that this Profit is not thrown away by the use of Poor Skimming and hard-running Separators.

This expensive blunder is continually being made. It can be prevented by using the

Simplex (Link Blade) Separator

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The Simplex skims closely—takes all the cream, is easy to turn and very convenient in handling and cleaning. Write to-day for booklet, which gives all information and shows the high standard of quality in the Simplex Separator.

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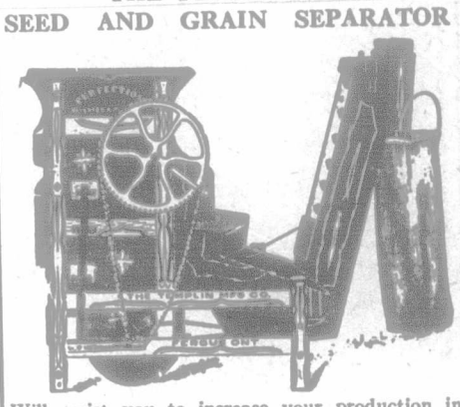

Will assist you to increase your production in 1920. Will pay for itself in one season. Wherever tried it gives satisfaction. If it is good enough to be used on the Government Farms at O.A.C. and Prison Farm at Guelph, and Harrow, Ont.; Farnham and St. Casimer, Portneuf, Que.; Fredericton, N. B.; Truro, N. S.; Charlottetown, P. E. I., and Indian Head, Sask., it is surely good enough for everybody. Turns twice as easy as any other mill, and will do work no other mill will do Full particulars in Circular A by writing for it.
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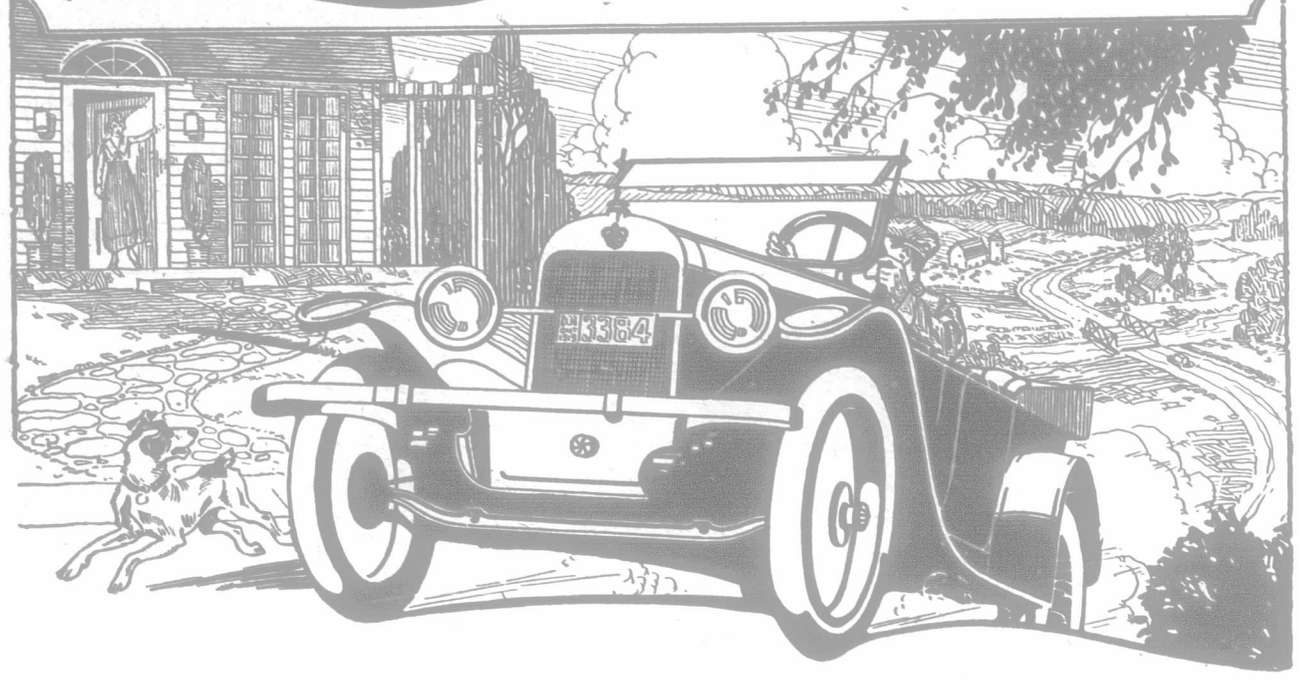

—and its hill-climbing performance is remarkable

That extra "pull" which the Briscoe always seems to have in reserve, means an easy glide, where other cars are obliged to labor and go into second.

That stored-up energy which the Briscoe pours forth for its driver when he gives it a hint with the foot accelerator, means that the Briscoe owner can ignore the slant of the hills. And every motorist knows full well that the hill-test is the real test of a car. To see the Briscoe spin up a grade, is to realize that this car **must** have power to spare for speed-spurts on the level.

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No wonder the Briscoe has a round-the-world record for performance. The wonderful motor, delivering tremendous power on incredibly little fuel, is a master achievement of a master-builder. Beauty, comfort, durability—all are built into the car. Its snap and style have made it Canada's favorite light car.

The following prices (f.o.b. Brockville) are subject to war tax.

Special Touring, $1,350; Standard Touring, $1,225;
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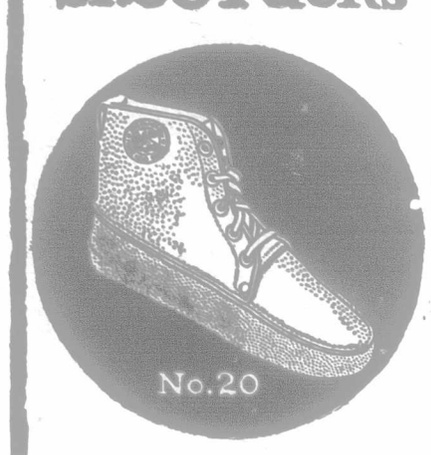
Palmer's Draw String Shoe Packs



JUST the pack for all men engaged in all out-door occupations. Being waterproof and warm, there is nothing better on the market for Farmers, Lumbermen, Sportsmen, Laborers, Stablemen and others.

Palmer's Packs are handmade from genuine Skowhegan Waterproof leather. The special Non-Rip Pack, Draw String sewed, is famous for its wearing qualities.

Made on comfortable, roomy, natural tread lasts. A sure cure for tired, aching feet.

To buy Palmer's is to buy the Best.

Get a pair from your dealer. Be sure they are stamped.

JOHN PALMER CO'S MOOSE HEAD BRAND

"Moose Head Brand"
or write us for catalogue and price list.

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Fredericton, N.B., Canada
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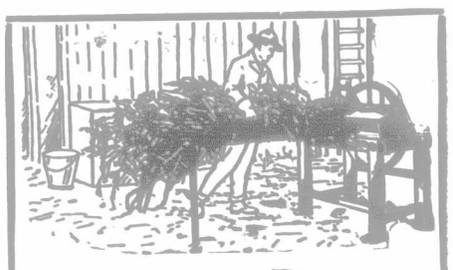

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Peter Hamilton feed cutters are easy running and will stand the hardest kind of work.

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

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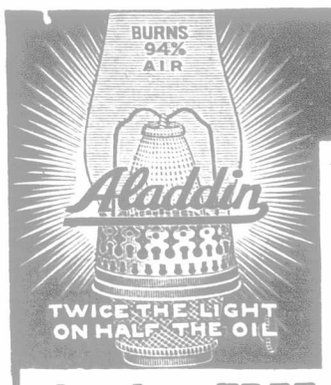

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Our trial delivery plan makes it easy. No previous experience necessary. Practically every farm home and small town home will buy after trying. One farmer who had never sold anything in his life before writes: "I sold 51 the first seven days." Christensen says: "Have never seen an article that sells so easily." Norring, Ia., says: "92% of homes visited bought." Phillips says: "Every customer becomes a friend and booster." Kemerling says: "No flowery talk necessary. Sells itself." Thousands who are coining money endorse the ALADDIN just as strongly. NO MONEY REQUIRED. We furnish stock to get started. Sample sent prepaid for 10 days' free trial and given absolutely without cost when you become a distributor. Ask for our distributor's plan. State occupation, age, whether you have rig or auto; whether you can work spare time or steady; when can start; townships most convenient for you to work in

Milling Value of Sprouted Grain.

BY F. J. BIRCHARD, DOMINION GRAIN RESEARCH LABORATORY, WINNIPEG.

The value of flour milled from sprouted wheat is now being studied in the grain research laboratory, department of trade and commerce, Winnipeg, and, while as yet there has not been sufficient time to complete the large number of tests necessary in any investigation of this character, certain definite results have already been obtained which are of great interest. A full report, giving the detailed results and the methods employed, will be published later, but as the subject is of particular importance, it has been thought advisable to publish at this time a preliminary statement setting forth the chief facts which have been established as a result of these tests.

The samples tested were, for the most part, graded by the inspector, "no grade, number three northern rejected, tough or damp." Great variations were observed in the amount and degree of sprouting of the different samples of this grade and since, in addition, the character of the original wheats differed widely before sprouting occurred, great care had to be exercised in drawing conclusions from the milling and baking results. It was thus at times difficult to decide whether any particular defect in baking quality should be attributed to the results of sprouting or to the inherent quality of the original wheat. In certain cases it was apparent that the original wheat contained a considerable number of starchy kernels or was otherwise of inferior quality. In others it was found that the district in which the grain originated was known to produce wheat of comparatively poor quality. Without doubt many of the poor results can be explained in this manner, but to what extent the deterioration should be referred to the causes mentioned, or to the sprouting, it was not always possible to determine. From the series of tests which have been completed, however, it would appear that the following general conclusions are warranted.

As regards the milling value the sprouting must be regarded as detrimental since the scouring loss is increased and the yield of flour decreased. This loss was found in general to increase with the amount and degree of sprouting though, excepting in those cases where the sprouting was comparatively severe, the scouring loss, due to this cause alone was too small to be detected on the experimental mill.

As regards the baking quality the most marked characteristic was the greatly increased loaf volume when the ordinary baking methods were employed. This was observed in every case where the original wheats were hard, even when the sprouting was far advanced. It was noticed, however, that with this decided increase in loaf volume, the texture of the loaves suffered considerably, though when the baking method was modified so as to produce a smaller loaf, a corresponding improvement in the texture was obtained. The color of the bread from the sprouted wheat when milled alone, was generally poor, though in those cases where the sprouting was not severe, a certain improvement was noticed. It should be particularly noted, however, that when a mixture was made of flour from wheat grading one, two or three northern and various percentages up to 25 of flour from sprouted wheat, containing a large proportion of hard kernels, both the color and texture were invariably improved, but this improvement could not be obtained if the original wheat was of inferior quality.

The absorption was found to be slightly decreased in every case. The general appearance and shape of the loaves from the blended flour was excellent in every way, and the improvement obtained by blending flour from sprouted wheat with normal wheat was very marked as regard these characteristics.

In conclusion it should be noticed that the best results with flour from sprouted wheat are to be obtained by mixing the flour with that milled from hard wheat. The baking of flour from sprouted wheat (no grade rejected, three northern) alone, cannot be recommended, but it has been

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is a valuable but inexpensive accessory that will save you time, trouble and money.

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If you are in any doubt on any point of

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Let us say just this: Take our ideas and have them put together in any other factory, and they wouldn't be

Wilson

It is not design alone, not quantity, but quality, "our motto."

Sixty-six years of scale-making experience enables us to give you the best—the result of fervent desire to excell has resulted in a product that has created preference—demand.

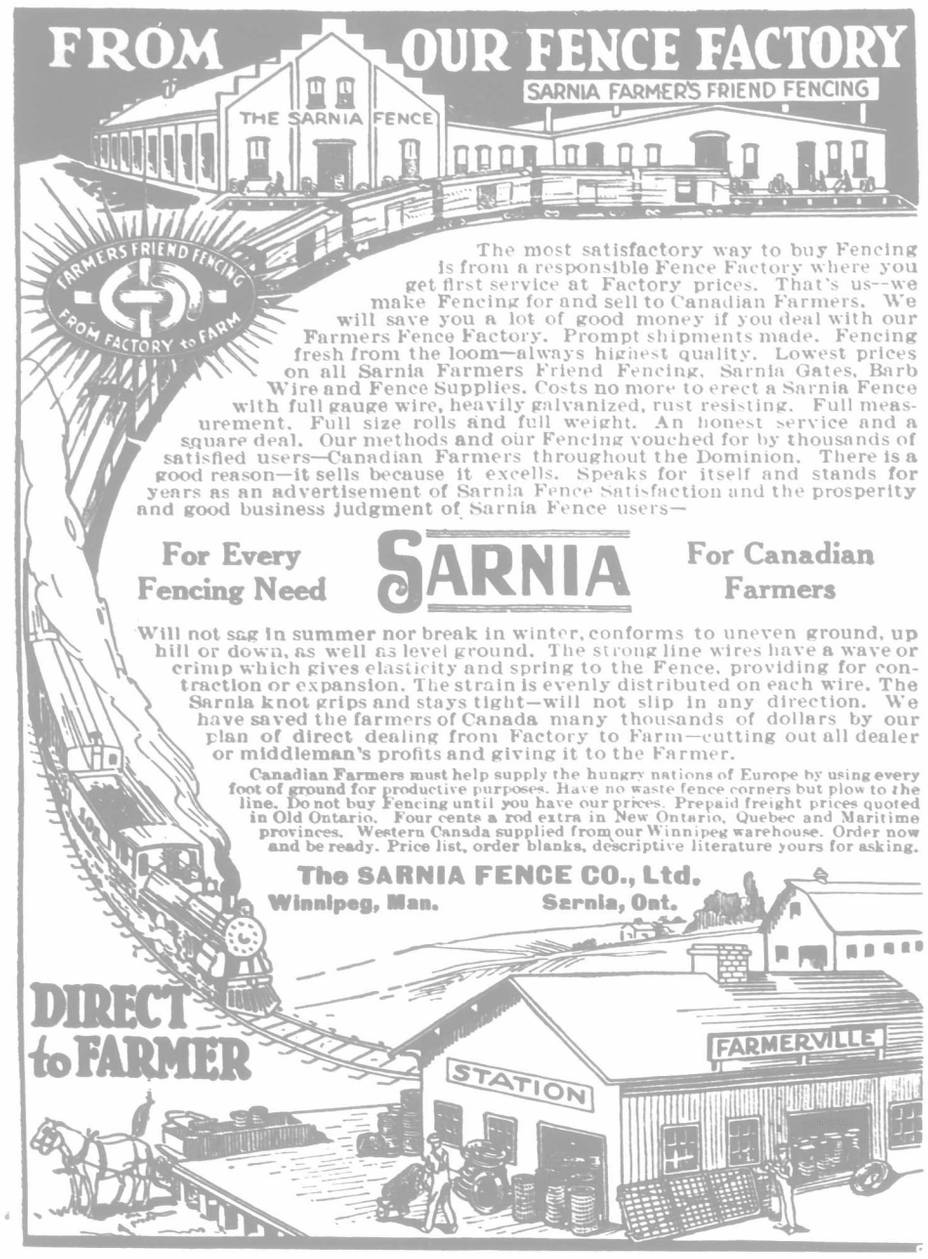
This is the time of giving. Let us give you the best.

WILSON SCALE MACHINERY INCORPORATED
47 Esplanade East TORONTO, ONTARIO

SEEDS WANTED

We are in the market to buy Alsike, Red Clover Timothy, White Blossom Sweet Clover. If any to offer send samples and we will quote you our best price F. O. B. your station.

TODD & COOK Seed Merchants, Stouffville, Ont.



The most satisfactory way to buy Fencing is from a responsible Fence Factory where you get first service at Factory prices. That's us—we make Fencing for and sell to Canadian Farmers. We will save you a lot of good money if you deal with our Farmers Fence Factory. Prompt shipments made. Fencing fresh from the loom—always highest quality. Lowest prices on all Sarnia Farmers Friend Fencing. Sarnia Gates, Barb Wire and Fence Supplies. Costs no more to erect a Sarnia Fence with full gauge wire, heavily galvanized, rust resisting. Full measurement. Full size rolls and full weight. An honest service and a square deal. Our methods and our Fencing vouched for by thousands of satisfied users—Canadian Farmers throughout the Dominion. There is a good reason—it sells because it excells. Speaks for itself and stands for years as an advertisement of Sarnia Fence Satisfaction and the prosperity and good business judgment of Sarnia Fence users—

For Every Fencing Need **SARNIA** **For Canadian Farmers**

Will not sag in summer nor break in winter, conforms to uneven ground, up hill or down, as well as level ground. The strong line wires have a wave or crimp which gives elasticity and spring to the Fence, providing for contraction or expansion. The strain is evenly distributed on each wire. The Sarnia knot grips and stays tight—will not slip in any direction. We have saved the farmers of Canada many thousands of dollars by our plan of direct dealing from Factory to Farm—cutting out all dealer or middleman's profits and giving it to the Farmer.

Canadian Farmers must help supply the hungry nations of Europe by using every foot of ground for productive purposes. Have no waste fence corners but plow to the line. Do not buy Fencing until you have our prices. Prepaid freight prices quoted in Old Ontario. Four cents a rod extra in New Ontario, Quebec and Maritime provinces. Western Canada supplied from our Winnipeg warehouse. Order now and be ready. Price list, order blanks, descriptive literature yours for asking.

The SARNIA FENCE CO., Ltd.
Winnipeg, Man. Sarnia, Ont.

TRADE MARK

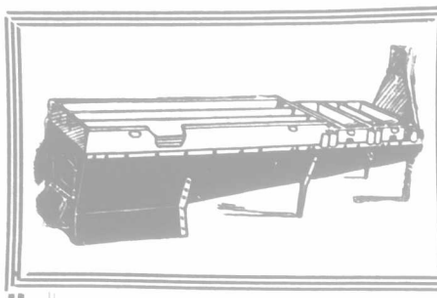
This Trademark is a Guarantee of Quality.

¶ A knowledge of the technical part of paper-making is not necessary when buying paper under this trademark.

¶ It stands for quality and service to the customer.

¶ And gives the purchaser the comfortable feeling that he has bought the right goods.

CANADA PAPER CO.
LIMITED
TORONTO MONTREAL
WINDSOR MILLS, P.Q.



Here's The Evaporator

To Solve the Syrup and Sugar Problem

Thousands of grove owners do not work their groves for very little reason. Lots of them just can't make up their minds. Yet if we were to put a proper outfit in their grove and they saw it work so easily, and the money there was in it—for one season, they would fight to prevent us taking the outfit away again, even if the cost were a good deal more. An unworked grove these days is like an untapped reservoir with thirsty people around. A big demand and no supply. Why not put a

GRIMM CHAMPION OUTFIT

in your grove. One of a right size to work your bush to full capacity—then there will be no waste and every dollar extra means more production. We can fit out any grove from sap spout to Champion Evaporator. Get in touch with us right away.

THE GRIMM MFG. CO. LIMITED
60 Wellington Street - - MONTREAL

IRRIGATION means PROSPERITY

Approximately one hundred and fifty thousand acres of irrigated land were producing crops in Southern Alberta this season. A conservative estimate places the value of these crops at over $6,000,000. This works out at an average return of $40 for each acre of irrigated land in crop. Thirty to forty bushels to the acre of wheat and eighty to one hundred bushels to the acre of oats have not been uncommon yields on the irrigated farms. Proportionately good crops of barley and flax have also been harvested. But the best returns have come from alfalfa. Few farmers have harvested less than four tons to the acre of this crop, which they have had no difficulty in selling at $30 a ton. This means a return of $120 an acre for the season. No wonder irrigation and prosperity are synonymous, in Southern Alberta.

The Canadian Pacific Railway has thousands of acres of irrigable land capable of producing such crops as these regularly, season after season, for sale at low prices and on easy terms. Only one-tenth cash and twenty years to pay. Loan of $2,000 for buildings, etc., granted to married men who are experienced farmers.

Free booklet containing full information gladly sent upon request to

T. La Due Norwood, C.P.R. Land Agent,
Windsor Station, Montreal, Que.

shown that it can be blended with hard wheat flour to considerable advantage, even in comparatively large proportions. Thus it was found that 20 per cent. or more of flour from an average sample of sprouted wheat of this grade could be blended with flour from one northern wheat to produce a loaf equal in baking quality to that produced from one northern wheat alone. If the original sprouted wheat was of high quality, this percentage could be considerably increased.

As to the baking quality of rejected three northern wheat (on account of sprouts), as a grade it is difficult to say anything very definite on account of the great variations which occur in the quality of the original wheat and also in the degree and amount of sprouting. It was observed, however, that when the original wheat was inferior and contained a large percentage of starchy kernels, the baking quality was poor, but that hard wheat on the other hand could carry a much greater percentage of sprouted kernels without suffering the same deterioration in baking quality. In this case it was only when the percentage was very large and the sprouting far advanced that the poor texture, color, etc., referred to above, became evident.

True Success.

BY 'MAYO BART."

During the dark and terrible days of the great war we were led to believe that money provided the sinews of war. Loan after loan, all of giant proportions, were successfully floated, with the object of securing victory. And these loans were so frequent and were on such an extensive scale, that we were almost led to believe that money stood for success and the nation which possessed the largest exchequer was the greatest nation. Indeed, our national policy has largely been directed by this philosophy. Our statesmen legislate on the principle that the nation which is the proud possessor of the richest mines and the largest workshops is the greatest nation. Political economists provide us with long and complicated statistics, which go to prove that this country is more successful than its neighbor, because its workshops and its mines are grinding out a greater quantum of wealth.

This philosophy has become so much a part of the order of thought in all nations, that we not only measure the success or failure of a nation by the wealth producing powers which it possesses, but, we even go so far as to measure the success of individuals by their bank balances! "He is one of the most successful men in this district," I heard a man say the other day, when we were discussing a certain farmer. "If that man is worth a penny he must be worth one hundred thousand dollars."

We seem to have forgotten the lesson of the prophet: "What shall it profit a man if he gain the whole world and lose his own soul?" The accumulation of millions and to be as rich as Croesus, that is the ideal of most men. We do not seem to realize that dollars and cents, powerful and useful though they are, do not constitute the real and the vital riches of a nation. "There is no wealth but life," said John Ruskin. The vital imports and exports of a nation have little enough to do with either free trade or protection, for they are human lives. We must indeed recognize the astounding discovery of which neither Cobden nor Adam Smith dreamed, that a nation is composed not of land and factories and of ships, but of human beings. John Bright, one of England's greatest orators, once said:

"Crowns, coronets, military display, the pomp of war-wide territories, and a vast empire, are all as light as air compared with the happiness and contentment of the people. . . . The nation in every country dwells in the cottage, and unless the light of your legislation shine there and the beauty of your statescraft be there impressed on the feelings and conditions of the people, you can depend upon it that you have yet to learn the duties of statesmanship."

If we would be a great nation and part of a great and proud enpire, we must rebuild the living foundations of empire, and to so do we require a new imperialism and a eugenic patriotism, which knows that nations are drawn from nurseries and which accepts the scientific fact which

Make Bigger Profits—Defeat Pests, Bugs, Worms, Diseases

Results so wonderful they seem almost incredible.

GROWERS and farmers everywhere get double and triple the crop of apples, small fruits, potatoes, etc., with a Spramotor. Good too for weed eradication—kills mustard in the growing grain.

Useful all year round for disinfecting, painting and general spraying. The most profitable addition you can make to your farm implements,—a dollar-saver from the start.

FREE Book on Crop Diseases, with Government Reports, etc. Write for your copy to-day.

Spramotor

It isn't a SPRAMOTOR unless we made it

Agents write NOW!

Spramotor, 18 King Street, London, Canada

Fat, Heavy, Strong Money-Making Cattle

The value of Linseed Oil Cake Meal in live stock feeding cannot be overestimated. A ton of ground Linseed Cake contains *three times the digestible protein*, or flesh-making elements contained in a ton of corn, while the *manurial value* is more than *three times* that of corn. One dollar invested in Maple Leaf Oil Cake Meal will bring you thrice as many pounds of flesh-making feed for your cattle as invested in grain feed. Oil Cake Meal is a rich and nutritious feed, worth on the foot many times what it costs in the bag. Cows give more milk, calves grow faster, hogs gain weight, sheep grow fat, and horses pick up smart when fed rations of Maple Leaf Oil Cake Meal. It is absolutely pure; no adulteration.

Maple Leaf Oil Cake Meal Does it

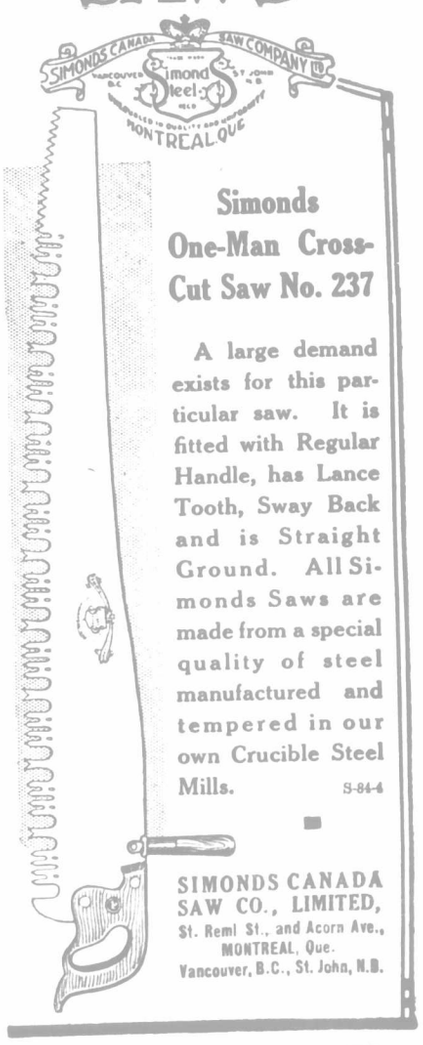
Agricultural Colleges, practical farmers and live stock breeders, all over the world, use and recommend Linseed Oil Cake Meal for feeding and fattening cattle.

In England a farmer gets cheaper rent if he uses Oil Cake Meal, because the manure so greatly enriches the land. By using it in Canada the farmer gets bigger profits from live stock and in land improvement, too. Decide now on the regular use of Maple Leaf Oil Cake Meal, and watch the results. Put up in 100 lb. bags and shipped in ton and half-ton lots. If your dealer cannot supply you, write us direct; we will quote you prices and terms, or advise you where to buy it.

Write for free booklet—"FACTS TO FEEDERS"

THE CANADA LINSEED OIL MILLS, LIMITED
TORONTO - MONTREAL

SIMONDS SAWS



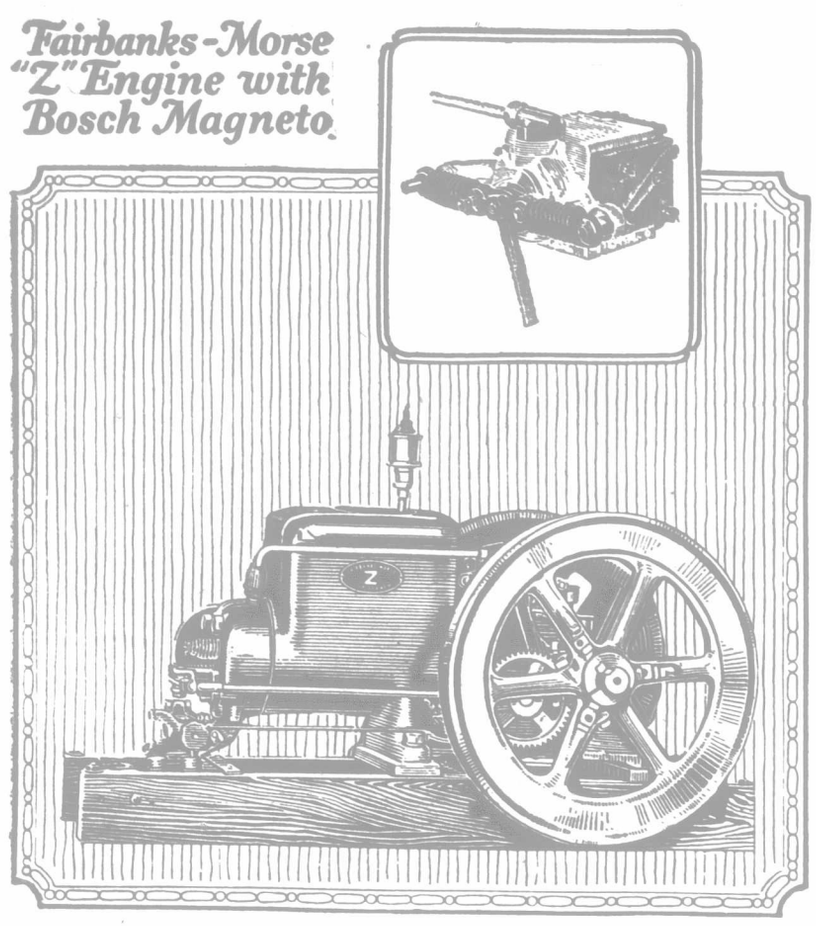
Simonds One-Man Cross-Cut Saw No. 237

A large demand exists for this particular saw. It is fitted with Regular Handle, has Lance Tooth, Sway Back and is Straight Ground. All Simonds Saws are made from a special quality of steel manufactured and tempered in our own Crucible Steel Mills. S-84-4

SIMONDS CANADA SAW CO., LIMITED,
St. Remi St., and Acorn Ave.,
MONTREAL, Que.
Vancouver, B.C., St. John, N.B.

The Greatest Combination

Fairbanks-Morse "Z" Engine with Bosch Magneto



WHEN the full meaning of this "Z" message is realized—mighty few farmers in Canada will fail at once to call on the nearest "Z" Engine dealer. ¶ This example of master engine building must be seen. ¶ Type and pictures can but suggest this value establishing achievement. ¶ By adding this one possible betterment—Bosch high-tension, oscillating magneto—we complete a rare engine service, fully maintained by all Bosch Service Stations throughout Canada in co-operation with every "Z" Engine dealer—for all "Z" Engine owners.

MADE IN TORONTO, CANADA, BY 49

The Canadian
Fairbanks-Morse
Co., Limited.

Halifax St. John Quebec Montreal Ottawa Toronto Hamilton
Windsor Winnipeg Saskatoon Calgary Vancouver Victoria

It's not fat—it's EGGS you want

Are your hens just boarders? Fat and lazy? All their food going to flesh? Nothing left for egg production? Madam,—Your hens' egg organs are dormant, and if you are going to be satisfied to let nature bide its own time to revive these dormant egg organs, it will be Spring eggs, not Winter eggs, for you. But why wait on nature? You can speed up egg production—you can make your hens lay now by feeding

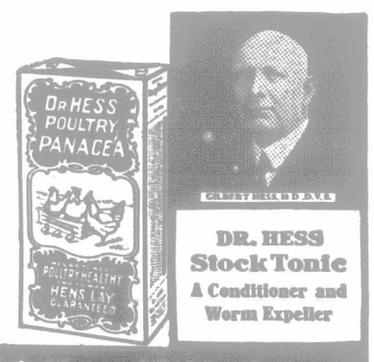
Dr. Hess Poultry Pan-a-ce-a

It contains *Nux Vomica* and *Quassia*, the best nerve, appetizing and digestive tonics known to the *Materia Medica*—tonics that promote a hen's digestion—tonics that tone up the dormant egg organs so that the proper amount of food goes to egg production, and not all to flesh, and fat, and laziness, when it's action, and eggs you want.

Pan-a-ce-a supplies the additional iron for the blood, which is essential to the speeding up process. It contains certain forms of lime that supply the needed material for making egg shells.

Dr. Hess Poultry Pan-a-ce-a insures a healthy, singing, laying, paying poultry flock, Winter as well as Summer.

Always buy Pan-a-ce-a according to the size of your flock. Get it from a reliable dealer in your own town. Tell him how many fowls you have, and he will supply you with the proper sized package, which is guaranteed. 35c, 85c, and $1.75 packages. 25-lb. pail, $3.50; 100-lb. drum, $14.00.



DR. HESS & CLARK, Ashland, Ohio

DR. HESS Stock Tonic
A Conditioner and Worm Expeller

Dr. Hess Instant Louse Killer Kills Lice

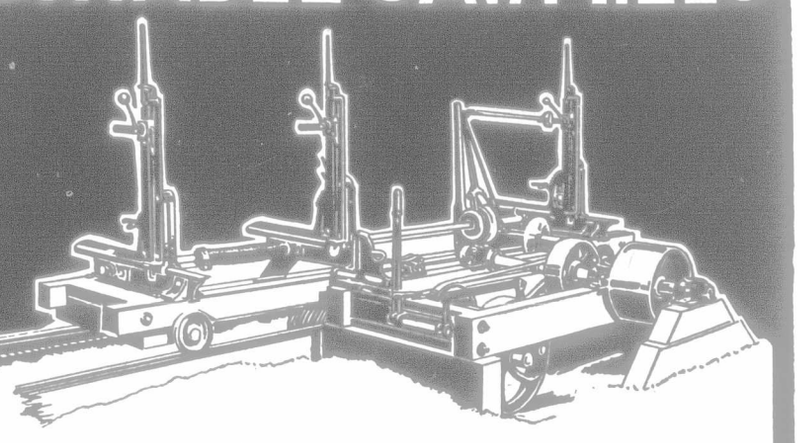
YOU TOO CAN BE A SATISFIED FUR SHIPPER

Like thousands upon thousands of others, you too can be a satisfied Fur shipper if you will ship your Furs direct to "SHUBERT." Prices are higher than ever before.

It's up to you to get the full market value for every skin you ship. Don't be misled by high quotations. It's not the prices quoted in a price list that count—it's the amount of the check you receive that either makes you smile or swear. "SHUBERT" checks will make you smile. That's why Fur shippers never change after they have once given "SHUBERT" a trial. Join the happy crowd of satisfied Fur shippers. Ship your Furs direct to "SHUBERT." *You take no risk.* "The Shubert Guarantee" protects you absolutely. Why not give "SHUBERT" a trial today?

A. B. SHUBERT, LTD.
The Largest House in the World
Dealing Exclusively in
NORTH AMERICAN RAW FURS
324 DONALD ST., DEPT. 125 WINNIPEG CANADA

WATEROUS PORTABLE SAWMILLS



IF the trees on your farm are first quality timber, why cut them on a mill that will lower their market value?

The Waterous Portable Outfit will cut your trees into lumber that is as fine as that turned out by any custom mill. Hundreds of users, who didn't know any more about timber sawing than you do, are proving that every season.

The secret is that the Waterous Portable Mill is built just a little better than is necessary to do portable work—it has special fittings found only on higher priced mills, that help you cut your logs as they should be. What is more, the Waterous Portable is dead easy to set up, simple to operate, and is built so strong that it will keep on cutting first-class lumber year after year without trouble.

The profit in your trees, and in your neighbors' is worth your investment in this reasonably priced, high-grade mill. Quality counts every time—and especially in lumber making, with prices as high as they are now.

Send us a card to-day for our Portable Sawmill Catalogue

The Waterous Engine Works Co., Ltd., Brantford, Canada

ratifies for ordinary folk the truth perceived in the past by prophets and poets, such as the Irishman who said:

"Ill fares the land, to hastening ills a prey;
Where wealth accumulates and men decay."

Who was the greatest and richest, the dramatist, Shakespeare, or some Fleet Street merchant of his day? The merchant with his ships and houses and land is forgotten, but the characters created by the poet will live to inspire and instruct men through all the ages. As the great poet himself says in one of his sonnets:

"Not marble, nor the gilded momuments
of princes,
Shall outlast this powerful verse."

Sir Isaac Newton was not a multi-millionaire, nor did James Watt live in the palaces of squirearchy. But their gift to human progress was greater far than that of all the Nabobs who possessed the well-lined purse of Fortunatus.

Men there are (and in this age of feminism, there are women too) who are endowed with a revenue which would make a Caesar turn in his grave with envy. They possess a shrewd eye for a bargain and pride themselves upon their ability to "make good.' Yet, to such, the whole of their days are spent in a hunt for lucre, and in their insane sacrifice to Mammon they have crucified all that is noblest and best in life. Not for them did Milton sing, Plato think, and Wagner play. To them, "that inverted bowl we call the sky," with its multi-colored stars and suns is but an incomprehensible chart. They have missed the real landmarks on the high road of life, the lark singing in the morning glory, the stars overhead like the silver spires of God's own cathedral. They simply pass from one grey street to another grey street to add up figures and to swallow patent medicines with no thought of the fact that life can be lived nobly, burningly, and knightly, for great ends and in great passions.

Such a one may possess all the ships and own half the land surface of this globe, but he is immeasurably poor compared with he who looks upon nature with an understanding eye, and to whom the beauties of art and science are no sealed book. One sometimes wonders, if these "rich paupers" have ever heard of the carpenter who said: "Silver and gold have I none, but such as I have I will give unto thee," and of that greatest of all gifts which come from Him who knew not the feasts and houses of the wealthy.

"Two men were behind prison bars,
One saw mud—the other stars."

Far be it from me to decry the employment of money. As a means of exchange it is the very best system yet devised by the mind of man. What I am striving to show is the falsity of many of the current notions regarding money.

Surely in a sane and well-ordered community, the creation and accumulation of money should not be the sole aim and purpose of life. The lesson of history should not be forgotten. Rome fell at the very zenith of its power, because more attention was being paid to the accumulation of wealth than to the right and proper employment of that wealth. When Athens sacrificed art and philosophy to the mere making of wealth it crumbled and fell from power.

Rather should our factories, workshops and mines be creating wealth in order that each and every individual in the community should enjoy life, and enjoy it more abundantly. The making of wealth should, in fact, be a means to an end, and not an end in itself. Let us strive so to order our social institutions that the living foundations of our nation shall be immeasurably enriched, so that no man shall be stunted in body and impoverished in soul, and if we so do we shall have paved the way to true national greatness and have become a people of real wealth. We must refuse, as Bryan once said, to be sacrificed on the altar of Mammon and to be cruicified on a cross of gold; rather must we lift up our eyes to the hills and remember the eternities.

Walt Whitman, the poet, once said that "produce great men and the rest follows," and he, with the true insight of the poet, revealed a truth which to most of us has been hidden under the false political economy and unreal statescraft of two hundred years.

LOUDEN

BOOKS FREE

Louden Architectural Service

The most important feature of your barn is the plans you make before you start building. Lay your plans properly and you will have taken the most important step towards having a barn exactly suited to your needs.

Get the Louden Plan Book, 112 pages, crammed with the latest and best possible information on barn planning and construction. Whether you are remodelling, or building, the Louden Plan Book will guide you to correct arrangement, construction and ventilation.

But the best planned barn can give you satisfaction only if furnished with fittings that reduce labor, save time and lessen expense, thus tending to increase your profits, satisfy your hired help and keep the boys on the farm.

Time, Labor and Money Saving Equipment

The new Louden Catalogues shown above are full of just the information you need in order to intelligently determine just what kind of equipment you should have.

No better written, or nicer printed and illustrated catalogue of real money, time and labor-saving devices, has ever been printed in Canada; 135 pages of the most practical, commonsense information. Don't fail to fill in the coupon and get these catalogues free by return mail.

Louden Machinery Co. of Canada, Limited

Head Office and Factory: 413 Crimea St., Guelph, Ont.

Branch at:

Martin Ave., Winnipeg, Man. Vancouver, B.C. St. John, N.B.

Alberta Enquirers write: Alberta Dairy Supplies Limited, Edmonton, Alta.

Tear off this coupon now and mail us to-day.

LOUDEN MACHINERY CO. OF CANADA, LIMITED,
413 Crimea St., Guelph, Ontario.

Please send me free, postpaid, your large illustrated books checked below.

☐ Barn Plan Book. ☐ Feed & Litter Carriers. ☐ Horse Stable Fittings.
☐ Hay Tools. ☐ Stalls & Stanchions. ☐ Barn & Garage Door Hangers.

I expect to build new barns about .....I expect to equip present barns about .....
I keep ..... cows, ... horses, ... pigs. .....
I prefer to deal through ..... at .....
My Name ..... P. O. ..... Pro. .....

41

Healthy Live-Stock Pay Big Profits

Cows give more and richer milk, Horses work better, and Hogs fatten more quickly when

Pratts Animal Regulator

is added to the daily ration.

For nearly 50 years, Pratts has been recognized as the one reliable stock tonic and conditioner that always brings good results and never injures the stock.

Pratts does not force development at the expense of the animal's health. It acts gently and surely on the digestive organs, tones up the entire system, keeps the blood cool, the bowels free and the general health at top notch all the time.

At your dealer's in popular priced pkgs., also in money-saving 25-lb. pails and 100-lb. bags.

Money Back If Not Satisfied.

PRATTS Disinfectant keeps the stable free from lice. Kills germs and prevents disease by keeping the quarters sanitary. In 1 gal., ½ gal., and 1 qt. cans at your dealer's.

PRATTS Healing Ointment heals naturally and quickly, without leaving dangerous scabs. Sold in boxes at your dealer's.

Write to-day for FREE book on Care of Cattle, Horses, Sheep and Hogs.

Pratt Food Co. of Canada, Ltd.
328L Carlaw Ave., Toronto.
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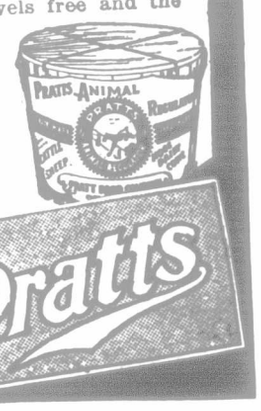


DIXIE "ACE"

Goes Like Sixty

THE Dixie "Ace" Tractor has so many exclusive features that its superiority is unquestioned. It is the "Ace of Aces"—acknowledged by everyone as setting an entirely new standard in tractor design and construction. The Dixie "Ace" leads, —others follow.

You do not buy a tractor everyday—you cannot afford to do anything until you learn all about the Dixie "Ace."

A better Tractor at a better price.
Send for free Tractor book to-day.

GILSON MFG. CO. Ltd.
929 York St., GUELPH, Ont. 92

Make Money This Winter—Saw Wood

There is big money this winter sawing wood. Coal is high. Wood will be scarce. Now is the time to clean up. The

GILSON HEAVI-DUTI SAWING OUTFIT

is the machine to do it with. Makes its own spark without the aid of batteries. You cannot afford to buy any engine until you know all about the Gilson Heavy-Duti. When you know about it, you will not buy any other. Catalog and information free if you act quickly. Write to-day.

GILSON MFG. CO., Ltd.
709 York St., Guelph, Ont. 78

The only Grinder that is Worth the Price

is a GOOD GRINDER. A cheap Grinder is never worth what is paid for it.

"RAPID EASY" GRINDERS

Good Grinders - Moderately Priced

have given tens of thousands of Canadian Farmers steady, satisfactory service for many years.

EFFICIENT and ECONOMICAL

Made in large variety of styles and sizes. 6 in., 7 in., 8 in., 10 in., for 2½ to 12 Horse Power. Larger sizes for Custom Work.

YOU NEED A GRINDER

Your farm equipment is not complete without a Grinder. You are losing money every day you do without the Grinder you need.

We invite you to consult us. State your requirements:—Power and Purpose. We shall be glad to advise which of the famous "Rapid-Easy" Machines is most suitable.

You will be not merely **satisfied** but will be **greatly pleased** with the machine we shall furnish you. Our aim is higher than only to sell goods for profit; it is to give our customer more real value than the price we ask.

J. FLEURY'S SONS, - AURORA, ONT.

"Show me the Cows!"

Not a Load Just a Handful

HINMAN
CANADA'S STANDARD MILKER
H.F. BAILEY & SON, MFRS., GALT, ONT.

Dairymen using Hinman Milkers increase their Herds!

Why? Because dairying immediately becomes more profitable and less laborious.

Half a million cows are milked with Hinman Milkers daily. Big dairy farms use it on prizewinners.

Any farmer owning eight or more cows can profitably use a Hinman. Cost per unit is only $60—you can't afford to be without.

Facts, figures and photos in illustrated booklet on milking—free for the asking.

One Tub Instead of Four or Five

You know from experience that wooden tubs and household utensils grow water soaked sooner or later and eventually shrink and fall apart.

The galvanized kind are no better. They quickly become dented and rusted from constant usage and must finally be discarded for sanitary reasons.

Household utensils made of

EDDY'S Indurated Fibreware

will outwear four or five of the wooden or galvanized kind. Being moulded in one piece they cannot shrink, rust or fall apart. They are Lighter and Less Expensive, easy to clean and keep clean.

Wash Tubs, Wash Boards, Milk Pails, Butter Tubs, Fire Pails, Stable Pails, Barrel Covers—utensils for farm and household use are included in the Eddy Indurated Fibreware line.

Ask your Grocer or Hardware dealer about EDDY'S INDURATED FIBREWARE.

EDDY'S Silent Five Matches

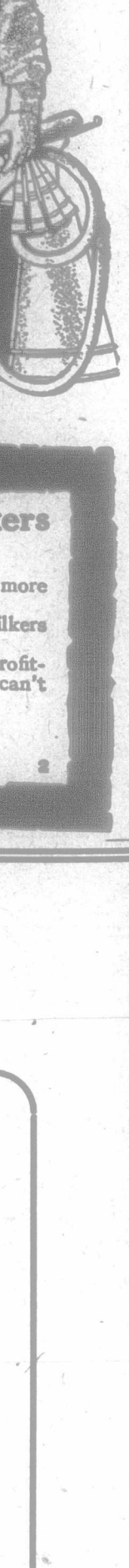
Much superior to any other Match.

Silent Striking, Non Poisonous, Self Extinguishing, No After Glow. Eddy's Silent Fives are never a fire menace.

Don't merely ask for matches. Ask for and see that you get EDDY'S--the matches that are always safe and always dependable.

The E. B. Eddy Co., Limited - - Hull, Canada

FOUNDED 1866



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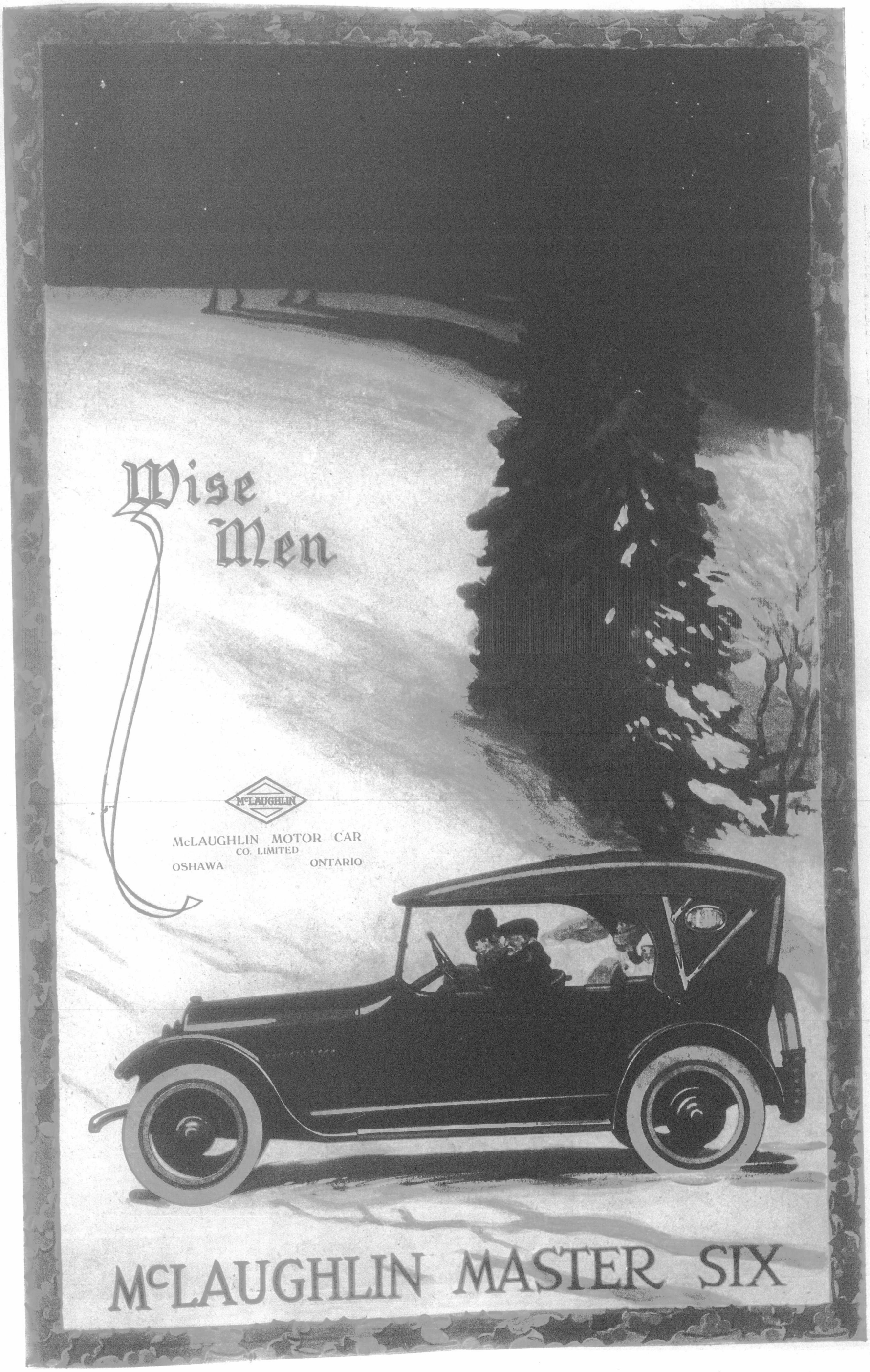
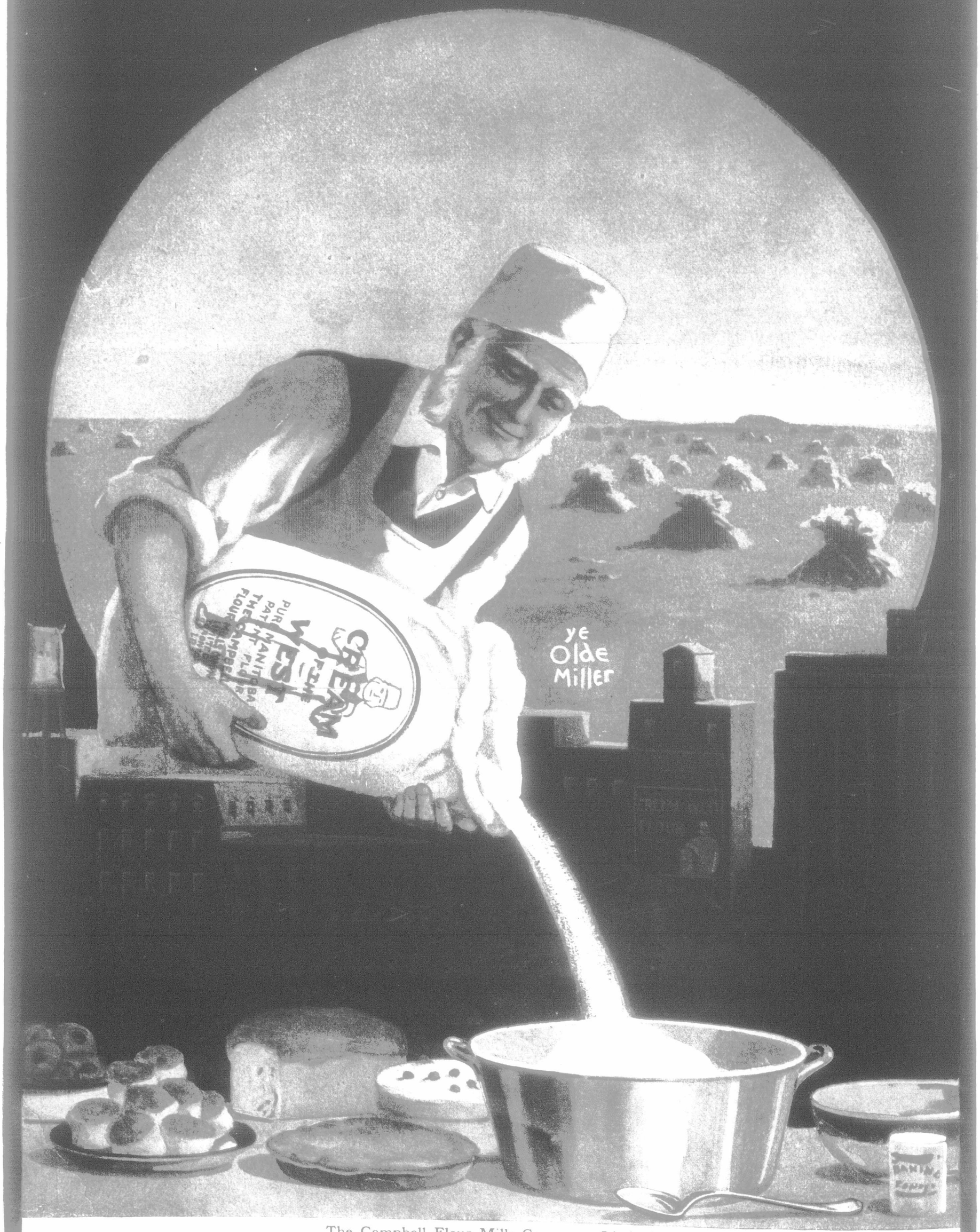


Cream of the West Flour

The hard wheat flour that is guaranteed for bread



The Campbell Flour Mills Company, Limited *affiliated with*

Maple Leaf Milling Company, Limited, Toronto, Canada

CAPACITY 20,000 BARRELS DAILY